

### Santa Clara Valley Water District Board of Directors Meeting

Teleconference Zoom Meeting

#### \*AMENDED/APPENDED 4:00 PM CLOSED SESSION AND 6:00 PM REGULAR MEETING AGENDA

Tuesday, July 28, 2020 4:00 PM

\*ITEMS AMENDED AND/OR APPENDED SINCE THE ORIGINAL PUBLICATION OF THIS AGENDA ARE IDENTIFIED BY AN ASTERISK (\*) HEREIN

District Mission: Provide Silicon Valley safe, clean water for a healthy life, enviornment and economy.

DISTRICT BOARD OF DIRECTORS

Nai Hsueh, Chair, District 5
Tony Estremera, Vice Chair, District 6
John L Varela, District 1
Barbara Keegan, District 2
Richard P. Santos, District 3
Linda J. LeZotte, District 4
Gary Kremen, District 7

All public records relating to an open session item on this agenda, which are not exempt from disclosure pursuant to the California Public Records Act, that are distributed to a majority of the legislative body will be available for public inspection at the Office of the Clerk of the Board at the Santa Clara Valley Water District Headquarters Building, 5700 Almaden Expressway, San Jose, CA 95118, at the same time that the public records are distributed or made available to the legislative body. Santa Clara Valley Water District will make reasonable efforts to accommodate persons with disabilities wishing to attend Board of Directors' meeting. Please advise the Clerk of the Board Office of any special needs by calling (408) 265-2600.

RICK L. CALLENDER, ESQ. Chief Executive Officer

MICHELE L KING, CMC Clerk of the Board (408) 265-2600 Fax (408) 266-0271 www.valleywater.org

Note: The finalized Board Agenda, exception items and supplemental items will be posted prior to the meeting in accordance with the Brown Act.

### Santa Clara Valley Water District Board of Directors

#### \*AMENDED/APPENDED 4:00 PM CLOSED SESSION AND 6:00 PM REGULAR MEETING AGENDA

\*ITEMS AMENDED AND/OR APPENDED SINCE THE ORIGINAL PUBLICATION OF THIS AGENDA ARE IDENTIFIED BY AN ASTERISK (\*) HEREIN

Tuesday, July 28, 2020

4:00 PM

**Teleconference Zoom Meeting** 

#### **IMPORTANT NOTICES**

This meeting is being held in accordance with the Brown Act as currently in effect under the State Emergency Services Act, the Governor's Emergency Declaration related to COVID-19, and the Governor's Executive Order N-29-20 issued on March 17, 2020 that allows attendance by members of the Board of Directors, District staff, and the public to participate and conduct the meeting by teleconference, videoconference, or both.

Members of the public wishing to address the Board during a video conferenced meeting on an item not listed on the agenda, or any item listed on the agenda, should use the "Raise Hand" or "Chat" tools located in Zoom meeting link listed on the agenda. Speakers will be acknowledged by the Board Chair in the order requests are received and granted speaking access to address the Board.

Santa Clara Valley Water District (District), in complying with the Americans with Disabilities Act (ADA), requests individuals who require special accommodations to access and/or participate in District Board meetings to please contact the Clerk of the Board's office at (408) 630-2711, at least 3 business days before the scheduled District Board meeting to ensure that the District may assist you.

This agenda has been prepared as required by the applicable laws of the State of California, including but not limited to, Government Code Sections 54950 et. seq. and has not been prepared with a view to informing an investment decision in any of Valley Water's bonds, notes or other obligations. projections, plans or other forward-looking statements included in the information in this agenda are subject to a variety of uncertainties that could cause any actual plans or results to differ materially from any such statement. The information herein is not intended to be used by investors or potential investors in considering the purchase or sale of Valley Water's bonds, notes or other obligations and investors and potential investors should rely only on information filed by the District on the Municipal Securities Rulemaking Board's Electronic Municipal Market Access System for municipal securities disclosures and Valley Water's Investor Relations website, maintained on the World Wide Web at s : / / e m m  $a \cdot m \cdot s \cdot r \cdot b$ o r https://www.valleywater.org/how-we-operate/financebudget/investor-relations, respectively.

Join Zoom Meeting:

https://valleywater.zoom.us/j/98462613575

Meeting ID: 984 6261 3575

Join by Phone:
1 (669) 900-9128, 9846213575#

#### 1. CALL TO ORDER:

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#### 1.1. Roll Call.

#### 2. TIME CERTAIN:

#### 4:00 PM

Notice to the Public: The Board of Directors meets in Closed Session in accordance with the Ralph M. Brown Act. Following the conclusion of Closed Session discussion, the Board will return for the remaining items on the regular meeting agenda.

#### 2.1. CLOSED SESSION

20-0577

CONFERENCE WITH LEGAL COUNSEL - EXISTING LITIGATION Pursuant to Government Code Section 54956.9(d)(1): White, et al. v. SCVWD, et al. (Santa Clara Co. Superior Court, No. 18CV321600 (Lead))

#### 2.2. CLOSED SESSION

20-0635

CONFERENCE WITH LABOR NEGOTIATORS
Pursuant to Government Code Section 54957.6(a)

Agency Designated Representatives: Rick Callender, Michael Baratz,

Tina Yoke, Anna Noriega, Laura Harbert

Employee Organizations: Employees Association, Engineers Society,

**Professional Managers Association** 

#### 6:00 PM

## Rejoin Zoom Meeting: https://valleywater.zoom.us/j/98462613575 Meeting ID: 984 6261 3575 Join by Phone: 1 (669) 900-9128, 9846213575#

- 2.3. District Counsel Report on Closed Session.
- 2.4. Pledge of Allegiance/National Anthem.
- 2.5. Orders of the Day.
  - A. Approximate Discussion Time (Board); and
  - B. Adjustments to the Order of Agenda Items.

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- 2.6. Time Open for Public Comment on any Item not on the Agenda.

  Notice to the public: Members of the public who wish to address the Board on any item not listed on the agenda should access the "Raise Hand" or "Chat" tools located in Zoom meeting link listed on the agenda. Speakers will be acknowledged by the Board Chair in order requests are received and granted speaking access to address the Board. Speakers comments should be limited to three minutes or as set by the Chair. The law does not permit Board action on, or extended discussion of, any item not on the agenda except under special circumstances. If Board action is requested, the matter may be placed on a future agenda. All comments that require a response will be referred to staff for a reply in writing. The Board may take action on any item of business appearing on the posted agenda.
- \*2.7. (ITEM REMOVED FROM AGENDA) Approval of Updated and Enhanced Safe, Clean Water and Natural Flood Protection Program for a Future Funding Measure (Continued from July 21, 2020).
- 2.8. Receive and Discuss Information Regarding Pension Liability and the Potential Use of Pension Obligation Bonds.

Recommendation: Receive and discuss information regarding pension liability and

the potential use of pension obligation bonds and provide staff

with further direction as necessary.

Manager: Darin Taylor, 408-630-3068
Attachments: Attachment 1: PowerPoint

Est. Staff Time: 30 Minutes

2.9. Approve the Revised Fiscal Year 2020-2021 Santa Clara Valley Water
District Investment Policy and Approve an Update Executive Limitations
Policy EL 4.7, Financial Management.

Recommendation: A. Approve the Revised Fiscal Year 2020-2021 Santa Clara

Valley Water District Investment Policy;

B. Approve an update to Executive Limitation Policy EL-4.7,

Financial Management; and

C. Provide additional direction to staff as necessary.

Manager: Darin Taylor, 408-630-3068

Attachments: Attachment 1: Revised Investment Policy

**Attachment 2: Powerpoint** 

Attachment 3: Sample ESG Evaluation Report for Deutsche Bank

Est. Staff Time: 10 Minutes

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2.10. Receive Information and Authorize Staff to Proceed with Negotiation and Execution of Bank Line(s) of Credit with Aggregate Stated Amount Not to Exceed \$200 Million.

<u> 20-0570</u>

Recommendation: A. Receive information regarding bank line(s) of credit

solicitation; and

B. Authorize staff to proceed with negotiation and execution of bank line(s) of credit with aggregate stated amount not

to exceed \$200 Million.

Manager: Darin Taylor, 408-630-3068
Attachments: Attachment 1: PowerPoint

Attachment 2: Revised Bank Proposals
Attachment 3: MUFG ESG Response
Attachment 4: JPM ESG Response
Attachment 5: US Bank ESG Response
Attachment 6: UBS ESG Response

Attachment 7: Bank of America ESG Response

Est. Staff Time: 10 Minutes

#### 3. CONSENT CALENDAR: (3.1 - 3.9) (Est. Time: 5 Minutes)

Notice to the public: There is no separate discussion of individual consent calendar items. Recommended actions are voted on in one motion. If an item is approved on the consent vote, the specific action recommended by staff is adopted. Items listed in this section of the agenda are considered to be routine by the Board, or delegated to the Board Appointed Officers (BAOs) yet required by law or contract to be Board approved (EL-7.10). Any item may be removed for separate consideration at the request of a Board member. Whenever a resolution is on the consent calendar, a roll call vote will be taken on the entire calendar. Members of the public wishing to address the Board on any consent items should complete a Speaker Card and present it to the Clerk of the Board.

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3.1. Adopt Plans and Specifications and Authorize Advertisement for Bids for the Santa Teresa Water Treatment Plant Air Wash Pipeline Replacement Project, Project No. 93764004, Contract No. C0662 (San Jose, District 7).

Recommendation:

A. Adopt Plans and Specifications and Authorize Advertisement for Bids for the Santa Teresa Water Treatment Plant Air Wash Pipeline Replacement Project per the Notice to Bidders; and

20-0516

B. Authorize the Designated Engineer to issue addenda, as necessary, during the bidding process.

Manager: Heath McMahon, 408-630-3126

Attachments: Attachment 1: Notice to Bidders

Attachment 2: Project Delivery Process Chart

**Attachment 3: Location Map** 

Attachment 4: Plans and Specifications

3.2. Approve Notice of Completion of Contract and Acceptance of Work for the
Almaden Valley Pipeline Emergency Response Project, Kiewit
Infrastructure West Co., Contractor, Project No. 95084002, Contract No.
C0657 (San Jose) (District 7).

Recommendation:

 A. Accept the work on the Almaden Valley Pipeline Emergency Response Project, Kiewit Infrastructure West Co., Contractor, Project No. 95084002, Contract No. C0657 as complete; and

B. Direct the Clerk of the Board to sign the Notice of Completion of Contract and Acceptance of Work and submit for recording to the Santa Clara County Clerk-Recorder.

Manager: Aaron Baker, 408-630-2135

Attachments: Attachment 1: Notice of Completion and Acceptance of Work

Attachment 2: Construction Contract Acceptance

Attachment 3: Project Completion Letter
Attachment 4: Construction Summary

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3.3. Adopt Recommended Positions on State Legislation: AB 2060 (Holden)
Drinking Water Fixtures and Plumbing Lead Content; and Other
Legislation Which May Require Urgent Consideration for a Position by the
Board.

<u>20-0552</u>

Recommendation: Adopt a Position of "Support" on: AB 2060 (Holden) Drinking

Water Fixtures and Plumbing Lead Content.

Manager: Rachael Gibson, 408-630-2884

3.4. Adopt Recommended Positions on Federal Legislation: H.R. 7073 (Garamendi) Special Districts Provide Essential Services Act; S. 3811 (Feinstein) Restoration of Essential Conveyance Act; and Other Legislation That May Require Urgent Consideration for a Position by the Board.

20-0114

Recommendation: A. Adopt a position of "Support" on H.R. 7073 (Garamendi)

- Special Districts Provide Essential Services Act; and

B. Adopt a position of "Support" on S. 3811 (Feinstein) -

Restoration of Essential Conveyance Act.

Manager: Rachael Gibson, 408-630-2884

3.5. Accept the Work as Complete and Direct the Clerk to File the Notice of Completion of Contract and Acceptance of Work for the Lower Silver Creek Flood Protection and Creek Restoration Project at the Dobern Bridge Crossing (Plant Establishment Maintenance Phase - Stage 2), Gordon N. Ball, Inc., Contractor, Project No. 40264008, Contract No. C0618 (San Jose) (District 6).

<u> 20-0528</u>

Recommendation:

- A. Accept the work on the Lower Silver Creek Flood Protection and Creek Restoration Project at the Dobern Bridge Crossing, Plant Establishment Maintenance Phase - Stage 2, Gordon N. Ball, Inc., Contractor, Project No. 40264008, Contract No. C0618 as complete; and
- B. Direct the Clerk of the Board to sign the Notice of Completion of Contract and Acceptance of Work and submit for recording to the Santa Clara County Clerk Recorder.

Manager: Heath McMahon, 408-630-3126

Attachments: Attachment 1: Notice of Completion

Attachment 2: Construction Contract Acceptance

Attachment 3: Project Completion Letter

Attachment 4: Construction Photos

Attachment 5: Project Delivery Process Chart

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3.6. Approve Amendment of Fiscal Year 2021 Salary Table.

20-0551

Recommendation: Approve an amendment to the Fiscal Year 2021 Salary Table.

Manager: Anna Noriega, 408-630-3089

Attachments: Attachment 1: Amended FY21 Employee Salary Schedule

3.7. Approve San Francisquito Creek Joint Powers Authority Budget for Fiscal Year 2020-2021, and Authorize Santa Clara Valley Water District Fiscal Year 2020-2021 Financial Contribution of \$308,000 (Palo Alto) (District 7). <u>20-0523</u>

Recommendation:

A. Approve the San Francisquito Creek Joint Powers
Authority Fiscal Year 2020-2021 Operating Budget; and

B. Authorize the Santa Clara Valley Water District's Fiscal Year 2020-2021 financial contribution to the San

Francisquito Creek Joint Powers Authority in the amount

of \$308,000.

Manager: Ngoc Nguyen, 408-630-2632

Attachments: Attachment 1: SFCJPA FY 2020-2021 Operating Budget

Attachment 2: SFCJPA Invoice

3.8. Accept the CEO Bulletins for the Weeks of June 19 Through July 2, and

20-0588

July 3-16, 2020.

Recommendation: Accept the CEO Bulletins.

Manager: Rick Callender, 408-630-2017

Attachments: Attachment 1: 070220 CEO Bulletin

Attachment 2: 071620 CEO Bulletin

3.9. Approval of Minutes.

20-0524

Recommendation: Approve the minutes.

Manager: Michele King, 408-630-2711

Attachments: Attachment 1: 051220 Regular Meeting Minutes

Attachment 2: 052220 Special Meeting Minutes
Attachment 3: 052620 Regular Meeting Minutes
Attachment 4: 060920 Regular Meeting Minutes
Attachment 5: 061620 Special Meeting Minutes

REGULAR AGENDA:

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#### 4. BOARD OF DIRECTORS:

4.1. Amendment of Board Governance Policy GP-6.19.1 Board Members' <u>20-0617</u>
Code of Conduct.

Recommendation: A. Determine whether to amend Board Governance Policy

GP-6.19.1. as outlined below;

B. If the Board desires said amendment to be effective retroactively, establish a date for such amendment to have become effective; and

C. Should the Board wish for the changes to apply to the pending Rev. Jethroe Moore complaint, the changes should be retroactive to the date of June 23, 2020, the date the Chair determined an investigation was warranted, or earlier.

Manager: Stan Yamamoto, 408-630-2755

Attachments: Attachment 1: Board Governance Policy GP-6.19.1

Est. Staff Time: 5 Minutes

4.2. Adopt Resolution Providing for the Compensation of the Chief Executive
Officer, a Board Appointed Officer of the Santa Clara Valley Water
District.

Recommendation: A. Consider and determine compensation adjustments, if

any, for the Chief Executive Officer; and

B. Adopt the Resolution PROVIDING FOR THE COMPENSATION OF THE CHIEF EXECUTIVE OFFICER, A BOARD APPOINTED OFFICER OF THE SANTA CLARA VALLEY WATER DISTRICT, and

approve the Amendment to the Employment Agreement Between the Santa Clara Valley Water District and Enrico Callender, consistent with Board-approved

compensation adjustments.

Manager: Anna Noriega, 408-630-3089

Attachments: Attachment 1: Resolution and Employment Agreement Amendme

Est. Staff Time: 5 Minutes

July 28, 2020 Page 8 of 12

4.3. Adopt Resolution Providing for the Compensation of the District Counsel, a Board Appointed Officer of the Santa Clara Valley Water District.

Recommendation:

- A. Consider and determine compensation adjustments, if any, for the District Counsel; and
- B. Adopt the Resolution PROVIDING FOR THE COMPENSATION OF THE DISTRICT COUNSEL, A BOARD APPOINTED OFFICER OF THE SANTA CLARA VALLEY WATER DISTRICT, and approve the Amendment to the Employment Agreement Between the Santa Clara Valley Water District and Stanly Yamamoto, consistent with Board-approved compensation adjustments.

Manager: Anna Noriega, 408-630-3089

Attachments: Attachment 1: Resolution and Employment Agreement Amendment

Est. Staff Time: 5 Minutes

4.4. Adopt Resolution Providing for the Compensation of the Clerk of the Board, a Board Appointed Officer of the Santa Clara Valley Water District.

Recommendation:

- A. Consider and determine compensation adjustments, if any, for the Clerk of the Board; and
- B. Adopt the Resolution PROVIDING FOR THE COMPENSATION OF THE CLERK OF THE BOARD, BOARD APPOINTED OFFICER OF THE SANTA CLARA VALLEY WATER DISTRICT, and approve the Amendment to the Employment Agreement Between the Santa Clara Valley Water District and Michele L. King, consistent with Board-approved compensation adjustments.

Manager: Anna Noriega, 408-630-3089

Attachments: Attachment 1: Resolution and Employment Agreement Amendme

Est. Staff Time: 5 Minutes

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4.5. Discuss Conducting Board and Committee Meetings in Consideration of the COVID-19 Pandemic and Current Santa Clara County Health Officer's Risk Reduction Order.

Recommendation: A. Discuss parameters for conducting Board and

Committee meetings in consideration of the COVID-19 Pandemic and current Santa Clara County Health

Officer's Risk Reduction Order; and

B. Provide direction to staff.

Manager: Michele King, 408-630-2711

Attachments: Attachment 1: SCC Health Officer Order

Est. Staff Time: 5 Minutes

4.6. Proposed Future Board Member Agenda Items.

\*4.7. Board Committee Reports. 20-0648

Attachments: Handout 4.7-A: DCA Summary

Handout 4.7-B: DCA Finance Summary

5. WATER UTILITY ENTERPRISE:

6. WATERSHEDS:

6.1. Adopt the Resolution Adopting the 2019 San Francisco Bay Area <u>20-0373</u>

Integrated Regional Water Management Plan Update.

Recommendation: Adopt the Resolution ADOPTING THE 2019 SAN FRANCISCO

BAY AREA INTEGRATED REGIONAL WATER

MANAGEMENT PLAN.

Manager: Lisa Bankosh, 408-630-2618

Jerry De La Piedra, 408-630-2257

Attachments: <u>Attachment 1: Bay Area IRWM Participants</u>

Attachment 2: IRWM Program Statewide Priorities

**Attachment 3: DWR Plan Review** 

Attachment 4: Resolution

Attachment 5: PowerPoint

Est. Staff Time: 5 Minutes

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\*6.2. Approve an Increase to the Construction Contract Contingency Sum and Notice of Completion of Contract and Acceptance of Work for the Lower Berryessa Creek Flood Protection Project Phase 2, (Construction Phase -Stage 1), Brosamer & Wall, Inc., Contractor, Project No. 40174005, Contract No. C0614 (Milpitas) (District 3). 20-0632

20-0507

Recommendation:

A. Approve an increase of \$187,841.27 to the construction contract contingency sum for the Lower Berryessa Creek Flood Protection Project Phase 2, (Construction Phase -Stage 1), Brosamer & Wall, Inc., Contractor, Project No.

40174005, Contract No. C0614;

B. Accept the work as complete; and

C. Direct the Clerk of the Board to sign the Notice of Completion of Contract and Acceptance of Work and submit for recording to the Santa Clara County

Clerk-Recorder.

Manager: Ngoc Nguyen, 408-630-2632

Attachments: Attachment 1: Notice of Completion

Attachment 2: PowerPoint

Attachment 5: Project Delivery Process Chart

\*Supplemental Agenda Memorandum

\*Supplemental Attachment 1: Construction Contract Acceptance

\*Supplemental Attachment 2: Project Completion Letter

Est. Staff Time: 10 Minutes

#### 7. EXTERNAL AFFAIRS:

8.1.

#### 8. CHIEF EXECUTIVE OFFICER:

Adjustments.

Central Fiscal Year 2019-20 Year-End and Fiscal Year 2020-21 Budget

\_ . . .

Recommendation: Approve the central Fiscal Year 2019-20 year-end and Fiscal

Year 2020-21 budget adjustments.

Manager: Darin Taylor, 408-630-3068

Attachments: Attachment 1: SCVWD Resolution No. 20-33

Est. Staff Time: 5 Minutes

8.2. Update on COVID-19 Response.

8.3. CEO and Chiefs' Report.

#### 9. ADMINISTRATION:

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9.1. Receive Information and Adopt Resolution regarding Electric Vehicle Charging Rates for Santa Clara Valley Water District Electric Vehicle Charging Stations at Almaden Valley Headquarter Campus. 20-0069

Recommendation:

- A. Receive information and consider Electric Vehicle Charging Rates for charging stations at Almaden Valley Headquarters Campus; and
- B. Adopt the Resolution ADOPTION OF ELECTRIC VEHICLE CHARGING RATES that sets forth Valley Water Electric Vehicle charging rates that will go into effect on August 1, 2020, and authorizes the Chief Executive Officer or his/her designee at the commencement of each fiscal year to modify the Level 2 and Direct Current Electric Vehicle charging rates subject to not exceeding reasonable cost for providing, operating, and maintaining the charging stations.

Manager: Tina Yoke, 408-630-2385

Attachments: <u>Attachment 1: PowerPoint</u>

Attachment 2: Rate Sheet
Attachment 3: Resolution

Est. Staff Time: 10 Minutes

#### 10. DISTRICT COUNSEL:

#### 11. ADJOURN:

- 11.1. Board Member Reports/Announcements.
- 11.2. Clerk Review and Clarification of Board Requests.
- 11.3. Adjourn to 11:00 a.m. Closed Session and 1:00 p.m. Regular Meeting on August 11, 2020, to be called to order in compliance with the State Emergency Services Act, the Governor's Emergency Declaration related to COVID-19, and the Governor's Executive Order N-29-20.

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#### Santa Clara Valley Water District



File No.: 20-0577 Agenda Date: 7/28/2020

Item No.: 2.1.

#### NON-EXHIBIT/CLOSED SESSION ITEM

#### SUBJECT:

CLOSED SESSION
CONFERENCE WITH LEGAL COUNSEL - EXISTING LITIGATION
Pursuant to Government Code Section 54956.9(d)(1):
White, et al. v. SCVWD, et al. (Santa Clara Co. Superior Court, No. 18CV321600 (Lead))

#### Santa Clara Valley Water District



File No.: 20-0635 Agenda Date: 7/28/2020

Item No.: 2.2.

#### NON-EXHIBIT/CLOSED SESSION ITEM

#### SUBJECT:

**CLOSED SESSION** 

CONFERENCE WITH LABOR NEGOTIATORS

Pursuant to Government Code Section 54957.6(a)

Agency Designated Representatives: Rick Callender, Michael Baratz, Tina Yoke, Anna Noriega,

Laura Harbert

Employee Organizations: Employees Association, Engineers Society, Professional Managers

Association

#### Santa Clara Valley Water District



File No.: 20-0469 Agenda Date: 7/28/2020

Item No.: 2.8.

#### **BOARD AGENDA MEMORANDUM**

#### SUBJECT:

Receive and Discuss Information Regarding Pension Liability and the Potential Use of Pension Obligation Bonds.

#### RECOMMENDATION:

Receive and discuss information regarding pension liability and the potential use of pension obligation bonds and provide staff with further direction as necessary.

#### SUMMARY:

At its regular meeting on May 12, 2020, the Board of Directors of the Santa Clara Valley Water District (Valley Water) requested staff to provide information regarding Valley Water's pension liability and the potential use of Pension Obligation Bonds (POBs) as a mechanism to fund all or a portion of Valley Water's unfunded accrued pension liability. In response to the Board's request, Finance staff, along with Valley Water's municipal advisor (Public Resources Advisory Group) and bond counsel (Stradling Yocca Carlson & Rauth), will review and discuss information regarding pension liability and financing scenarios with the Board.

#### FINANCIAL IMPACT:

There is no financial impact related to this report.

#### CEQA:

The recommended action does not constitute a project under CEQA because it does not have a potential for resulting in direct or reasonably foreseeable indirect physical change in the environment.

#### ATTACHMENTS:

Attachment 1: PowerPoint

#### **UNCLASSIFIED MANAGER:**

Darin Taylor, 408-630-3068



# Valley Water

Clean Water • Healthy Environment • Flood Protection



<u>Disclaimer</u>: Certain information contained herein, including projections and estimates prepared by Valley Water, is based on information provided by CalPERS. Information that CalPERS provides to Valley Water is based on CalPERS' estimates and assumptions of future events. Valley Water has not independently verified information provided by CalPERS. Information, estimates, and expressions of opinion prepared by Valley Water contained herein are also based on certain assumptions and are subject to a variety of uncertainties that could cause any actual results to be materially different. Notwithstanding any information contained herein, Valley Water continues to rely upon information provided by CalPERS when preparing its audited financial statements and for other purposes regarding pension and other post-employment benefits related matters.

# Pension Obligations and Unfunded Liability Financing Scenarios

July 28, 2020



### Agenda

## 3

### 1. Valley Water Pension Plan

- 2. Pension Obligation Bond (POB) Scenario Analysis
- 3. Pension Obligation Bond (POB) Commentaries
- 4. Summary Q&A and References



### Valley Water Pension Plan

 Valley Water offers employer defined benefit pension plan administered by California Public Employees Retirement System (CalPERS)

 CalPERS acts as common investment and administrative agent for participating member employers



### **Valley Water Pension Benefits**

- Eligible public employees and beneficiaries receive:
  - Service retirement benefits
  - Disability benefits
  - Annual cost of living adjustments
  - Death benefits

 Benefit provisions under the Plan are established by State statute and Valley Water resolution



 Required funding contributions for the Plan are determined by CalPERS actuary annually and are effective each July 1

- Total minimum required <u>annual</u> employer contribution comprised of two components:
  - Normal Cost
  - Amortized portion of Unfunded Accrued Liability (UAL)



### **Normal Cost**

 Annual cost of service accrual for the upcoming fiscal year for active employees

### **Unfunded Accrued Liability (UAL)**

- Excess of the total actuarial accrued liability over the market value of plan assets
- UAL changes over time to reflect changes in market value and actuarial assumptions



	Fiscal Year 2018-19	Fiscal Year 2019-20	Fiscal Year 2020-21
Normal Cost	\$ 8,975,975	\$ 9,640,016	\$ 10,613,211
UAL Contribution (Prepayment)	13,163,082	<u>15,251,637</u>	16,773,331
Total	\$ 22,139,057	\$ 24,891,653	\$ 27,386,542

- Normal Cost paid bi-weekly per payroll schedule no option to prepay
- Annual UAL required contribution is prepaid in July each year to take advantage of discount at the actuarily-assumed discount rate



### Valley Water Unfunded Accrued Liability



	Fiscal Year 2018-19	Fiscal Year 2019-20	Fiscal Year 2020-21
Unfunded Accrued Liability	\$ 247,765,798	\$ 252,441,342	\$ 254,697,360

• Reflects liability as of the first day of each fiscal year (July 1), as determined by actuary



# Valley Water Required Pension Contributions determined by Actuarial Analysis



- Determination of both normal cost and annually amortized UAL requires complex actuarial calculations
- Calculations based on a set of actuarial assumptions
- Demographic assumptions
  - Mortality, disability, retirements
- Economic assumptions
  - Discount (investment) rate, salary growth, inflation



### **Key Actuarial Economic Assumptions**

## 11

### Fiscal Year 2020-21 Plan Contribution Assumptions

- Discount (investment) rate = 7.00%\*
- Payroll growth rate = 2.75%

\* Revised discount rate: phased-in from 7.50% (FY18 and prior), 7.375% (FY19), and 7.25% (FY20)

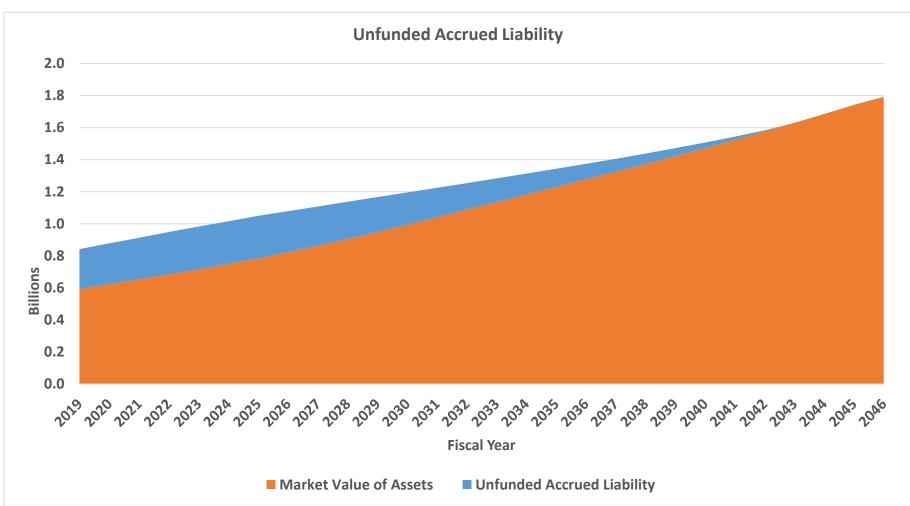






### Valley Water Unfunded Accrued Liability







### Actuarial Assumptions vs. Performance

 Changes in UAL year-to-year are due to differences (gains or losses) between actual experience and the actuarial assumptions used to calculate prior years' required contributions

 Employer contributions inevitably fluctuate, especially due to ups and downs in investment returns

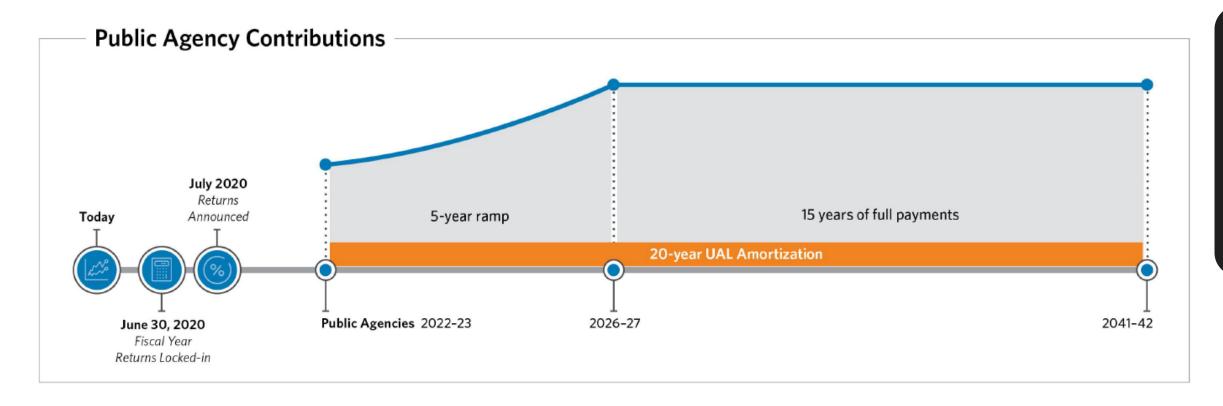


### How CalPERS Investment Gains/Losses are Amortized

- New UAL amortization policy adopted by CalPERS Board of Administration effective FY 2020-21
  - Shortens period over which actuarial gains and losses are amortized from 30 years to 20 years
  - No longer 5-year ramp-down (only 5-year ramp-up) on investment gains/losses
- Can result in short-term increases to required employer contributions, but not expected to increase long-term cost of plan

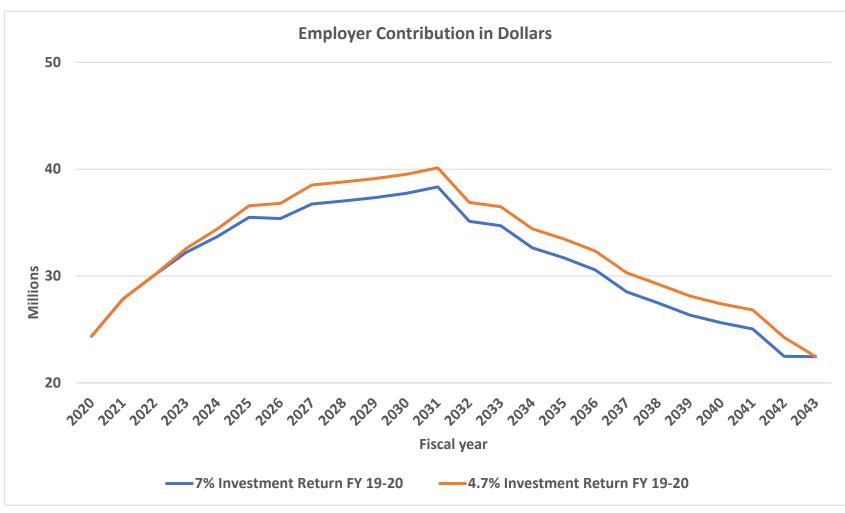


### How CalPERS Investment Gains/Losses are Amortized





## FY 20 CalPERS Investment Return



- CalPERS actual return for FY 20 was 4.7%
- \$350K impact in FY 23 ramping up to \$1.8M in FY 27

Note: The impact analysis above assumes CalPERS returns match their assumed rate of 7% per year for subsequent Plan Years



# **Options to Improve Funded Status**

	Fiscal Year 2018-19	Fiscal Year 2019-20	Fiscal Year 2020-21
Discounted Prepayment	\$ 13,163,082	\$ 15,251,637	\$ 16,773,331
Additional Employer Funding	3,000,000	3,000,000	3,000,000
Additional Employee Funding	500,000	<u>1,051,000</u>	<u>1,661,955</u>
Actual Annual UAL Payment	\$ 16,663,082	\$ 19,302,637	\$ 21,435,286

### • Continue to:

- Pay minimum required annual UAL payment, and
- Further paydown UAL with additional budgeted funds (\$3M OPEB redirect) and employee contributions



# **Options to Improve Funded Status**

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- Other options include:
  - Increase employer contributions
  - Increase contribution from employees
  - Reduce permanent staffing levels over time (contract services)
  - Pension Obligation Bonds (POBs)



# Agenda

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- 1. Valley Water Pension Plan
- 2. Pension Obligation Bond (POB)
  Scenario Analysis
- 3. Pension Obligation Bond (POB) Commentaries
- 4. Summary Q&A and References



# **Pension Obligation Bonds**



 Taxable bonds that some state and local governments issue to pay unfunded portion of pension liabilities

• May result in future savings if bond proceeds invested in the pension fund achieve greater return than costs of the bonds

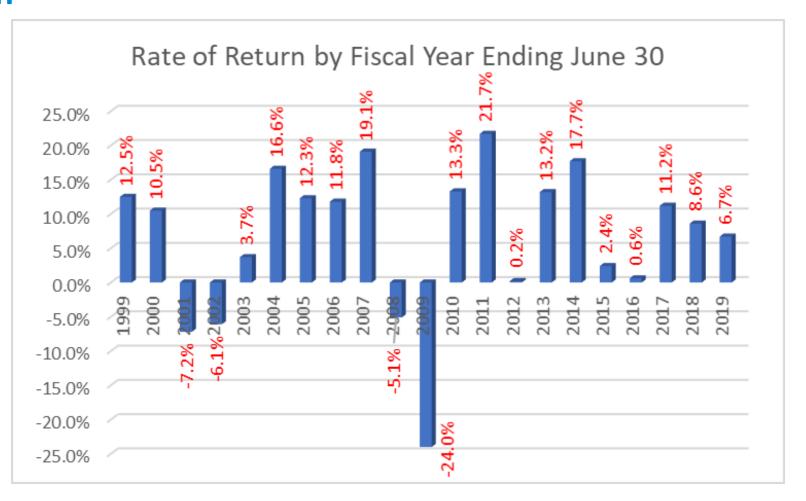
 May lead to increased costs from both debt service requirements and unmet unfunded pension liabilities if targeted rate of return is not achieved



# **CalPERS Investments**

### **Annual Rates of Return**

Historical annual returns of the Public Employees'
Retirement Fund in 1999-2019 ranges from -24.0% to +21.7%





## **CalPERS Investments**

### **Compound Annual Growth Rates**

# 23

### **Public Employees' Retirement Fund**

Total Investment Returns as of 6/30/2019 (for FYs ending 6/30)

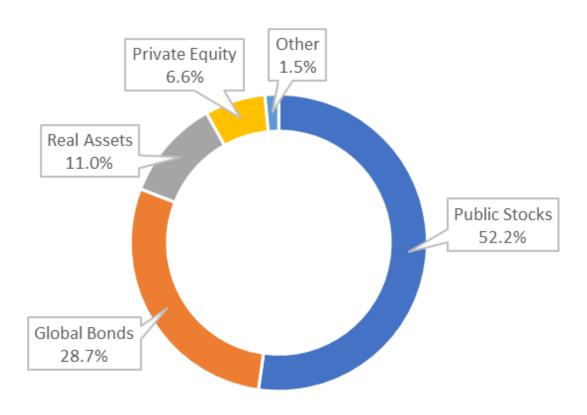
1 year	6.7%
3 years	8.8%
5 years	5.8%
10 years	9.1%
20 years	5.8%
30 years	8.1%



## **CalPERS Investments**

Asset Allocation as of 12/31/2019

Public Employees' Retirement Fund





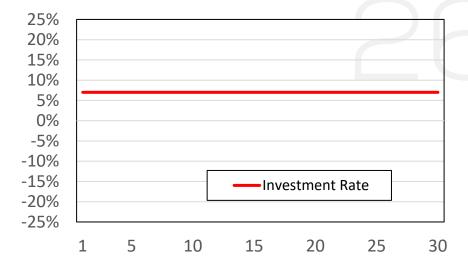
### **Assumptions**

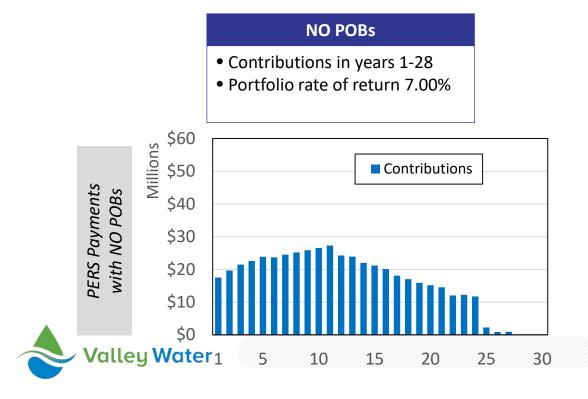
- July 2019 CALPERS annual valuation report
  - \$254.7 million Unfunded Accrued Liability (UAL)
  - 7% assumed actuarial rate of return
  - Fixed term amortization of 30 years (28 years remaining)
- Taxable bond market interest rates as of 7/6/2020
  - POBs are issued to fund 100% of UAL plus issuance costs
  - 30-year repayment period
  - All-in True Interest Cost of 3.17%
- Assumed future investment rates of return for illustrative purposes only



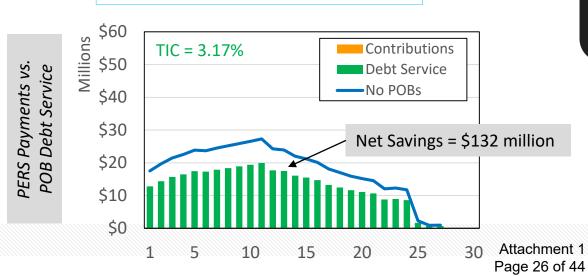
If CalPERS earns 7%/year over 30 years, issuing POBs to fund UAL may result in \$132M savings

### **Investment Assumption** (Constant 7%)

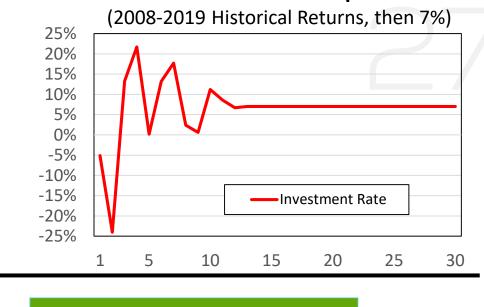




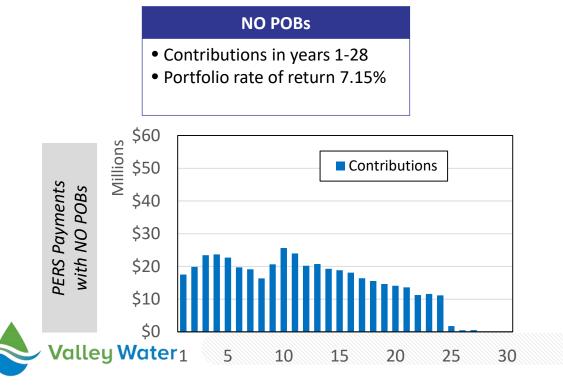
- POB contribution in year 0
- No additional contributions
- Portfolio rate of return 7.00%



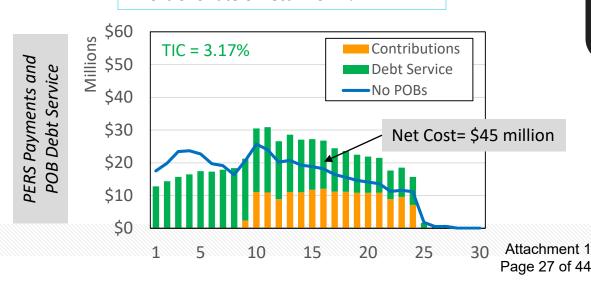
If CalPERS experiences 2008-2019 historical returns then 7%/year thereafter, issuing POBs may result in \$45M higher costs over 30 years



**Investment Assumption** 

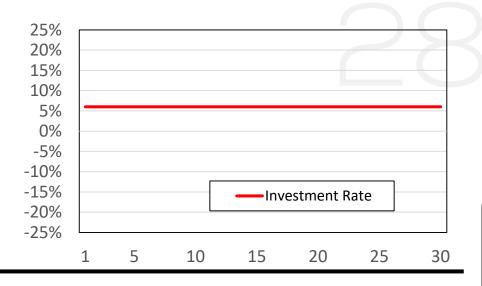


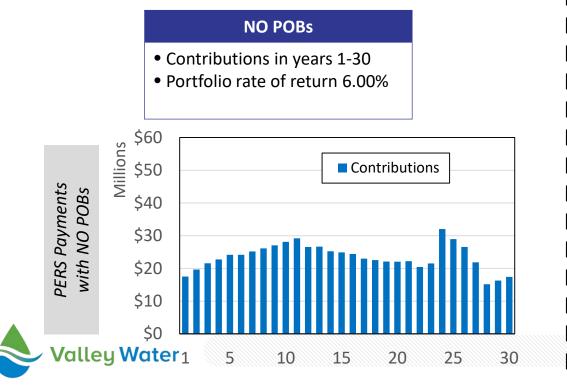
- POB contribution in year 0
- Additional contributions in years 9-28
- Portfolio rate of return 6.14%



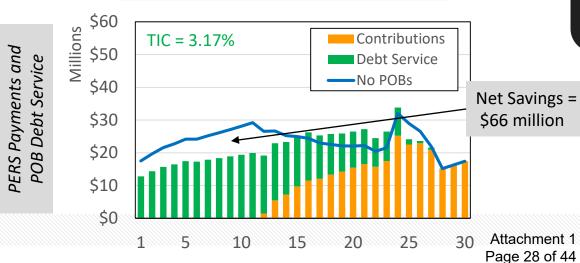
If CalPERS earns 6%/year over 30 years, issuing POBs to fund UAL may result in \$66M savings

### **Investment Assumption** (Constant 6%)

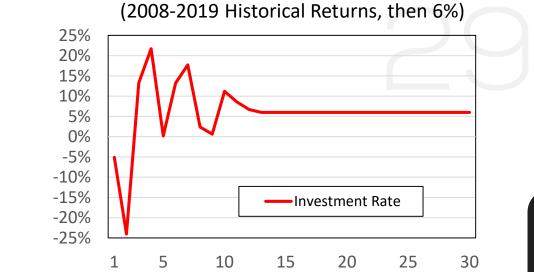




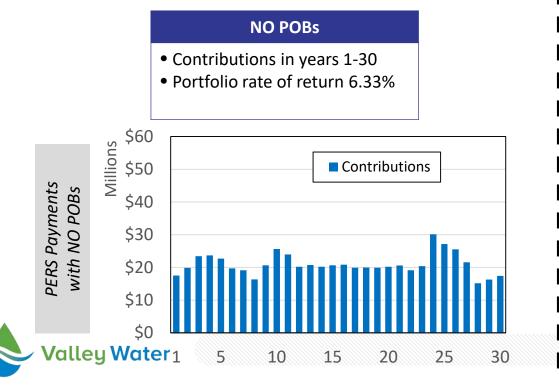
- POB contribution in year 0
- Additional contributions in years 11-30
- Portfolio rate of return 6.00%



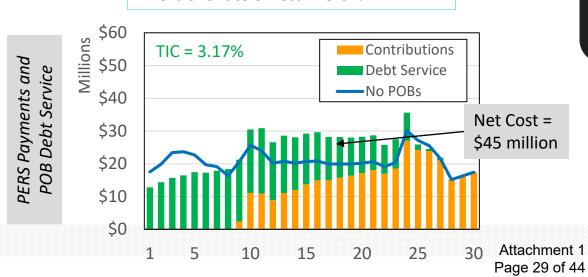
If CalPERS experiences 2008-2019 historical returns then 6%/year thereafter, issuing POBs may result in \$45M higher costs over 30 years



**Investment Assumption** 



- POB contribution in year 0
- Additional contributions in years 9-30
- Portfolio rate of return 5.61%



# Agenda

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- 1. Valley Water Pension Plan
- 2. Pension Obligation Bond (POB) Scenario Analysis
- 3. Pension Obligation Bond (POB) Commentaries
- 4. Summary Q&A and References



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### **Government Finance Officers Association (GFOA) Advisory**

# The GFOA recommends that state and local governments do not issue POBs for the following reasons:

- 1. Invested POB proceeds might fail to earn more than the interest rate owed over the term of the bonds, leading to increased overall liabilities for the government
- 2. POBs carry considerable risk
- 3. Increases jurisdictions bonded debt burden and uses up debt capacity
- 4. Rating agencies may not view proposed issuance of POBs as credit positive, particularly if not part of a more comprehensive plan to address pension funding shortfalls



**Government Finance Officers Association (GFOA) Advisory (cont'd)** 

The GFOA recommends that state and local governments do not issue POBs for the following reasons:

5. Invested POB proceeds might fail to earn more than the interest rate owed over the term of the bonds, leading to increased overall liabilities for the government



## **Rating Agencies**

### **Moody's Investors Service**

- Issuance of POBs is neutral at best and usually negative for a government's credit quality
- Currently low market interest rates and prospect of investing after a stock market correction may increase appeal of POBs, but governments would need to accept higher exposure to investment market volatility and higher long-term pension costs
- Same low interest rates that benefit governments as POB borrowers work against them and their pension systems as investors
- POBs increase issuer's exposure to market timing risk



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### **Rating Agencies**

### **Fitch Ratings**

- Views the impact of POBs on an issuer's credit quality to range from neutral to negative in most situations
- POBs always carry timing and investment risk
- Issuing POBs during what (in retrospect) turns out to have been a cyclical market high reduces the likelihood of achieving savings relative to simply making full actuarial pension contributions over time
- POBs may affect a government's overall liability burden and financial flexibility and add investment risks



# 35

### **Rating Agencies**

### **S&P Global Ratings**

- Views POB issuance in environments of financial distress or as a mechanism for short-term budget relief as a negative credit factor
- In certain cases, POBs can be an affordable tool to lower unfunded pension liabilities, but along with issuance of POBs comes risk
- POB issuance potentially introduces risk to an issuer's debt and liability profile from a credit standpoint
- Poor market returns in the initial years of investment will hurt a POB's profitability for many years



# Agenda

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- 1. Valley Water Pension Plan
- 2. Pension Obligation Bond (POB) Scenario Analysis
- 3. Pension Obligation Bond (POB) Commentaries
- 4. Summary Q&A and References



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### Question #1

Why do government agencies issue POBs?

Answer: Agencies issue POBs with the expectation that all or a portion of its UAL can be paid down at a lower total than the cost of making annual contributions to the UAL without the use of POBs. Agencies with budget pressures often issue POBs to provide near-term budgetary relief and defer costs.



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## Question #2

If Valley Water contributes 100% of unfunded pension liability today, will there will be zero future liability?

Answer: Future liability may continue to increase as a result of many different factors, such as decreased investment returns, changes in future pension benefits, and changes in actuarial assumptions.



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### **Question #3**

Because interest rates are very low right now, shouldn't issuing Pension Obligation Bonds (POBs) to fund Valley Water's unfunded actuarial liability (UAL) result in savings in the long term?

Answer: This is a risk vs. return question. Issuing POBs today at historically low rates does not guarantee long-term savings due to many factors, particularly the potential for future decreases in investment returns. Based on our mathematical model, funding UAL assuming 2008-2019 historical returns with 6% or 7% return over all remaining years would result in \$45 million in higher long-term expenses with POBs than without, for example.



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### Question #4

Will funding 100% of the unfunded pension liability with POBs improve Valley Water's credit ratings?

Answer: Rating agencies view the impact of the issuance of POBs as credit neutral at best, and at worst is seen as a credit negative.



# **Reference List**

4]

Actuarial Valuation as of June 30, 2018 for the Miscellaneous Plan of the Santa Clara Valley Water District, Required Contributions for Fiscal Year July 1, 2020 - June 30, 2021. CalPERS, July 2019.

"CalPERS Trust Level Quarterly Update – Performance & Risk. Public Employees' Retirement Fund (PERF) as of December 31, 2019." *CalPERS*, www.calpers.ca.gov/page/investments/asset-classes/trust-level-portfoliomanagement/investment-fund-values. Accessed 1 June 2020.

"Investment & Pension Funding, Facts at a Glance for Fiscal Year 2018-19." CalPERS, www.calpers.ca.gov/page/about/organization/facts-at-a-glance.

Accessed 1 June 2020.

Low interest rates do not insulate governments from pension bond risks (Sector In-Depth). Moody's Investors Service, 24 Apr. 2020.



# Reference List (continued)

42

"Pension Obligation Bonds (Advisory)." *Government Finance Officers Association*, Jan. 2015, <a href="www.gfoa.org/pension-obligation-bonds">www.gfoa.org/pension-obligation-bonds</a>. Accessed 1 June 2020.

Pension Obligation Bonds' Credit Impact on U.S. State and Local Government Issuers. S&P Global Ratings, 6 Dec. 2017.

Pension Obligation Bonds – Weighing Benefits and Costs (Comment). Fitch Ratings, 31 Mar. 2015.



# QUESTIONS









# Valley Water

Clean Water • Healthy Environment • Flood Protection

### Santa Clara Valley Water District



File No.: 20-0569 Agenda Date: 7/28/2020

Item No.: 2.9.

### **BOARD AGENDA MEMORANDUM**

#### SUBJECT:

Approve the Revised Fiscal Year 2020-2021 Santa Clara Valley Water District Investment Policy and Approve an Update Executive Limitations Policy EL 4.7, Financial Management.

### RECOMMENDATION:

- A. Approve the Revised Fiscal Year 2020-2021 Santa Clara Valley Water District Investment Policy;
- B. Approve an update to Executive Limitation Policy EL-4.7, Financial Management; and
- C. Provide additional direction to staff as necessary.

#### SUMMARY.

### **Executive Summary**

Staff recommends that the FY 2020-21 Investment Policy be amended as follows:

#### 3.5.1 California Bank Investments

Keeping investments to local banks, within the Bay Area, to keep money at home and jobs local; invest only in banks with below \$10 billion in assets; and keep a minimum of 4% of liquid cash in banks with up to \$10 billion in assets and 1% in banks with up to \$2 billion in assets for a limit of 5 years (short term) at the discretion of the treasurer; such investments may be in the form of collateralized deposits, FDIC/NCUA insured CDs, CDARS, or any other legally allowable deposits.

#### 7.13.3 Prohibited Banks

No investments will be made in any banks who do not have an Environmental, Social and Governance (ESG) ranking at or better than the "Average/Medium" category by at least one of the professional ESG research companies such as Sustainalytics, or other equivalent rankings published by other ESG research firms. Small and local banks/credit unions located within the nine Bay Area counties with total assets at or below \$10 billion are exempt from this provision.

To ensure consistency in implementing the ESG policy related to banking and financial management, staff also recommends that Executive Limitation 4.7 Financial Management be updated to include the following new section:

Item No.: 2.9.

#### E.L. 4.7.7

Valley Water shall not do business with banks who do not have an ESG ranking at or better than the "Average/Medium" category by at least one of the professional ESG research companies such as Sustainalytics, or other equivalent rankings published by other ESG research firms. Small and local banks/credit unions located within the nine Bay Area counties with total assets at or below \$10 billion are exempt from this provision.

Board approval of the above amendments to the FY 2020-21 Investment Policy and Executive Limitation will establish a clear, objective, legally valid and transparent policy to guide Valley Water's investment and business activities in the banking sector.

### **Background**

On May 12, 2020, the Santa Clara Valley Water District Board (Board) adopted the Fiscal Year 2020-21 Investment Policy in compliance with California Government Code (Government Code) Sections 53607 and 53608. As part of the approval, the Board provided feedback regarding three key issues summarized below and directed staff to return with additional information and recommendations to address the Board's concerns.

### May 12, 2020 Board Feedback:

- 1. Do not invest in banks and financial institutions that support human rights violation, such as recent cases involving Bank of America and Wells Fargo Bank that are funding companies that have extractive human rights violations; follow the Global Sullivan Principles to avoid investing in companies that support environmental and human capital violations
- 2. Add a provision to invest up to 1% of the portfolio in smaller banks and credit unions that have equal to or less than \$2 billion in total assets, and 4% of the portfolio in small banks with a maximum of \$10 billion in total assets.
- 3. Add the Certificate of Deposit Account Registry Service (CDARS) program to increase local bank investments

Furthermore, on June 23, 2020, the Board provided additional feedback as follows: (1) update the Investment Policy to state that Valley Water shall invest a minimum of 1% of the portfolio in smaller banks/credit unions that have up to \$2 billion in total assets, and a minimum of 4% of the portfolio in banks/credit unions with up to \$10 billion in total assets. The total investments in banks/credit union shall not exceed the maximum limit pursuant to the California Government Code (currently 30%, as amended); and (2) the Board directed staff to conduct additional research on developing a method to evaluate the Environmental, Social, and Governance (ESG) policies for the Investment portfolio, including investments in the banking sector.

Staff researched each of the above issues raised by the Board and summarized the findings and recommendations in the corresponding sections below. The recommended changes to the Investment Policy are incorporated in Attachment 1 and delineated with red font text to highlight the changes for Board consideration. The Powerpoint presentation provided in Attachment 2 highlights

Item No.: 2.9.

the recommended changes as well as a high-level summary of the ESG evaluation criteria that is examined by professional research firms to establish an objective and transparent ESG policy to incorporate into Valley Water's Investment Policy.

### **Analysis**

### 1. Investment Prohibition Against Banks that Violate Human Rights and Environment

Directors Santos and Kremen both referenced the Sullivan Principles in the May 12, 2020 and June 23, 2020 board meetings. The Sullivan Principles are the names of two corporate codes of conduct developed by the African-American preacher Rev. Leon Sullivan, promoting corporate social responsibility. The original Sullivan principles were developed in 1977 to apply economic pressure on South Africa in protest of its system of apartheid. The new global Sullivan principles were jointly unveiled in 1999 by Rev. Sullivan and United Nations (UN) Secretary General Kofi Annan. The new and expanded corporate code of conduct, as opposed to the originals' specific focus on South African apartheid, were designed to increase the active participation of corporations in the advancement of human rights and social justice at the international level. In 2011, the UN updated its guidance on these matters with the "UN Guiding Principles on Business and Human Rights" which are guidelines for States and companies to prevent, address and remedy human rights abuses committed in business operations.

There are several professional ESG research firms that provide ESG rankings for various business sectors. BankTrack covers the 50 large international banks and evaluates the ESG rankings against the UN Guiding Principles (BankTrack's Human Rights Benchmarking Report<sup>2</sup>). BankTrack published the third edition of the report on May 6, 2020 which evaluated 50 of the latest private sector commercial banks globally against a set of 14 criteria based on the UN Guiding Principles. The criteria examine four aspects of banks' implementation of the Guiding Principles: their policy commitment, human rights due diligence process, reporting on human rights and their approach to access to remedy. Professional ESG research firms such as Sustainalytics and MSCI, among others, provide broader and more in-depth ESG rankings for over 10,000 public and private companies across all business sectors, including both U.S. and international banks. Given that each professional research firm utilizes its own proprietary ESG ranking methodology, staff recommends that the Board consider the following update to the Investment Policy to establish a transparent policy in determining which banks to prohibit in the Valley Water investment portfolio.

#### 7.13.3 Prohibited Banks

No investments will be made in any banks who do not have an ESG ranking at or better than the "Average/Medium" category by at least one of the professional ESG research companies such as Sustainalytics, or other equivalent rankings published by other ESG research firms. Small and local banks/credit unions located within the nine Bay Area counties with total assets at or below \$10 billion are exempt from this provision.

The estimated annual ESG research subscription fee is between \$15,000 to \$35,000, depending on the level of research and analysis Valley Water subscribes. This cost estimate is based on the fee quote from Sustainalytics<sup>3</sup>, which provides ESG ratings for over 10,000 public and private companies, including most banks in the United States. A sample Sustainalytics report for Deutsche

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bank is provided in Attachment 3, which provides an example of a bank that would be prohibited from the Valley Water investment portfolio due to the ESG rating that is worse than the medium risk level.

### 2. Invest in small/local banks and credit unions located in the Bay Area

In Fiscal Year 2017-18 the Board directed staff to add section 3.5 California Certificates of Deposit to the Investment Policy to invest 5% of the portfolio in local banks with total assets up to \$10 billion. To meet the Board's direction, staff downloaded the list of banks and credit unions located in the nine Bay Area Counties that meet the criteria from the Federal Deposit Insurance Corporation (FDIC) and National Credit Union Administration (NCUA). A list of 90 banks and credit unions was prepared by staff, and attention was focused on banks and credit unions located in the Counties of Santa Clara, Alameda, San Mateo and San Francisco. To-date the District investment portfolio has over \$27 million or approximately 5% of the portfolio in these small local banks, of which \$5.9 million or approximately 1% is invested in the following small banks and credit unions with under \$2 billion in total assets: Alliance Credit Union (total assets \$552 million), Bank of San Francisco (total assets \$397 million), Community Bank of the Bay (total assets \$494 million), and Meriwest Credit Union (total assets \$1.8 billion).

Given the Board's direction to specify investments in small local banks, staff recommends amending the Investment Policy as follows (change highlighted in red):

### 3.5 California Bank Investments

To the extent permitted by California Government Code, while meeting Valley Water's investment objectives for safety, liquidity and yield, Valley Water encourages investing in Certificates of Deposit issued by California based banks, up to the Federal Deposit Insurance Corporation limit at the time of such investment which is currently set at \$250,000, and up to 30% of the portfolio, as amended

3.5.1 Keeping investments to local banks, within the Bay Area, to keep money at home and jobs local; invest only in banks with below \$10 billion in assets; and keep a minimum of 4% of liquid cash in banks with up to \$10 billion in assets and 1% in banks with up to \$2 billion in assets for a limit of 5 years (short term) at the discretion of the treasurer; such investments may be in the form of collateralized deposits, FDIC/NCUA insured CDs, CDARS, or any other legally allowable deposits.

#### 3. Add CDARs to increase investments in local banks

In 2018 as part of staff's ongoing efforts to meet the Board's direction to invest in local banks, staff researched extensively on whether the Certificate of Deposit Account Registry Service (CDARS) (<a href="http://www.cdars.com">www.cdars.com</a>) would be an appropriate tool for Valley Water to utilize to increase our investments in CDs. Staff held several conference calls with the Promontory Interfinancial Network (Promontory) that developed the CDARs platform to learn about this platform and assess whether it would meet Valley Water's business needs. CDARs acts as an intermediary to

Item No.: 2.9.

aggregate CD offerings from the thousands of banks that are members of the CDAR network. To allow additional flexibility in utilizing the CDARs program, staff proposes to amend the Investment Policy, section 3.5.1, to allow the use of CDARS program (see above). This is consistent with the California Government Code (Government Code) Sections 53607 and 53608.

#### Footnotes:

- 1. <a href="https://www.business-humanrights.org/en/un-guiding-principles">https://www.business-humanrights.org/en/un-guiding-principles</a>
- 2. <a href="https://www.banktrack.org/campaign/banks">https://www.banktrack.org/campaign/banks</a> and human rights>
- 3. <a href="https://www.sustainalytics.com/">https://www.sustainalytics.com/</a>

#### FINANCIAL IMPACT:

The cost for subscribing to professional ESG research is estimated between \$15,000 to \$35,000 per fiscal year, to be funded by FY 2019-20 budget savings in the Finance division (project no. 60221003); no budget adjustment is necessary for FY 2020-21.

#### CEQA:

The recommended action does not constitute a project under CEQA because it does not have the potential for resulting in direct or reasonably foreseeable indirect physical change in the environment.

#### ATTACHMENTS:

Attachment 1: Revised Investment Policy

Attachment 2: PowerPoint

Attachment 3: Sample ESG Evaluation Report for Deutsche Bank

#### **UNCLASSIFIED MANAGER:**

Darin Taylor, 408-630-3068



# SANTA CLARA VALLEY WATER DISTRICT REVISED BOARD INVESTMENT POLICY

July 1, 2020

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# SANTA CLARA VALLEY WATER DISTRICT REVISED BOARD INVESTMENT POLICY

JULY 1, 2020

#### 1.0 POLICY

It is the policy of Santa Clara Valley Water District (Valley Water) that public funds not needed for the immediate necessities of Valley Water should, to the extent reasonably possible, be prudently invested or deposited consistent with applicable law to produce revenue for Valley Water.

The District Treasurer-Chief Financial Officer and his designee, the Treasury and Debt Officer, manages Valley Water's investment portfolio under the prudent person standard, which states that:

Investments shall be made with judgment and care, under circumstances then prevailing, which persons of prudence, discretion and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable safety of their capital as well as the probable income to be derived.

## 2.0 SCOPE

The Investment Policy applies to Valley Water's pooled investment fund, which encompasses all monies under the direct oversight of the District Treasurer. Included in the investment pool are the Valley Water General Fund, the Safe, Clean Water Fund, the Watershed Funds, the Water Utility Enterprise Fund, the Equipment Service Fund, the Risk Insurance Fund, and debt proceeds with special consideration given to specific provisions contained in the indentures for each issuance. The employees' retirement, other postemployment benefit, and deferred compensation funds are not included nor are the Guaranteed Investment Contracts or any other debt proceeds that are invested following instructions in the debt documents.

A glossary containing key terms used in this document is included in Exhibit A.

#### 3.0 OBJECTIVES

Valley Water will invest funds under the prudent person standard as described in Section 1, and within the specific parameters of safety, liquidity, and yield, in order of highest to lowest priority:

#### 3.1 Safety

Safety of principal is the foremost objective of the investment program. Investments of Valley Water will be undertaken in a manner that seeks to ensure the preservation of capital. Valley Water seeks to mitigate credit risk by requiring that all investments be in obligations whose senior long-term debt rating is rated by at least two of the three national rating agencies. The required ratings must be at least Aa3 by Moody's Investor Services, AA- by Standard & Poor's rating

agency, or AA- by Fitch Ratings Service. This excludes funds placed with the Local Agency Investment Fund (LAIF) and Federal Deposit Insurance Corporation (FDIC) or National Credit Union Administration (NCUA) protected investments in banks or credit unions. In addition, Commercial Paper investments will also carry short-term ratings by at least two of the three national rating agencies of P-1 by Moody's Investor Services, A-1 by Standard & Poor's, or F-1 by Fitch. Risk related to adverse changes in interest rates is alleviated by maturity and instrument diversification. Please refer to Exhibit B for a summary of credit rating scales.

# 3.2 Liquidity

In order to ensure adequate liquidity, the average life of the investment portfolio of Valley Water shall be maintained at approximately two and one half (2.5) years, but may be adjusted from time-to-time to meet ongoing cash flow needs of the portfolio.

#### 3.3 Return on Investment

Valley Water's investment portfolio shall be designed with the objective of attaining the greatest yield to maturity consistent with the preservation of capital and the maintenance of adequate liquidity.

# 3.4 Socially Responsible Investment

In addition to the investment objectives of safety, liquidity, and yield, Valley Water encourages investing in corporate securities, banking institutions and state agencies that meet the ESG factors. Valley Water shall use best efforts to follow the ESG Guiding Principles and utilize the Investment Evaluation Scorecard to evaluate and approve such investments to ensure compliance with the ESG factors (Appendix 1).

3.4.1 The ESG factor shall include considerations for local California based businesses.

#### 3.5 California Bank Investments

To the extent permitted by California Government Code, while meeting Valley Water's investment objectives for safety, liquidity and yield, Valley Water encourages investing in Certificates of Deposit issued by California based banks, up to the Federal Deposit Insurance Corporation limit at the time of such investment which is currently set at \$250,000, and up to 30% of the portfolio, as amended

3.5.1 Keeping investments to local banks, within the Bay Area, to keep money at home and jobs local; invest only in banks with below \$10 billion in assets; and keep a minimum of 4% of liquid cash in banks with \$10 billion in assets and 1% in banks with \$2 billion in assets for a limited of 5 years (short term) at the discretion of the treasurer; such investments may be in the form of collateralized deposits, FDIC/NCUA insured CDs, CDARS, or any other legally allowable deposits.

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#### 4.0 DELEGATION OF INVESTMENT AUTHORITY

California Government Code Section 53607 provides the authority for the legislative body of the local agency to delegate for one-year periods to the Treasurer of the local agency the full responsibility to invest or reinvest local agency funds. Furthermore, Government Code Section 53608 requires the Board to delegate the authority to deposit funds for safekeeping with a federal or state association (as defined by Section 5102 of the Financial Code), a trust company or state or national bank located within this state or with the Federal Reserve Bank of San Francisco or any branch thereof within this state, or with any Federal Reserve bank or with any state or national bank locate in any city designated as a reserve city by the Board of Governors of the Federal Reserve System.

## 4.1 Board of Directors

The Board of Directors delegates to the District Treasurer-Chief Financial Officer, who will be designated by the Chief Executive Officer (or any acting or interim of such position), or his or her designee, the authority to invest, or deposit for safekeeping, as far as possible, all money belonging to, or in the custody of, Valley Water pursuant to the Title 5, Division 2, Part 1, Chapter 4, Article 1 Investment of Surplus (53600 – 53610) and Article 2 Deposit of Funds (53630-53686) of the California Government Code ("Government Code") and as directed by the policies of the Board.

#### 4.2 District Treasurer

The District Treasurer delegates the execution of daily investment transactions to the Treasury and Debt Officer. Under the direction of the Chief Financial Officer (CFO), the Treasury and Debt Officer will invest funds pursuant to the quarterly investment strategy approved by the Investment Committee and within the parameters established by the Investment Policy.

# 4.3 Treasury and Debt Officer

The CFO delegates the execution of daily investment transactions to the designated support staff when the Treasury and Debt Officer is absent.

#### 4.4 Investment Committee

The Investment Committee meets once quarterly to review cash management performance and the Investment Policy and to map out the investment strategy for the coming quarter. The Investment Committee is comprised of the District Treasurer/CFO, District Counsel or his/her designee, the Financial Services Unit Manager, the Treasury/Debt Officer, and treasury support staff, if any.

#### 5.0 ETHICS AND CONFLICTS OF INTEREST

The District Treasurer and any other Valley Water staff member or contract employee having influence over the investment decision process will refrain from personal business activity that could conflict with proper execution of the investment program or which could impair the ability to make impartial investment decisions. Further, the District Treasurer and any other Valley Water staff member or contract employee will

refrain from making, participating in making, or in any way using their official position to influence a Valley Water investment decision in which they know or have reason to know they have a disqualifying conflict of interest as described in the Political Reform Act and the Fair Political Practices Commission Guidelines implementing the Act.

#### 6.0 **AUTHORIZED FINANCIAL INTERMEDIARIES**

The Treasury and Debt Officer will maintain a list of broker/dealers authorized to provide investment services. These may include primary dealers or regional dealers. All broker/dealers who desire to become qualified broker/dealers for investment transactions must participate in the Broker/Dealer selection process managed by the Treasury and Debt Officer that takes place at least once every three years. The participating broker/dealers must provide all the documentation, and complete all other requirements specified in the Broker/Dealers selection criteria.

Selection of broker/dealers authorized to engage in transactions with Valley Water shall be at the sole discretion of Valley Water. Minimum assets of the company will be \$5 million. The Treasury and Debt Officer and CFO will conduct an annual review of the financial condition of qualified broker/dealers.

#### 7.0 **AUTHORIZED INVESTMENTS, MATURITIES, ISSUER AND PORTFOLIO LIMITS**

Valley Water shall comply with Code<sup>1</sup>, as amended from time to time, and invest in the authorized securities described in this section. Where this section specifies a percentage limitation for a particular category of investment, that percentage is applicable only at the date of purchase. Where this section does not specify a limitation on the remaining maturity, no investment shall be made in any security that at the time of the investment has a term remaining to maturity in excess of five (5) years. The fivevear limitation may be waived provided that the legislative body has granted express authority to make that investment either specifically or as a part of an investment program approved by the legislative body no less than three (3) months prior to the investment.

#### 7.1 **U.S. Government**

United States Treasury Bills, Notes, and Bonds or those obligations for which the faith and credit of the United States are pledged for the payment of principal and interest.

	Valley Water Policy	Government Code
Maturity Limit	5 years	5 years
Portfolio Limit	None Specified	None Specified
Issuer Limit	None Specified	None Specified
Minimum Credit Rating	See Section 3.1—Safety	None Specified

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<sup>&</sup>lt;sup>1</sup> Refer to California Debt and Investment Advisory Commission Update for 2019, for details regarding state law changes effective as of January 1, 2019, CDIAC 19.01. http://www.treasurer.ca.gov/cdiac/LAIG/guideline.pdf

#### 7.2 **U.S. Agencies**

Obligations issued by the following federal-related institutions and government-sponsored entities where the implied and moral support of the U.S. Government is pledged for the payment of principal and interest. They may be either bullet (non-callable) or callable issues:

Federal National Mortgage Association Federal Farm Credit Banks Federal Home Loan Bank Federal Agricultural Mortgage Corporation of America Federal Home Loan Mortgage Corporation Tennessee Valley Authority

	Valley Water Policy	Government Code
Maturity Limit	5 years	5 years
Portfolio Limit	None Specified	None Specified
Issuer Limit	None Specified	None Specified
Minimum Credit Rating	See Section 3.1—Safety	None Specified

#### 7.3 **Bankers Acceptances**

Bills of exchange or time drafts drawn on and accepted by a commercial bank. otherwise known as Bankers Acceptances, which are eligible for purchase by the Federal Reserve System.

	Valley Water Policy	Government Code
Maturity Limit	180 days	180 days
Portfolio Limit	40%	40%
Issuer Limit	12%**	30%
Minimum Credit Rating	See Section 3.1—Safety	None Specified

<sup>\*\*</sup>Issuer Limit of 12% is defined as 4.8% of the total portfolio book value (12% issuer limit x 40% portfolio limit = 4.8%) for each issuer.

#### 7.4 **Commercial Paper**

Commercial Paper (CP) issued by corporations that are organized and operating within the United States and having total assets in excess of US \$500 million. Purchases of eligible Commercial Paper may not exceed 10 percent of the issuer's outstanding Commercial Paper program.

	Valley Water Policy	Government Code
Maturity Limit	90 days	270 days
Portfolio Limit	15%	25%
Issuer Limit	12%** of portfolio limit and 10% of the issuer's CP outstanding	May not exceed 10% of the issuer's CP outstanding.
Minimum Credit Rating (at least 2 ratings)	A-1 (short-term)/ AA- (long-term, if available) or equivalent	A-1 (short-term)/ A (long-term, if available) or equivalent

<sup>\*\*</sup>Issuer Limit of 12% is defined as 1.8% of the total portfolio book value (12% issuer limit x 15% portfolio limit = 1.8%) for each parent company.

#### 7.5 **Negotiable Certificates of Deposit**

Negotiable Certificates of Deposit issued by a nationally or state-chartered bank, a savings association or a federal association (as defined by Section 5102 of the Financial Code), a state or federal credit union, or by a state-licensed branch of a foreign bank.

	Valley Water Policy	Government Code
Maturity Limit	5 years	5 years
Portfolio Limit	30%	30%
Issuer Limit	12%**	None Specified
Minimum Credit Rating (at least 2 ratings), or FDIC/NCUA insured	AA- (long-term) or equivalent	None Specified

<sup>\*\*</sup>Issuer Limit of 12% is defined as 3.6% of the total portfolio book value (12% issuer limit x 30% portfolio limit = 3.6%) for each issuer.

#### 7.6 **Time Certificates of Deposit**

Per Section 53601.8 of the Government Code, a local agency that has the authority under law to invest funds, at its discretion, may invest a portion of its surplus funds in deposits at a commercial bank, savings bank, savings and loan association, or credit union that uses a private sector entity that assists in the placement of deposits under certain conditions, including FDIC and NCUA insurance.

	Valley Water Policy	Government Code
Maturity Limit	5 years	5 years
Portfolio Limit	5%	30%
Issuer Limit	Current FDIC/NCUA Insurance Limit (\$250,000) and FDIC/NCUA membership	Current FDIC/NCUA Insurance Limit (\$250,000) and FDIC/NCUA membership
Minimum Credit Rating	'Satisfactory' Community Reinvestment Act (CRA)	None Specified

#### 7.7 **Repurchase Agreements**

Repurchase Agreements as defined by the purchase of securities (approved under Sections 1 and 2 of this document) by Valley Water pursuant to an agreement whereby the seller will repurchase the securities on a specified date at a specified price. Valley Water requires delivery of the purchased securities to Valley Water's custody bank via book-entry prior to payment for such securities. All Repurchase Agreements will operate under the industry-standard Public Securities Association Master Repurchase Agreement which must be executed prior to the transaction. Valley Water requires that purchased securities exceed the cash value of the transaction by a minimum of 2 percent to protect against adverse price movements. All collateral relating to outstanding repurchase agreements will be priced daily to ensure the maintenance of 102 percent collateralization. Collateral is limited to those securities listed in Section 7.1 and 7.2.

	Valley Water Policy	<b>Government Code</b>
Maturity Limit	30 days	1 year
Portfolio Limit	None Specified	None Specified
Issuer Limit	None Specified	None Specified
Minimum Credit Rating	See Section 3.1—Safety	None Specified

#### 7.8 **Medium-Term Notes**

Corporate Medium-Term Notes issued by corporations organized and operating in the United States or by depository institutions licensed by the United States and operating within the United States.

	Valley Water Policy	Government Code
Maturity Limit	5 years	5 years
Portfolio Limit	15%	30%
Issuer Limit	12%**	None Specified
Minimum Credit Rating (at least 2 ratings)	AA- (long-term) or equivalent	A or equivalent

<sup>\*\*</sup>Issuer Limit of 12% is defined as 1.8% of the total portfolio book value (12% issuer limit x 15% portfolio limit = 1.8%) for each parent company.

#### 7.9 **Municipal Obligations**

Municipal obligations issued by a municipality within the State of California, including obligations payable solely out of the revenues from a revenue-producing property owned, controlled, or operated by the local agency. This may include Bonds, notes, warrants, or other evidences of indebtedness of a local agency within this state, including bonds payable solely out of the revenues from a revenue-producing property owned, controlled, or operated by the local agency, or by a department, board, agency, or authority of the local agency.

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Registered treasury notes or bonds of the State of California or any of the other 49 states, including bonds payable solely out of the revenues from a revenue producing property owned, controlled or operated by the state or by a department, board, agency or authority of the state.

	Valley Water Policy	<b>Government Code</b>
Maturity Limit	5 years	5 years
Portfolio Limit	15%	None Specified
Issuer Limit	12%**	None Specified
Minimum Credit Rating (at least 2 ratings)	AA- or equivalent	None Specified

<sup>\*\*</sup>Issuer Limit of 12% is defined as 1.8% of the total portfolio book value (12% issuer limit x 15% portfolio limit = 1.8%) for each issuer.

#### 7.10 **Local Agency Investment Fund (LAIF)**

Valley Water may place funds with LAIF up to the maximum allowable amount as stipulated by LAIF and amended from time to time. LAIF is managed by the State of California Treasurer's Office with the objective of realizing the maximum return consistent with safe and prudent treasury management. Currently LAIF will accept no more than \$65 million of an agency's unrestricted funds while placing no constraints on funds relating to unspent bond proceeds.

#### 7.11 **Mutual Funds**

Mutual funds invested in U.S. Government securities which strive to maintain a price of \$1.00 per share (Government money market funds) with a minimum of \$500 million in total portfolio value and a rating by at least two rating agencies of Aaa by Moody's and AAA by Standard & Poor's or Fitch. Investment in such funds shall not exceed 10% of Valley Water's total portfolio book value.

	Valley Water Policy	Government Code
Maturity Limit	Not Applicable	Not Applicable
Portfolio Limit	10%	20%
Issuer Limit	10%	10%
Minimum Credit Rating (at least 2 ratings)	Aaa/AAA	Aaa/AAA

#### 7.12 **Supranational Obligations**

United States dollar denominated senior unsecured unsubordinated obligations issued or unconditionally guaranteed by the International Bank for Reconstruction and Development (IBRD), International Finance Corporation (IFC), or Inter-American Development Bank (IADB), with a maximum remaining maturity of five years or less, and eligible for purchase and sale within the United States. Investments under this subdivision shall be rated "AA" or better by two or more national credit rating agencies and shall not exceed 15 percent of Valley Water's total portfolio book value.

	Valley Water Policy	Government Code
Maturity Limit	5 Years	5 Years
Portfolio Limit	15%	30%
Issuer Limit	12%**	
Minimum Credit Rating	Aa/AA	Aa/AA
(at least 2 ratings)		

<sup>\*\*</sup>Issuer Limit of 12% is defined as **1.8%** of the total portfolio book value (12% issuer limit x 15% portfolio limit = 1.8%) for each issuer.

#### 7.13 Prohibited Investments

#### 7.13.1 Prohibited Investments

Include securities not listed in this section 7, as well as inverse floaters, range notes, interest only strips derived from a pool of mortgages and any security that could result in zero interest accrual if held to maturity, as specified in Section 53601.6 of the California Government Code.

#### 7.13.2 Climate Divestment Investment Restriction

No investments will be made in the top 200 fossil fuel companies that control most of the world's oil, coal and natural gas supplies. See Exhibit C for the list of the 200 companies as defined by the organization, "350.org."

#### 7.13.3 Prohibited Banks

No investments will be made in any banks who do not have an ESG ranking at or better than the "Average/Medium" category, by at least one of the professional ESG research companies such as Sustainalytics, or other equivalent rankings published by other ESG research firms. Small and local banks/credit unions located within the nine Bay Area counties with total assets at or below \$10 billion are exempt from this provision.

#### 7.14 Investment Sales Prior to Maturity

While the overall investment management philosophy of the portfolio is based on a passive approach focusing on matching investment maturities with anticipated liabilities in the future, sales of outstanding investment positions prior to maturity are permitted so long as a yield enhancement on the total transaction is achieved. Specifically, the reinvestment proceeds from the sale of an investment position must earn an income flow whose present value is greater than the present value of the sold position considering any capital losses and foregone interest income. In addition, investment positions may be sold if funds are needed for unanticipated expenditures, or if a corporate and bank obligation is downgraded (see section 7.15 below).

Before an investment position can be sold, an analysis must be made showing the benefit of the sale to Valley Water and the impact the sale will have on the investment portfolio. The sales must be reviewed by Valley Water's Investment

Committee. A sale will only be initiated after receiving guidance from the committee members and authorization by the District Treasurer.

#### 7.15 Downgrade Provisions

Pursuant to Valley Water's investment policy, the minimum credit criteria for the purchase of municipal, corporate and bank obligations is a rating by two of the three major rating agencies of Aa3 by Moody's Investor Services, AA- by Standard & Poor's Credit Rating Agency and Fitch at the time the investment is purchased. If an outstanding investment is downgraded such that it is below the minimum credit criteria after purchase date, a credit analysis will be performed within two business days and a recommendation made to the Investment Committee on whether the investment will be held or sold. Such a review will give consideration to the time to maturity remaining on the life of the security, specific discussions with Fitch, Standard & Poor's and/or Moody's Investor Services, and credit analysis by staff.

#### 7.16 Dropped Rating

Pursuant to Valley Water's investment policy, the minimum credit criteria for the purchase of municipal, corporate and bank obligations is a rating by two of the three major rating agencies of Aa3 by Moody's Investor Services and AA- by Standard & Poor's Credit Rating Agency, and Fitch at the time the investment is purchased. If the rating on an outstanding investment is no longer reported by the rating agency for any reason, and the other rating(s) remain the same as at the time of purchase, the investment will remain in the portfolio. If the other rating(s) are downgraded, section 7.15 downgrade provisions will be followed. An analysis of the dropped rating will be initiated to determine the cause of dropped rating, and the findings will be reported to the investment committee within two business days.

#### 8.0 COLLATERAL

As required by Government Code Section 53652, all deposits must be secured at all times with eligible securities pursuant to Government Code Sections 53656 and 53657. Valley Water further restricts collateralization as follows:

# 8.1 Repurchase Agreements

All transactions will be collateralized only by Government and Agency securities defined in Sections 7.1 and 7.2 of the Investment Policy at a level equal to, or greater than, 102 percent of the principal cash value of the investment principal. All transactions will be executed on a delivery versus payment basis and will be safekept by Valley Water's Custodial Agent. All collateral on outstanding repurchase agreements will be priced daily.

#### 8.2 Time Certificates of Deposits

Pursuant to Government Code Section 53653, a Treasurer may, at his/her discretion, waive security requirements for such portion of deposits that are insured pursuant to federal law, investments in Time CDs may not exceed the

current FDIC protected amount. As such, the Treasurer waives the security required by Government Code Section 53652 as long as the depository maintains FDIC insurance for public deposits.

#### 8.3 Uninvested Balances

From time to time, Valley Water may leave funds uninvested in its checking account in order to meet anticipated disbursements. Valley Water requires that the depository holding such funds be fully collateralized pursuant to Government Code Section 53652. Eligible securities held as collateral shall have a market value in excess of the total amount of all deposits of a depository as follows:

- Government securities at least 10 percent in excess
- Mortgage backed securities at least 50 percent in excess
- Letters of credit at least 5 percent in excess

#### 9.0 SAFEKEEPING AND CUSTODY

All security transactions entered into by Valley Water will be executed on a delivery versus payment basis and evidenced by safekeeping receipts from Valley Water's custodial agent. The only exception will be investments with the LAIF, nonnegotiable Time CDs, and money market accounts.

#### 10.0 DIVERSIFICATION

In an effort to reduce portfolio risk and volatility while maintaining market average rates, Valley Water will diversify its investments with respect to instrument type, issuer, and maturity.

### 10.1 Instrument Type

To diversify Valley Water's portfolio by type, it should contain a variety of authorized investment instruments. California Government Code Sections 53601 et seq. and 53635 et seq. limit the maximum amount of some of the authorized investment instruments as a percentage of the total investment portfolio. Valley Water has added additional percentage restrictions on some of the instruments as outlined in section 7 above.

#### 10.2 Maximum Maturities

California Government Code Sections 53601 et seq. and 53635 et seq. state that except as specifically limited in the code sections, no investment shall be made in a security that at the time of investment has more than five (5) years to maturity, unless the Board has given express authority to do so no less than three months prior to the purchase of such security. Valley Water has further limited the maximum maturities on some investment securities as outlined in section 7 above. LAIF and authorized mutual funds have no specific maturity date and are, therefore, exempt from the five year limit.

#### 10.3 Maximum Issuer Limits

There is no maximum issuer limit for U.S. Treasury obligations, permitted Federal Agency obligations, LAIF, and collateralized Repurchase Agreements outlined in Section 7 above. For all other investment instruments, certain maximum issuer limits are applicable as outlined in section 7 above. Furthermore, as stipulated in Section 7.6 above, no more than the amount insured by the FDIC, which is currently \$250,000 per account, may be invested in the issuer of nonnegotiable Time CDs.

#### 11.0 INTERNAL CONTROLS

A system of internal controls will be maintained to ensure compliance with federal and state regulations in addition to ensuring prudent cash management and proper segregation of duties.

#### 11.1 Investment Committee

Quarterly review of cash management activity and compliance to the Investment Policy is performed by the Investment Committee through a review of investment status reports supplied to the Investment Committee by the Treasury and Debt Officer.

#### 11.2 Treasurer Review

The CFO or his/her designate shall perform daily, weekly and monthly reviews of investment transactions executed by the Treasury and Debt Officer to ensure compliance to all applicable regulations, policies, procedures, and guidelines. In the CFO's absence, the Treasury and Debt Officer will perform the review.

#### 11.3 Annual Audit

Valley Water's portfolio is included in the annual review of Valley Water's financial management program by an independent outside audit firm.

# 11.4 Investment Policy Compliance Checklist

On a monthly basis, accounting staff reviews the investment portfolio to verify its compliance with the Government Code and the Investment Policy. A report is prepared stating that the portfolio is in compliance, or which items are out of compliance.

## 12.0 PERFORMANCE REPORTING

The investment portfolio will be designed to obtain a market average rate of return during budgetary and economic cycles, taking into careful consideration Valley Water's risk tolerance and liquidity requirements.

#### 12.1 The Benchmark

Valley Water will strive to maintain a yield within 15 basis points (0.15%) of the 2-year floating average of the twenty-four month Treasury-note rate.

#### 13.0 REPORTING

The District Treasurer will ensure that investment reporting is performed in order to provide a monitoring system designed to demonstrate compliance to all applicable laws, policies, procedures, and guidelines.

## 13.1 Weekly Reports

The Treasury and Debt Officer will provide daily reports of Valley Water's cash position and detailed reports of the investment transactions in the portfolio on a weekly basis to the CFO. This report shall include a list of all purchases, sells, exchanges and maturities for the week being reported.

## 13.2 Monthly Reports

The Treasury and Debt Officer will provide detailed reports of the investment transactions in the portfolio on a monthly basis to the Board of Directors as required by California Government Code Section 53607. This report shall include a list of all purchases, sells, exchanges and maturities for the month being reported.

# 13.3 Quarterly Reports

The District Treasurer will provide detailed investment reports of the portfolio on a quarterly basis to the Board of Directors pursuant to California Government Code Section 53646. This report shall include type of investment, issuer, date of maturity, par, dollar amount, and market value including source of the valuation. In addition, this report shall also include a statement denoting the ability to meet the agency's expenditure requirements for the next six (6) months. The quarterly report will also include information on all debt funds held by the trustee, in guaranteed investment contracts (GIC), or with any other agent of Valley Water.

#### 13.4 Annual Report

The Investment Policy will be presented to the Board at a public meeting on an annual basis.

#### 14.0 STATEMENT OF DERIVATIVES INVESTMENT GUIDELINE

Valley Water will not invest funds in derivative products based on the following definition of a derivative:

A derivative is a security or a financial arrangement whose value is linked to, or derived from, some underlying index or benchmark. Such examples are floating rate notes whose interest payments may fluctuate in an inverse or a linear relationship to the established benchmark and interest rate swaps. Furthermore, Valley Water will not place funds in securities whose coupons rise or fall based on whether the issuer exercises the call option. This does not include repurchase agreements which are specifically authorized under Section 7.7 of the Investment Policy.

#### 15.0 OTHER PROCEDURES

Valley Water treasury group has compiled an Investment Manual, approved by the Valley Water Investment Committee, which consolidates pertinent procedures related to the cash management function in a single reference manual. Included in this manual is a step-by-step description of the investment process and how investments are identified, chosen, executed, and recorded. Section 2 of this manual gives detailed instructions on completing the daily cash analysis; Section 3 explains preparation procedures for planning to invest; Section 4 details the types of authorized investments; Section 5 explains the process by which the chosen investment transaction is executed and includes delivery and safekeeping instructions; Section 6 lists the accounting procedures for investments; and Section 7 details internal control procedures. Also included in the appendix is a summary of government legislation pertaining to government investing, the Valley Water Investment Policy, and a glossary of key terms.

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# **APPENDIX 1 Environmental, Social, Governance Factors**

#### **GUIDING PRINCIPLES**

When evaluating potential investments in corporate and financial institution securities, the Investment Committee shall follow the guiding principles:

## **Negative Screens**

No investments shall be made in companies significantly involved in the production or sale of fossil fuels, tobacco, and other products that are environmentally harmful. Furthermore, to the extent possible while maintaining adequate safety, liquidity and yield of the portfolio, no investments shall be made in companies with a demonstrated record of the following:

- poor practices with respect to environmental regulation, greenhouse gas emissions, toxins, hazardous waste or environment justice
- human rights abuse, violations of international law, and/or materially or otherwise supporting repressive regimes
- endangering rural people's access to the land, water and other resources on which their livelihoods depend
- violating labor laws, abusing or otherwise mistreating workers and/or preventing or impeding unionization
- discrimination based on sexual orientation, gender, race, ethnicity, age or disability
- practices which have significant negative effects on affected communities, particularly those with minority or low-income residents
- restriction of access to affordable medicine in the developing world

#### **Positive Screens**

To the extent possible while maintaining adequate safety, liquidity and yield of the portfolio, investments shall be made in companies involved in the production of renewable energy and organic food, local food and sustainable agriculture and generally, invest in companies and investments that demonstrate commitment to:

- environmental sustainability, including reducing greenhouse gas emissions and sustainable forestry
- community development and/or investment, particularly in communities with minority or low-income residents
- diversity in hiring, executives and boards with respect to sexual orientation, gender, race, ethnicity
- living wages for all employees and collective bargaining

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transparency and accountability in corporate governance

# **ENVIRONMENTAL, SOCIAL, GOVERNANCE (ESG) FACTORS**

	ENVIRONMENTAL
Category	Considerations
Climate change & pollution	Does the company have a stated commitment to emissions reduction? What is the firm doing to combat climate change? Does the firm participate in carbon crediting/offset programs? Has the company been cited for excessive pollution? Does the company have an emissions reduction program?
Energy efficiency & waste management	Has the firm employed energy efficient design or retrofits in its buildings?  Does the firm participate in E-Waste recycling programs?  Do the operations require heavy use of chemicals?
Water use & management	Where does the company get its water? Have they installed smart filling stations and efficient fixtures? Does the company operate in water-stressed areas?
Land use & management	Are company facilities designed to minimize damage to the surrounding habitat?  Does the company actively participate in greening or reforestation efforts?  Does the company encourage alternative methods of transportation to and from work; if so, does building design facilitate these methods?
	SOCIAL
Category	Considerations
Stakeholder relations	Are customers treated as key stakeholders in the company?  Do minority shareholders have an outlet to voice opinions regarding company operations?  Are fair labor standards enforced?  Do workers have representation in order to bring concerns to management?
Value chain management	Does the firm's supply chain reflect adequate working conditions and respect for human rights?  Does the company hold suppliers to stated ethical and moral standards?  Does the company have any outstanding litigation over its products; are the products generally safe?  Are suppliers practicing sustainable production methods?
Community Impact	Is the firm engaged with local non-profits to combat social issues in the community?  Does the company donate a share of profits to advocate for impact issues?  Does the company make an effort to hire and promote employees from the surrounding community?

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Local/California business?	In what city is the firm located? Is the business located in the San Jose-San Francisco Metropolitan Statistical Area? Is the business located in California?							
CORPORATE GOVERNANCE								
Category	Category Considerations							
Diversity	Are the workplace and board comprised of people from diverse backgrounds and ethnicities?							
	Does the board have a roughly equal number of men and women?							
Compensation	What is the ratio of executive pay to worker pay? Is executive compensation based on identifiable metrics? Are employees receiving equal pay for equal work?							
Accountability & audit quality	Does the company employ a large number of special purpose vehicles and other off-balance sheet entities?  Does the audit clearly stake risks to which the firm is exposed?							
Cyber/Information Security	Does the company have a stated cyber/information security policy?  Has the company been hacked in the last 3 years?  What corrections/improvements have been made to prevent future hacks?							
Transparency	Are internal discussions about the company kept hidden, or does the company routinely publish information for public consumption?  Are the firm's financials easily understood?  Is the firm readily accessible and do they respond to requests for comment?							

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# **EXHIBIT A Glossary of Key Terms**

**AGENCIES**: Federal agency securities and/or Government-sponsored enterprises.

**BANKERS' ACCEPTANCE (BA)**: A draft or bill or exchange accepted by a bank or trust company. The accepting institution guarantees payment of the bill, as well as the issuer.

**BOOK VALUE**: The value at which a security is carried on the financial records of its owner. This value may be the original cost of acquisition of the security or original cost adjusted by amortization of a premium or accretion of a discount. The book value may differ from the security's current market value.

**BENCHMARK**: A comparative base for measuring the performance or risk tolerance of the investment portfolio. A benchmark should represent a close correlation to the level of risk and the average duration of the portfolio's investments.

**BROKER**: A broker brings buyers and sellers together for a commission.

**CERTIFICATE OF DEPOSIT (CD)**: A time deposit with a specific maturity evidenced by a Certificate. Large-denomination CD's are typically negotiable.

**COLLATERAL**: Securities, evidence of deposit or other property, which a borrower pledges to secure repayment of a loan. Also refers to securities pledged by a bank to secure deposits of public monies.

**DELIVERY VERSUS PAYMENT**: There are two methods of delivery of securities: delivery versus payment and delivery versus receipt. Delivery versus payment is delivery of securities with an exchange of money for the securities. Delivery versus receipt is delivery of securities with an exchange of a signed receipt for the securities.

**DERIVATIVES**: (1) Financial instruments whose return profile is linked to, or derived from, the movement of one or more underlying index or security, and may include a leveraging factor; or (2) financial contracts based upon notional amounts whose value is derived from an underlying index or security (interest rates, foreign exchange rates, equities or commodities).

**DISCOUNT**: The difference between the cost price of a security and its maturity when quoted at lower than face value. A security selling below original offering price shortly after its sale also is considered to be at a discount.

**DISCOUNT SECURITIES**: Non-interest bearing money market instruments that are issued a discount and redeemed at maturity for full face value, *e.g.*, U.S. Treasury Bills.

**DIVERSIFICATION**: Dividing investment funds among a variety of securities offering independent returns.

**FEDERAL CREDIT AGENCIES**: Agencies of the Federal government set up to supply credit to various classes of institutions and individuals, *e.g.*, S&L's, small business firms, students, farmers, farm cooperatives, and exporters.

**FEDERAL DEPOSIT INSURANCE CORPORATION (FDIC)**: A federal agency that insures bank deposits, currently up to \$250,000 per deposit.

**FEDERAL FUNDS RATE:** The rate of interest at which Fed funds are traded. This rate is currently pegged by the Federal Reserve through open-market operations.

**FEDERAL HOME LOAN BANKS (FHLB)**: Government sponsored wholesale banks (currently 12 regional banks), which lend funds and provide correspondent banking services to member commercial banks, thrift institutions, credit unions and insurance companies. The mission of the FHLBs is to liquefy the housing related assets of its members who must purchase stock in their district Bank.

**FEDERAL NATIONAL MORTGAGE ASSOCIATION (FNMA)**: FNMA, like GNMA was chartered under the Federal National Mortgage Association Act in 1938. FNMA is a federal corporation working under the auspices of the Department of Housing and Urban Development (HUD). It is the largest single provider of residential mortgage funds in the United States. Fannie Mae, as the corporation is called, is a private stockholder-owned corporation. The corporation's purchases include a variety of adjustable mortgages and second loans, in addition to fixed-rate mortgages. FNMA's securities are also highly liquid and are widely accepted. FNMA assumes and guarantees that all security holders will receive timely payment of principal and interest.

**FEDERAL OPEN MARKET COMMITTEE (FOMC)**: Consists of seven members of the Federal Reserve Board and five of the twelve Federal Reserve Bank Presidents. The President of the New York Federal Reserve Bank is a permanent member, while the other Presidents serve on a rotating basis. The Committee periodically meets to set Federal Reserve guidelines regarding purchases and sales of Government Securities in the open market as a means of influencing the volume of bank credit and money.

**LIQUIDITY**: A liquid asset is one that can be converted easily and rapidly into cash without a substantial loss of value. In the money market, a security is said to be liquid if the spread between bid and asked prices is narrow and reasonable size can be done at those quotes.

**MARKET VALUE**: The price at which a security is trading and could presumably be purchased or sold.

**MASTER REPURCHASE AGREEMENT**: A written contract covering all future transactions between the parties to repurchase—reverse repurchase agreements that establishes each party's rights in the transactions. A master agreement will often specify, among other things, the right of the buyer-lender to liquidate the underlying securities in the event of default by the seller borrower.

**MATURITY**: The date upon which the principal or stated value of an investment becomes due and payable.

**MONEY MARKET**: The market in which short-term debt instruments (bills, commercial paper, bankers' acceptances, etc.) are issued and traded.

**NATIONAL CREDIT UNION ADMINSTRATION**: An independent federal agency that insures credit union deposits, currently up to \$250,000 per deposit.

**PRIMARY DEALER**: A group of government securities dealers who submit daily reports of market activity and positions and monthly financial statements to the Federal Reserve Bank of New York and are subject to its informal oversight. Primary dealers include Securities and Exchange Commission (SEC)-registered securities broker-dealers, banks, and a few unregulated firms.

**REPURCHASE AGREEMENT (RP OR REPO)**: A holder of securities sells these securities to an investor with an agreement to repurchase them at a fixed price on a fixed date. The security "buyer" in effect lends the "seller" money for the period of the agreement, and the terms of the agreement are structured to compensate him for this. Dealers use RP extensively to finance their positions. Exception: When the Fed is said to be doing RP, it is lending money that is, increasing bank reserves.

**SAFEKEEPING**: A service to customers rendered by banks for a fee whereby securities and valuables of all types and descriptions are held in the bank's vaults for protection.

**SECONDARY MARKET**: A market made for the purchase and sale of outstanding issues following the initial distribution.

**SECURITIES & EXCHANGE COMMISSION**: Agency created by Congress to protect investors in securities transactions by administering securities legislation.

SEC RULE 15C3-1: See Uniform Net Capital Rule.

**TREASURY BILLS**: A non-interest bearing discount security issued by the U.S. Treasury to finance the national debt. Most bills are issued to mature in three months, six months, or one year.

**TREASURY BONDS**: Long-term coupon-bearing U.S. Treasury securities issued as direct obligations of the U.S. Government and having initial maturities of more than 10 years.

**TREASURY NOTES**: Medium-term coupon-bearing U.S. Treasury securities issued as direct obligations of the U.S. Government and having initial maturities from two to 10 years.

**UNIFORM NET CAPITAL RULE**: Securities and Exchange Commission requirement that member firms as well as nonmember broker-dealers in securities maintain a maximum ratio of Indebtedness to Liquid Capital of 15 to 1; also called net capital rule and net capital ratio. Indebtedness is defined as all money owed to a firm, including margin loans and commitments to purchase securities, one reason new public issues are spread among members of underwriting syndicates. Liquid Capital is defined as cash and assets easily converted into cash.

**YIELD**: The rate of annual income return on an investment, expressed as a percentage.

(a) INCOME YIELD is obtained by dividing the current dollar income by the current market price

for the security. (b) NET YIELD or YIELD TO MATURITY is the current income yield minus any premium above par or plus any discount from par in purchase price, with the adjustment spread over the period from the date of purchase to the date of maturity of the bond.

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# **EXHIBIT B Credit Rating Summary**

# **SHORT-TERM CREDIT RATING DEFINITIONS**

Moody's Rating	Moody's Definition	S&P Rating	S&P Definition	Fitch Rating	Fitch Ratings Definition
P-1	P-1 Issuers (or supporting institutions) rated Prime-1 have a superior ability to repay short-term debt obligations.	SP-1	Strong capacity to pay principal and interest. An issue determined to possess a very strong capacity to pay debt service is given a plus (+) designation.	F1	Highest credit quality. Indicates the strongest capacity for timely payment of
MIG-1	MIG-1—This designation denotes superior credit quality. Excellent protection is afforded by established cash flows, highly reliable liquidity support, or demonstrated broad-based access to the market for refinancing.	A-1	Degree of safety regarding timely payment is strong. Those issues determined to possess extremely strong safety characteristics are denoted by a plus (+) sign.		financial commitments.
VMIG-1	VMIG-1—This designation denotes superior credit quality. Excellent protection is afforded by the superior short-term credit strength of the liquidity provider and structural and legal protections that ensure the timely payment of purchase price upon demand.				
P-2	P-2 Issuers (or supporting institutions) rated Prime-2 have a strong ability to repay short-term debt obligations.	SP-2	Satisfactory capacity to pay principal and interest, with some vulnerability to adverse financial and economic changes over the term of the notes.	F2	Good credit quality. A satisfactory capacity for timely payment of financial

Moody's Rating	Moody's Definition	S&P Rating	S&P Definition	Fitch Rating	Fitch Ratings Definition
MIG-2	MIG-2—This designation denotes strong credit quality. Margins of protection are ample, although not as large as in the preceding group.	A-2	Capacity for timely payment on issues with this designation is satisfactory. However, the relative degree of safety is not as high as for issues designated 'A-1.'		commitments, but the margin of safety is not as great as in the case of the higher ratings.
VMIG-2	VMIG-2—This designation denotes strong credit quality. Good protection is afforded by the strong short-term credit strength of the liquidity provider and structural and legal protections that ensure the timely payment of purchase price upon demand.				
P-3	P-3 Issuers (or supporting institutions) rated Prime-3 have an acceptable ability to repay short-term obligations.	SP-3	Speculative capacity to pay principal and interest.	F3	Fair credit quality. The capacity for timely payment of financial commitments
MIG-3	MIG-3—This designation denotes acceptable credit quality. Liquidity and cash-flow protection may be narrow, and market access for refinancing is likely to be less well-established.	A-3	Issues carrying this designation have an adequate capacity for timely payment. However, they are more vulnerable to the adverse effects of changes in circumstances than obligations carrying the higher designations.		is adequate; however, near-term adverse changes could result in a reduction to noninvestment grade.
VMIG-3	VMIG-3—This designation denotes acceptable credit quality. Adequate protection is afforded by the satisfactory short-term credit strength of the liquidity provider and structural and legal protections that ensure the timely payment of purchase price upon demand.				

Moody's Rating	Moody's Definition	S&P Rating	S&P Definition	Fitch Rating	Fitch Ratings Definition
NP Speculative Grade (SG)	Issuers (or supporting institutions) rated Not Prime do not fall within any of the Prime rating categories.  MIG-SG S This designation denotes speculative-grade credit quality. Debt instruments in this category may lack sufficient margins of protection.  VMIG-SG This designation denotes speculative-grade credit quality. Demand features rated in this category may be supported by a liquidity provider that does not have an investment grade short-term rating or may lack the structural and/or legal protections necessary to ensure the timely payment of purchase price upon demand.	В	Only speculative capacity for timely payment.	В	Speculative. Minimal capacity for timely payment of financial commitments, plus vulnerability to near term adverse changes in financial and economic conditions.
		С	Doubtful capacity for payment.	С	High default risk. Default is a real possibility. Capacity for meeting financial commitments is solely reliant upon a sustained, favorable business and economic environment.
		D	Default.	D	Default. Denotes actual or imminent payment default.

# **LONG-TERM CREDIT RATINGS**

Moody's Rating	Moody's Definition	S&P Rating	S&P Definition	Fitch Rating	Fitch Ratings Definition
Aaa1 Aaa2 Aaa3	Obligations rated Aaa are judged to be of the highest quality, subject to the lowest level of credit risk.	AAA+ AAA AAA-	An obligation rated 'AAA' has the highest rating assigned by Standard & Poor's. The obligor's capacity to meet its financial commitment on the obligation is extremely strong.	AAA AAA	Highest credit quality. 'AAA' ratings denote the lowest expectation of credit risk. They are assigned only in cases of exceptionally strong capacity for payment of financial commitments. This capacity is highly unlikely to be adversely affected by foreseeable events.
Aa1 Aa2 Aa3	Obligations rated Aa are judged to be of high quality and are subject to very low credit risk.	AA+ AA AA-	An obligation rated 'AA' differs from the highest-rated obligations only to a small degree. The obligor's capacity to meet its financial commitment on the obligation is very strong.	AA+ AA AA-	Very high credit quality.  'AA' ratings denote expectations of very low credit risk. They indicate very strong capacity for payment of financial commitments. This capacity is not significantly vulnerable to foreseeable events.
A1 A2 A3	Obligations rated A are judged to be upper-medium grade and are subject to low credit risk.	A+ A A-	An obligation rated 'A' is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligations in higher-rated categories. However, the obligor's capacity to meet its financial commitment on the obligation is still strong.	A+ A A-	High credit quality. 'A' ratings denote expectations of low credit risk. The capacity for payment of financial commitments is considered strong. This capacity may, nevertheless, be more vulnerable to adverse business or economic conditions than is the case for higher ratings.

Moody's Rating	Moody's Definition	S&P Rating	S&P Definition	Fitch Rating	Fitch Ratings Definition
Baa1 Baa2 Baa3	Obligations rated Baa are judged to be medium-grade and subject to moderate credit risk and as such may possess certain speculative characteristics.	BBB+ BBB BBB-	An obligation rated 'BBB' exhibits adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitment on the obligation.	BBB+ BBB BBB-	Good credit quality. 'BBB' ratings indicate that expectations of credit risk are currently low. The capacity for payment of financial commitments is considered adequate but adverse business or economic conditions are more likely to impair this capacity.
Ba1 Ba2 Ba3	Obligations rated Ba are judged to be speculative and are subject to substantial credit risk.	BB+ BB BB-	An obligation rated 'BB' is less vulnerable to nonpayment than other speculative issues. However, it faces major ongoing uncertainties or exposure to adverse business, financial, or economic conditions, which could lead to the obligor's inadequate capacity to meet its financial commitment on the obligation.	BB+ BB BB-	Speculative. 'BB' ratings indicate an elevated vulnerability to credit risk, particularly in the event of adverse changes in business or economic conditions over time; however, business or financial alternatives may be available to allow financial commitments to be met.
B1 B2 B3	Obligations rated B are considered speculative and are subject to high credit risk.	B+ B B-	An obligation rated 'B' is more vulnerable to nonpayment than obligations rated 'BB,' but the obligor currently has the capacity to meet its financial commitment on the obligation. Adverse business, financial, or economic conditions will likely impair the obligor's capacity or willingness to meet its financial commitment on the obligation.	B+ B B-	Highly speculative. 'B' ratings indicate that material credit risk is present

Moody's Rating	Moody's Definition	S&P Rating	S&P Definition	Fitch Rating	Fitch Ratings Definition
Caa1 Caa2 Caa3	Obligations rated Caa are judged to be speculative of poor standing and are subject to very high credit risk.	CCC+ CCC-	An obligation rated 'CCC' is currently vulnerable to nonpayment, and is dependent upon favorable business, financial, and economic conditions for the obligor to meet its financial commitment on the obligation. In the event of adverse business, financial, or economic conditions, the obligor is not likely to have the capacity to meet its financial commitment on the obligation.	CCC+ CCC-	Substantial credit risk.  'CCC' ratings indicate that substantial credit risk is present.
Ca1 Ca2 Ca3	Obligations rated Ca are highly speculative and are likely in, or very near, default, with some prospect of recovery of principal and interest.	CC+ CC CC-	An obligation rated 'CC' is currently highly vulnerable to nonpayment.	CC+ CC CC-	Very high levels of credit risk. 'CC' ratings indicate very high levels of credit risk
C1 C2 C3	Obligations rated C are the lowest rated and are typically in default, with little prospect for recovery of principal or interest.	ငံ ပ ပ	A 'C' rating is assigned to obligations that are currently highly vulnerable to nonpayment, obligations that have payment arrearages allowed by the terms of the documents, or obligations of an issuer that is the subject of a bankruptcy petition or similar action which have not experienced a payment default. Among others, the 'C' rating may be assigned to subordinated debt, preferred stock or other obligations on which cash payments have been suspended in accordance with the instrument's terms or when preferred stock is the subject of a distressed exchange offer, whereby some or all of the issue is either repurchased for an amount of cash or replaced by other instruments having a total value that is less than par.	C+ C C-	Exceptionally high levels of credit risk. 'C' indicates exceptionally high levels of credit risk.

Moody's Rating	Moody's Definition	S&P Rating	S&P Definition	Fitch Rating	Fitch Ratings Definition
		D+ D D-	An obligation rated 'D' is in payment default. The 'D' rating category is used when payments on an obligation are not made on the date due even if the applicable grace period has not expired, unless Standard & Poor's believes that such payments will be made during such grace period. The 'D' rating also will be used upon the filing of a bankruptcy petition or the taking of similar action if payments on an obligation are jeopardized. An obligation's rating is lowered to 'D' upon completion of a distressed exchange offer, whereby some or all of the issue is either repurchased for an amount of cash or replaced by other instruments having a total value that is less than par.	D	<ul> <li>Default. Indicates a default.</li> <li>Default generally is defined as one of the following:</li> <li>Failure to make payment of principal and/or interest under the contractual terms of the rated obligation;</li> <li>The distressed exchange of an obligation, where creditors were offered securities with diminished structural or economic terms compared with the existing obligation to avoid a probable payment default.</li> </ul>

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EXHIBIT C
Top 200 Listed Companies by Estimated Carbon Reserves

Rank	Coal Companies	Coal Gt CO <sub>2</sub>	Rank	Oil and Gas Companies	Oil Gt CO <sub>2</sub>	Gas Gt CO <sub>2</sub>	Total O&G Gt CO <sub>2</sub>
1	Coal India	32.039	1	Gazprom	7.046	36.844	43.889
2	Shaanxi Coal Industry	28.885	2	Rosneft	11.536	5.939	17.475
3	Adani Enterprises	25.311	3	PetroChina	3.363	4.309	7.671
4	China Shenhua Energy	22.305	4	ExxonMobil	3.956	3.079	7.035
5	Inner Mongolia Yitai Coal	14.849	5	BP	4.309	2.364	6.672
6	Yanzhou Coal Mining	10.633	6	Lukoil	5.285	1.280	6.565
7	China Coal Energy	9.492	7	Royal Dutch Shell	2.112	2.209	4.322
8	Public Power	9.339	8	Chevron	2.473	1.567	4.040
9	Exxaro Resources	8.928	9	Petrobras	3.516	0.508	4.023
10	Glencore	8.369	10	Novatek	0.550	3.377	3.927
11	Peabody Energy	7.998	11	Total	2.076	1.798	3.873
12	Bukit Asam	7.844	12	Tatneft	2.618	0.063	2.681
13	BHP Billiton	7.310	13	ENI	1.439	1.217	2.656
14	Foresight Energy	6.759	14	ONGC	1.518	0.796	2.314
15	Lu'an Environmental Energy	6.443	15	ConocoPhillips	1.236	0.830	2.065
16	BUMI Resources	5.499	16	Statoil	1.018	0.798	1.816
17	Shanxi Xishan Coal and Electricity	5.416	17	CNOOC	0.983	0.439	1.422
18	Mechel	5.308	18	Inpex	0.908	0.328	1.236
19	Mitsubishi	5.128	19	Canadian Natural Resources	0.873	0.322	1.195
20	China Coal Xinji Energy	4.873	20	Sinopec	0.657	0.391	1.048
21	Raspadskaya OAO	3.968	21	Bashneft	1.007	0.000	1.007
22	Alliance Resource Partners	3.893	22	Occidental	0.706	0.206	0.912

Attachment 1
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Rank	Coal Companies	Coal Gt CO <sub>2</sub>	Rank	Oil and Gas Companies	Oil Gt CO <sub>2</sub>	Gas Gt CO <sub>2</sub>	Total O&G Gt CO <sub>2</sub>
23	Arch Coal	3.878	23	EOG Resources	0.621	0.181	0.802
24	Anglo American	3.592	24	Repsol	0.247	0.550	0.797
25	DaTong Coal Industry	3.508	25	Antero Resources	0.281	0.513	0.794
26	China Cinda Asset Management	3.316	26	Suncor Energy	0.732	0.002	0.733
27	EVRAZ	3.189	27	EQT	0.055	0.672	0.727
28	Vale	3.179	28	Imperial Oil	0.617	0.020	0.637
29	Rio Tinto	2.710	29	Range Resources	0.203	0.429	0.632
30	Severstal	2.661	30	Marathon Oil	0.495	0.133	0.628
31	Tata Steel	2.643	31	Ecopetrol	0.460	0.167	0.627
32	Westmoreland Coal	2.529	32	Anadarko Petroleum	0.374	0.241	0.615
33	Jastrzębska Spółka Węglowa	2.516	33	Devon Energy	0.304	0.307	0.611
34	Resource Generation	2.441	34	BASF	0.205	0.384	0.589
35	Teck Resources	2.376	35	Chesapeake Energy	0.225	0.354	0.579
36	United RUSAL	2.233	36	Noble Energy	0.207	0.289	0.497
37	Adaro Energy	2.200	37	Apache	0.330	0.156	0.486
38	AGL Energy	2.144	38	Continental Resources	0.272	0.207	0.479
39	Shanghai Datun Energy Resources	2.032	39	Cabot Oil & Gas	0.020	0.451	0.471
40	Yang Quan Coal	2.023	40	BHP Billiton	0.195	0.262	0.458
41	Shanxi Lanhua Sci-Tech	1.959	41	Hess	0.327	0.092	0.419
42	Whitehaven Coal	1.946	42	YPF	0.235	0.159	0.395
43	Kuzbasskaya Toplivnaya	1.890	43	OMV	0.266	0.123	0.389
44	Cloud Peak Energy	1.886	44	Cenovus Energy	0.351	0.033	0.385
45	CONSOL Energy	1.807	45	Woodside Petroleum	0.042	0.318	0.360
46	South32	1.712	46	CONSOL Energy	0.019	0.318	0.337
47	New Hope	1.635	47	KazMunaiGas EP	0.290	0.026	0.316

Rank	Coal Companies	Coal Gt CO <sub>2</sub>	Rank	Oil and Gas Companies	Oil Gt CO <sub>2</sub>	Gas Gt CO <sub>2</sub>	Total O&G Gt CO <sub>2</sub>
48	Yancoal Australia	1.622	48	Southwestern Energy	0.019	0.265	0.284
49	NACCO Industries	1.459	49	Encana	0.091	0.192	0.283
50	Huolinhe Coal	1.387	50	Concho Resources	0.181	0.095	0.277
51	ITOCHU	1.361	51	Husky Energy	0.168	0.107	0.275
52	Beijing Haohua Energy Resource	1.317	52	Seven Generations Energy	0.158	0.113	0.271
53	NLC India	1.296	53	Pioneer Natural Resources	0.199	0.069	0.268
54	Novolipetsk Steel	1.236	54	Tourmaline Oil	0.044	0.222	0.265
55	Indika Inti Corpindo	1.182	55	SK Innovation	0.263	0.000	0.263
56	Datang International Power Generation	1.147	56	QEP Resources	0.119	0.139	0.258
57	Coal of Africa	1.137	57	PTT	0.072	0.184	0.256
58	Golden Energy Mines	1.112	58	Murphy Oil	0.153	0.102	0.255
59	Jindal Steel & Power	1.033	59	Whiting Petroleum	0.198	0.039	0.237
60	Mitsui	0.998	60	Sasol	0.157	0.073	0.230
61	Banpu	0.950	61	Aker BP	0.224	0.000	0.224
62	Berau Coal Energy	0.942	62	California Resources	0.186	0.034	0.220
63	Wesfarmers	0.832	63	Crescent Point Energy	0.202	0.018	0.220
64	Up Energy Development	0.826	64	Rice Energy	0.000	0.218	0.218
65	Kangaroo Resources	0.794	65	Linn Energy	0.071	0.125	0.197
66	Shanxi Meijin Energy	0.784	66	Newfield Exploration	0.108	0.074	0.183
67	Mongolian Mining	0.767	67	MEG Energy	0.178	0.000	0.178
68	Jizhong Energy	0.742	68	Lundin	0.167	0.006	0.173
69	Allete	0.723	69	Mitsui	0.063	0.107	0.170
70	Aspire Mining	0.670	70	Birchcliff Energy	0.027	0.137	0.164
71	ArcelorMittal	0.640	71	Cimarex Energy	0.084	0.080	0.164
72	Hallador Energy	0.599	72	EP Energy	0.120	0.040	0.160

Rank	Coal Companies	Coal Gt CO <sub>2</sub>	Rank	Oil and Gas Companies	Oil Gt CO <sub>2</sub>	Gas Gt CO <sub>2</sub>	Total O&G Gt CO <sub>2</sub>
73	Vedanta	0.599	73	Maersk	0.153	0.000	0.153
74	LG International	0.595	74	Santos	0.016	0.133	0.149
75	Rhino Resource Partners	0.560	75	Oil India	0.096	0.049	0.145
76	Ramaco Resources	0.555	76	Ultra Petroleum	0.013	0.127	0.140
77	Lubelski Węgiel Bogdanka	0.554	77	Oil Search	0.022	0.117	0.140
78	CLP Holdings	0.552	78	SM Energy	0.075	0.061	0.135
79	Bayan Resources	0.529	79	ENGIE	0.033	0.096	0.130
80	Steel Authority of India	0.515	80	Painted Pony Petroleum	0.014	0.115	0.129
81	Vimetco	0.512	81	WPX Energy	0.088	0.040	0.128
82	Indo Tambangraya Megah (Banpu)	0.508	82	ARC Resources	0.045	0.083	0.128
83	Black Hills	0.495	83	JX Holdings	0.059	0.068	0.128
84	Monnet Ispat & Energy	0.492	84	Gulfport Energy	0.008	0.118	0.126
85	Kinetic Mines and Energy	0.463	85	Oasis Petroleum	0.100	0.022	0.123
86	Feishang Anthracite Resources	0.463	86	Polish Oil & Gas	0.031	0.091	0.122
87	FirstEnergy	0.463	87	PDC Energy	0.075	0.045	0.120
88	Sasol	0.456	88	Energen	0.100	0.019	0.119
89	Prairie Mining	0.428	89	Peyto E&D	0.009	0.110	0.119
90	Tata Power	0.424	90	MOL	0.072	0.047	0.119
91	American Energy	0.415	91	Oando	0.051	0.064	0.114
92	Coal Energy	0.414	92	Galp Energia	0.099	0.013	0.112
93	Agritrade Resources	0.414	93	Denbury Resources	0.105	0.002	0.107
94	Beijing Jingneng Thermal Power	0.411	94	National Fuel Gas	0.012	0.091	0.104
95	African Rainbow Minerals	0.400	95	Centrica	0.029	0.069	0.098
96	Huadian Power International	0.397	96	TAQA	0.051	0.046	0.097
97	Golden Eagle Energy	0.386	97	Premier Oil	0.077	0.020	0.097

Rank	Coal Companies	Coal Gt CO <sub>2</sub>	Rank	Oil and Gas Companies	Oil Gt CO <sub>2</sub>	Gas Gt CO <sub>2</sub>	Total O&G Gt CO <sub>2</sub>
98	JSW Energy	0.369	98	Great Eastern	0.000	0.094	0.094
99	Wollongong Coal	0.353	99	Japex	0.042	0.051	0.093
100	TBEA Co	0.329	100	DNO International	0.093	0.000	0.093

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# Valley Water

Clean Water • Healthy Environment • Flood Protection

# FY 2020-21 Investment Policy, Executive Limitation, and ESG Policy

Presented by: Charlene Sun, Treasury and Debt Officer



# Recommendation

Approve the Revised Fiscal Year 2020-2021 Investment Policy and update Executive Limitation 4.7 Financial Management:

# 3.5.1 California Bank Investments

Keeping investments to local banks, within the Bay Area, to keep money at home and jobs local; invest only in banks with below \$10 billion in assets; and keep a minimum of 4% of liquid cash in banks with up to \$10 billion in assets and 1% in banks with up to \$2 billion in assets for a limit of 5 years (short term) at the discretion of the treasurer; such investments may be in the form of collateralized deposits, FDIC/NCUA insured CDs, CDARS, or any other legally allowable deposits.

# 7.13.3 Prohibited Banks

No investments will be made in any banks who do not have an ESG ranking at or better than the "Average/Medium" category by at least one of the professional ESG research companies such as Sustainalytics, or other equivalent rankings published by other ESG research firms. Small and local banks/credit unions located within the nine Bay Area counties with total assets at or below \$10 billion are exempt from this provision.

E.L. 4.7.7: Valley Water shall not do business with banks who do not have an ESG ranking at or better than the "Average/Medium" category by at least one of the professional ESG research companies such as Sustainalytics, or other equivalent rankings published by other ESG research firms. Small and local banks/credit unions located within the nine Bay Area counties with total assets at or below \$10 billion are exempt from this provision.



# Environmental, Social, Governance (ESG) Evaluation Criteria

- Professional ESG research firms use proprietary data collection and evaluation criteria to assign ESG ratings
- "Average or Medium" ESG rating signals that the company has implemented ESG policies and management practices that result in a medium level of ESG risk exposure.
- Sample ESG criteria:

ESG Criteria	Description
Corporate Governance	Factors evaluated include: Board and executive management quality and integrity, structure, ownership and shareholder rights, compensation, audit and financial reporting and stakeholder governance
Business Ethics	Factors evaluated include: money laundering policy, bribery & corruption policy, business ethics and compliance to law, whistleblower policy, lobbying and political expenses, accounting and taxation policies, anti-competitive practices, and sanctions against the company



# **ESG) Evaluation Criteria - continued**

ESG Criteria	Description	
Product Governance	Factors evaluated include: socially responsible product design and marketing practices, cybersecurity policies, quality and safety practices, fair billing and post sale responsibility to customers and stakeholders	
Data Privacy and Security	Factors evaluated include: data governance practices and policies regarding the collection, use and management of protected customer data	
ESG Integration - Financials	Factors evaluated include: environmental/social/carbon/human rights impact of products, financial inclusion, credit and loan standards, responsible investment program, sustainable financial initiatives and responsible asset management	
Human Capital	Factors evaluated include: management of human capital, labor relations, non-discriminatory policies, working conditions, employee training, minimum wage/compensation policies, collective bargaining, gender equality and diversity programs	
Resilience	Factors evaluated include: financial management policies and practices that promotes compliance with regulatory capital requirements, solvency, operational resilience, leverage and financial flexibility	Atta

# Sample ESG Rating – Prohibit Investments in Deutsche Bank

SUSTAINALYTICS ESG RISK RATING REPORT

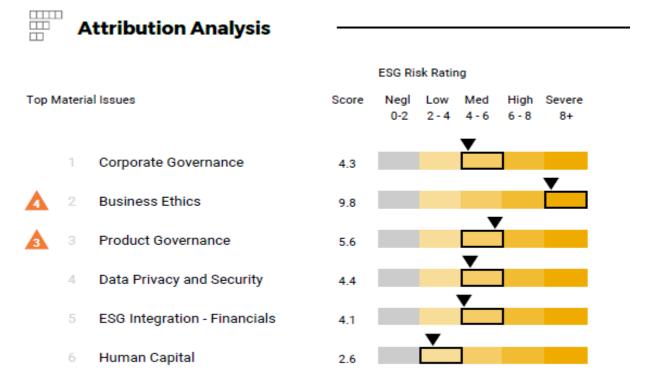
Date Apr 27, 2020

# **Deutsche Bank AG**

Diversified Banks | Germany | ETR:DBK

33.2 High Risk

Negl	Low	Med	High	Severe	
0-10	10-20	20-30	30-40	40+	







# QUESTIONS









# Valley Water

Clean Water • Healthy Environment • Flood Protection

# **Deutsche Bank AG**

Diversified Banks | Germany | ETR:DBK

# 33.2 High Risk



### **Rating Overview**

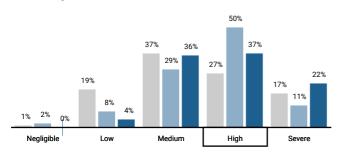
The company is at high risk of experiencing material financial impacts from ESG factors, due to its medium exposure and average management of material ESG issues. Despite its management policies and programmes, the company has experienced a high level of controversies.

# Momentum Score: +0.3

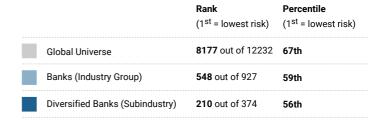
### Stable III

The company's risk score has not changed significantly in the past year, and its risk category has remained stable.

# **ESG Risk Rating Distribution**

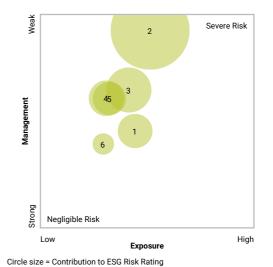


### **Relative Performance**



# Attribution Analysis

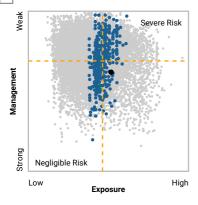
ESG Risk Rating Top Material Issues Score Negl Low Med High Severe Corporate Governance **Business Ethics** 9.8 Product Governance 5.6 **Data Privacy and Security ESG Integration - Financials Human Capital** 



 $\wedge$ 

= Significant event





- Global Universe
- Diversified Banks (Subindustry)
- Deutsche Bank AG
- Peers
- + SubIndustryAvg.





# **Deutsche Bank AG**

Diversified Banks | Germany | ETR:DBK

# 33.2 High Risk





Deutsche Bank's size, range of products and operations, which employ over 97,000 staff around the globe, expose the company to considerable risks. As a key competitor in banking and financial markets, the company must ensure that its product offerings not only attract and retain customers through appropriate marketing and selling strategies, but also meet strict regulatory standards across various jurisdictions. Regulatory scrutiny of ethical compliance within the industry is also high, and can result in costly legal fees and fines, as well as reputational damage if not managed properly. Lastly, the company has the opportunity to integrate ESG considerations into its business, in order to meet the growing demand for such products and practices. Failure to do so, though, could increase reputational and, in some cases, regulatory risks.

The company's overall exposure is medium and is moderately above subindustry average. Business Ethics, Product Governance and ESG Integration -Financials are notable material ESG issues.

 Management Score
 Strong
 Average
 Weak

 100-50
 50-25
 25-0

 38.1
 Average
 ■

Deutsche Bank has focused on realigning and consolidating its business lines to improve efficiency and profitability. It has also settled a number of its misconduct cases, particularly some of its high-profile and costly ones related to rate manipulation and mirror trades. Given the level of scrutiny by regulators and the media, though, the company must continue to manage its business ethics risks. In terms of Product Governance and ESG Integration, the company has put in place policies to strengthen its management, such as its Product Code and Product Principles, Code of Values and it has control groups and the Regional Reputational Risk Committee review financing decisions. Despite these measures, Deutsche Bank has been implicated in controversies related to anti-competitive practices, mis-selling of products and financing controversial industries, indicating room for improvement.

The company's overall management of material ESG issues is average.

# **Attribution Details**

		Contribution to							
Issue Name		ESG Risk Rating	Subindustry Exposure	Company Exposure	Manageable Risk Factor	Management Score	Management Weight	ESG Risk Rating	Risk Category
Corporate G	overnance	12.8%	9.0	9.0	100%	52.7	18.5 %	4.3	
A Business Eth	ics	29.7%	8.0	10.4	95%	5.6	20.3 %	9.8	
A Product Gov	ernance	16.8%	8.0	8.4	100%	33.5	17.3 %	5.6	
Data Privacy	and Security	13.3%	6.0	6.3	80%	37.4	10.4 %	4.4	
ESG Integrat	ion -Financials	12.4%	6.0	6.6	100%	37.5	13.6 %	4.1	
Human Capi	tal	8.0%	6.0	6.0	95%	58.9	11.7 %	2.6	
Resilience		7.0%	5.0	5.0	80%	67.1	8.2 %	2.3	
Overall		100.0%	48.0	51.7	94.0 %	38.1	100.0%	33.2	High



# **Deutsche Bank AG**

Diversified Banks | Germany | ETR:DBK

33.2 High Risk





# **Risk Details**





# **Momentum Details**

ESG Risk Rating Momentum Score: +0.3

Stable III

The company's risk score has not changed significantly in the past year, and its risk category has remained stable.



### **Exposure Momentum Score: -4.1**

Improved 🔉



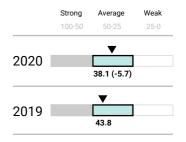
The company's exposure score has decreased in the past year, and its exposure category has improved.



### Management Momentum Score: -5.7

Stable III

The company's management score has decreased in the past year, but its management category has remained stable.







# **Corporate Governance**

Contribution 12.8 %

Corporate Governance represents foundational structures for the management of ESG risks.

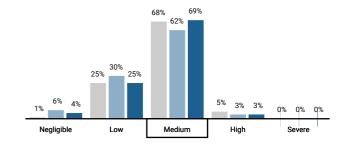
# **Rating Overview**

# Medium Risk



In consideration of its high exposure and average management, we view the company to have medium unmanaged risk attributable to its corporate governance.

### **ESG Risk Rating Distribution**



# **Relative Performance**

	Rank (1 <sup>st</sup> = lowest risk)	Percentile (1 <sup>st</sup> = lowest risk)
Global Universe	<b>1597</b> out of 4252	38th
Banks (Industry Group)	<b>171</b> out of 361	48th
Diversified Banks (Subindustry)	<b>86</b> out of 222	39th

# **Risk Analysis**

# Weak Severe Risk Negligible Risk Low

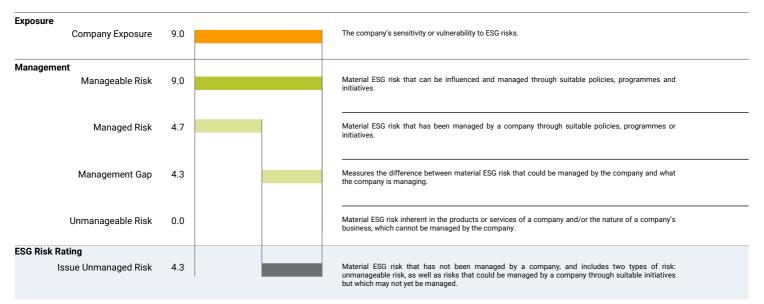


- Global Universe
- Diversified Banks (Subindustry)

Exposure

- Deutsche Bank AG
- Peers
- + SubIndustryAvg.

Peers (Market cap \$16.8 - 19bn)	ESG Risk Rating	Exposure	Management
1. Banco Santander (Brasil) S.A.	4.0 Low	9.0 High	55.7 Strong
2. Deutsche Bank AG	4.3 Medium	9.0 High	52.7 Average
3. Skandinaviska Enskilda Banken AB	4.3 Medium	9.0 High	51.7 Average
4. State Bank of India	4.9 Medium	9.0 High	45.5 Average
5. ORIX Corp.	5.1 Medium	9.0 High	43.6 Average





# SUSTAINALYTICS ESG RISK RATING REPORT



# **Corporate Governance**

Corporate Governance represents foundational structures for the management of ESG risks.

Contribution 12.8 %



# **Risk Analysis**



The quality and integrity of the company's board and management and its remuneration systems are identified as the highest weighted governance areas of focus. The company is publicly traded, which leads to heightened scrutiny of its governance practices and increases the importance of governance structures, practices and behaviour. This translates into high exposure to baseline Corporate Governance risk.

The company is noted for showing particular strength in its audit and financial performance systems, its board structure and its stakeholder governance. On the other hand, it is noted for weakness in the quality and integrity of its board/management. It has average management of its 2 other governance pillars. Overall, we rate the company's corporate governance management as

# **Corporate Governance Pillars** -

Pillar	Score	Weight	Weighted Score
Board/Management Quality & Integrity	26.0	25.0%	6.5
Board Structure	72.0	18.0%	13.0
Ownership & Shareholder Rights	56.0	19.0%	10.6
Remuneration	53.0	22.0%	11.7
Audit & Financial Reporting	77.0	8.0%	6.2
Stakeholder Governance	60.0	8.0%	4.8
Totals		100.0%	52.7





# **Business Ethics**

Contribution 29.7 %

Business Ethics focuses on the management of ethical considerations applicable to most or all sectors, such as taxation and accounting, anticompetitive practices and intellectual property issues.

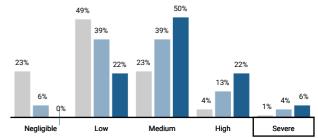
# **Rating Overview**

# 9.8 Severe Risk



Considering its high exposure and below average management of Business Ethics, we view the company to be at severe risk for the issue.

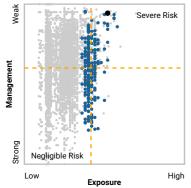
# **ESG Risk Rating Distribution**



Relative Performance	Rank (1 <sup>st</sup> = lowest risk)	Percentile (1 <sup>st</sup> = lowest risk)
Global Universe	<b>3865</b> out of 3876	100th
Banks (Industry Group)	<b>357</b> out of 361	99th
Diversified Banks (Subindustry)	<b>218</b> out of 222	98th



# **Risk Analysis**



- Global Universe
- Diversified Banks (Subindustry)
- Deutsche Bank AG
- Peers
- + SubIndustryAvg.

Peers (Market cap \$16.8 - 19.0)	ESG Risk Rating	Exposure	Management
1. Skandinaviska Enskilda Banken AB	4.2 Medium	8.0 High	49.9 Average
2. ORIX Corp.	6.1 High	8.0 High	25.0 Average
3. Banco Santander (Brasil) S.A.	6.4 High	8.8 High	28.5 Average
4. State Bank of India	6.9 High	8.8 High	22.8 Weak
5. Deutsche Bank AG	9.8 Severe	10.4 High	5.6 Weak



### **Risk Details**

### Exposure Company Exposure The company's sensitivity or vulnerability to ESG risks Management Material ESG risk that can be influenced and managed through suitable policies, programmes and Manageable Risk 9.9 Material ESG risk that has been managed by a company through suitable policies, programmes or Managed Risk 0.6 Measures the difference between material ESG risk that could be managed by the company and what Management Gap 9.3 the company is managing. Material ESG risk inherent in the products or services of a company and/or the nature of a company's Unmanageable Risk 0.5 business, which cannot be managed by the company. **ESG Risk Rating** Material ESG risk that has not been managed by a company, and includes two types of risk: unmanageable risk, as well as risks that could be managed by a company through suitable initiatives Issue Unmanaged Risk 9.8 but which may not yet be managed.





# **Business Ethics**

Contribution 29.7 %

Business Ethics focuses on the management of ethical considerations applicable to most or all sectors, such as taxation and accounting, anticompetitive practices and intellectual property issues.



# **Exposure Overview**



Regulatory scrutiny in the financial industry is high, and banks have received record fines for ethical infractions. Companies have been implicated in rate and market manipulation and have been criticized for enabling tax evasion and avoidance for clients, sanctions violations and money-laundering. Deutsche Bank has been implicated in significant controversies related to ethical misconduct, which keeps it under tight media scrutiny.

### **Exposure Analysis**

Subindustry Issue Exposure	8.0
Issue Beta	1.30
Company Issue Exposure	10.4

Beta Indicators	Beta Signal
Accounting and Taxation	0.03
Lobbying and Public Policy	0.00
Sanctions	0.00
Anti-Competitive Practices	0.03
Bribery and Corruption	0.02
Business Ethics	0.12
Operating Performance	0.03
Solvency - Banking	0.02
Asset Performance - Banking	-0.02
Financial Flexibility - Banking	-0.03
Qualitative Overlay	0.00
Subindustry Correction Factor	0.00
Exceptional Event Adjustment	0.13
Total Beta Signal	0.30
Baseline	1.00
Issue Beta	1.30



# **Management Overview**

Mana	gement Score	Strong	Average	Weak
		100-50	50-25	25-0
5.6	Weak			· ·

Deutsche Bank reports that a key objective in 2017 was to strengthen its Anti-Financial Crime division and, therefore, has increased its staff in that department by 60%. It has also continued to implement an extended screening programme to enhance its effectiveness and efficiency. The company discloses a whistleblower programme that enables anonymous reporting and discloses the number of reports filed and processed annually; however, it does not specify the type of misconduct reported or the remedial measures taken. Deutsche Bank has improved its policies related to ethics and it has settled several misconduct cases, such as selling Residential Mortgage Backed Securities and Russian mirror trades, and some with large financial impacts (Euribor and Libor rate manipulation). Nonetheless, the financial and reputational impact of these issues keep the company's risk on the issue high.

The company has above average preparedness measures to address Business Ethics issues and

The company has above average preparedness measures to address Business Ethics issues and has been implicated in major controversies related to the issue. In our view, the company's management of the issue is below average.

	Management Indicators	Raw Score Weight   Weighted Score
	Money Laundering Policy	100
	or zaanaoning i onoy	1.0%   1.0
	Bribery & Corruption Programmes	75
	bibery & corruption riogrammes	1.5%   1.1
	Business Ethics Programme	75
	Dusiness Ethies Frogramme	2.3%   1.7
	Compliance Programme	75
	- Compilance i rogramme	1.5%   1.1
	Bribery & Corruption Policy	25
	bribery & corruption rolley	1.0%   0.3
	Whistleblower Programmes	25
	Willstieblower i Tograffilles	1.8%   0.4
	Lobbying and Political Expenses	0
	Lobbying and Fontical Expenses	0.5%   0.0
	Political Involvement Policy	0
	T officed involvement r oney	0.5%   0.0
Λ	Business Ethics	Category 4
	Dusiness Linics	40.9%   0.0
A	Accounting and Taxation	Category 3
	Accounting and Taxation	20.5%   0.0
A	Anti-Competitive Practices	Category 3
		20.5%   0.0
Δ	Bribery and Corruption	Category 2
4	bribery and corruption	8.2%   0.0
A Labbying and D	Lobbying and Public Policy	Category 0
0	Lobbying and rubile rolley	0.0%   0.0
Δ	Sanctions	Category 0
44	ounctions	0.0%   0.0
	Weighted Sum	5.6

\_ = Event indicator





Product Governance focuses on how companies manage responsibilities to their clients. Emphasis is put on quality management systems, marketing practices, fair billing and post-sales responsibility.

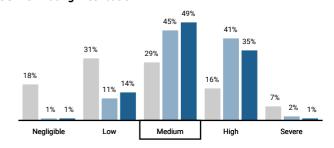
# Rating Overview

# Medium Risk



Considering its high exposure and average management of Product Governance, we view the company to be at medium risk for the issue.

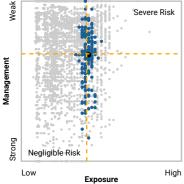
# **ESG Risk Rating Distribution**



Relative Performance	Rank (1 <sup>st</sup> = lowest risk)	Percentile (1 <sup>st</sup> = lowest risk)
Global Universe	<b>2380</b> out of 3298	72nd
Banks (Industry Group)	<b>137</b> out of 333	42nd
Diversified Banks (Subindustry)	<b>107</b> out of 222	48th



# **Risk Analysis**



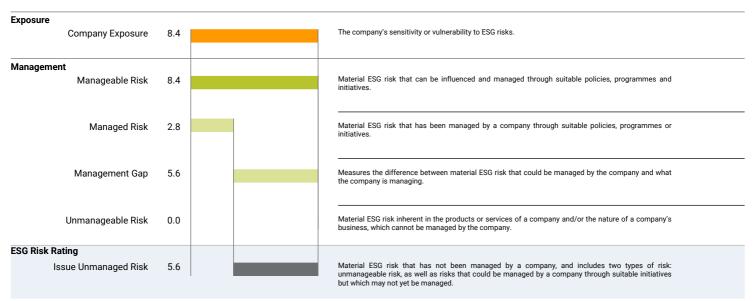


- Global Universe
- Diversified Banks (Subindustry)
- Deutsche Bank AG
- Peers
- + SubIndustryAvg.

Peers (Market cap \$16.8 - 19.0)	ESG Risk Rating	Exposure	Management
Banco Santander (Brasil) S.A.	4.6 Medium	8.4 High	44.9 Average
2. Skandinaviska Enskilda Banken AB	5.3 Medium	8.0 High	33.5 Average
3. Deutsche Bank AG	5.6 Medium	8.4 High	33.5 Average
4. State Bank of India	5.6 Medium	8.4 High	33.2 Average
5. ORIX Corp.	6.2 High	8.0 High	22.2 Weak



### **Risk Details**







# **Product Governance**

Contribution 16.8 %

Product Governance focuses on how companies manage responsibilities to their clients. Emphasis is put on quality management systems, marketing practices, fair billing and post-sales responsibility.



# **Exposure Overview**



Deutsche Bank has been restructuring and consolidating its business lines, particularly its private and commercial banking business in its home market through its merger with Deutsche Postbank. While the changes aim to strengthen the company's market positioning, the banking and financial services industry remains competitive, leaving room for potential mis-selling and marketing of products to clients.

### **Exposure Analysis**

Subindustry Issue Exposure	8.0
Issue Beta	1.05
Company Issue Exposure	8.4

Beta Indicators	Beta Signal
Access to Basic Services	0.00
Marketing Practices	0.00
Quality and Safety	0.03
Operating Performance	0.03
Solvency - Banking	0.02
Asset Performance - Banking	-0.02
Financial Flexibility - Banking	-0.03
Headquarters Location	-0.03
Sales Location	0.05
Qualitative Overlay	0.00
Subindustry Correction Factor	0.00
Exceptional Event Adjustment	0.00
Total Beta Signal	0.05
Baseline	1.00
Issue Beta	1.05

# **Management Overview**

Management Score	Strong	Average	Weak	
	100-50	50-25	25-0	
33.5 Average				

Deutsche Bank has been involved in high-profile customer-related investigations and lawsuits, mostly over mortgage-backed securities, market manipulation, and the mis-selling of unsuitable structured notes. In response to these issues, the company has implemented a Product Code and Product Principles. Deutsche Bank states that it is committed to providing only products and services that create value for clients and shareholders by meeting clients' needs, and has put a New Product Approval (NPA) process in place to adhere to this commitment. Furthermore, the bank has a Code of Values for its Private and Business Clients division, which puts forward product principles to ensure client satisfaction.

The company has average preparedness measures to address Product Governance issues and has been implicated in major controversies related to the issue. In our view, the company's management of the issue is average.

Management Indicators	Weight   Weighted Score	
Responsible Product Offering	75	
Responsible Froduct Offering	33.8%   25.3	
Cybersecurity Programme	39	
Cyberseculty Frogramme	15.0%   5.9	
Responsible Marketing Policy	9	
	26.3%   2.4	
♠ Quality and Safety	Category 3	
	25.0%   0.0	
A Access to Poois Convices	Category 0	
Access to Basic Services	0.0%   0.0	
A Madatina Destina	Category 0	
Marketing Practices	0.0%   0.0	
Weighted Sum	33.5	

\_ = Event indicator





# **Data Privacy and Security**

Contribution 13.3 %

Data Privacy and Security focuses on data governance practices, including how companies collect, use, manage and protect data.

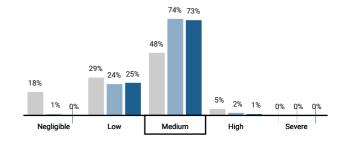
# **Rating Overview**

# 4.4 Medium Risk



Considering its medium exposure and average management of Data Privacy and Security, we view the company to be at medium risk for the issue.

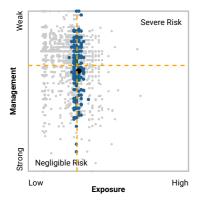
# **ESG Risk Rating Distribution**



Relative Performance	Rank (1 <sup>st</sup> = lowest risk)	Percentile (1 <sup>st</sup> = lowest risk)
Global Universe	<b>1021</b> out of 1734	59th
Banks (Industry Group)	<b>142</b> out of 333	43rd
Diversified Banks (Subindustry)	<b>103</b> out of 222	47th



# **Risk Analysis**

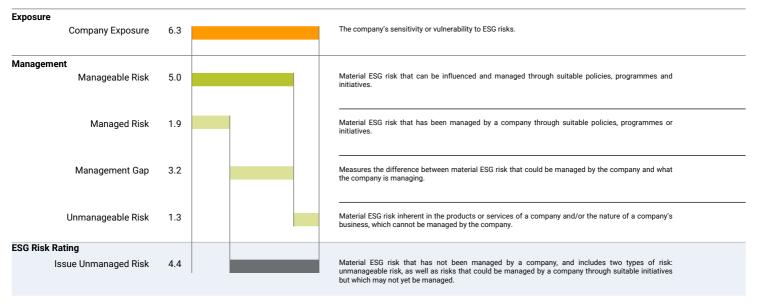


- Global Universe
- Diversified Banks (Subindustry)
- Deutsche Bank AG
- Peers
- + SubIndustryAvg.





### **Risk Details**







# **Data Privacy and Security**

Contribution 13.3 %

Data Privacy and Security focuses on data governance practices, including how companies collect, use, manage and protect data.



# **Exposure Overview**

Ехро	sure	Low	Medium	High
		0-4	4-8	8+
6.3	Medium		SubIndu	ıstry

The financial industry is the one of the most regulated sectors for cybersecurity due to its high exposure to cyberattacks. The frequency of data breaches is estimated to have increased by as much as 300% since 2010, with the financial sector experiencing the third-highest frequency of breaches and the second-highest number of confirmed data losses. Data breaches can cause service disruptions, trigger lawsuits and forensic investigations, incur expenses related to repairing or removing threats from data systems, damage reputation and shake customer confidence. Large numbers of retail and business customers may be affected. In addition to personally identifiable information, intellectual property, financial data and other highly sensitive information can be stolen. Overall, the financial industry's management of data security is relatively weak compared to best practice. Cyber expertise is poorly represented at the board level (only 6% of bank directors of the world's largest banks have cyber expertise), and management systems that extend to top executives are uncommon. Additionally, company disclosure on cyber risk management is generally weak, omitting details on strategy and management systems. Banks must navigate rapidly evolving regulations on customer data privacy as well as cybersecurity; for example, regulators are considering implementing financial penalties for data breaches. Best practice includes detailed disclosures of management systems and high-level oversight. In an environment of rising data privacy and security risks, strong data privacy management will be increasingly critical for operational success. The company's exposure to Data Privacy and Security issues is medium and similar to subindustry average.

Beta Indicators	Beta Signal
Data Privacy and Security	0.02
Operating Performance	0.03
Solvency - Banking	0.02
Asset Performance - Banking	-0.02
Financial Flexibility - Banking	-0.03
Headquarters Location	-0.03
Sales Location	0.05
Qualitative Overlay	0.00
Subindustry Correction Factor	0.00
Exceptional Event Adjustment	0.00
Total Beta Signal	0.05
Baseline	1.00
Issue Beta	1.05

### **Exposure Analysis**

Subindustry Issue Exposure	6.0
Issue Beta	1.05
Company Issue Exposure	6.3



# **Management Overview**

Mana	gement Score	Strong	Average	Weak
		100-50	50-25	25-0
37.4	Average			

The company has average preparedness measures to address Data Privacy and Security issues and has been implicated in minor controversies related to the issue. In our view, the company's management of the issue is average.

Management Indicators	Raw Score Weight   Weighted Score
Data Privacy & Security Policy	<b>50</b> 9.0%   4.5
Data Privacy Programme	<b>50</b> 36.0%   18.0
Cybersecurity Programme	<b>39</b> 36.0%   14.0
Data Request Management	<b>9</b> 9.0%   0.8
🛕 Data Privacy and Security	Category 2 10.0%   0.0
Weighted Sum	37.4

= Event indicator





ESG Integration - Financials includes all ESG integration activities by financial institutions that are either driven by financial downside risk considerations or by business opportunities.

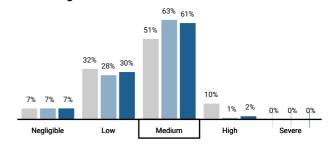
# **Rating Overview**

# 4.1 Medium Risk



Considering its medium exposure and average management of ESG Integration -Financials, we view the company to be at medium risk for the issue.

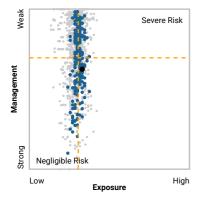
# **ESG Risk Rating Distribution**



Relative Performance	Rank (1 <sup>st</sup> = lowest risk)	Percentile (1 <sup>st</sup> = lowest risk)
Global Universe	<b>438</b> out of 1046	42nd
Banks (Industry Group)	<b>137</b> out of 360	39th
Diversified Banks (Subindustry)	<b>89</b> out of 222	40th



# **Risk Analysis**

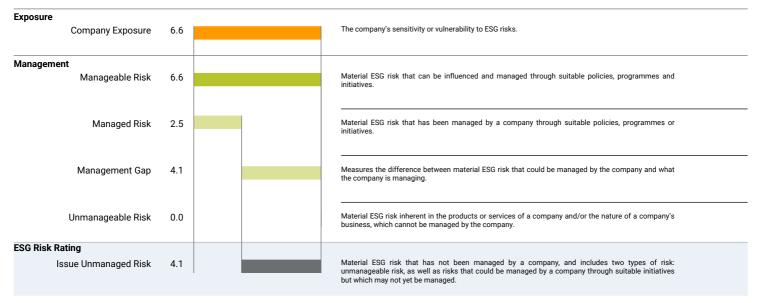


- Global Universe
- Diversified Banks (Subindustry)
- Deutsche Bank AG
- Peers
- + SubIndustryAvg.





### **Risk Details**







# **ESG Integration - Financials**

Contribution 12.4 %

ESG Integration - Financials includes all ESG integration activities by financial institutions that are either driven by financial downside risk considerations or by business opportunities.



# **Exposure Overview**



Integrating ESG considerations into business practices offers an opportunity to meet consumer demand for more responsible investment options. Companies that do not have adequate ESG guidelines to assess the companies they finance may be exposed to reputational damage through negative media exposure and NGO criticism for financing controversial projects. Furthermore, financing controversial industries could potentially increase repayment or default risks, if an investee company loses its social licence to operate or is subject to regulatory hurdles or taxes.

# **Exposure Analysis**

Subindustry Issue Exposure	6.0
Issue Beta	1.10
Company Issue Exposure	6.6

Beta Indicators	Beta Signal
Environmental Impact of Products	0.02
Social Impact of Products	0.02
Carbon Impact of Products	0.02
Society - Human Rights	0.01
Operating Performance	0.03
Solvency - Banking	0.02
Asset Performance - Banking	-0.02
Financial Flexibility - Banking	-0.03
Headquarters Location	-0.03
Sales Location	0.05
Responsible Asset Portfolio	0.00
Qualitative Overlay	0.00
Subindustry Correction Factor	0.00
Exceptional Event Adjustment	0.00
Total Beta Signal	0.10
Baseline	1.00
Issue Beta	1.10



# **Management Overview**

Management Score		Strong	Average	Weak
		100-50	50-25	25-0
37.5	Average			

company's management of the issue is average.

Deutsche Bank is a UNEPFI signatory and has strong responsible investment and corporate finance programmes. In its Environmental and Social Policy Framework, Deutsche Bank defines a number of sectors and activities as having high potential for significant environmental and social impacts, including agriculture and forestry, chemicals, infrastructure projects in certain countries, metals and mining, oil and gas (including hydraulic fracturing and exploration in the Arctic) and utilities. The framework puts forward criteria for mandatory referral to Control Groups and/or the Regional Reputational Risk Committee. The company has, however, been criticized over the past few years for its financing of large controversial oil pipelines, deforestation and fossil fuels. The company has above average preparedness measures to address ESG Integration -Financials issues and has been implicated in major controversies related to the issue. In our view, the

	Management Indicators	Weight   Weighted Score	
	Financial Inclusion	100 4.9%   4.9	
		100	
	PRI Signatory	1.6%   1.6	
	UNEPFI Signatory	100	
		1.6%   1.6	
	Credit & Loan Standards	80	
	Credit & Loan Standards	9.8%   7.8	
	Corporate Finance - ESG Integration	75	
	Corporate Finance - ESG integration	9.8%   7.3	
	Deen anaible Investment Dragramme	75	
	Responsible Investment Programme	9.8%   7.3	
	Sustainable Financial Initiatives	50	
	Sustainable Financial Initiatives	4.9%   2.4	
	D	40	
	Responsible Asset Management	11.4%   4.6	
	Faustar Dringinlag Cianatan	0	
	Equator Principles Signatory	4.9%   0.0	
	Decree sille leverter est Deliev	0	
	Responsible Investment Policy	6.5%   0.0	
_	0.1.1	Category 2	
2	Carbon Impact of Products	10.0%   0.0	
_	F :	Category 2	
2	Environmental Impact of Products	10.0%   0.0	
_	0 : 11 (D. 1 .	Category 2	
2	Social Impact of Products	10.0%   0.0	
A	Conjety Human Bighto	Category 1	
<u> </u>	Society - Human Rights	5.0%   0.0	
	Weighted Sum	37.5	

\_ = Event indicator



**Raw Score** 



Human Capital focuses on the management of risks related to scarcity of skilled labour as well as labour relations, such as non-discrimination, working hours and minimum wages.

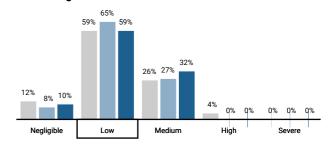
# **Rating Overview**

# 2.6 Low Risk



Considering its medium exposure and above average management of Human Capital, we view the company to be at low risk for the issue.

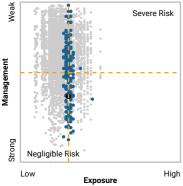
# **ESG Risk Rating Distribution**



Relative Performance	Rank (1 <sup>st</sup> = lowest risk)	Percentile (1 <sup>st</sup> = lowest risk)
Global Universe	<b>1115</b> out of 4057	28th
Banks (Industry Group)	<b>74</b> out of 360	21st
Diversified Banks (Subindustry)	<b>48</b> out of 221	22nd



# **Risk Analysis**



- Global Universe
- Diversified Banks (Subindustry)
- Deutsche Bank AG
- Peers
- + SubIndustryAvg.

Peers (Market cap \$16.8 - 19.0)	ESG Risk Rating	Exposure	Management
Banco Santander (Brasil) S.A.	2.0 Low	6.0 Medium	69.3 Strong
2. Deutsche Bank AG	2.6 Low	6.0 Medium	58.9 Strong
3. Skandinaviska Enskilda Banken AB	3.2 Low	5.7 Medium	45.4 Average
4. ORIX Corp.	4.0 Low	6.0 Medium	35.6 Average
5. State Bank of India	4.6 Medium	6.6 Medium	31.5 Average



# **Risk Details**

Exposure		
Company Exposure	6.0	The company's sensitivity or vulnerability to ESG risks.
Management Manageable Risk	5.7	Material ESG risk that can be influenced and managed through suitable policies, programmes and initiatives.
Managed Risk	3.4	Material ESG risk that has been managed by a company through suitable policies, programmes or initiatives.
Management Gap	2.3	Measures the difference between material ESG risk that could be managed by the company and what the company is managing.
Unmanageable Risk	0.3	Material ESG risk inherent in the products or services of a company and/or the nature of a company's business, which cannot be managed by the company.
ESG Risk Rating Issue Unmanaged Risk	2.6	Material ESG risk that has not been managed by a company, and includes two types of risk: unmanageable risk, as well as risks that could be managed by a company through suitable initiatives but which may not yet be managed.

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Human Capital focuses on the management of risks related to scarcity of skilled labour as well as labour relations, such as non-discrimination, working hours and minimum wages.



# **Exposure Overview**



A bank's success depends on recruiting and retaining a workforce that supports strategic growth, drives innovation, supports a complex array of products and fosters consumer loyalty. Banks that are unable to effectively manage their employees may face obstacles, such as understaffing, skill deficits, high training costs, compliance failures and operational inefficiencies. There is evidence that banks are increasingly facing difficulty in retaining and attracting top talent. For example, junior banking salaries have increased by as much as 20% at some firms in an attempt to compete with private equity firms, technology companies and start-ups. Additionally, banks face pressure from shifting attitudes regarding the need to increase levels of diversity to better reflect the general population. Improving diversity and limiting discrimination may contribute to increased employee satisfaction, reduced turnover and may be viewed positively by customers and business partners alike. Regulatory scrutiny on these issues is expected to increase and may put pressure on all financial services companies, increasing the risk of litigation and regulatory penalties. For example, the US and the UK have gender pay parity disclosure requirements that should come into force in 2017 and 2018, respectively, while other countries already require that companies hire a certain percentage of people with disabilities. Overall, past reliance on salary as an incentive is gradually decreasing and being replaced with more nuanced expectations that banks will invest in their employees, provide more work-life balance, offer clear channels for employees to make complaints, advance employees' careers and provide clear feedback on employee performance. Considering that personnel costs can represent as much as half of all costs, a bank's ability to effectively manage its employees is a key determinant of its long-term success. The company's exposure to Human Capital issues is medium and similar to subindustry average.

Beta Indicators	Beta Signal
Labour Relations	0.02
Operating Performance	0.03
Solvency - Banking	0.02
Asset Performance - Banking	-0.02
Financial Flexibility - Banking	-0.03
Qualitative Overlay	0.00
Subindustry Correction Factor	0.00
Exceptional Event Adjustment	0.00
Total Beta Signal	0.00
Baseline	1.00
Issue Beta	1.00

### **Exposure Analysis**

Subindustry Issue Exposure	6.0
Issue Beta	1.00
Company Issue Exposure	6.0



# **Management Overview**

 Management Score
 Strong
 Average
 Weak

 100-50
 50-25
 25-0

 58.9
 Strong
 ■

The company has above average preparedness measures to address Human Capital issues and has been implicated in minor controversies related to the issue. In our view, the company's management of the issue is above average.

Management Indicators	<b>Raw Score</b> Weight   Weighted Score
Discrimination Policy	100
	13.5%   13.5
Diversity Programmes	100
Diversity Programmes	20.3%   20.3
Lluman Canital Davalanment	75
Human Capital Development	24.8%   18.6
0 1 0 5 12 0	29
Gender Pay Equality Programme	9.0%   2.6
	25
Collective Bargaining Agreements	4.5%   1.1
Freedom of Association Policy	25
	4.5%   1.1
Employee Training	19
	4.5%   0.9
Gender Pay Disclosure	19
	4.5%   0.9
Employee Turnover Rate	0
	4.5%   0.0
	Category 2
Labour Relations	10.0%   0.0
Weighted Sum	58.9

\_ = Event indicator

Raw Score



# Resilience

Contribution 7.0 %

Resilience focuses on the financial stability and the management of related risks in the financial services industry, with emphasis on compliance with capital requirements.

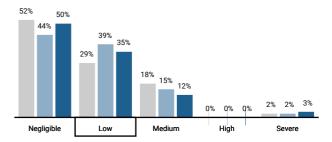
# **Rating Overview**

# 2.3 Low Risk



Considering its medium exposure and above average management of Resilience, we view the company to be at low risk for the issue.

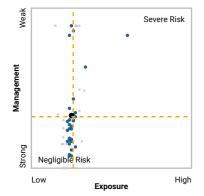
# **ESG Risk Rating Distribution**



Relative Performance	Rank (1 <sup>st</sup> = lowest risk)	Percentile (1 <sup>st</sup> = lowest risk)
Global Universe	<b>40</b> out of 62	64th
Banks (Industry Group)	<b>25</b> out of 41	60th
Diversified Banks (Subindustry)	<b>24</b> out of 34	70th



# **Risk Analysis**

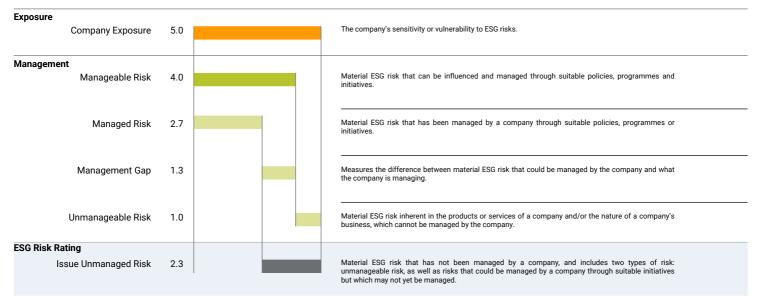


- Global Universe
- Diversified Banks (Subindustry)
- Deutsche Bank AG
- Peers
- + SubIndustryAvg.





### **Risk Details**







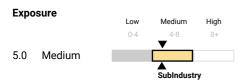
# Resilience



Resilience focuses on the financial stability and the management of related risks in the financial services industry, with emphasis on compliance with capital requirements.



# **Exposure Overview**



Resilience represents the ability of Diversified Banks to withstand negative shocks arising from resilience represents the ability of Diversified Banks to withstand negative shocks arising from changes in economic conditions. The 2008 financial crisis revealed the vulnerability of the financial sector to deficiencies in risk management as well as the dependency of national economies on "too big to fail" institutions. Financial institutions profited from taking excessive risks, while downside risks and losses were borne by the public; billions of dollars of public funds have been used to rescue distressed institutions. At the height of the financial crisis, banks with more conservative business models (such as Canadian and Australian banks) generally fared better than their less conservative counterparts. In response to the crisis. governments and regulatory bodies worldwide have enhanced global capital and liquidity standards under Basel III. The international Financial Stability Board (FSB) considers twenty-two Diversified Banks to be global systemically important banks (G-SIBs), which must adhere to more stringent regulations. Other regulatory frameworks include the Dodd-Frank Act, passed in 2010, which affects financial regulation in the US and imposes further restrictions. Additionally, in 2014, the FSB defined a global standard for minimum amounts of Total Loss Absorbency Capacity (TLAC) to be held by G-SIBs, which go beyond the Capital Adequacy Ration requirements. Certain recurring control measures, such as stress tests and resolution plans ("living wills"), are increasingly emphasized to reduce potential future government bailouts. In addition to demonstrating that they can meet standards for excess Common Equity Tier 1 capital (CET1), banks must also show that their controls and risk governance are in order. Consequences for control failures and risk management deficiencies include significant fines and restrictions on operating activities. Regulation will continue to be a key driver of resilience standards going forward. The company's exposure to Resilience issues is medium and similar to subindustry average.

Beta Indicators	Beta Signal
Resilience	0.02
Operating Performance	0.03
Solvency - Banking	0.02
Asset Performance - Banking	-0.02
Financial Flexibility - Banking	-0.03
Qualitative Overlay	0.00
Subindustry Correction Factor	0.00
Exceptional Event Adjustment	0.00
Total Beta Signal	0.00
Baseline	1.00
Issue Beta	1.00

### **Exposure Analysis**

Subindustry Issue Exposure	5.0
Issue Beta	1.00
Company Issue Exposure	5.0



# **Management Overview**

Management Score Strong Average Weak 67.1 Strong

The company has above average preparedness measures to address Resilience issues and has been implicated in minor controversies related to the issue. In our view, the company's management of the issue is above average.

•	Weight   Weighted Score
Systemic Risk Management	100
Systemic Nisk Management	20.3%   20.3
Systemic Risk Reporting	100
Systemic Risk Reporting	20.3%   20.3
Asset Quality	75
Asset Quality	6.8%   5.1
Tior 1 Conital Duffer	66
Tier 1 Capital Buffer	22.5%   14.9
Leverage Ratio	33
Leverage Ratio	20.3%   6.7
A Resilience	Category 2
Resilience	10.0%   0.0
Weighted Sum	67.1

= Event indicator



**Raw Score** 



# **Management Details**



# Corporate Governance

# **Board/Management Quality & Integrity**

# 26 Laggard

Raw Score

The following indicators reflect on the quality and integrity of the company's board/management:

- Board experience: The board displays adequate board and/or executive experience in the financial sector;
- Director Track Record: Chairman Paul Achleitner is linked to controversies through his service at Daimler AG; and
- Governance Controversies: There appear to be shortcomings in the board's discharge of its oversight responsibilities, in light of the significant controversies faced by the company.

Indicators	Score
Board Experience	80
Director Track Record	50
Board Capture	70
Related Party Transactions	20
Director Stock Ownership	20
Executive/Board Misconduct	50
Business Practices Controversies	0
Governance Controversies	0
Shareholder Engagement and Responsiveness	50

### **Board Structure**

# 72 Outperformer

Raw Score

We note the following indicators which reflect on the board's overall structure:

- Board leadership: The board is headed by an independent chairman;
- Board tenure: No long-tenured directors serve on the board, and the lender has adopted both a retirement age and term limits for directors; and
- Risk oversight: There are concerns with respect to the company's risk oversight function, stemming from the significant controversies it faces.

Indicators	Score
Board Leadership	70
Board Tenure	90
Board Independence	70
Nominating Committee Effectiveness	30
Director Disclosure	100
Voting Structures	70
Directors not Elected by Shareholders	30
Risk Oversight	90
Board Diversity	70

# **Ownership & Shareholder Rights**

# 56 Average Performer

Raw Score

We emphasize three indicators under this pillar:

- $\,$   $\,$  Classified Board & Director Removal: Deutsche Bank has established a staggered board of directors;
- Proportionality -One Share/One Vote: The bank has adopted the one share-one vote principle; and
- Ownership structure: Deutsche Bank is widely held, its largest shareholder being BlackRock, Inc, holding a stake of approximately 5%.

Indicators	Score
Director Appointment & Removal	30
Proportionality - One Share/One Vote	60
Ownership Structure	50
Capital Issuance Risks	60
Shareholder Action	60
Poison Pill & Takeover Defences	80
Supermajority Provisions	50



80

60

70

Score

# **Appendix**



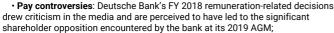
# **Management Details**

### Remuneration

# 53 Average Performer

Raw Score

The following indicators stand out in the assessment of the company's compensation policies and practices:



- Pay for failure: In connection with his termination on April 8, 2018, former CEO John Cryan received a severance package amounting to EUR 8,674,000, approximately 2.7 times higher than his total remuneration for the previous fiscal year; and
- Pay for Performance: The bank's remuneration policies and practices raise moderate concerns regarding the pay and performance alignment.

Indicators	Score
Remuneration Disclosure	80
Remuneration Committee Effectiveness	60
Say on Pay	60
Pay Controversies	20
STI Performance Metrics	40
LTI Performance Metrics	70
Pay Magnitude	30
Pay for Performance	60
Pay for Failure	30

**CEO Termination Scenarios** 

Internal Pay Equity

Clawback Policy

Indicators

### **Audit & Financial Reporting**

# 77 Leader

Raw Score

The indicators below reflect on the company's audit and financial reporting:

- Audit committee structure: The company has established a fully independent audit committee, in line with German market practice;
- Audit committee effectiveness: The company's audit committee, whose members showcase financial expertise and industry experience, met seven times during FY 2018; and
- Audit Rotation Policy: Deutsche Bank has adopted a rotation policy for its auditor pursuant to the requirements of Regulation (EU) No. 537/2014.

Indicators	Score
Audit Committee Structure	70
Audit Committee Effectiveness	90
Auditor Fees	100
Audit Rotation Policy	70
Auditor Change	50
Reporting Irregularities	50

# **Stakeholder Governance**

# 60 Outperformer

Raw Score

In reviewing the company's practices regarding ESG stakeholder governance, points of attention for Deutsche Bank AG are: ESG Governance, Discrimination Policy and GHG Reduction Programme.

- $\bullet$  ESG Governance: A board member or a board committee is responsible for overseeing ESG issues
  - Discrimination Policy: The company has a strong policy
  - GHG Reduction Programme: The company has a strong programme

illuicators	Score
ESG Governance	100
ESG Reporting Standards	75
Verification of ESG Reporting	75
Global Compact Signatory	100
ESG Performance Targets	25
Political Involvement Policy	0
Lobbying and Political Expenses	0
Bribery & Corruption Policy	25
Environmental Policy	0
Whistleblower Programmes	25
Tax Disclosure	100
Discrimination Policy	100
Scope of Social Supplier Standards	75
GHG Reduction Programme	100
Green Procurement Policy	40



# SUSTAINALYTICS ESG RISK RATING REPORT

# **Appendix**



# **Exposure Details**



# **Business Ethics**

EA.E.2 - Accounting and Taxation	EA.E.23 - Lobbying and Public Policy
0.03	0.00
Beta Signal	Beta Signal
The company is involved in significant-level controversies of this type, signaling higher exposure to this issue.	The company is not involved in any controversies of this type.
EA.E.30 - Sanctions	EA.E.4 - Anti-Competitive Practices
0.00	0.03
Beta Signal	Beta Signal
The company is not involved in any controversies of this type.	The company is involved in significant-level controversies of this type, signaling higher exposure to this issue.
EA.E.6 - Bribery and Corruption	EA.E.7 - Business Ethics
0.02	0.12
Beta Signal	Beta Signal
The company is involved in moderate-level controversies of this type, signaling higher exposure to this issue.	The company is involved in high-level controversies of this type, signaling higher exposure to this issue.
EA.F.1 - Operating Performance	EA.F.5 - Solvency - Banking
0.03	0.02
Beta Signal	Beta Signal



The company has a very weak net income margin.

Average Net Income Margin (2016-2018): -1.93% Subindustry Median (2016-2018): 14.67% Source: Morningstar, October 2019. All Rights Reserved.

The company has a weak Tier 1 capital ratio.

Tier 1 Capital Ratio (2018-2016): 14.47% Subindustry Median (2018-2016): 15.97% Source: Morningstar, October 2019. All Rights Reserved.

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# SUSTAINALYTICS ESG RISK RATING REPORT

# **Appendix**



# **Exposure Details**

EA.F.6 - Asset Performance - Banking	EA.F.7 - Financial Flexibility - Banking		
- 0.02 Beta Signal	- 0.03 Beta Signal		
The company has a strong non-performing asset ratio.	The company has a very strong loan-to-deposit ratio.		
Non-Performing Assets (2018-2016): 0.44% Subindustry Median (2018-2016): 0.66% Source: Morningstar, October 2019. All Rights Reserved.	Loan to Deposit Ratio (2018-2016): 0.73 Subindustry Median (2018-2016): 0.85 Source: Morningstar, October 2019. All Rights Reserved.		
EA.S.1 - Qualitative Overlay	EA.S.2 - Subindustry Correction Factor		
0.00 Beta Signal	0.00 Beta Signal		
The analyst did not apply a qualitative overlay.			
EA.S.3 - Exceptional Event Adjustment			
0.13 Beta Signal			





# **Management Details**

000					
G.1.1 - Bribery	& Corruption Policy	<b>/</b>	G.1.1.1 - Bribe	ery & Corruption Pro	grammes
25 Raw Score	1.00% Weight	0.3 Weighted Score	75 Raw Score	1.50% Weight	1.1 Weighted Score
The company ha	as a weak policy or a gene	eral statement addressing the issue		The company has a str	ong programme
Definition of control Definition and Guidelines of words are the control Definition and Guidelines of words are the control Definition of control Definition and Control Definition of control Definit	ribery or corruption onflicts of interest and co prohibition of facilitation what is considered accep idence of a formal policy dressing the issue	table behaviour but the company has a general	Regular briber Operating gui appropriate b Annual signor Regular traini Internal moni Mechanisms Sources Deutsche Bank No	ehaviour  if of the policy on bribery a  ng on bribery and corruptio  toring system to detect co  for employees to consult o  n-Financial Report 2017	essments keeping, approval procedures and und corruption by employees on rruption
G.1.2 - Whistle	blower Programme	s 0.4	<b>G.1.2.1 - Busi</b>	ness Ethics Program	nme 1.7
Raw Score	Weight	Weighted Score	Raw Score	Weight	Weighted Score
	The company has a w	eak programme		The company has a str	ong programme
Available to su  An independer  Possibility for	, ,	ther third parties	Financial Crime div department by 60% roll out an extende	vision and therefore increa 6 during the year (excl. Pos d screening program durir	n 2017 was to strengthen its Anti- ised the number of staff in that stbank). The bank also continued ng the year, which is reported to s gards to screening effectiveness
Non-retaliation  Structures in n		ower reports	Criteria		
Structures in place to process whistleblower reports  Disclosure on the number of reports received, the types of misconduct and measures taken  Available in local languages		<ul> <li>Commitment to address major business ethics risks</li> <li>Board responsibility for business ethics issues</li> <li>Managerial responsibility for business ethics</li> </ul>			
Sources			Ethical risk assessments		
Deutsche Bank, Co	de of Business Conduct a	and Ethics, November 2017	Operating guidelines		
Deutsche Bank, Corporate Website, Compliance, www.db.com; accessed 26 September 2018		nce, www.db.com; accessed 26		g of employees on the Co deter non-compliance and	de of Conduct reduce exposure to unethical
				tigation and corrective act	tions
			Sources		
			Deutsche Bank Co	nflicts of Interest Policy Ju	uly 2017
				n-Financial Report 2017	
			Deutsche Bank, Co	de of Business Conduct a	nd Ethics, November 2017

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### SUSTAINALYTICS ESG RISK RATING REPORT

# **Appendix**



# **Management Details**

### G.1.4.1 - Money Laundering Policy

100	1.00%	1.0		
Raw Score	Weight	Weighted Score		
The company has a strong policy on money laundering				

### The company has a strong policy of money laundering

### Sources

Deutsche Bank Corporate Website, Know your customer (KYC) / Anti-Money-Laundering (AML) / Patriot Act, www.db.com; accessed 26 September 2018

Deutsche Bank Excerpt of Globally Applicable AML and AFC Standard March 2017

Deutsche Bank, General Statement on Observance of Anti-Money Laundering Requirements, February 2018

# **G.1.4.2 - Compliance Programme**

75	1.50%	1.1	
Raw Score	Weight	Weighted Score	
	The company has a sti	rong programme	

### Criteria

$\checkmark$	Managerial	responsibility	for	compliance
--------------	------------	----------------	-----	------------

<b>✓</b>	Customer due diligence related to illegal activities before starting a
	relationship

$\checkmark$	Ennanced customer	aue alligence for	clients operating	in nigh risk countries

	Operating	guidelines	for reporting	suspicious	transactions
--	-----------	------------	---------------	------------	--------------

Training for employees on anti-money laundering and terrorist financing

Training on avoiding tax evasion facilitation

Training on international sanctions compliance

Monitoring existing business relationships
 Incident investigation and corrective actions

Reporting of irregularities

### Sources

Deutsche Bank Non-Financial Report 2017

Deutsche Bank, Code of Business Conduct and Ethics, November 2017

Deutsche Bank, Corporate Website, Compliance, www.db.com; accessed 26 September 2018

# **G.3.1 - Political Involvement Policy**

0 Raw Score	0.50% Weight	0.0 Weighted Score		
Based on available evidence, the company does not have a policy				
Deutsche Bank states it seeks to work in a spirit of partnership with external stakeholders, including political decision-makers and the wider communities the represent. There is no evidence of a political involvement policy.				

### Criteria

Prohibits political involvement of any kind on the company's behalf

Partially prohibits political involvement

Approved by senior management

Commits the company to disclose political donations and/or lobbying expenditures

### Sources

Deutsche Bank, Code of Business Conduct and Ethics, November 2017

# G.3.2 - Lobbying and Political Expenses

0	0.50%	0.0
Raw Score	Weight	Weighted Score

In the last three years, the company made more than USD 0.5 million in political contributions or political spending

According to the EU Transparency Register, Deutsche Bank spent EUR 2,744,000 (approx. USD 3.2 million) in annual costs related to activities covered by the register in 2017. This may include salaries paid to employees located in Brussels.

In the US, Deutsche Bank spent the following amounts over the past three years: 2017: USD 600,000  $\,$ 

2016: USD 600,000 2015: USD 600.000

### Sources

Center for Responsive Politics, Open Secrets, www.opensecrets.org; accessed 24 September 2018

European Parliament Transparency Register,

http://ec.europa.eu/transparencyregister; accessed 24 September 2018





# **Management Details**

### **Business Ethics Events**



Category 4 Event - High



**Outlook - Negative** 

### Summary

Our outlook for this rating is negative. We do not anticipate an upgrade of the rating in the next 12 months based on the following reasons:

Seen as one of the contributors to the financial crisis, Deutsche Bank is subject to tighter regulatory conditions, which may increase the frequency of investigations and therewith the reputational and legal risks for the company.

While an increasing number of legal investigations by regulatory institutions, referring to issues that happened multiple years ago, have come to an end in the past two years, new investigations continue to emerge.

For those cases where Deutsche Bank agreed on a settlement, such as misconduct related to selling Residential Mortgage Backed Securities (RMBS) and the Russian mirror trades (both officially settled with particular regulators in January 2017), the formal comments provided by regulator's indicate that ethical management and controls are still ineffective.

The bank has in the meantime settled some cases with large financial impact, such as Euribor, forex and Libor rate manipulation. These settlements have reduced financial and reputational insecurity. However, the record fines attached to these settlements have had significant reputational and financial impacts on the company, keeping the bank in the spotlight of the media.

If investigations are closed and litigations are settled regarding the bank's high-profile cases, then Sustainalytics will reassess its rating for Business Ethics.

### **Assessment**

In 2017, Deutsche Bank settled for USD 628 mn with the NY Department of Financials Services and UK FCA on money laundering mirror trades from Russia and was issued a USD 41 mn fine in 2018 by the U.S. Fed for its failures for complying with anti-money laundering laws. The bank has also settled several investor lawsuits regarding its alleged involvement in Libor manipulations. While Deutsche Bank has reached multiple settlements and has been closing down large legal investigations in the past years, it is still facing multiple investigations/lawsuits, including its involvement in the money laundering scandal at Danske Bank's Estonian branch and its connection to the businessman involved in the alleged misappropriation of funds from 1MDB. In March 2019, Deutsche Bank was accused of having been part of the Troika Laundromat, a financial network with 75 shell companies set up by a Russian investment bank, and having laundered more than USD 889 million between 2003 and 2017. In March 2020, lawsuits have been filed by shareholders claiming financial and accounting irregularities and failure to comply with IRS regulations, naming specific current and former executives for failures in management that have led to the bank's finances being impaired and left its long-term survival in doubt. These cases combined with governmental authorities continuing to criticize the bank's failure to improve AML and compliance controls, indicate that the bank's ethical management is still ineffective.

Sustainalytics assesses this controversy as a Category 4 due to the company's high involvement in benchmark rates manipulations and significant money laundering allegations in several jurisdictions, which pose significant legal risks to the company. Although business ethics-related controversies are common in the industry, Deutsche Bank's level of involvement is above industry peers, demonstrated with the most recent record payment to settle the allegation that it manipulated benchmark rates. While the top management of Deutsche Bank has committed to structurally enhance its ethical management and close down pending legal investigations, the ongoing investigations and released details on cases that were settled in the past two years, still imply high risks for stakeholders such as clients, shareholders and civil society as a whole.

### **Incident History**



Locations: New York, NY, USA, Germany, England, UK, Illinois, USA, Australia, Denmark, Frankfurt, Germany, Dubai -United Arab Emirates, Italy, Mexico, United States, New York, NY 10003, USA, Malaysia, South Africa, Great Britain, Switzerland, Manhattan, New York, NY, USA, Milan, Metropolitan City of Milan, Italy, Florida, USA, Lithuania, Brussels, Belgium, New York, USA, Chicago, IL, USA, Singapore, Cyprus, Washington, DC, USA, London, UK, United Kingdom, Canada, Russia, Milan, Italy, Netherlands, Panama, Brazil, Nevada, USA

Tags: Business Ethics -Other, Insider Trading

NY court dismisses Putnam Bank lawsuit over Libor manipulation

Law360 - 26 March 2020

Update: Settlement in NY investors' lawsuit over Libor rigging Law360 - 03 March 2020

Update: NY court sentences former directors to home confinement Reuters UK - 24 October 2019

Update: Hawaii Sheet Metal Workers lawsuit over alleged Libor manipulation Class Action Reporter - 03 May 2019

**Update: Putnam Bank files lawsuit in New York alleging Libor rigging** The Sunday Telegraph (London) - 20 January 2019

Update: Manhattan court rules that former directors engaged in Libor scheme Reuters UK - 17 October 2018

Update: Settlement with private investors regarding LIBOR manipulation charges Channel NewsAsia - 27 February 2018

Update: Appeals Court reinstates Charles Schwab lawsuit over Libor rigging Toronto Star Online - 23 February 2018

Update: Settlement with US states regarding LIBOR manipulation charges
New York Times - 25 October 2017

Update: Bank agrees to settle allegations of manipulating Libor Reuters UK - 12 October 2017





# **Management Details**

NY court dismisses Putnam Bank lawsuit over Libor manipulation

Law360 - 26 March 2020

**Update: US FDIC files Libor lawsuit against six EU lenders and the BBA** SeeNews Banking - 17 August 2017

Update: London subsidiary sentenced over charges related to Libor manipulation
United States Department of Justice - 28 March 2017

Update: Dutch foundation representing institutional investors brings Libor nrc.nl - 22 September 2016

Update: Former bank trader Gavin Black pleads not guilty to Libor manipulation CNBC - 08 September 2016

Update: Former New York manager pleads guilty to Libor rigging 4 Traders - 22 June 2016

Update: DOJ charges two former senior traders for LIBOR manipulation
New York Times - 02 June 2016

Update: US appeals court revives Libor antitrust lawsuit DutchNews - 21 May 2016

Update: German regulator BaFin ends probe into Libor manipulation Reuters UK - 25 February 2016

Update: Former senior trader pleads guilty to manipulating Libor in NY federal Reuters - 09 October 2015

Update: US Judge rules Freddie Mac cannot join investor antitrust appeal Law360 - Appellate - 21 September 2015

Update: US Department of Labor tentatively rejects request to manage pension Bloomberg - 27 August 2015

Update: US Judge Buchwald rules 27 private lawsuits for Libor manipulation Bloomberg - 04 August 2015

Update: Nevada gaming regulators investigate bank's ownership of Station Bloomberg - 10 July 2015

Update: BaFin Libor report sparks Frankfurt prosecutor probe into employees' Bloomberg - 26 June 2015

Update: Settlement with several US regulators for Libor manipulation
Department of Justice - 24 April 2015

Update: London subsidiary pleads guilty to DOJ charges in connection to Libor Wall Street Journal - 23 April 2015

NY shareholder lawsuit over claims of irregularities

Bloomberg Law - 10 March 2020

Update: Bank of England criticism for failing to improve AML controls

Update: Company officials report suspicious transaction to US regulator New York Times - 31 October 2019

Update: Internal audit uncovers lapse in anti-money laundering controls

Update: Software glitch could have prevented suspicious transaction reporting Financial Times - 22 May 2019

Update: Employees instructed to exempt Russian clients from AML restrictions Governance, Risk & Compliance Monitor Worldwide - 19 April 2019

Update: BaFin orders measures to prevent money laundering and terrorism Financial Times - 24 September 2018

Update: Internal report finds failure in identification of clients and wealth source

Update: Manhattan District Judge dismisses investor lawsuit claiming deficiencies Reuters UK - 28 June 2017

NY shareholder lawsuit over claims of irregularities

Bloomberg Law - 10 March 2020

Update: Fed fine for failure to comply with anti-money laundering laws ABC News - 30 May 2017

Update: Settlement with US and UK for Russian mirror trading scheme CNBC - 30 January 2017

Update: German regulator finds no evidence of money laundering violation in Times of Malta - 06 October 2016

Update: Chief of Russian securities trading resigned amid money laundering Reuters UK - 14 June 2016

Update: Russian chief operating officer to resign amid allegations of money Bloomberg - 01 June 2016

Update: Shareholder class-action alleging systemic internal control failures 4 Traders -  $18\ \text{May}\ 2016$ 

Update: UK FCA finds issues in bank's anti-money laundering procedures Bloomberg - 01 May 2016

Update: Internal investigation revealed systemic control failure Bloomberg - 14 April 2016

Update: Russian clients reportedly transferred to VTB bank amid money 4 Traders - 07 April 2016

Update: Fined by Russia's central bank for money laundering

Update: DOJ and DFS expand money laundering probe to consider sanctions Reuters - 26 October 2015

Redicio 20 Octobel 2010

Update: US DOJ probe extended to accounts of Russian businessmen Bloomberg - 16 October 2015

Update: Bank reported to cut majority of Russian operations The Wall Street Journal - 14 September 2015

Update: Internal probe extended to bribery

Bloomberg - 21 August 2015

Update: DOJ joins probe of money laundering allegations linked to Russian clients Bloomberg - 03 August 2015

Update: NYDFS and UK FCA probe money laundering allegations Bloomberg - 13 July 2015

Update: Internal investigation into Russian clients' money laundering Reuters - 05 June 2015

Company processed transaction for Jho Low

International Investment - 10 March 2020

Update: US Department of Justice investigation into 1MDB work Morningstar.com - 10 July 2019

Update: Singaporean officials interrogate former head regarding 1MDB missing Gulf News - 17 Sentember 2018

Update: Report alleges bank is involved in 1MDB's funds misappropriation scandal Reuters UK - 12 April 2016

Former trader claims his statements were coerced

FinanceFeeds - 19 February 2020

Update: Swiss authority terminates precious metal collusion investigation Reuters UK - 06 June 2019

Update: Former trader pleads not guilty to precious metals futures manipulation BNN Bloomberg - 25 September 2018





# **Management Details**

Former trader claims his statements were coerced

FinanceFeeds - 19 February 2020

Update: Chicago jury charges former employees with precious metals market United States Department of Justice - 25 July 2018

Update: US CFTC fines bank over spoofing and manipulation
Australian Financial Review - 27 January 2018

Update: Trader pleads guilty to spoofing market orders for metals

Update: Preliminary settlement with investors for gold price manipulation
HF Implode - 03 December 2016

Update: Terms of settlement with US investors disclosed Reuters UK - 17 October 2016

Update: Settlement with US investors over gold and silver price manipulation Reuters UK - 13 April 2016

Update: US shifts precious metals probe from antitrust to fraud Reuters - 26 February 2016

Update: German regulator ends probe into precious metals Reuters UK - 25 February 2016

Update: Swiss regulator investigates alleged manipulation of precious metals Reuters - 28 September 2015

Former JPMorgan banker admits to agreement to restrict stock sale Australian Financial Review - 13 February 2020

Update: Australian regulator files criminal charges over 2015 share issue The New Daily - 01 June 2018

Danish authorities probe over connection to illegal tax refunds Bloomberg Law - 11 February 2020

German prosecutors probe improper payments to Saudi royal adviser BNN Bloomberg - 26 January 2020

Fine against former Dubai compliance head over misleading allegations

Company reaches settlement in money laundering investigation Law360 - 06 December 2019

Update: German prosecutors increase client raids in tax evasion investigation Yahoo! Finance - 03 July 2019

Update: German police conducts another raid in tax investigation Financial Times - 15 May 2019

Update: Frankfurt prosecutors investigate former official for money laundering

Update: German prosecutors raid offices over money laundering allegations  $\mathsf{BBC}$  - 29 November 2018

Update: Bafin does not find evidence of money laundering breaches
Reuters UK - 17 January 2018

Update: US regulator requests information following Panama Papers leak Bloomberg - 20 April 2016

Update: Panama Papers reveal bank assisted clients to access tax havens Bloomberg - 04 April 2016

Court of Appeals decides company must turn over financial documents

New York Times - 03 December 2019

Update: US Court rules company does not have US President's tax returns HilltopMonitor.com - 10 October 2019

Update: US Congress investigation finds possible money laundering lapses
Reuters - 06 September 2019

Update: US criminal investigation over AML regulation compliance

Update: NY Court rules banks can give Trump's financial records to Congress Reuters - 22 May 2019

Update: US Treasury to request probe into failure to report Trump transactions Bloomberg - 22 May 2019

Update: Company failed to report suspicious Trump transactions to the Treasury  $\frac{\text{CNBC}}{19}$  May  $\frac{2019}{10}$ 

Update: US President lawsuit seeks to block financial records' subpoenas Reuters - 30 April 2019

Update: US House of Representatives committees subpoena over Trump finances Nasdaq - 16 April 2019

Update: House committees start inquiry into Donald Trump's bank dealings SNL Financial - 24 January 2019

Update: Bank to be subpoened over information about Trump and Russia links The Guardian -  $20 \, \text{July} \, 2017$ 

Update: US Democrats request documents regarding Trump's financial ties to Bloomberg - 24 May 2017

Italian Court convicts former bankers to jail over derivative deals

Reuters Canada - 08 November 2019

Update: Milan prosecutors request jail sentences for former employees Bloomberg-Quint - 16 May 2019

Update: ECB inspection finds risk management weaknesses II Sole 24 Ore - 16 March 2017

Update: External audit shows bank employees may have manipulated proprietary Bloomberg - 08 December 2016

Update: German audit finds widespread mis-marking of trades similar to BMPS  ${\tt Bloomberg}$  - 06 October 2016

Update: Milan court indicts bank officials for colluding to hide BMPS' losses Kazinform - 01 October 2016

Update: German investigator ends probe into BMPS transactions Reuters - 25 February 2016

Update: Italian prosecutors accuse bank officials of falsifying accounts Bloomberg - 14 January 2016

Mexican regulator names traders in Mexican bonds collusion probe CE Noticias Financieras English - 05 November 2019

Update: Mexican regulator notifies companies of antitrust laws' violation Bloomberg - 15 October 2019

Update: NY court dismisses pension funds lawsuit over conspiracy to fix prices
Reuters - 30 September 2019

Update: Mexican regulator fine for inflating government bond trading volumes
Reuters India - 14 November 2018

Update: Pension fund lawsuit claiming Mexican government bond price fixing Class Action Reporter - 30 August 2018





# **Management Details**

Mexican regulator names traders in Mexican bonds collusion probe

CE Noticias Financieras English - 05 November 2019

Update: Lawsuit alleging banks colluded to fix prices of Mexico bonds

CE Noticias Financieras English - 13 April 2018

Frankfurt headquarters raided in money laundering probe

MarketScreener.com - 25 September 2019

Update: Investigation finds USD 197 million in suspicious transactions processed

Financial Times - 17 April 2019

Update: US employees flagged suspicious transactions for Danske Bank

Bloomberg-Quint - 03 April 2019

Update: German regulator extends mandate of monitor at Deutsche Bank

Reuters India - 15 February 2019

Update: US Fed looks into bank's role in Danske Bank money laundering

Zero Hedge - 23 January 2019

Update: Second internal probe into role in Danske Bank's money laundering

Moneyweb - 16 January 2019

Update: Bank processed USD 181 billion in suspicious funds for Danske Bank

Reuters UK - 06 December 2018

Update: Deutsche Bank processed USD 150 billion in suspicious transactions

Reuters - 20 November 2018

Update: Named in report on Russian money laundering scheme "Laundromat"

Bloomberg - 20 March 2017

South African tribunal sends back collusion case

Reuters - 12 June 2019

Update: South African currency rigging investigation

GlobalCapital - 20 March 2017

Colorado pension fund lawsuit claims CDOR rigging

Reuters Canada - 15 January 2018

Update: Manhattan judge dismisses lawsuit alleging CDOR rigging

Channel NewsAsia - 14 March 2019

Bank named in "Troika Laundromat" report

Newscabal UK News - 05 March 2019

European Commission investigation over alleged SSA bonds collusion

BNN Bloomberg - 20 December 2018

Update: UK FCA reportedly drops probe into alleged SSAs manipulation

Swiss Info - 31 October 2017

Update: Bank settles US agency bond rigging lawsuits

Reuters India - 17 August 2017

Update: Pension fund files lawsuit in New York for manipulating agency bond

LegalNewsLine.com - 13 October 2016

Update: US lawsuit for conspiracy to manipulate agency bond prices

Bloomberg - 18 May 2016

Internal investigation finds ADR allowed clients to abuse tax credit

Financial Times - 09 December 2018

Update: Settlement over "pre-released" ADR abusive practices

SEC Filings - 20 July 2018

Update: SEC probe into potential mishandling of securities in ADR market

Channel NewsAsia - 07 November 2016

Institutional investors file lawsuit over currency market rigging

Reuters UK - 07 November 2018

Update: Retirement plans lawsuit claiming fiduciary liability under ERISA

Bloomberg Law - 10 July 2018

Update: US judge dismisses lawsuit over Forex manipulation

Business Insider UK - 15 March 2018

Update: US DOL grants pension fund waiver for FX convicted banks

International Business Times - 09 January 2018

Update: Settlement with investors in FX rigging litigation

Reuters UK - 29 September 2017

Update: Customer lawsuit alleging collusion to manipulate Forex

Leagle - 23 July 2017

Update: DOJ concludes investigation into Forex manipulation

CNN Money - 20 March 2017

Update: US Labor Department grants pension fund waiver for FX convicted banks

Bloomberg - 18 November 2016

Update: US judge narrows forex rigging litigation

Namibia Press Agency - 20 September 2016

Update: UK SFO drops Forex rigging probe

Bloomberg - 15 March 2016

Update: Canadian investors seek damages for alleged FX manipulation

The Global Legal Post - 11 September 2015

Update: DOJ probe into Forex manipulation extended to real and rubble

Bloomberg - 31 August 2015

Update: DOJ settlement in forex case with six banks excluding Deutsche Bank

Financial Times - 20 May 2015

Allegations of breaching regulations while dealing with high-risk FBME

S&PGlobal Market Intelligence - 09 August 2018

Former trader sentenced to over five years in prison for EURIBOR manipulation

Class Action Reporter - 19 July 2018

UK FCA fines trader for influencing LIBOR submissions

LeapRate - 05 March 2018

Former senior trader pleads guilty to defrauding bank

Edge Markets - 18 January 2017

Former managing director convicted of insider trading in UK

Bloomberg - 09 May 2016

Update: Former manager on trial for insider trading conspiracy

Bloomberg - 14 January 2016

Brazilian tax authority probes banks in relation to Petrobras money laundering

Reuters - 11 January 2016

Update: Brazilian investigators probe banks used in Odebrecht's money laundering

Bloomberg - 16 September 2015





**Management Details** 

## **Accounting and Taxation Events**



**Category 3 Event - Significant** 



Outlook - Neutral

#### Summary

The outlook for this event is neutral. Sustainalytics does not anticipate a change of its assessment in the next 12 months for the following reasons:

Should the investigation move to focus on the company directly, we will consider downgrading the company.

If the investigations warrant no further liability to the company itself, we will consider upgrading the company's rating on this issue.

#### Assessment

Investigations into 80 former and current employees at Deutsche Bank were announced in July 2019 regarding the ongoing cum-ex scandal in Germany. The cum-ex scandal involved the sale of borrowed shares just before a company was due to pay a dividend. This allowed investors to claim a refund on a dividend tax that was paid only once. Although the company has denied any direct involvement in cum-ex transactions, it is alleged that Deutsche Bank was well aware of the transactions and knowingly took on clients who did nothing but such deals. Deutsche Bank paid a EUR 4 million fine for their involvement in the cum-ex deals in 2018 and the company reported in its annual report in 2019 that five former board members were under investigation and the bank itself may face seizures and fines in relation to the cum-ex deals.

Sustainalytics assesses this controversy as a Category 3 as accounting and tax evasion has a high negative impact on stakeholders. Although the allegations have not been proven and the focus of the investigation is on former and current employees, Deutsche Bank may be under tighter scrutiny by regulators going forward. The cum-ex scandal is potentially far-reaching, including former and current bank employees. The cum-ex transactions are reported to have cost German taxpayers more the EUR 10 billion.

## Incident History



**Locations:** Germany, London, UK, Cologne, Germany, Frankfurt, Germany, India, New York, NY, USA, United States

Tags: Taxes avoidance/evasion, Accounting Irregularities and Accounting Fraud

# Company discloses former board members part of cum-ex probe Bloomberg BNA - 20 March 2020

Bloothberg BNA - 20 March 2020

Update: Head of investment unit to step down Morningstar.com - 06 July 2019

Update: Cologne criminal investigation over cum-ex tax transactions

Reuters UK - 06 June 2019

Update: M.M. Warburg lawsuit over failure to withhold taxes for cum-ex trades

Finance Magnates - 10 January 2019

Update: Correctiv investigation finds involvement in cum-ex transactions

Reuters - 04 January 2019

Update: Settlement with Frankfurt prosecutors over cum-ex transactions

Bloomberg - 04 December 2018

Update: NGO report reveals losses to EU countries due to cum-ex trades

EUobserver - 18 October 2018

Update: German Court ruled that banks cannot be reimbursed for cum/ex trades

Hessisches Finanzgericht - 17 March 2017

Update: Journalists reveal dividend sale tax avoidance scheme in Germany

Finanzen.net - 03 May 2016

Update: German prosecutors raid headquarters in connection to cum-ex tax fraud

Bloomberg - 10 June 2015

# Former London trader charged over carbon credits VAT scheme

Business Breaking News - 07 August 2019

Update: Seven former managers guilty of tax evasion on carbon-emissions trading

Bloomberg - 13 June 2016

Update: Eight employees charged for illegal bonuses in CO2 trading scheme

Bloomberg - 25 July 2015

Update: Former employees face prosecution in carbon tax trade scheme

Reuters - 17 April 2015



# **Appendix**



# **Management Details**

Former London trader charged over carbon credits VAT scheme

Business Breaking News - 07 August 2019

**Update: Fraud probe European carbon trading**Süddeutsche Zeitung - 01 December 2012

RBI fine for non-compliance with asset, KYC and AML norms

Financial Express - 14 November 2018

NY court certifies investors' lawsuit over allegations of being misled

Robbins Geller Rudman & Dowd LLP - 03 October 2018

Update: Shareholders' lawsuit claiming Securities Exchange Act violation

Investment Weekly News - 09 July 2011

Oxfam report documents banks' activities in tax havens

Oxfam America - 27 March 2017





**Management Details** 

## **Anti-Competitive Practices Events**



**Category 3 Event - Significant** 



**Outlook - Neutral** 

#### Summary

The outlook for this event is neutral. Sustainalytics does not anticipate a change of its assessment in the 12 months for the following considerations:

While the bank has come to several settlements for previous alleged anticompetitive practices, the bank continues to be involved in new class action lawsuits in several U.S. states for the same misconduct.

The Public School Teachers Pension and Retirement Fund filed a class action lawsuit against the bank in November 2015, alleging that Deutsche Bank colluded to prevent new competition in the USD interest rate swaps, which is still ongoing and increases the risk for Deutsche Bank to incur further fines.

If the bank is able to settle the current class action lawsuits in the U.S. and is not involved in new instances of anti-competitive behavior, Sustainalytics will consider an upgrade.

### Assessment

Deutsche Bank is involved in a number of antitrust lawsuits including, among others, facing class action lawsuits related to alleged collusion of fixing bond prices and colluding to keep the TeraExchange platform out of the U.S. credit default swap market.. While the bank has settled several litigations and paid fines for anticompetitive practices in several jurisdictions over the past several years, the bank still faces open cases, primarily in the U.S. As settlements or fines for misconduct tend to be significant in the U.S., the fact that the bank has pending lawsuits in the U.S. puts it at higher risk of increased legal costs. In November 2015, the Public School Teachers Pension and Retirement Fund of Chicago filed a class action lawsuit against a number of banks, including Deutsche Bank, for allegedly conspiring to limit competition in the USD interest rate swaps. This case still appears to be ongoing. Further, several states, including Maryland, Pennsylvania, Oklahoma, and New York have filed lawsuits in 2019 against several banks, including Deutsche Bank, for conspiring to fix prices on USD 485 mn bonds issued by Fannie Mae and Freddie Mac.

Sustainalytics assesses this controversy as a Category 3. This assessment is shaped by a combination of our estimated impact on stakeholders and the risk posed to the company. The frequency and scale of the allegations against the company are significant. Investigations and legal actions are expected to continue, exacerbating the company's legal risks.

# **Incident History**



Locations: New York, NY, USA, Portugal, Oklahoma, USA, Baltimore, MD, USA, Pennsylvania, USA, Japan, United States

Tags: Anti-competitive Practices

Manhattan lawsuit over conspiracy to fix prices in corporate bond market Channel NewsAsia - 21 April 202

# Settlement over NY bonds price fixing lawsuit

Update: NY court allows investors' price-fixing lawsuit to continue

Update: Oklahoma pension fund lawsuit over collusion to fix bond prices

Update: Baltimore files lawsuit over alleged collusion to fix bond prices

Update: Pennsylvania files lawsuit alleging collusion to fix bond prices

American Banker - 25 March 2019

Portugal's competition authority fine over anti-competitive practices

Reuters UK - 09 September 2019

trueEx lawsuit claims antitrust practices in interest swaps market

Update: US court partially upholds antitrust claims related to the derivatives

Reuters - 04 August 2017

Update: Online trading startups filed lawsuit for interest rate swaps collusion

Update: Company accused of interest rate-swap fixing

Reuters - 25 November 2015



# **Appendix**



**Management Details** 

Japanese regulator finds bank's traders engaged in bond price fixing

Tera Group lawsuit claims banks conspired to keep it out of the CDS market  ${\it Reuters}$  - 08  ${\it June}$  2017



# **Appendix**



**Management Details** 

**Bribery and Corruption Events** 



**Category 2 Event - Moderate** 

# **Incident History**



Locations: Hong Kong, China, Russia, Netherlands

Tags: Bribery and Corruption

HK SFC permanent ban following bribery conviction

Hong Kong Standard Finance - 14 November 2019

Media investigation finds company offered gifts to Chinese officials

The New York Times - 15 October 2019

Update: SEC settlement over improper hiring practices allegations

Financial Times - 22 August 2019

Update: US regulators and internal investigations into Russian hiring practices

EthiXbase - 01 June 2018

Settlement over bribery allegations in derivatives trading lawsuit

Law360 - 12 July 2019

Update: Vestia files lawsuit over bribery allegations

Bloomberg-Quint - 08 May 2019



# **Appendix**



# **Exposure Details**



# **Product Governance**

-	- 4	<b>A</b>		D : -	0:
EA	.E. I	- Access	το	Basic	Services

0.00

Beta Signal

The company is not involved in any controversies of this type.

# **EA.E.24 - Marketing Practices**

0.00

Beta Signal

The company is not involved in any controversies of this type.

### EA.E.28 - Quality and Safety

0.03

Beta Signal

The company is involved in significant-level controversies of this type, signaling higher exposure to this issue.

## EA.F.1 - Operating Performance

0.03

Beta Signal

The company has a very weak net income margin.

Average Net Income Margin (2016-2018): -1.93% Subindustry Median (2016-2018): 14.67% Source: Morningstar, October 2019. All Rights Reserved.

### EA.F.5 - Solvency - Banking

0.02

Beta Signal

The company has a weak Tier 1 capital ratio.

Tier 1 Capital Ratio (2018-2016): 14.47% Subindustry Median (2018-2016): 15.97% Source: Morningstar, October 2019. All Rights Reserved.

### EA.F.6 - Asset Performance - Banking

- 0.02

Beta Signal

The company has a strong non-performing asset ratio.

Non-Performing Assets (2018-2016): 0.44% Subindustry Median (2018-2016): 0.66% Source: Morningstar, October 2019. All Rights Reserved.

### EA.F.7 - Financial Flexibility - Banking

- 0.03

Beta Signal

The company has a very strong loan-to-deposit ratio.

Loan to Deposit Ratio (2018-2016): 0.73 Subindustry Median (2018-2016): 0.85 Source: Morningstar, October 2019. All Rights Reserved.

# EA.G.1 - Headquarters Location

- 0.03

Beta Signal

The location of the company's headquarters indicates slightly lower exposure to this issue.

Germany: Lower exposure

Source: Sustainalytics Country Risk Rating, May 2019.



# **Appendix**



# **Exposure Details**

EA.G.3 - Sales Location	EA.S.1 - Qualitative Overlay
0.05	0.00
Beta Signal	Beta Signal
The location of the company's sales indicates slightly higher exposure to this issue.	The analyst did not apply a qualitative overlay.
United Kingdom: 14% (Higher exposure) Europe, Middle East and Africa (EMEA): 13% (Slightly higher exposure) Germany: 38% (Higher exposure) Asia Pacific: 12% (Average exposure) United States of America: 21% (Slightly higher exposure) Source: Sustainalytics Country Risk Rating, May 2019. Morningstar, October 2019. All Rights Reserved.	
EA.S.2 - Subindustry Correction Factor	EA.S.3 - Exceptional Event Adjustment
0.00	0.00
Beta Signal	Beta Signal





# **Management Details**

S.3.1.1 - Responsible Marketing Policy		S.3.1.3.3 - Cybersecurity Programme			
9	26.25%	2.4	39 15.00% 5.9		5.9
Raw Score	Weight	Weighted Score	Raw Score	Weight	Weighted Score
This indicator s	core has been imputed while	we complete the relevant research	This indicator sco	ore has been imputed while	e we complete the relevant research
			Criteria		
			Management	system certified to ISO 270	001 standards
				tructures in place for cyber	, ,
			Operational m cyberattacks	neasures to monitor and re	spond to data breaches and
					ability assessments or penetration lots and practices affecting user data
				nal security audits or vulne stems, products and practi	rability assessments of the ces affecting user data
			Regular emplo	oyee training on cybersecu	rity issues
<b>G.1.3.8 - Res</b> 75	ponsible Product Offe	ring 25.3			
Raw Score	Weight	Weighted Score			
	The company has a stro				
that create value and has put New adherence to this	for clients and shareholders Product Approval (NPA) pro- s commitment. Furthermore, ness Clients division, which p	providing only products and services through meeting the clients' needs, cleases in place to control for the bank has a Code of Values for its uts forward product principles to			
Criteria					
Policy comn	nitment on responsible produ	icts and services			
Managerial ı	responsibility for responsible	product offering			
	risk assessment incorporated	·			
Regular train	ning on responsible product o	ffering and marketing			
	share risk information				
Continuous services					
Objectives to	o improve customer satisfact	tion			
Mechanisms action	s to receive and investigate c	omplaints and implement corrective			
Reporting or	n product and/or service qual	ity			
Sources					
Deutsche Bank C September 2018	orporate Website, Client Sati	sfaction, www.db.com; accessed 26			
Deutsche Bank N	Ion-Financial Report 2017				





**Management Details** 

### **Quality and Safety Events**



**Category 3 Event - Significant** 



#### Summary

The outlook for this event is neutral. Sustainalytics does not anticipate a change of its assessment in the next 12 months for the following considerations:

Deutsche Bank has settled some of its high-profile lawsuits. Considering the number and scope of ongoing lawsuits against the bank, however, the risk of additional fines is ongoing. This reduces the chances of an upgrade. While the bank has been involved in a number of new lawsuits, it has not been involved in new highprofile cases, such as the RMBS case, that would suggest it faces a high financial risk as a result of significant fines and settlements.

While the company's management initiated activities to induce internal changes in terms of risk behaviour , Deutsche is still facing legal consequences for historical misconduct. A positive development may only occur over the long-term.

If the bank is able to close remaining legacy issues and if the bank is not implicated  $% \left( 1\right) =\left( 1\right) \left( 1\right) \left$ in new incidents of misconduct in its business dealings, Sustainalytics will reassess its rating for Quality and Safety.

#### Assessment

Deutsche Bank is involved in a large number of customer-related investigations and lawsuits, related to, among others, mortgage-backed securities, alleged misleading statements in the Uber IPO, for which the bank was an underwriter, and for discriminatory practices in foreclosure proceedings. While the bank has been able to close many of the open litigations related to its role in RMBS in the past several years, new investigations have continued to emerge for issues that have been ongoing since as early as 2012. Although no investigations are currently ongoing, the severity of the misconduct and the level of scrutiny imposed by several authorities in various jurisdictions suggests that further investigations or lawsuits could arise in the future. Outside of its dealings in RMBS, the bank has been implicated for various other issues spanning alleged breaches of contract, overcharging clients, payment system issues, and fictitious transactions.

Sustainalytics assesses this event as Category 3. While the company settled some of its product-and customer-related lawsuits, the bank continues to face significant litigation risks as settlements continue to occur. Furthermore, the recurrence of involvement in these cases highlights a significant impact on customers, which poses further reputational risks to the company.

### **Incident History**



Locations: California, USA, Germany, New York, NY, USA, England, UK, Illinois, USA, United Kingdom, Brazil, United States, Sydney NSW, Australia, Poland, Angola, New South Wales, Australia, Florida, USA, Hong Kong, New Orleans, LA, USA, New York, USA, Spain, Maryland, USA, Australia, Italy, Texas, USA, Mexico, Panama, Austria

Tags: Services Quality and Safety, Product Quality and Safety, Customer Management

### California class-action lawsuit over predatory loan scheme

# Company unable to access CHAPS for three hours

Update: Company confirms payment system problems to UK regulator

## Company reaches settlement over mortgage backed securities

Update: US DoJ settlement with former head of subprime trading over RMBS

Update: Bank discloses lawsuits over RMBS dismissed

Class Action Reporter - 15 May 2019

Update: DOJ files complaint against former executive misrepresenting loans

Update: Settlement with the state of Maryland regarding mortgage-backed Law360 - 02 June 201

Update: SEC will not take action regarding mortgage-bond trade losses

Update: US District Judge does not certify class action over MBS trustee role

New York Times - 21 March 2017

Update: DoJ to probe traders' role in mis-selling of MBS

v York Times - 08 February 201

Update: Bank cuts bonuses following USD 7.2 billion settlement with US DOJ

Reuters - 18 January 2017

Update: FDIC lawsuit over MBS sold to two failed banks proceeds

Hagens Berman - 18 January 2017

Update: Bank admits it misled investors in the sale of RMBS in DOJ settlement

Bloomberg - 17 January 2017





# **Management Details**

Company reaches settlement over mortgage backed securities

Law360 - 27 February 2020

Update: USD 7.2 billion settlement with US authorities over MBS mis-selling

Forbes.com - 23 December 2016

Update: CEO fails to reach settlement with US DOJ over MBS

TheStar.com.my - 09 October 2016

Update: Deutsche Bank unit settles 2013 lawsuit with HSBS regarding RMBS

Law360 - 05 October 2016

Update: Settlement discussions with DOJ for sale of RMBS

Bloomberg - 15 September 2016

Update: Provisions for SEC settlement regarding RMBS misrepresentation

Bloomberg - 09 June 2016

Update: FDIC settlement for Countrywide RMBS misrepresentations

Reuters - 02 June 2016

Update: US SEC investigation into possible inflation of MBS value

Fortune - 23 May 2016

Update: FDIC lawsuit implicating toxic MBS in Colonial BancGroup collapse will

Reuters - 19 May 2016

Update: Royal Park Investments lawsuit over MBS trustee role

Reuters - 03 February 2016

Update: Settlement with the Commonwealth of Virginia

Law360 - Tax - 22 January 2016

Update: Several lawsuits over trustee role dismissed

Law360 - Banking - 19 January 2016

Update: Commerzbank files lawsuit over MBS trustee role

Reuters - 24 December 2015

Update: US FDIC lawsuit for toxic mortgages sold to Guaranty Bank

CNBC - 10 August 2015

Update: Omnicare class action dismissed

Law360 - 28 July 2015

English High Court lawsuit over breach of aluminum purchase contract

Law360 - 25 February 2020

Settlement in Illinois borrowers' lawsuit over illegal robocalls

Law360 - 27 November 2019

Illinois Court decides foreclosure discrimination lawsuit can continue

Cook County Record - 15 November 2019

Update: US housing organizations file lawsuit over housing discrimination

4 Traders - 01 February 2018

Update: NFHA claims to have new evidence of housing discrimination

National Mortgage Professional Magazine - 26 July 2017

Uber shareholder files California lawsuit over misleading IPO statements

Class Action Reporter - 25 September 2019

Brazilian regulator fine over investment fund administration irregularities

CVM Brazil - 18 June 2019

Company to pay back fees overcharged to clients

Morningstar.com - 11 March 2019

Former FX trader sentenced over fictitious transactions

LeapRate - 12 February 2019

Update: Former trader pleads guilty to using position dishonestly

Australian Financial Review - 05 August 2018

Update: ASIC brings 85 charges against former trader for false entries

Australian Financial Review - 07 February 2018

Update: Australian financial services watchdog bans former trader for false

Financial Standard - 29 September 2016

Investors lawsuit over fund's failure to disclose risks

Class Action Reporter - 30 January 2019

Polish regulator fine for abusive clauses in model contracts

UOKiK - 23 January 2019

USD 12.5 billion lawsuit over 2001 failed property deal

Handelsblatt - 22 January 2019

Lawsuit claiming government officials bribed and Cobalt investors misled

GlobalInvestigationsReview.com - 15 June 2017

Update: Settlement in class action claiming officials bribed and investors misled

GlobalInvestigationsReview.com - 12 October 2018

Investigation delays sale of British insurer Abbey Life

Reuters UK - 03 June 2016

Update: FCA closes exit fees investigation without enforcement action

Citywire - 19 September 2018

Update: UK regulator probes six insurers over exit fees

Investors Hub - 03 March 2016

New York DFS fine over unsafe forex trading practices

Reuters Canada - 20 June 2018

Update: Axiom lawsuit over Autobahn platform unsafe practices proceeds

Reuters - 26 July 2017

Update: Investor lawsuit over unsafe practice on FX Autobahn platform

Reuters - 18 January 2016

Jewish Trust claims bank withheld USD 3 billion from Wertheim heirs

Bloomberg - 19 January 2017

Update: Florida District Court dismisses USD 3 billion lawsuit by Jewish Trust

Bloomberg-Quint - 15 December 2017

Customer lawsuit over pound-to-US dollar currency swaps transaction

European Supermarket Magazine - 03 November 2017

Royal Park Investments lawsuit claims bank used trust funds for legal fees

Law360 - 04 August 2017

FINRA fine for market access rule violations

Advisor.ca - 27 July 2017

Class action claiming Snap underwriters liable for IPO misleading statements

The Register - 10 July 2017



# **Appendix**



# **Management Details**

Spanish consumer groups file lawsuits over loan formalization costs

El Confidencial - 28 June 201 /

Update: Spanish Supreme Court annuls costs of formalizing loans for borrowers

estrelladigital.es - 23 December 2016

NY Judge denies dismissal of lawsuit related to Enron accounting fraud

Law360 - 31 March 2017

Banks agree to settle lawsuit regarding misleading NovaStar securities

Yahoo! Finance - 15 March 2017

Update: Investor class action claims misleading statements about NovaStar

Reuters India - 04 November 2016

Court rules against bank in dispute over credit default swaps

Law360 - 24 January 2017

Update: Breach-of-contract dispute over credit default swaps

Law360 - 10 February 2016

SunEdison creditor lawsuit against lenders

Bloomberg - 21 October 2016

PLX shareholder lawsuit claims bank rigged the firm's sale

Morningstar.com - 17 August 2016

Manhattan judge allows Belmont lawsuit over concealed risks to proceed

Reuters UK - 25 July 2016

Italian investigation into 2011 sale of government bonds

Reuters UK - 06 May 2016

 ${\bf Texas\ asset\ management\ firm\ files\ lawsuit\ over\ swap\ contract}$ 

Law360 - Banking - 25 March 2016

Construction company in Mexico files criminal complaint for "breach of trust"

Reuters UK - 28 January 2016

Internal probe into subprime auto securitizations

Bloomberg - 15 January 2016

City of Pforzheim files lawsuit over bad advice

Bloomberg - 21 October 2015

Panama casino files lawsuit over frozen accounts amid foreclosure

Bloomberg - 02 June 2015

Prosecutor's investigation over Volksbanken debt

Reuters - 02 April 2015





# **Exposure Details**



# **Data Privacy and Security**

### EA.E.27 - Data Privacy and Security

0.02

Beta Signal

The company is involved in moderate-level controversies of this type, signaling higher exposure to this issue.

# **EA.F.1 - Operating Performance**

0.03

Beta Signal

The company has a very weak net income margin.

Average Net Income Margin (2016-2018): -1.93% Subindustry Median (2016-2018): 14.67% Source: Morningstar, October 2019. All Rights Reserved.

### EA.F.5 - Solvency - Banking

0.02

Beta Signal

The company has a weak Tier 1 capital ratio.

Tier 1 Capital Ratio (2018-2016): 14.47% Subindustry Median (2018-2016): 15.97% Source: Morningstar, October 2019. All Rights Reserved.

### EA.F.6 - Asset Performance - Banking

- 0.02

Beta Signal

The company has a strong non-performing asset ratio.

Non-Performing Assets (2018-2016): 0.44% Subindustry Median (2018-2016): 0.66% Source: Morningstar, October 2019. All Rights Reserved.

# EA.F.7 - Financial Flexibility - Banking

- 0.03

Beta Signal

The company has a very strong loan-to-deposit ratio.

Loan to Deposit Ratio (2018-2016): 0.73 Subindustry Median (2018-2016): 0.85 Source: Morningstar, October 2019. All Rights Reserved.

# EA.G.1 - Headquarters Location

- 0.03

Beta Signal

The location of the company's headquarters indicates slightly lower exposure to this issue.

Germany: Lower exposure

Source: Sustainalytics Country Risk Rating, May 2019.



# **Appendix**



# **Exposure Details**

EA.G.3 - Sales Location	EA.S.1 - Qualitative Overlay
0.05	0.00
Beta Signal	Beta Signal
The location of the company's sales indicates slightly higher exposure to this issue.	The analyst did not apply a qualitative overlay.
United Kingdom: 14% (Higher exposure) Europe, Middle East and Africa (EMEA): 13% (Slightly higher exposure) Germany: 38% (Higher exposure) Asia Pacific: 12% (Average exposure) United States of America: 21% (Slightly higher exposure) Source: Sustainalytics Country Risk Rating, May 2019. Morningstar, October 2019. All Rights Reserved.	
EA.S.2 - Subindustry Correction Factor	EA.S.3 - Exceptional Event Adjustment
0.00	0.00
Beta Signal	Beta Signal





# **Management Details**

S.3.1.3 - Data	Privacy & Security F	Policy	S.3.1.3.1 - Dat	a Privacy Programm	ie
 50	9.00%	4.5	50	36.00%	18.0
aw Score	Weight	Weighted Score	Raw Score	Weight	Weighted Score
	The company has an	adequate policy		The company has an ade	quate programme
atural person, are	protected by national and	directly or indirectly related to a d international regulations, and has nation collected through the website.	Regular emplo	tructures in place for priva	cy management
iteria			Data subjects personal infor		s to erase, rectify, complete or ar
		a timely manner in case of policy	Clear and acc data privacy	essible mechanisms for da	ata subjects to raise concerns ab
Commitment t		jh lawful and transparent means, with		cy risk assessments or aud affecting user data	lits on the company's technolog
	nt of the data subject whe	·	Sources		
purpose	to collect and process use	er data that is limited to the stated	Deutsche Bank Co September 2018	rporate Website, Privacy N	otice, www.db.com; accessed 2
	volving the collection, use transferred to third partie	e, sharing and retention of user data es	Deutsche Bank No	n-Financial Report 2017	
Commitment to with the comp		th whom the data is shared to comply			
The company operations	has a formal policy but it	applies to less than 50% of the			
	tement addressing the iss nalytics guidelines	sue but it does not qualify as a policy			
ources					
eptember 2018	rporate Website, Privacy N	Notice, www.db.com; accessed 24	S.3.1.3.3 - Cvl	persecurity Program	
	a requeer manager			, or occurry 1 regramm	
)	9.00%	0.8	39	36.00%	14.0
aw Score	Weight	Weighted Score	Raw Score	Weight	Weighted Score
This indicator sco	ore has been imputed whi	le we complete the relevant research	This indicator sco	ore has been imputed while	e we complete the relevant rese
riteria			Criteria		
Policy commit	tment to respect human ri	ights in data management	Management	system certified to ISO 270	001 standards
Managerial res	sponsibility for governme	nt data requests oversight	Governance structures in place for cybersecurity management		
Regular huma	n rights risk assessments	linked to data privacy		neasures to monitor and re	spond to data breaches and
Notification of	f data subjects in case of	data sharing under legal requirements	cyberattacks	al cocurity audite or vulcer	ability assessments or penetrat
Incident invest	tigation and corrective ac	tion			ability assessments or penetral icts and practices affecting use
data sharing p	practices	lations as a result of the company's		nal security audits or vulne stems, products and pract	rability assessments of the ices affecting user data
Disclosure of p government d		d responding to law enforcement or	Regular emplo	oyee training on cybersecu	rity issues
Regular report	ting on compliance with a	ny government data requests			





**Management Details** 

**Data Privacy and Security Events** 



**Category 2 Event - Moderate** 

# **Incident History**



Locations: Germany, United States

Tags: Data Privacy and Security

Company accidentally sends clients' transaction data to Amazon Reuters India - 16 January 2020

Wall Street Journal reports hacking campaign potentially affected company data Morningstar.com - 31 December 2019

Internal probe over compromised data after failing to deactivate accounts Yahoo! Finance - 28 July 2019



# **Appendix**



# **Exposure Details**



# **ESG Integration - Financials**

EA.E.17 - Environmental	<b>Impact</b>	of Products
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0.02

Beta Signal

The company is involved in moderate-level controversies of this type, signaling higher exposure to this issue.

# **EA.E.32 - Social Impact of Products**

0.02

Beta Signal

The company is involved in moderate-level controversies of this type, signaling higher exposure to this issue.

### **EA.E.46 - Carbon Impact of Products**

0.02

Beta Signal

The company is involved in moderate-level controversies of this type, signaling higher exposure to this issue.

# EA.E.48 - Society - Human Rights

0.01

Beta Signal

The company is involved in low-level controversies of this type, signaling higher exposure to this issue.

### EA.F.1 - Operating Performance

0.03

Beta Signal

The company has a very weak net income margin.

Average Net Income Margin (2016-2018): -1.93% Subindustry Median (2016-2018): 14.67% Source: Morningstar, October 2019. All Rights Reserved.

### EA.F.5 - Solvency - Banking

0.02

Beta Signal

The company has a weak Tier 1 capital ratio.

Tier 1 Capital Ratio (2018-2016): 14.47% Subindustry Median (2018-2016): 15.97% Source: Morningstar, October 2019. All Rights Reserved.

# EA.F.6 - Asset Performance - Banking

- 0.02

Beta Signal

The company has a strong non-performing asset ratio.

Non-Performing Assets (2018-2016): 0.44% Subindustry Median (2018-2016): 0.66% Source: Morningstar, October 2019. All Rights Reserved.

# EA.F.7 - Financial Flexibility - Banking

- 0.03

Beta Signal

The company has a very strong loan-to-deposit ratio.

Loan to Deposit Ratio (2018-2016): 0.73 Subindustry Median (2018-2016): 0.85 Source: Morningstar, October 2019. All Rights Reserved.



# **Appendix**



# **Exposure Details**

### EA.G.1 - Headquarters Location

- 0.03

Beta Signal

The location of the company's headquarters indicates slightly lower exposure to this issue.

Germany: Lower exposure

Source: Sustainalytics Country Risk Rating, May 2019.

#### EA.G.3 - Sales Location

0.05

Beta Signal

The location of the company's sales indicates slightly higher exposure to this issue.

United Kingdom: 14% (Higher exposure)
Europe, Middle East and Africa (EMEA): 13% (Slightly higher exposure)
Germany: 38% (Higher exposure)
Asia Pacific: 12% (Average exposure)
United States of America: 21% (Slightly higher exposure)
Source: Sustainalytics Country Risk Rating, May 2019.
Morningstar, October 2019. All Rights Reserved.

# EA.P.5 - Responsible Asset Portfolio

0.00

Beta Signal

The company's proportion of responsibly managed investments indicates average exposure to this issue.

For 2017, Deutsche Bank reported EUR 10.6 bn in ESG and sustainable assets under management, representing 1.5% of total assets under management (amounting to EUR 700 bn). In addition, the bank manages EUR 9.4 billion of real estate investments in certified green-labeled buildings and managed seven sustainable and impact funds with a combined volume of EUR 355 mn.

# Sources

Deutsche Bank Non-Financial Report 2017

### EA.S.1 - Qualitative Overlay

0.00

Beta Signal

The analyst did not apply a qualitative overlay.

### **EA.S.2 - Subindustry Correction Factor**

0.00

Beta Signal

# **EA.S.3 - Exceptional Event Adjustment**

0.00

Beta Signal





# **Management Details**

#### E.3.1.10 - Credit & Loan Standards

80	9.75%	7.8
Raw Score	Weight	Weighted Score

The company has detailed and specific standards for a variety of industries

In its Environmental and Social Policy Framework, Deutsche Bank defines a number of sectors and activities as having high potential for significant environmental and social impacts, including agriculture and forestry, chemicals, infrastructure projects in certain countries, metals and mining, oil and gas (including hydraulic fracturing and exploration in the Arctic), utilities. The framework puts forward criteria for mandatory referral to Control Groups and/or the Regional Reputational Risk Committee. Furthermore, specific industry sector environmental and social guidelines include Dos and Don'ts. However, the bank does not exclude any industry from financing for sustainability reasons.

#### Sources

Deutsche Bank Non-Financial Report 2017

Deutsche Bank, Environmental and Social Policy Framework, May 2018

#### E.3.1.11 - Responsible Asset Management

40	11.38%	4.6
Raw Score	Weight	Weighted Score

Between 1.00% and 4.99% of assets under management can be categorized as "responsible investment"

For 2017, Deutsche Bank reported EUR 10.6 bn in ESG and sustainable assets under management, representing 1.5% of total assets under management (amounting to EUR 700 bn). In addition, the bank manages EUR 9.4 billion of real estate investments in certified green-labeled buildings and managed seven sustainable and impact funds with a combined volume of EUR 355 mn.

#### Sources

Deutsche Bank Non-Financial Report 2017

#### E.3.1.15 - Sustainable Financial Initiatives

50	4.88%	2.4
Raw Score	Weight	Weighted Score

The company has an adequate programme

Deutsche Bank has established centers of competence for the issuance of green bond and the financing of renewable energy, and to offer these products and services to its clients. During 2017, the bank arranged approximately EUR 2.2 billion in project finance for renewable energy projects, and supported clients to issue more about EUR 10 billion in green bonds. Furthermore, Deutsche Bank managed seven sustainable and impact funds with a combined volume of EU 355 million. Deutsche Bank is a signatory to thee Green Bond Principles, and a member of the Energy Efficiency Financial Institutions Group (EEFIG), the Institutional Investments Group on Climate Change (IIGCC), and the Investor Network on Climate Risk (INCR). However, the company does not report on the group-wide targets for increasing exposure to sustainability related activities, and deadlines or time frames for achieving these.

### Sources

Deutsche Bank Non-Financial Report 2017

#### S.4.2.3 - Financial Inclusion

100	4.88%	4.9
Raw Score	Weight	Weighted Score

The company has a strong programme

Deutsche Bank has a number of initiatives to promote the financial inclusion of disadvantaged people. First, Deutsche Bank manages impact investment funds with a focus on microfinance (Microfinance funds, Global Commercial Microfinance Consortium II, Microcredit Development Fund), consisting of senior and subordinated debt financing for microfinance institutions and banks in the developing world with the aim to increase access to high quality financial services. Deutsche Bank reports that it has provided financing amounting to USD 1.67 bn to micro-borrowers since 1997 and was one of the architects of the Smart Campaign, which aims to embed client protection practices within the microfinance industry. Second, the bank has an enterprise program ("Made for Good") to support disadvantaged or micro-entrepreneurs and to help grow enterprises that tackle urgent social and environmental challenges. For its Made for Good enterprise program, Deutsche Bank has set the goal to reach a total of 20,000 enterprises by 2020. In 2017, this programme supported 11,754 social enterprises in 33 countries and reached 214,000 people. In addition, Deutsche Bank has a number of programmes to build more inclusive communities and to tackle social marginalization through cultural programmes, investments, donations, and volunteering. For instance, Deutsche Bank employees take part in the Financial Literacy initiative as voluntary instructors.

### Sources

Deutsche Bank Corporate Website, Financial Literacy Initiative, www.db.com; accessed 26 September 2018

Deutsche Bank Corporate Website, Microfinance and Social Impact Investment, www. db.com; accessed 26 September 2018

Deutsche Bank Non-Financial Report 2017



# **Appendix**



# **Management Details**

## G.1.3.1 - PRI Signatory

100	1.63%	1.6
Raw Score	Weight	Weighted Score

The company or its main investment management divisions signed the UN Principles for Responsible Investment

Deutsche AM Investment GmbH is signatory to the UN Principles for Responsible Investment (PRI).

#### Sources

Deutsche Bank Non-Financial Report 2017

UNEP FI website, www.unepfi.org; accessed 14 September 2018

### G.1.3.2 - Responsible Investment Policy

0	6.50%	0.0
Raw Score	Weight	Weighted Score

Based on available evidence, the company does not have a policy

As part of the Bank's global Reputational Risk Framework, Deutsche Bank discloses a regularly updated Environmental and Social Policy Framework. While Deutsche Bank states that it builds its ES risk management approach in relation to its own operations and business relationships with its clients across corporate finance, including project finance, trade finance, and investment banking builds on this policy framework, the bank also points out that its asset management division, Deutsche Asset Management, may follow own (and prevailing) policies in relation to environmental and social matters in order to preserve and fulfil its independent fiduciary obligations. Deutsche Asset Management has published a Responsible Investment Statement in January 2017, in which it puts forward its view that the integration of Environmental Social Governance (ESG) factors and active ownership activities are an important part of its fiduciary duty, states that it incorporates ESG factors into its investment analysis, outlines its belief that active stewardship plays an important role. However, there is no evidence of clear commitments to responsible investment in terms specific to exclusions, best-inclass selection and engagement with investees based on ESG criteria.

#### Criteria

Commitment to exclusion based on the companies' activities
Commitment to integrate ESG factors or select best-in-class compa according to ESG factors

Commitment to engage with companies on ESG issues

### Sources

Deutsche Asset Management, Responsible Investment Statement, January 2017

Deutsche Bank, Environmental and Social Policy Framework, May 2018

# G.1.3.3 - UNEPFI Signatory

100 Raw Score	1.63% Weight	1.6 Weighted Score					
The company is a signatory to the UNEP Finance Initiative							
Deutsche Bank has been a signatory to the UNEP FI since May 1992.							
Sources							
UNEP FI website, www.unepfi.org; accessed 14 September 2018							

### G.1.3.5 - Equator Principles Signatory

0	4.88%	0.0		
Raw Score	Weight	Weighted Score		
The	to the Equator Principles			

### Sources

Equator Principles website, www.equator-principles.com; accessed 14 September 2018





# **Management Details**

### G.1.3.6 - Responsible Investment Programme

75	9.75%	7.3
Raw Score	Weight	Weighted Score
	The company has a str	ong programme

#### Criteria

- Managerial responsibility for responsible investment
- Requirements for investment managers to integrate ESG issues into investment strategies
- Prior ESG risk assessment of investment
- Continuous monitoring of ESG risks
- Active ownership
- Investment exclusions based on ESG factors
- Best-in-class investments based on ESG factors
- Other initiatives to promote responsible investment
- Reporting on RI implementation and performance
- Objectives and targets related to responsible investment

#### Sources

Deutsche Asset Management, UN PRI Transparency Report, 2017

Deutsche Bank, Corporate Website, Sustainable Investments, www.db.com; accessed 28 September 2018

Deutsche Bank, Media Release, ESG data in company research, 4 May 2018

## G.1.3.7 - Corporate Finance - ESG Integration

75	9.75%	7.3						
Raw Score	Weight	Weighted Score						
	The company has a strong programme							
Criteria								
Managerial re	Managerial responsibility							
Environmental and social risk assessment and categorization								
Enhanced due diligence or avoidance of high-risk industries								
✓ Training of relationship managers on ESG risk identification								
Monitoring of environmental and social risks								
Regular intern	Regular internal audits of the company's programme							
Client engagement on ESG issues								

#### Sources

Deutsche Bank, Environmental and Social Policy Framework, May 2018

Reporting of high-risk loans as percentage of total portfolio

Engagement with transaction stakeholders





**Management Details** 

# **Carbon Impact of Products Events**



**Category 2 Event - Moderate** 

# **Incident History**



Locations: Germany, Texas, USA, Philippines

Tags: Carbon Impact of Products

"Fool's Gold" report for financing coal power utility companies Bank Track - 21 May 2019

Banking on climate change 2019 report on fossil fuel financing Swiss Info - 21 March 2019

Scrutiny over relationship with German RWE Bank Track - 04 January 2019

120 civil societies launch "Fossil Banks, No Thanks!" campaign BankTrack - 16 October 2018

"TOTALly irresponsible in ultra-deep waters" 2018 NGO report BankTrack - 23 August 2018

Banking on climate change 2018 report on fossil fuel financing Sierra Club - 27 March 2018

"Banks vs. the Paris Agreement" 2017 report BankTrack - 11 December 2017

"Investors vs. the Paris Agreement" 2017 report Urgewald - 11 December 2017

Banking on climate change 2017 report on fossil fuel financing The Guardian - 21 June 2017





**Management Details** 

## **Environmental Impact of Products Events**



**Category 2 Event - Moderate** 

## **Incident History**



**Locations:** United States, Brazil, Montana, USA, Nebraska, USA, Malaysia, Canada, West Virginia, USA, Minnesota, USA

Tags: Environmental impact of products

# BankTrack scrutiny for Keystone XL pipeline financial relationship

Update: US President issues new permit, allowing construction to resume Morningstar.com - 29 March 2019

Update: Montana court overturns permit for Keystone XL pipeline Reuters Africa - 09 November 2018

Update: Nebraska Public Service Commission grants route for Keystone XL Japan Times - 21 November 2017

Update: NGOs take legal action against US State Department for Keystone XL mazaskatalks.org - 24 May 2017

Update: Scrutiny for financing Keystone XL tar sands pipeline BankTrack - 24 March 2017

### NGO report over JBS financial relationship

BankTrack - 24 September 2019

Amazon Watch report on Amazon deforestation related to Bunge Good-StockInvest.com - 30 April 2019

Amazon Watch report on Amazon deforestation related to Cargill Good-StockInvest.com - 30 April 2019

NGO report "Towards responsible and inclusive financing of the palm oil sector" Profundo - 15 November 2017

Scrutiny for financing company behind Energy East pipeline mazaskatalks.org - 09 May 2017

Update: TransCanada cancels plans to build Energy East pipeline Wisconsin Gazette - 05 October 2017

Forest & Finance 2017 updated database on tropical deforestation Forest & Finance Briefing - 07 June 2017

Scrutiny for Mountain Valley Pipeline project in West Virginia ThinkProgress - 22 May 2017

Scrutiny for financing company behind Line 3 pipeline mazaskatalks.org - 09 May 2017





**Management Details** 

## **Social Impact of Products Events**



**Category 2 Event - Moderate** 

### **Incident History**



**Locations:** United States, Argentina, Germany, Spain, Indonesia, Canada, Virginia, USA, North Dakota, USA, Mozambique, Louisiana, USA, Central Kalimantan, Indonesia, Africa, Pakistan, Malaysia, Sarawak, Malaysia, China

Tags: Social impact of products

Columbia court orders full impact statement on DAPL impacts

Update: NGO report estimates FIs incurred USD 4.4 billion in losses desmogblog.com - 04 December 2018

Update: Native American tribe file lawsuit over North Dakota road closure Intercontinental Cry - 01 November 2018

Update: Louisiana Court revokes Bayou Bridge permit Reuters UK - 24 February 2018

Update: Louisiana residents and NGOs scrutiny for Bayou Bridge pipeline mazaskatalks.org - 09 May 2017

Update: UN rapporteur contends improper consultation and use of force at DAPL Financial Times - 07 March 2017

Update: US President issues executive order to ease DAPL permits DutchNews - 24 January 2017

Update: US ACE denies permit to build DAPL under Missouri River San Francisco Bay Area Independent Media Center - 01 December 2016

Update: UN investigates alleged human rights abuses at DAPL protest Rabble.ca - 31 October 2016

Update: Scrutiny for financing North Dakota Access pipeline 4 Traders - 06 September 2016

NGO scrutiny over financial relationship with Vaca Muerta Shale Basin Common Dreams - 18 March 2020

BankTrack report over UN human rights requirements implementation failures BankTrack - 26 November 2019

Bank named in "Dirty Profits 7" report BankTrack - 23 May 2019

RSPO terminates Indofood's membership Rainforest Action Network - 01 March 2019

Update: Scrutiny for financing company accused of labor abuses in Indonesia BankTrack - 24 April 2017

Scrutiny for involvement with TransCanada's Coastal GasLink pipeline project BankTrack - 30 January 2019

US Court of Appeals halts construction over improper wildlife permits EcoWatch - 11 December 2018

Update: Scrutiny for financing Atlantic Coast Pipeline in US BankTrack - 18 April 2018





# **Management Details**

### Canadian Court cites failure to consider aboriginal concerns

Reuters UK - 30 August 2018

Update: Financial institutions cancel USD 4.2 billion Kinder Morgan credit

BankTrack - 03 July 2018

Update: Trans Mountain expansion halted amid opposition and delays

24// Wall St - 09 April 2018

Update: British Columbia seeks intervener status in case against Trans Mountain

The Vancouver Sun - 22 August 2017

Update: Scrutiny for financing company behind Trans Mountain pipeline

mazaskatalks.org - 09 May 2017

#### Scrutiny for shareholding in Anadarko Petroleum

Facing Finance - 28 August 2018

### Greenpeace report criticizes Wilmar and Gama for deforestation in Indonesia

Greenpeace Southeast Asia - 26 June 2018

Update: NGO criticism over police violence at Wilmar palm oil plantation

farmlandgrab.org - 20 December 2017

Update: Fern's "Financing land grabs and deforestation" report

FERN.org - 27 July 2016

### "Don't Bank on the Bomb" 2018 report

Don't Bank on the Bomb - 07 March 2018

### Facing Finance's "Rauchfrei investieren" report

Facing Finance - 31 December 2017

### Funding of Vitol, a company accused of producing low-quality fuels

BankTrack - 07 June 2017

# Bank will finance China's OBOR infrastructure initiative

Economic Times - 31 May 2017

## Funding of Trafigura, a company scrutinized for producing low-quality fuels

BankTrack - 23 May 2017

### Scrutiny for financing weapons manufacturer Rheinmetall

Facing Finance - 04 May 2017

### Scrutiny for financing company involved in labor abuses in Malaysia and Papua

BankTrack - 24 April 2017

# Financial link to Sarawak government in Malaysia

Swedwatch - 07 March 2017

# Worldwide Investments in Cluster Munitions 2016 report

stopexplosiveinvestments - 16 June 2016





**Management Details** 

**Society - Human Rights Events** 



Category 1 Event - Low

# **Incident History**



Locations: New York, NY, USA

Tags: Involvement With Entities Violating Human Rights

New York Comptroller investigates link to terrorist organization Jerusalem Post - 30 September 2017



# **Appendix**



# **Exposure Details**



# **Human Capital**

### **EA.E.22 - Labour Relations**

0.02

Beta Signal

The company is involved in moderate-level controversies of this type, signaling higher exposure to this issue.

# **EA.F.1 - Operating Performance**

0.03

Beta Signal

The company has a very weak net income margin.

Average Net Income Margin (2016-2018): -1.93% Subindustry Median (2016-2018): 14.67% Source: Morningstar, October 2019. All Rights Reserved.

# EA.F.5 - Solvency - Banking

0.02

Beta Signal

The company has a weak Tier 1 capital ratio.

Tier 1 Capital Ratio (2018-2016): 14.47% Subindustry Median (2018-2016): 15.97% Source: Morningstar, October 2019. All Rights Reserved.

### EA.F.6 - Asset Performance - Banking

- 0.02

Beta Signal

The company has a strong non-performing asset ratio.

Non-Performing Assets (2018-2016): 0.44% Subindustry Median (2018-2016): 0.66% Source: Morningstar, October 2019. All Rights Reserved.

# EA.F.7 - Financial Flexibility - Banking

- 0.03

Beta Signal

The company has a very strong loan-to-deposit ratio.

Loan to Deposit Ratio (2018-2016): 0.73 Subindustry Median (2018-2016): 0.85 Source: Morningstar, October 2019. All Rights Reserved.

## EA.S.1 - Qualitative Overlay

0.00

Beta Signal

The analyst did not apply a qualitative overlay.









# **Management Details**

### S.1.1 - Freedom of Association Policy

4.50% 1.1 Weight Weighted Score Raw Score The company has a weak policy on freedom of association

Deutsche Bank states on its website that it respects the right of freedom of association and collective bargaining, based on the global principles of the UN Global Compact and the standards of the International Labour Organization (ILO). However, the company does not disclose a formal policy on freedom of association.

#### Sources

Deutsche Bank Corporate Website, Labour Rights, www.db.com; accessed 17 September 2018

### S.1.2 - Discrimination Policy

100 13.50% 13.5 Raw Score Weight Weighted Score The company has a strong policy

#### Criteria

- List of the types of discrimination the company is committed to eliminate
- Commitment to ensure equal opportunity
- Reference to the ILO conventions

Deutsche Bank, Code of Business Conduct and Ethics, November 2017

### S.1.3 - Diversity Programmes

100 20.25% 20.3 Raw Score Weight Weighted Score

The company has a strong programme

Deutsche Bank has taken several initiatives to promote diversity and inclusion. In addition to being signatory to a range of diversity charters, Deutsche Bank made a voluntary declaration alongside other DAX-30 companies to substantially increase the representation of women, and has also become one of the first companies to adopt the United Nations Standards of Conduct for Business to tackle discrimination against lesbian, gay, bi, trans and intersex (LGBTI) people in 2017. The bank has voluntary, cross-divisional employee resource groups (ERGs) to accelerate the advancement of employees from traditionally underrepresented groups, allies who support those groups, and people who share a common purpose, interest or background.

#### 29 9.00%

Monitoring and measurement

Quantitative targets and deadlines

S.1.3.1 - Gender Pay Equality Programme

2.6 Raw Score Weight Weighted Score This indicator score has been imputed while we complete the relevant research Criteria Commitment to gender pay equality Global gender pay gap audit or compensation review Initiatives to close the gender pay gap

### Criteria

Managerial or board level responsibility for diversity initiatives

Targeted recruitment

Training and guidance regarding diversity

Diversity initiatives that go beyond legal compliance

Employee affinity groups, diversity councils, or networking groups

Mentorship programmes

Initiatives supporting a diverse workforce

Diversity monitoring or audits

### Sources

Deutsche Bank Corporate Website, Diversity and Inclusion, www.db.com; accessed 14 September 2018

Deutsche Bank Human Resources Report 2017

Deutsche Bank Non-Financial Report 2017





# **Management Details**

S.1.3.2 - Gender Pay Disclosure			S.1.4 - Collective Bargaining Agreements			
19	4.50%	0.9	25	4.50%	1.1	
Raw Score	Weight	Weighted Score	Raw Score	Weight	Weighted Score	
This indicator sc	ore has been imputed whil	le we complete the relevant research			ne percentage of the company's ctive bargaining agreements	
Criteria						
		an (average) raw gender pay gap				
	the company's global med					
	ratio of basic salary and re loyment categories (level c	emuneration of women to men for or function)				
S.1.5 - Employ	yee Turnover Rate		S.1.5.2 - Hum	an Capital Developm	ent	
0	4.50%	0.0	75	24.75%	18.6	
Raw Score	4.50% Weight	Weighted Score	Raw Score	24.75% Weight	Weighted Score	
	The company's employee	<del>-</del>	naw ocore	The company has a stro	<u>-</u>	
				The company has a suc	nig programme	
	Bank's total staff turnover nover rate was 7.8%.	rate was 12.0%, and the	Criteria			
				talent recruitment		
				talent development		
Sources			0	talent retention		
Deutsche Bank Hu	ıman Resources Report 20	17	Regular formal performance reviews for all permanent employees aligned with career development			
			Quantitative t	argets related to human ca	pital development	
			Formal mech	anisms to promote an oper	feedback culture	
			Reporting on	human capital developmen	t metrics	
			Reporting on	human capital risk assessn	nent	
			Sources			
			Deutsche Bank Hu	ıman Resources Report 201	7	
\$ 1 6 1 - Fmnl	loyee Training					
19	4.50%	0.9				
Raw Score	Weight	Weighted Score				
This indicator sc	ore has been imputed while	le we complete the relevant research				



# **Appendix**



**Management Details** 

### **Labour Relations Events**



**Category 2 Event - Moderate** 

# **Incident History**



**Locations:** New York, NY, USA, United Kingdom, Singapore, Hong Kong, United States

Tags: Discrimination & Harassment, Labour Relations

Program manager lawsuit claiming dismissal over discrimination complaints HR Dive - 21 March 2019

Settlement reached in lawsuit alleging ERISA violations

Law360 - 15 August 2018

**Update: NY court partly grants summary judgment in ERISA lawsuit** PlanSponsor - 11 June 2018

Update: Class certification granted to lawsuit claiming ERISA violations
PLANSPONSOR com - 07 September 2017

Former employee lawsuit over unpaid bonuses in UK court

Emirates-Business.ae - 26 April 2018

Former Asia co-head files lawsuit claiming wrongful dismissal

La Repubblica - 07 September 2016

Former Hong Kong executive files wrongful dismissal lawsuit

Bloomberg - 22 June 2016

Lawsuit over alleged unjust firing

Bloomberg - 23 September 2015



# **Appendix**



# **Exposure Details**



# Resilience

EA.	F	20	_	D,	seil	lion	2
EM.	. E.,	27	-	пŧ	-511		ıce

0.02

Beta Signal

The company is involved in moderate-level controversies of this type, signaling higher exposure to this issue.

# **EA.F.1 - Operating Performance**

0.03

Beta Signal

The company has a very weak net income margin.

Average Net Income Margin (2016-2018): -1.93% Subindustry Median (2016-2018): 14.67% Source: Morningstar, October 2019. All Rights Reserved.

# EA.F.5 - Solvency - Banking

0.02

Beta Signal

The company has a weak Tier 1 capital ratio.

Tier 1 Capital Ratio (2018-2016): 14.47% Subindustry Median (2018-2016): 15.97% Source: Morningstar, October 2019. All Rights Reserved.

### EA.F.6 - Asset Performance - Banking

- 0.02

Beta Signal

The company has a strong non-performing asset ratio.

Non-Performing Assets (2018-2016): 0.44% Subindustry Median (2018-2016): 0.66% Source: Morningstar, October 2019. All Rights Reserved.

# EA.F.7 - Financial Flexibility - Banking

- 0.03

Beta Signal

The company has a very strong loan-to-deposit ratio.

Loan to Deposit Ratio (2018-2016): 0.73 Subindustry Median (2018-2016): 0.85 Source: Morningstar, October 2019. All Rights Reserved.

## **EA.S.1 - Qualitative Overlay**

0.00

Beta Signal

The analyst did not apply a qualitative overlay.



# **Appendix**







# **Management Details**

## S.4.4.1 - Systemic Risk Management

100 20.25% 20.3
Raw Score Weight Weighted Score

Systemic risk management is very strong

#### Criteria

- Board responsibility for risk management
- Centralized risk management office
- Clawback provisions linked to risk management
- Clawback provisions linked to all variable executive pay components
- Clawback provisions timeframe of at least three years
- ✓ Variable executive compensation capped at 200% of fixed salary
- Variable compensation payout timeframe of at least five years
- Performance-based variable compensation
- Employee risk training and awareness
- Internal audit of risk management system

#### Sources

Deutsche Bank Annual Financial Statements and Management Report of Deutsche Bank AG 2017

## S.4.4.2 - Systemic Risk Reporting

100 20.25% 20.3
Raw Score Weight Weighted Score

The company has a very strong systemic risk reporting

#### Criteria

- Reporting adheres to best practices
- Reporting on management of changing risk environment
- Reporting on capital planning
- Reporting on liquidity planning
- Reporting on market risks
- Reporting on credit risks

#### Source

Deutsche Bank Annual Financial Statements and Management Report of Deutsche Bank AG 2017

# S.4.4.3 - Tier 1 Capital Buffer

66 22.50% 14.9
Raw Score Weight Weighted Score

The company's core Tier 1 capitalization is strong

Deutsche Bank's fully loaded CET 1 ratio of 14.0% exceeds the minimum requirement of 9% by 5%.

# Sources

Deutsche Bank Annual Financial Statements and Management Report of Deutsche Bank AG 2017

# S.4.4.5 - Leverage Ratio

33 20.25% 6.7

Raw Score Weight Weighted Score

The company's leverage ratio is adequate

Deutsche Bank's leverage ratio of 3.8% exceeds the minimum requirement of 3% by less than 1%.

### Sources

Deutsche Bank Annual Financial Statements and Management Report of Deutsche Bank AG 2017

# S.4.4.8 - Asset Quality

75 6.75% 5.1

Raw Score Weight Weighted Score

The company's non-performing asset level is moderate

In 2017, non-performing assets represented 0.5% of Deutsche Bank's total assets.

### Sources

Deutsche Bank Annual Financial Statements and Management Report of Deutsche Bank AG 2017





**Management Details** 

#### **Resilience Events**



**Category 2 Event - Moderate** 

### **Incident History**



Locations: Germany, United States

Tags: Resilience

Company announces 18,000 job cuts as part of restructuring Reuters - 07 July 2019

Update: US Federal Reserve investigation into bad bank plan

Financial Times - 24 June 2019

Update: Deutsche Bank announces restructuring to create a bad bank

Forbes.com - 17 June 2019

Update: EBA's 2018 stress test results show weak performance

Reuters UK - UZ November 2018

Update: ECB asks Deutsche Bank for costs of winding down investment bank

Financial Times - 16 April 2018

Update: Deutsche Bank to post 2017 net loss

Seeking Alpha - 05 January 2018

Update: Deutsche Bank successfully raised USD 8.5 from shareholders

Washington Post - 07 April 2017

Update: Plans to raise USD 8.5 billion in reorganization

Bloomberg - 05 March 2017

Update: ECB lowers CET 1 capital ratio requirement for 2017

Il Sole 24 Ore - 27 December 2016

Update: Bank allegedly received stress test concessions from ECB

New York Post - 10 October 2016

Update: Shareholder concerns regarding capital raising strategy

Financial Times - 15 September 2016

Update: ECB 2016 stress test reveal weak performance

Business Times Singapore - 30 July 2016

Update: Bank reports annual loss

Business Times Singapore - 21 January 2016

US Federal Reserve lifts restriction after the bank passes stress test

Reuters UK - 27 June 2019

Update: US regulators grant additional year for submission of living will

Reuters - 30 August 2018

Update: US unit fails second part of 2018 Fed stress test

New York Times - 28 June 2018

Update: US regulators add US subsidiary to federal problem bank list

Financial Times - 31 May 2018

Update: US unit passes US FED 2017 stress test

Yahoo! Canada - 22 June 2017

Update: 2016 US Federal Reserve stress test failure

American Banker - 29 June 2016

Update: US Federal Reserve 2015 stress test failure

Wall Street Journal - 02 March 2015



# **Deutsche Bank AG**

Diversified Banks | Germany | ETR:DBK

#### **GLOSSARY OF TERMS**

### Beta (Beta, β)

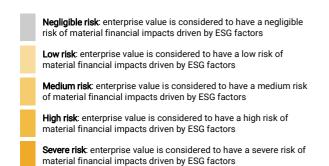
A factor that assesses the degree to which a company's exposure deviates from its **subindustry**'s exposure on a **material ESG issue**. It is used to derive a company-specific issue exposure score for a material ESG issue. It ranges from 0 to 10, with 0 indicating no exposure, 1 indicating the subindustry average, and 10 indicating exposure that is ten times the subindustry average.

### Corporate Governance Pillar

A pillar provides a signal about a company's management of a specific Corporate Governance issue.

#### **ESG Risk Category**

Companies' ESG Risk Rating scores are assigned to five ESG risk categories in the ESG Risk Rating:



Note that because ESG risks materialize at an unknown time in the future and depend on a variety of unpredictable conditions, no predictions on financial or share price impacts, or on the time horizon of such impacts, are intended or implied by these risk categories.

### ESG Risk Rating Score (Unmanaged Risk Score)

The company's final score in the ESG Risk Rating; it applies the concept of risk decomposition to derive the level of unmanaged risk for a company.

## **Event Category**

Sustainalytics categorizes events that have resulted in negative ESG impacts into five event categories: Category 1 (low impact); Category 2 (moderate impact); Category 3 (significant impact); Category 4 (high impact); and Category 5 (severe impact).

### **Event Indicator**

An indicator that provides a signal about a potential failure of management through involvement in controversies.

## **Excess Exposure**

The difference between the company's exposure and its subindustry exposure.

### **Exposure**

A company or  ${\color{red} {\bf subindustry's}}$  sensitivity or vulnerability to ESG risks.

# Idiosyncratic Issue

An issue that was not deemed material at the **subindustry** level during the **consultation process** but becomes a **material ESG issue** for a company based on the occurrence of a Category 4 or 5 event.

#### Manageable Risk

Material ESG risk that can be influenced and managed through suitable policies, programmes and initiatives.

## Managed Risk

Material ESG Risk that has been managed by a company through suitable policies, programmes and initiatives.

#### Management

A company's handling of ESG risks.

#### **Management Gap**

Refers to the difference between what a company has managed and what a company could possibly manage. It indicates how far the company's performance is from best practice.

### Management Indicator

An indicator that provides a signal about a company's management of an ESG issue through policies, programmes or quantitative performance.

#### **Material ESG Issue**

A core building block of the **ESG Risk Rating**. An ESG issue is considered to be material within the rating if it is likely to have a significant effect on the enterprise value of a typical company within a given **subindustry**.

### Subindustry

Subindustries are defined as part of Sustainalytics' own classification system.

# Unmanageable Risk

Material ESG Risk inherent from the intrinsic nature of the products or services of a company and/or the nature of a company's business, which cannot be managed by the company if the company continues to offer the same type of products or services and remains in the same line of business.

# **Unmanaged Risk**

Material ESG risk that has not been managed by a company, and includes two types of risk: unmanageable risk, as well as risks that could be managed by a company through suitable initiatives, but which may not yet be managed (management gap).



#### **Deutsche Bank AG**

Diversified Banks | Germany | ETR:DBK

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### Santa Clara Valley Water District



File No.: 20-0570 Agenda Date: 7/28/2020

Item No.: 2.10.

#### **BOARD AGENDA MEMORANDUM**

#### SUBJECT:

Receive Information and Authorize Staff to Proceed with Negotiation and Execution of Bank Line(s) of Credit with Aggregate Stated Amount Not to Exceed \$200 Million.

#### RECOMMENDATION:

- A. Receive information regarding bank line(s) of credit solicitation; and
- B. Authorize staff to proceed with negotiation and execution of bank line(s) of credit with aggregate stated amount not to exceed \$200 Million.

#### SUMMARY:

#### **Executive Summary**

On April 28, 2020, the Santa Clara Valley Water District's (Valley Water) Board of Directors authorized staff to proceed with issuing a request for proposal (RFP) for bank line(s) of credit up to \$200 million to provide backup liquidity for Valley Water's capital improvement program and general financing needs in light of the ongoing economic uncertainties related to the COVID19 pandemic (Resolution 20-11). The results of the RFP were presented to the Board at its meeting on June 9, 2020 where the Board directed staff to conduct additional research regarding the environmental, social and governance (ESG) policies of each of the five banks (MUFG Union Bank, JPMorgan Chase, US Bank, UBS and Bank of America) who responded to the RFP and return to the Board to present this additional analysis.

Staff evaluated the ESG ratings provided by professional ESG research firms and recommends that the Board consider the "Average/Medium" ratings that each bank received from the ESG research firms be the basis of eligibility for the bank line(s) of credit RFP (see Attachment 1 for ESG evaluation criteria). From a business terms and pricing perspective, the most favorable proposal was submitted by MUFG.

Staff requests Board approval to proceed with negotiations and execution of bank line(s) of credit for an amount up to \$180 million provided by a lead bank and an additional \$20 million syndicated loan reserved for small local banks, for a total bank line(s) of credit amount not to exceed \$200 million. Staff recommends that the order of negotiations follow the pricing and terms ranking as outlined in Table 2 below. For example, should negotiations with MUFG, the highest ranked bank, be unsuccessful, staff would begin negotiations with the next highest ranked bank, JPMorgan, and move

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to the next highest ranked bank until a successful line of credit is negotiated with a lead bank. After a lead bank is selected, staff would work with the lead bank to develop a small local bank/credit union loan syndication program for \$20 million.

#### **Analysis**

Staff conducted research and reached out to each bank to obtain additional information regarding each bank's ESG policies and practices. Staff also invited the banks to review the June 9, 2020 board agenda memorandum and the recorded meeting and enquired whether the banks would like to submit any updates to their fee proposals and business terms in light of the information provided in the board meeting. The ESG information and business terms for each bank are summarized in Tables 1 and 2 below. The revised summary of key business terms proposed by the banks are provided in Attachment 2. The details of each bank's ESG response are provided in Attachments 3 - 7.

Staff recommends that the Board consider all five banks to be eligible for doing business with Valley Water from an ESG ranking perspective as they each received at least an "Average/Medium" ranking from one of the three professional ESG research firms. A summary of the typical ESG evaluation criteria is provided in Attachment 1.

Table 1 - ESG Rankings

		JPMorgan Chase Bank		,	Bank of America
1. Sustainalytics ESG Risk	Medium	Medium	Medium	High	Medium
2. MSCI ESG Rating	Average	Average	Average	Average	Average
3. Corporate ESG Policy	· •	Attach 4 p1 links	Attach 5 P1 - 6	Attach 6 p3 - 4 and p6 - 242	Attach 7 P9 - 56
4. Santa Clara County # Employees	117	902	297	47	536
5. Bay Area # Employees	1,099	2,700	1,306	262	6,075

From a cost and business terms perspective, MUFG offers the most favorable fees and business terms. As demonstrated in Table 2 Line 4, the maximum annual undrawn fee proposed by MUFG for a \$180 million line of credit is \$860,000 lower than JP Morgan's proposal. US Bank, UBS and Bank of America each offered lower line of credit principal amounts; therefore Line 4 is not applicable to these three banks. UBS and Bank of America offered a one-year term only, which is not as favorable as the two- to three-year terms offered by MUFG and JP Morgan.

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US Bank amended the offer to \$75 million maximum amount for a 1.5 to 2.5 year term, hence US Bank's ranking was updated to third place, ahead of UBS. In terms of potential early termination fee, MUFG does not impose a fee if Valley Water chooses to terminate the line of credit after one full year of contract term, whereas JP Morgan requires that the undrawn fee for the remaining contract term be paid to the bank with an early termination. This means that if Valley Water signs a three-year contract and terminates after year one, MUFG would not charge an early termination fee whereas JP Morgan would charge an early termination fee for the remaining two years term at \$1.4 million per year for a total of \$2.8 million termination fee. Note that JP Morgan's range of estimated costs per \$50 million line of credit provided in Table 2 Line 3 has been updated to a range of \$0.41 million to \$1.23 million to reflect the 0.75% index floor rate submitted by the bank as part of their business terms update after reviewing the June 9, 2020 board agenda memorandum. The index floor rate has the effect of increasing the draw fee for the line of credit. MUFG is the only bank that did not required an index floor fee. For further details of the fees and business terms, please refer to Supplemental Attachment 2.

Staff has reached out to the five banks to request extensions for the pricing proposals to accommodate the July 28, 2020 board meeting. Four of the banks have agreed to extend the proposals, except UBS, whose proposal expired on June 10, 2020.

Table 2 - Fee Proposal and Business Terms \$ Millions (M)

	MUFG Union Bank	JPMorgan Chase Bank		UBS AG, Stamford Branch	Bank of America
Business Terms Rankings	1	2	3	4	5
1. Max Principal	\$180	\$180	\$75	\$50	\$75
2. Tenor	2 or 3 years	1, 2 or 3 years	1.5 or 2.5 years	1 year	1 year
3. Estimated Annual Cost per \$50M Credit*	\$0.17-\$1.22	\$0.41 - \$1.23	\$0.24 - \$1.10	\$0.36 - \$0.96	\$0.38 - \$1.18
4. Undrawn Fee for \$180M Principal **	\$0.54	\$1.4	`	N.A (max principal \$50M)	N.A (max principal \$75M)
5. Updated Terms	No change; proposal extended to 7/28/20	See updates in Attach 2; proposal extended to 7/28/20		Proposal expired 6/10/20	No change; proposal extended to 7/28/20

<sup>\*</sup>Estimated annual cost per \$50M credit is calculated based on several key assumptions, including the assumed index rates (SIFMA, 1M-LIBOR, 3M-LIBOR) as of May 22, 2020, and whether the facility will be drawn on a tax-exempt vs. taxable basis (range shown

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demonstrates zero draw vs. \$50M draw for each of the banks). Actual annual costs will change pending the principal amount, future index rates and the utilization of the credit facility.

\*\*Undrawn fee for \$180 million principal demonstrates the total undrawn fee paid to maintain up to \$180 million line of credit for an entire year. Line 4 of Table 2 is not applicable (N.A.) for US Bank, UBS and Bank of America as these banks offer maximum credit of \$75/\$50/\$75 million respectively.

#### **Small/Local Financial Institution Participation**

Staff requested each of the banks to respond to the option of acting as a lead bank to provide syndicated loan participation by small local banks/credit unions, and any other ideas the bank may have to encourage participation. Each of the bank's responses is summarized in Table 3 below.

**Table 3 - Response to Loan Syndication** 

MUFG	MUFG will provide up to \$180 million line of credit and act as lead bank for an additional \$20 million syndicated loan to a local bank partner designated by Valley Water. The fee paid to both MUFG and the local partner must be the same to avoid bank regulatory issues, subject to additional bank counsel fees and administrative fees.
JPMorgan	JPMorgan is willing to provide \$180 million of credit and to act as lead bank in syndicating an additional \$20 million. All banks in the syndication would need to receive the same terms as JPMorgan, subject to negotiations.
US Bank	U.S. Bank is willing to enter into a syndicated Facility as Agent Bank, subject to further negotiations.
UBS	UBS would use its best efforts to consider acting as a lead bank to offer an additional \$20 million syndicated loan to small and local banks/credit unions, subject to legal review and negotiations, as well as additional bank counsel fees.
Bank of America	Bank of America is willing to act as a lead arranger with other financing partners, on the basis of several, but not joint liability, subject to parity pricing, covenants, events of defaults and remedies amongst the Lenders, and a fee approximately 0.05% of the total arranged commitment amount and estimated legal fees of \$75,000 plus \$10,000 per additional bank (assuming common bank counsel).

With the Board's approval for staff to proceed with the selection of the lead bank, staff will work with the selected bank to develop a syndicated loan for small and local banks/credit unions participation of up to \$20 million line of credit capacity.

#### FINANCIAL IMPACT:

Funding for the bank fees are included in the Fiscal Year 2020-2021 Budget for the following projects:

26993001 Tax-Exempt Commercial Paper (Fund 26 Safe, Clean Water Program) 95993007 Tax-Exempt Commercial Paper (Fund 61 Water Utility)

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#### 95993008 Taxable Commercial Paper (Fund 61 Water Utility)

Staff will make best efforts to manage banking fees within the adopted FY 2021 budget for debt service, but if the annual banking fees exceed \$1 million, staff may need to return to the Board with a budget adjustment in mid FY 2021.

#### CEQA:

The recommended action does not constitute a project under CEQA because it does not have a potential for resulting in direct or reasonably foreseeable indirect physical change in the environment

#### ATTACHMENTS:

Attachment 1: PowerPoint

Attachment 2: Revised Bank Proposals Attachment 3: MUFG ESG Response Attachment 4: JPM ESG Response Attachment 5: US Bank ESG Response Attachment 6: UBS ESG Response

Attachment 7: Bank of America ESG Response

#### **UNCLASSIFIED MANAGER:**

Darin Taylor, 408-630-3068



# Valley Water

Clean Water • Healthy Environment • Flood Protection

# Bank Line(s) of Credit and ESG Evaluation

Presented by: Charlene Sun, Treasury and Debt Officer



## Recommendation

3

A. Receive information regarding bank line(s) of credit solicitation; and

B. Authorize Staff to Proceed with Negotiation and Execution of Bank Line(s) of Credit with Aggregate Stated Amount Not To Exceed \$200 Million



## Environmental, Social, Governance (ESG) Evaluation Criteria

- Professional ESG research firms use proprietary data collection and evaluation criteria to assign ESG ratings
- "Average or Medium" ESG rating signals that the company has implemented ESG policies and management practices that result in a medium level of ESG risk exposure.
- Sample ESG criteria:

ESG Criteria	Description
Corporate Governance	Factors evaluated include: Board and executive management quality and integrity, structure, ownership and shareholder rights, compensation, audit and financial reporting and stakeholder governance
Business Ethics	Factors evaluated include: money laundering policy, bribery & corruption policy, business ethics and compliance to law, whistleblower policy, lobbying and political expenses, accounting and taxation policies, anti-competitive practices, and sanctions against the company



## **ESG)** Evaluation Criteria - continued

ESG Criteria	Description
Product Governance	Factors evaluated include: socially responsible product design and marketing practices, cybersecurity policies, quality and safety practices, fair billing and post sale responsibility to customers and stakeholders
Data Privacy and Security	Factors evaluated include: data governance practices and policies regarding the collection, use and management of protected customer data
ESG Integration - Financials	Factors evaluated include: environmental/social/carbon/human rights impact of products, financial inclusion, credit and loan standards, responsible investment program, sustainable financial initiatives and responsible asset management
Human Capital	Factors evaluated include: management of human capital, labor relations, non-discriminatory policies, working conditions, employee training, minimum wage/compensation policies, collective bargaining, gender equality and diversity programs
Resilience	Factors evaluated include: financial management policies and practices that promotes compliance with regulatory capital requirements, solvency, operational resilience, leverage and financial flexibility

## Summary

- All five banks have ESG ratings of "Average/Medium"
- Staff requests Board approval to proceed with negotiations for \$180 million line of credit with a Lead Bank
  - Lead Bank negotiation starting with MUFG, highest ranked firm for pricing/terms, move to next highest if needed
  - Work with Lead Bank to develop \$20 million syndicated loan reserved for small local banks



# QUESTIONS









# Valley Water

Clean Water • Healthy Environment • Flood Protection

Attachment 2 - Revised Bank Proposals Summary

Note: Cells with yellow highlights denote updates from the 6/9/2020 Board Agenda Memorandum, Supplemental Attachment 1

	Staff Ranking Bank	1 MUFG	2 JPMorgan	3 U.S. Bank	4 UBS	4 Bank of America
1	Long- / Short-Term Ratings Fitch Moody's S&P	A/F1 (negative) A2/P-1 (negative) A/A-1 (stable)	AA/F1+ (negative) Aa2/P-1 (stable) A+/A-1 (stable)	AA-/F1+ A1/P-1 AA-/A-1+	AA-/F1+ Aa3/P-1 A+/A-1	AA-/F1+ (stable) Aa2/P-1 (stable) A+/A-1 (stable)
2	Credit Amount	\$180,000,000	\$180,000,000	\$75,000,000	\$50,000,000	\$75,000,000
3	Unutilized Fee %	0.300%	0.75% / 0.775% / 0.80%	0.4%/0.45%	0.600%	0.650%
4	Tax-exempt rate Index 1 year (364-days) 2 years 3 years	81% of 1M-LIBOR NA 1.850% 2.250%	80% of 1M-LIBOR 1.500% 1.550% 1.600%	85% of 1M-LIBOR 1.300% 1.450% NA	3M-LIBOR 1.300% NA NA	SIFMA 1.500% NA NA
5	Taxable rate Index 1 year (364-days) 2 years 3 years	1M-LIBOR NA 1.850% 2.250%	1M-LIBOR 1.800% 1.850% 1.900%	1M-LIBOR 1.550% 1.700% NA	3M-LIBOR 1.300% NA NA	1M-LIBOR 1.500% NA NA
6	Index Floor	Not requested	0.750%	0.500%	0.500%	0.750%
7	Base Rate	Greater of (1) Prime +2.0%; (ii) Fed Funds Rate +4.0%; and (iii) 7.5%	The highest of (i) JPMorgan's Prime Rate plus 1.50% p.a.; (ii) the Federal Funds Rate plus 2.00% p.a.; or (iii) 7.50% p.a.	Greater of (1) Prime +1.0%; (ii) Fed Funds Rate +2.0%; and (iii) 7.5%	Greater of (1) Prime +1.0%; (ii) Fed Funds Rate +2.0%; and (iii) 7.5%	Greater of (1) Prime +1.00%; (ii) Fed Funds Rate +2.00%; and (iii) 7.0%
8	Bank/Advance Rate	Base Rate Base Rate + 1.0% Base Rate + 1.0% Base Rate + 1.0% Base Rate + 1.0%	Days 1-180: Base Rate  Days 181+: Base Rate plus 1.00% p.a.	Base Rate Base Rate Base Rate Base Rate + 1.0% Base Rate + 2.0%	Base Rate Base Rate Base Rate Base Rate Base Rate	not applicable
	Days 365+				Base Rate + 2.0%	
9 10	Default Rate Failure to Close Fee	Base Rate + 2.0%  Not specified	\$7,500 if mandated and before deilivery of 1st draft	Base Rate + 4.0%  Not specified	Base Rate + 3.0%  Not specified	Base Rate + 5.0%  Not specified
11	Terminination Fees	During 1st year	Balance of Untilized Fee for remaining term	During first 6 months for the 1.5 year tenor or 1st year for the 2.5 year tenor	During 1st 6 months Advances are subject to termination costs	None
12	Extension	No greater than 180 days and no less than 90 days prior to the expiration date	A renewal request may be made in writing by no more than 120 days prior to the expiration date of the facility	No earlier than 120 days prior to the expiration date	Not less the 60 days prior to the expiration date (renewal for one year)	Not specified
13	Term Out Period	5 years	5 years	3 years or when Parity Debt, Certificates of Participation or other debt is issued	2 years	None
				15 15decd	Begins no later than advance	
14	Downgrade Provisions Credit Rating Levels	Unutilized fee and Spread increases are cumulative for each level of downgrade	Increases to the initial unutilized fee rate / applicable spread, respectively	Increases to the initial unutilized fee rate / applicable spread, respectively	Commitment fee increases are cumulative for each level of downgrade	Unutilized fee and Spread increases are cumulative for each level of downgrade
1 2 3 4 5 6 7 8 9	AA+ AA AA- A+ A BBB+ BBB BBB- Below BBB-	0.000% 0.000% 0.050% 0.050% 0.100% 0.200% 1.000% 0.500% 1.500% Ratings withdrawal or suspension increase to lowest level (below BBB-), or Event of Default +1.50%	0.00% / 0.00% 0.10% / 0.20% 0.20% / 0.40% 0.30% / 0.60% 0.40% / 0.80% 0.50% / 1.00% 0.60% / 1.20% 0.70% / 1.40% 0.80 / 1.60%  In the event the rating assigned by Moody's, S&P, or Fitch is withdrawn, suspended or otherwise unavailable, (i) the	0.00% / 0.00% 0.05% / 0.05% 0.10% / 0.10% 0.25% / 0.25% 0.35% / 0.35% 0.45% / 0.45% 0.60% / 0.60%  If one or more of the ratings on Parity Debt are withdrawn or suspended for credit related reasons,	0.000% 0.000% 0.000% 0.100% 0.100% 0.200% 0.250% 0.250%  Ratings withdrawal, suspension or reduction below BBB-, or Event of Default	0.000% 0.200% 0.200% 0.200% 0.200% 0.200% 0.200% 0.200% Ratings withdrawal or suspension, or Event of Default +1.50%
			unutilized fee rate shall be increased immediately, without notice, by an additional 1.00% p.a. and (ii) the interest rate on advances shall increase to the Default Rate.	or any such rating shall be reduced below BBB+/Baa1 or upon the occurrence of any other event of default under the Agreement, the Unused Fee shall increase by an additional 3.00% from the Unused Fee corresponding to Level 7. Advances shall bear interest at the Default Rate.	3.00%	



# Supplemental Environmental, Social and Governance information prepared for The Santa Clara Valley Water District

June 12, 2020





Global Corporate & Investment Banking 445 S Figueroa St, 16th Floor Los Angeles, CA 90071 Tel: 213-236-5153

June 12, 2020

Charlene Sun Treasury and Debt Officer Santa Clara Valley Water District 5750 Almaden Expressway San Jose, CA 95118

Ed Soong **PRAG** 11500 W. Olympic Blvd., Suite 502 Los Angeles, CA 90064

Re: Supplemental ESG Information for Santa Clara Valley Water District

Charlene and Ed,

MUFG Union Bank is pleased to supply the enclosed supplementary information requested by the District. We are proud of our ESG achievements, and senior management has deliberately focused this entire global financial institution on environmentally and socially responsible action.

Attached are several documents that make clear MUFG Union Bank's firm policies to address climate change, increase Diversity and Inclusivity, and act for social good around the world.

First is a short presentation documenting the concrete steps taken to realize these global goals. Please note slide 3 of Section 1 details the "MSCI ESG Index" rankings, which include large financial institutions that participate in Public Finance Revolving Lines of Credit (RLC), such as solicited by the Water District.

Section 2 is a profile of MUFG Union Bank's presence in the Nine-County Bay Area community. I attended the Board Meeting by phone on Tuesday and understand the District's desire to work with local entities to support the area workforce. I would respectfully submit that MUFG Union Bank is both the most economic provider of the RLC and a local bank heavily invested in the community.

Section 3 contains our most recent annual Corporate Social Responsibility ("CSR") Report, which is a detailed profile of our investments in local communities and the ways we "give back" everywhere we work. Note that the CSR report is dated March 31, 2019, so its statistics are somewhat dated. The 2020 annual update's publication has been delayed by the global pandemic.

Last, included as Section 4, is a press release from 2019 that lays out the specifics of our worldwide Sustainable Finance framework for the ongoing re-balancing away from fossil fuels and towards renewable energy sources (in addition to prohibiting Palm Oil Plantation and cluster-munition financings). This was a great vote of confidence from our senior leaders to all of our global governmental and corporate partners, but also to the MUFG Union Bank employees in California and around the world.

On the following page are direct answers to your inquiries earlier this week. Please let me know if you have any questions or would like additional information.

Nicholas Boyle

Managing Director – Public Finance Supplemental Attachment 3 MUFG Union Bank, N.A.

Tunkan

Page 2 of 29

1. What is the Bank's response to Banktrak's rankings (attached)? Have you or do you plan on implementing any changes to address the issues raised by Banktrak?

MUFG is in the midst of an ongoing transformation to become a top-ranked ESG provider of financial services. For a number of reasons, we'd like to refer the District to the "MSCI ESG Ratings" for financial institutions (See Section 1, page 3). There MUFG is in the middle of the pack because we are on a journey to reshape our lending portfolio to match all the ethics and values summarized by ESG. MUFG has been in business for 350 years; MUFG Union Bank has been a San Francisco-headquartered bank for 150 years. We take the long view, and addressing climate change, Inclusion and Diversity, and local community reinvestment is the long view.

The BankTrack Human Rights ranking seems to rely heavily on information voluntarily provided to the Netherlands-based organization, and its criteria necessarily favor those banks with limited business lines. For example, Rabobank limits its lending to agriculture and food production outside of the Netherlands. Thus a Human Rights Due Diligence process for food production corporations in the United States (the only domestic business to which Rabobank lends) is applied to a sector already geographically and intrinsically free of such violations. MUFG, on the other hand, conducts Enhanced Due Diligence whenever necessary to spot ethical violations across approximately 50 business lines supporting nearly every major business sector in the United States.

There is one glaring example that points to this potentially tilted playing field: The Royal Bank of Canada. BankTrack ranks it among the lowest performing Human Rights institutions in the world. Having competed against and known reputable bank officials with RBC for years, it boggles the mind that this could be an accurate reflection of the largest Canadian Bank's Human Rights record. We suspect that BankTrack simply doesn't have RBC's information, while they may have a surfeit of information from the top two banks – both headquartered in the Netherlands.

MSCI, on the other hand, is a statistically rigorous provider of Indexes to an array of businesses and industry sectors. Based in New York City, MSCI transparently discloses their criteria and bases their entire existence on the validity and reliability of their data. We have provided a link to their website in Section 1.

2. What is the Bank's response to Bloomberg's rankings (attached)? Have you or do you plan on implementing any changes to address the issues raised by Bloomberg?

The Bloomberg ranking appears to be a translation of an in-Country Japanese financial institution assessment. Some of the banks listed are smaller entities focused on sub-regions within Japan. We have no insight into the inputs, but would only note that the # of employees listed for MUFG -- +/- 2400 - is extremely off the mark for the Bank, which is the largest bank in Japan.

3. Are there any other ESG information the bank wishes to provide? For example, how many branches/employees does the bank have in Santa Clara County and the 9 Bay area counties? Does the Bank have any social responsibility (corporate policies) policies that can be shared with the Board?

Please see the aforementioned MSCI Index in Section 1 (page 3). For the retail branch and employee count information in the Nine-County Bay Area, please see Section 2. And please see Section 3 for our most recent CSR Report.

4. Will the bank consider offering Valley Water credit up to \$180million, and, act as a lead bank to offer an additional \$20 million syndicated loan to small and local banks/credit unions? The syndication agreement would be between the lead bank and the local banks. The pricing for the local banks is subject to discussion, and may be higher than pricing for the lead bank given the District board's desire to incentivize small local banks participation. If not, does the bank have other ideas/mechanisms to involve small local banks participation in the line of credit business?

MUFG Union Bank is agreeable to providing the face amount of \$200,000,000, and then partnering with another Bank as a \$20,000,000 "participant" designated by the District. Participations are an efficient way for the District to manage a two-bank solution because MUFG Union Bank is the only touchpoint for District staff. In this structure, the participant would risk participate in \$20MM of the exposure held by MUFG and be paid a pro rata fee through a bilateral agreement between the participant and MUFG Union Bank. It is not market practice, however, to have a higher price paid to the participant bank than paid to the "fronting" bank (and could raise regulatory issues).

If the District wished to set up a separate facility directly with the second Bank, it could achieve the goal of paying that Bank more, but that would also incur an additional Bank Counsel Fee, as well as the internal administrative costs of managing the two facilities on an ongoing basis.

We'd also like to take this opportunity to suggest why the District has had difficulty finding a small local bank to provide an RLC. It comes down to cost: Offering RLCs and liquidity has become the most minutely regulated product set in the banking sphere. The capital requirements imposed by the Bank of International Settlements (Basel III) have made all the largest banks better capitalized, but a perhaps-unintended effect is the required provision of expensive "buffer assets" and "liquidity premiums" to each and every RLC. We'd suggest, therefore, that very small local banks may be willing but financially unable to sell an RLC to the District.

5. Will the bank consider revising the fee proposal after reviewing the 6/9 Staff Report summarizing the results of the RFP? If so, please submit your revised fee proposals along with the information requested here by 10 am on June 15, 2020.

We're very pleased to be an ongoing partner with the District's as full-banking and CP credit/liquidity provider. We will decline the opportunity to revise our fee proposal, since we believe we are the most compelling economic and socially responsible proposer to the District.

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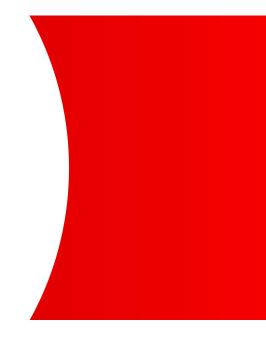


Section 1 ESG Overview



## **ESG Overview**

June 2020





#### Sustainable Finance

MUFG is aligning core businesses to key external standards such as Green Loan Principles, Green Bond Principles, and Social Bond Principles.

#### **Environment**



MUFG serves businesses contributing to the mitigation of and adaptation to climate change – including renewable energy, improving energy efficiency, green buildings, and sustainable agriculture – through arranging sustainability-linked loans, project finance for renewable energy, and underwriting and distribution of green bonds..

#### **Society**



We partner with clients contributing to the development of startups, job creation, and poverty alleviation, including those that:

- Contribute to revitalizing local communities
- Provide fundamental services (e.g. public transport, water infrastructure, and airports) and essential services such as hospitals, schools, and local law enforcement

MUFG serves these clients through our Emerging Industrial Technology Support Program and the MUFG Regional Revitalization Fund.

#### Sustainable finance goals



MUFG aims to provide a cumulative **20 trillion yen** in Sustainable Finance by 2030.

- Of this, 8 trillion yen is for environment projects between FY2019 and FY2030 to help build a sustainable society and attain the Sustainable Development Goals (SDGs) through our client services.
- This goal builds on a decade of MUFG being ranked in the top tier of global lending for clean energy.
- In 2019 MUFG Americas achieved its USD 25 billion, five-year Environmental Finance goal, one year ahead of schedule.



## MSCI ESG Ratings, June 2020<sup>(1)</sup>

Financial Institutions	MSCI Grades
UBS Bank	AA
Mizuho	A
PNC	A
SMFG	A
Citigroup	BBB
MUFG Union Bank	BBB
Bank of America	ВВ
Fifth Third	ВВ
JPMC	BB
US Bank	вв
Wells Fargo	ccc



<sup>1)</sup> MSCI ESG Ratings, June 2020. See: https://www.msci.com/esg-ratings

## Environmental and Social Policy Framework

MUFG's Environmental and Social Policy Framework outlines specific risk management measures that the bank is taking as a steward of environmentally sustainable products and services.

#### MUFG has committed to:

Not providing financing for new coalfired power generation projects, and gradually reducing the balance of MUFG's exposure to coal-fired power generation projects Confirming as Restricted
Sectors subject to enhanced
due diligence: Forestry, palm
oil, coal-fired power, thermal
coal mining, oil sands, Arctic
oil and gas development, and
large hydropower generation



## Commitment to clean energy and the environment

MUFG has led and participated in a number of key initiatives to support a greener world.

#### **The Equator Principles**

Supporting environmental and social risk management of customers developing large-scale projects through promoting and providing leadership for an international framework based on World Bank standards – the Equator Principles

## Environmentally-conscientious products and services

Working behind the scenes to reduce environmental impacts by providing products and services to customers who aim to be environmentally conscious

#### Leverage our financing function

Contributing to the development of projects that do not use fossil resources and the dissemination of renewable energy, while also committing to disclose and manage climate change risks in our overall loan portfolio through the Taskforce on Climate-related Financial Disclosures

## Reduce the environmental impacts of our business activities

Actively seeking to reduce environmental burdens related to our own business activities – including reducing greenhouse gas emissions and purchasing electricity produced by renewable energy for our own use

## Promote consulting services related to climate change

Bringing our knowledge as a top global advisor on the Kyoto Protocol Clean Development Mechanism and its financial functions, to actively promote initiatives under the Joint Crediting Mechanism, and leveraging our accreditation by the UN Green Climate Fund on behalf of clients

## Support environmental education and preservation

Helping to preserve UNESCO World Heritage Sites and provide opportunities to learn about sustainability





Section 2 Bay-Area Presence



## MUFG Union Bank Bay-Area Presence

Branches and Employees in the Nine-County Bay Area

County	Number of Branches	Number of Employees <sup>(1)</sup>
Alameda	7	171
Contra Costa	7	193
Marin	5	22
Napa	0	0
San Francisco	5	551
San Mateo	7	31
Santa Clara	16	117
Solano	1	7
Sonoma	1	7
Total	49	1,099

<sup>1)</sup> In addition to the full-time employees listed above, MUFG Union Bank employs approximately 31 part-time and contracted consultants in the Bay Area.

Note: MUFG has ~180,000 employees globally and a total of ~13,700 employees in the United States. The Bank employs ~7,400 Californians.





Section 3

Corporate Social Responsibility Annual Report, 2019



## MUFG IN THE AMERICAS 2018 CORPORATE SOCIAL RESPONSIBILITY (CSR) REPORT

April 1, 2018-March 31, 2019







#### A message from our leadership

Throughout 2018, MUFG continued to strengthen communities across the Americas with strategic investments in the key areas of affordable housing, economic development, youth development, environmental sustainability, and inclusion and diversity. Our initiatives, programs, and partnerships aim to drive lasting change and improve economic, social, and environmental wellbeing. Amid a rapidly changing world, our commitment to our communities remains steadfast and is at the heart of who we are, working as a responsible corporate citizen to help uplift the communities and the people we serve.

Steve Cummings

Regional Executive for the Americas Mitsubishi UFJ Financial Group, Inc.

Folsie

**Julius Robinson**Head of CSR for the Americas
MUFG Union Bank, N.A.

#### **Our business**

Total assets in the Americas: \$339.7 billion

351 retail and commercial branches

24 wholesale locations in 8 countries

22 PurePoint Financial centers

19,622 staff members in the Americas



MUFG Americas Regional Executive Steve Cummings speaks to a group of students at Baruch College, of the City University of New York, where MUFG funded scholarships for entrepreneurship students. The Chronicle of Higher Education has ranked Baruch #1 in the United States for four years in a row in helping students move out of poverty.

Steve volunteered as part of MUFG Gives Back, an annual month-long global campaign that provides opportunities for MUFG employees to serve their communities.

On the cover: MUFG Marketing Officer Mario Martinez (left) congratulates Ja'Doni Lewis (middle) and Christian Tolbert (right) on their participation in the inaugural Youth Entrepreneurial Challenge in Los Angeles. The Challenge offered local high school students an opportunity to pitch their business ideas before a panel of judges, which included successful entrepreneurs.

#### 2018 CSR highlights (calendar year 2018 except as noted)

#### \$41 billion

in total commitments under our 5-year Community Service Action Plan



#### \$19 million

in donations supporting nonprofit organizations in targeted sectors



## 48,213 volunteer hours

for 1,387 local organizations



#### \$1.07 billion

in loans to small businesses and farms



#### \$234 million

of discretionary spending to minority-, women-, and veteran-owned business enterprises



#### \$1.95 billion

in loans and investments to support affordable housing, both single- and multi-family



#### \$380 million

in economic development equity investments



#### Ranked #1

Global Clean Energy Lead Arranger, Bloomberg New Energy Finance

2018 Global Green Loans Bookrunner, Bloomberg



#### \$11.1 billion

in environmentally sustainable finance



# 325 internship program graduates

from our five student-run high school branches since 2011



#### 34% reduction

in absolute greenhouse gas emissions (fiscal year 2018)



# Commitment to Inclusion & Diversity

Listed in 2019 Bloomberg Gender-Equality Index for 3rd consecutive year

Perfect score on HRC Corporate Equality Index for 6th consecutive year





Supplemental Attachment 3 Page 16 of 29

#### **SMALL BUSINESS**

### Supporting the engines of prosperous communities

Making up 99 percent of the private sector, small businesses are the economic engines of our communities. MUFG has a longstanding commitment to ensuring that local businesses have access to the resources they need to start, grow, and thrive.

To advance this priority, MUFG provided a three-year grant totaling \$300,000 to PeopleFund, a community development financial institution, to open and operate the MUFG Union Bank Women's Business Assistance Center in Dallas in 2016. The funds covered operational set-up of the center and development of training

courses and workshops, as well as other technical assistance to women-owned businesses in the Dallas-Fort Worth area. The center provides a comfortable and collaborative co-working space as well as business advisory services. In 2018, MUFG provided a \$1-million CSR loan to the center to enable more women to access capital.

Since the center opened, it has helped hundreds of women shape their ideas into businesses, scale and grow their start-ups, secure capital, and improve their financial position.



MUFG executives Bobbie Salgado (second from the right) and Sylvia Castillo (second from the left) and community leaders from PeopleFund celebrated the grand opening of the MUFG Union Bank Women's Business Assistance Center in Dallas, Texas. By investing in PeopleFund, MUFG is helping local women entrepreneurs reach their goals. In the Dallas-Fort Worth area, one-fourth of the half a million small businesses are owned by women.



MUFG executives, San Diego elected officials, business leaders, and aspiring entrepreneurs celebrate the announcement of a three-year MUFG grant totaling \$300,000 to the new CONNECT ALL @ the Jacobs Center business accelerator, which will boost early stage companies in the city's most underserved communities.

At the ribbon-cutting ceremony of the new center, MUFG executives led by Head of CSR for the Americas Julius Robinson (third from left) and MUB Foundation COO Kathy Patoff (third from right), joined San Diego Mayor Kevin Faulconer (fourth from right) and other special guests, as well as the first group of 13 local start-ups being supported by the incubator.

#### **ENVIRONMENTAL SUSTAINABILITY**

## Protecting our environment for the future

In 2018, MUFG once again took the top spot as Global Lead Arranger for financing clean-energy and energy-smart technologies. The ranking, released as part of Bloomberg's annual New Energy Finance league table, places MUFG as No. 1 for the third consecutive year among private-sector banks. MUFG provided \$3.9 billion in financing for 59 clean energy projects. MUFG also was the top arranger of global green loans in 2018, up from its previously ranked spot of No. 5, according to Bloomberg.

These commitments are part of our parent company's global mission to advance goals that protect the environment. In May 2019, MUFG made a commitment to achieve a

cumulative total of JP¥20 trillion (approximately \$180 billion) in sustainable finance between FY2019 and FY2030 to help build a sustainable society and meet the United Nations' Sustainable Development Goals through the provision of financial services to its clients. Forty percent of this amount is specifically for the environment.

We also revised our global Environmental and Social Policy Framework to tighten our policy on certain projects, including no longer financing new coal-fired power plants, limiting certain coal-mining projects, and requiring international certifications for selected forestry and agribusiness clients.



MUFG helped finance the 115-MW Parque Eólico El Arrayán project, the largest wind energy farm in Chile. The wind farm produces power to meet the electricity needs of approximately 200,000 homes a year.

#### **LONG-TERM VIEW**

### Integrating financial education into the fabric of communities

MUFG has long invested in empowering young people with financial education.

In 2018, the student-run branches at Crenshaw and Lincoln high schools in Los Angeles celebrated their five-year anniversaries. The branches are part of an innovative and multifaceted MUFG program to teach students about finance, teamwork, and leadership. Today, there are branches across five California high schools, with 325 students completing internships and 36 interns starting their careers at MUFG since the program's inception. MUFG also is extending the successful program with the first college student-run branch at Laney College in Oakland, California.

Student bankers also give back to their communities by organizing financial education workshops for students and parents at their respective schools and coordinating food drives during the Thanksgiving season.



Branch manager Matthew Martin (seated) offers real-life bank training and instruction at the McLane High School branch in Fresno, California. Martin is a former McLane student and former intern of the branch, which opened in 2011 as MUFG's first student-run branch.

#### **MUFG GIVES BACK**

### 100+ events honoring the seventh annual global month of service



MUFG Brasil team members and their families volunteered at a local nursing home to help bring some joy by spending time with those who live there and to revitalize the space with painting and gardening. MUFG Brazil also earned the company's global CSR Award of the Year for the seventh consecutive year, honoring the team's incredible contributions to local communities in the country. The recognition was especially significant as MUFG celebrated 100 years since the opening of its doors in Brazil in 1919.



In Toronto, a group of MUFG volunteers packed 1,200 pounds of frozen chicken for Second Harvest, the largest food rescue charity in Canada. The nonprofit organization distributes donated food to more than 370 social service agencies in Ontario, Canada. It helps nourish people, providing 34,000 meals a day through food banks, school meal programs, and homeless shelters.







For more information visit our websites at www.mufgamericas.com, www.unionbank.com, and www.mufg.jp/english.

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Section 4 Press Release: Sustainable Finance



# MUFG Sets Sustainable Finance Goals and Revises Environmental and Social Policy Framework

**Tokyo, 15 May 2019 ---** MUFG pursues its management vision as part of our mission as a financial institution to develop lasting relationships from a long-term perspective with both our clients and society to achieve shared sustainable growth. As part of this mission, we are advancing initiatives with goals including protecting the global environment and promoting human rights.

With a view to further strengthening our undertakings with relation to the environment, society, and governance, commonly known as ESG, we recently established Sustainable Finance Goals and revised the MUFG Environmental and Social Policy Framework. This change will take effect on July 1, 2019.

# 1. Summary

# (1) Setting of Sustainable Finance Goals

MUFG aims to provide a cumulative total of 20 trillion yen in Sustainable Finance (of this, 8 trillion yen is for the area of environment) between FY2019 and FY2030 to help build a sustainable society and attain the Sustainable Development Goals (SDGs) through the provision of financial services to its clients.

# (2) Revision of the MUFG Environmental and Social Policy Framework

MUFG has revised the MUFG Environmental and Social Policy Framework in response to the international community's plea for climate change actions and reflecting various stakeholders' opinions and ideas on environmental and social issues. The details of the revisions are explained below.

- (i) MUFG will not provide financing for new coal-fired power generation projects once the revised Framework takes effect. This is anticipated to gradually reduce the balance of MUFG's exposure to coal-fired power generation projects in the medium- and long-term. MUFG will take a cautious approach to projects regarding which financial assessment has been ongoing since before the revision to the Framework.
- (ii) Forestry, palm oil, and mining (coal) will be newly added to "Restricted Transactions." Recognizing their potential negative impact on the environment and society, MUFG will include in its consideration of financing for these sectors confirmation of the relevant client's implementation status concerning environmental and social measures. For instance, such measures may include internationally recognized certification or an action plan to obtain such certification.

(iii) In its asset management business, MUFG has established a separate policy\* concerning environmental and social initiatives, and it will handle transactions pursuant to this policy.

We will periodically review the content of the MUFG Environmental and Social Policy Framework in accordance with changes in business activities and the business environment, and will work to improve and refine them.

# 2. Definition of Sustainable Finance

The term "Sustainable Finance" refers to the provision of finance for the following businesses (including loans, equity investment in funds, arrangement of project finance and syndicated loans, underwriting of equities and bonds, and financial advisory services) with reference to the relevant external standards (e.g. the Green Loan Principles, Green Bond Principles, and Social Bond Principles).

# (i) Environmental area

- Businesses contributing to the adaptation to and moderation of climate change, including renewable energy, energy efficiency improvement, and green buildings
  - (e.g. arrangement of loans and project finance for renewable energy projects, underwriting and distribution of green bonds)

# (ii) Social area

- Businesses contributing to the development of startups, job creation, and poverty alleviation
- Businesses contributing to the energizing of local communities and regional revitalization
- Fundamental service businesses, including those involved in basic infrastructure such as public transport, waterworks, and airports, and essential services such as hospitals, schools and police
  - (e.g. Emerging Industrial Technology Support Program, loans for regional revitalization projects such as MUFG Regional Revitalization Fund, arrangement of loans and project finance for public infrastructure, underwriting and distribution of social bonds).

<sup>\* &</sup>quot;MUFG AM Responsible Investment Policy" (https://www.mufg.jp/english/csr/policy/)

# 3. MUFG Environmental and Social Policy Framework

# 1. Introduction

The international community, aiming at achieving the Sustainable Development Goals (SDGs) and Paris Agreement on climate change, is working towards the protection of the global environment, which is fundamental to the existence of humanity and all living creatures, and the realization of a sustainable society.

As a global provider of financial services, Mitsubishi UFJ Financial Group (hereinafter, MUFG) defines its mission as being committed on a long-term basis to developing lasting relationships with both our clients and society, and promoting shared and sustainable growth for a better world.

In addition, through the financial services we provide we are actively working towards finding solutions to environmental and social issues which also contribute to our sustainable business growth and enhancement of our corporate value.

MUFG recognizes that the environmental and social risks arising from the business activities of each group company are important to our business and require managing appropriately. This Environmental and Social Policy Framework (hereinafter, Framework) has been developed based on the "MUFG Environmental Policy Statement" and "MUFG Human Rights Policy Statement" which establish the basis for our policies for management of environmental and human rights issues respectively. The opinions and perspectives of various stakeholders were taken into consideration in the development of the Framework.

The Framework outlines the approach that MUFG takes in responding appropriately to environmental and social issues in our business activities and contributing to sustainable environmental and social development. Through the adoption of this approach, we expect to contribute to the realization of a sustainable environment and society.

To promote understanding and cooperation regarding our approach, the contents of this Framework is communicated to clients in all of our group companies.

# 2. Governance

The MUFG Corporate Vision guides the way in which we carry out our business activities. To realize our Corporate Vision, the MUFG Principles of Ethics and Conduct standards have been established which apply to executives and employees of all group companies and guide their everyday decisions and actions. The Framework is based on our Corporate Vision and Principles of Ethics and Conduct.

# (1) Positioning of the Environmental and Social Policy Framework

The Framework is based on the "MUFG Environmental Policy Statement" and "MUFG Human Rights Policy Statement" and is structured to enable the appropriate identification and management of environmental and social risks associated with our business operations. The Framework is aligned with the MUFG reputational risk management framework to avoid negative impacts to MUFG corporate value.

# (2) Governance and Management System

The CSR committee, which reports to the Executive Committee, is responsible for developing appropriate responses to the environmental and social issues relevant to our business.

Individual transactions with significant environmental and social risks or impacts that have the potential to negative impact on the corporate value of MUFG are assessed for reputational risk, as necessary. Transactions are evaluated with the involvement of executive management, taking into consideration the potential transaction related reputational risks.

# (3) Role of Business Group

Business Groups are responsible for performing environmental and social due diligence to assess the potential environmental and social issues associated with the products and services to be provided. The assessment includes information collected from approaches such as interviews with clients. In implementing environmental and social due diligence, Business Groups consult with the relevant department responsible for management of environmental and social risks.

# (4) Management of the Environmental and Social Policy Framework

The Framework was discussed by the CSR Committee and approved by the Executive Committee. The CSR Committee regularly reviews the need to update the Framework and makes amendments as necessary to reflect changes in our business activities and the business environment.

# 3. Applicable Products and Services

Products and services provided to clients by each group company include the extension of credit and the underwriting of bonds and stocks (hereinafter, financing). We recognize that the provision of financing may potentially contribute to environmental and social impacts as well as an increase in associated risks.

The Framework applies to new finance in all countries / regions for corporate clients of MUFG's core subsidiaries; MUFG Bank, Mitsubishi UFJ Trust and Banking, and Mitsubishi UFJ Securities Holdings (hereinafter referred to as "Core Subsidiaries"). The Framework is integrated into the internal procedures and standards of each Core Subsidiary.

MUFG Bank also conducts environmental and social due diligence of large-scale projects based on the Equator Principles adopted in 2005.

We also acknowledge the importance of considering environmental and social impacts in our asset management business. At the same time, we recognize the importance of preserving and fulfilling our independent fiduciary duties in line with interests of our clients. For this reason, we have established a separate responsible investment policy for this business.

# 4. Applicable Transactions

The Framework provides a guideline allowing us to confirm whether corporate clients receiving financing from each Core Subsidiary are fulfilling their social responsibility by demonstrating appropriate consideration of environmental and social issues based on applicable legislation and international best practice.

Taking into consideration the nature and severity of associated environmental and social risks or impacts, MUFG has identified transactions which are "Prohibited from Financing" and where "Financing is Restricted".

# (1) Prohibited Transactions

The transactions listed below are considered as having significant environmental and social risks or impacts. In cases where each Core Subsidiary is aware of the environmental and social risks or impacts, financing is not provided.

- A) Illegal transactions and transactions for illegal purposes
- B) Transactions which violate public order and good morals
- C) Transactions that negatively impact wetlands designated under the Ramsar Convention
- D) Transactions that negatively impact UNESCO designated World Heritage Sites
- E) Transactions violating the Convention on International Trade in Endangered Species of Wild Fauna and Flora (Washington Convention)1
  - [1 Taking into consideration country specific considerations]
- F) Transactions involving the use of child labor or forced labor

# (2) Restricted Transactions

Restricted transactions consist of cross-sector items and sector specific items.

For transactions where the conditions listed below may exist, the potential that environmental and social risks or impacts may exist is considered to be high and clients are expected to implement the appropriate environmental and social measures. When each Core Subsidiary is considering providing financing for these transactions, the identification and assessment process for environmental and social risks or impacts will be used to confirm the client's approach to managing environmental and social issues.

If the environmental and social management approach of client's is not considered sufficient relative to the level of the potential risks or impacts, financing will not be provided.

# (i) Cross-sectoral items

- A) Impact on Indigenous Peoples Communities
- B) Land expropriation leading to involuntary resettlement
- C) Impact on High Conservation Value areas

# (ii) Sector specific items

A) Coal Fired Power Generation Sector

Protection of the environment, in particular actions which contribute towards combatting climate change and supporting development of more sustainable sources of power, is one of the most important issues for MUFG in fulfilling its social mission.

We support international initiatives that are aiming to reach the objectives set by the Paris Agreement and actively provide financing to renewable energy businesses, such as solar and wind power generation, to promote sustainable growth and support the transition to a low-carbon future through our business activities.

MUFG will not provide financing to new coal fired power generation projects. Exceptions may be considered where we will take into consideration the energy policies and circumstances of the host countries, international standards such as the OECD Arrangement on Officially Supported Export Credits, and the use of other available technologies when deciding whether to provide financing.

We also support the adoption of advanced technologies for high efficiency power generation and Carbon Dioxide Capture and Storage (CCS) technologies which contribute to a reduction in the emission of greenhouse gases.

# B) Cluster Munitions Manufacturing Sector

Civilian populations have been greatly affected by cluster munitions as they release many bomblets over a wide area and because of their indiscriminate effect. As a result, their use has generated significant humanitarian concerns internationally.

In light of the inhumane nature of cluster munitions, Core Subsidiaries prohibit the provision of financing to any company that manufactures cluster munitions.

# C) Forestry Sector

Forests provide habitats for various wildlife species. Therefore, they have significant value for biodiversity conservation and protection, as well as serving as important sources of timber for paper, pulp, and other products that support regional economies. Forests additionally play a significant role in mitigating climate change by absorbing and storing carbon dioxide. MUFG recognizes that uncontrolled, large-scale deforestation has severe and negative impacts on the global environment.

When we consider implementing financing for logging businesses, including the development and management of forest plantations, we assess the status of such client's consideration for environmental and social impacts.

We request our clients to certify the relevant operations according to internationally recognized certification organizations such as Forest Stewardship Council ("FSC") and Programme for the Endorsement of Forest Certification Schemes ("PEFC"), when providing finance to the subject business activities mentioned above, in countries other than High Income OECD countries. We will request our clients to submit action plans to achieve certification when relevant operations are not certified.

# D) Palm Oil Sector

Palm oil is used to make products which are essential for everyday life, such as cooking oils, detergents, paints, etc. Increases in palm oil consumption have facilitated economic growth in many countries. On the other hand, development of palm oil plantations may entail deforestation of natural forests and slash-and-burn agriculture, which could lead to habitat degradation and conflicts with local communities. As a result, MUFG recognizes that the palm oil plantation business can have severe and negative impacts on the global environment if not managed

responsibly.

When considering transactions which fund business activities developing and managing palm oil plantations we assess the status of such client's consideration for environmental and social impacts.

We encourage clients to become members of the Roundtable on Sustainable Palm Oil ("RSPO"), and request them to certify relevant operations according to recognized certification organizations such as RSPO, when providing finance to the subject business activities mentioned above. We will request clients to submit action plans to achieve certification when relevant operations are not certified.

# E) Mining Sector (Coal)

MUFG recognizes that coal mining operations, if not managed responsibly, can have negative social and environmental impacts, including death and injuries from mine collapse, human rights abuse, and impacts on local biodiversity from toxic mine waste. Moreover, coal burning in power generation emits relatively large amounts of greenhouse gases compared to other energy sources. We recognize that the development of new coal mines to supply thermal coal for power generation projects could result in an increase in greenhouse gas emissions in the future.

When considering whether to provide finance to the development of new coal mines we assess the status of such client's consideration for environmental and social impacts. The assessment includes how the client addresses the impacts of the development on local ecosystems, relationships with local residents, and occupational safety and health issues.

We will not provide any financing to coal mining projects using the mountaintop removal (MTR) method which has severe and negative impacts on the natural environment.

# 5. Identification and assessment process for environmental and social risks or impacts

A due diligence process to identify and assess the environmental and social risks or impacts associated with transactions has been introduced.

# (1) Standard Due Diligence

Standard due diligence is implemented by the department in the relevant business division of each Core Subsidiary responsible for communications with the client. The decision regarding categorization of the transaction as a "Prohibited Transaction" or "Restricted Transaction" is made based on available public information and information provided by the client.

# (2) Enhanced Due Diligence

Transactions categorized as "Restricted Transactions" are subject to enhanced due diligence in addition to standard due diligence, if necessary. This is implemented by the department responsible for management of environmental and social risks in each Core Subsidiary. Decisions on financing are made following assessment of

the findings of the enhanced due diligence.

# (3) Financing Reputational Risk Management Approach

Transactions assessed as having the potential to have significant negative impacts on the corporate value of MUFG are evaluated with the involvement of executive management.

# 6. Training

# (1) Corporate Training and Education

Training on environmental and social issues is provided to relevant employees of each Core Subsidiary. The objective of the training is to enhance the understanding of global initiatives to environmental and social issues, as well as the process of confirming the client's approach towards management of environment and social issues. The training also aims at the spread of ideas supporting the Framework, and the environmental and social due diligence process.

Specialized training, with the objective of advancing the implementation of the Framework, is provided in divisions responsible for management of environmental and social risks.

# (2) Stakeholder Engagement

Implementation of the Framework includes constructive dialogue with various stakeholders. This dialogue is intended to help identify appropriately environmental and social risks or impacts to which MUFG is to respond and provides information relevant to discussions on revisions to the Framework to increase its effectiveness.

# [Disclaimer]

No agency or contractual relationships between MUFG or each of the other group companies and other parties arise from the disclosure and implementation of the Framework. MUFG and other group companies assume no legal obligation, liability or responsibility as a result of such disclosure and implementation.

- End -

# **About MUFG**

Mitsubishi UFJ Financial Group, Inc. (MUFG) is one of the world's leading financial groups. Headquartered in Tokyo and with over 360 years of history, MUFG has a global network with around 3,000 locations in more than 50 countries. The Group has over 180,000 employees and offers services including commercial banking, trust banking, securities, credit cards, consumer finance, asset management, and leasing. The Group aims to "be the world's most trusted financial group" through close collaboration among our operating companies and flexibly respond to all of the financial needs of our customers, serving society, and fostering shared and sustainable growth for a better world. MUFG's shares trade on the Tokyo, Nagoya, and New York stock exchanges. For more information, visit <a href="https://www.mufg.jp/english">https://www.mufg.jp/english</a>.

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This indicative financing proposal is provided for discussion purposes only and does not constitute, nor should it be construed as, a commitment to provide any financing or any assurance that the financing described herein may be available. The terms and conditions of such financing must be fully negotiated and contained in definitive documentation duly authorized, executed and delivered by all parties. In addition, the delivery of a commitment would be subject to, among other things, (i) MUFG Bank's and/or MUB's satisfaction with the results of its legal, technical, environmental and business due diligence, (ii) final internal approvals by MUFG Bank and/or MUB, (iii) no material adverse change in the financial condition or otherwise of the relevant parties, (iv) no material adverse change or disruption in the relevant financial markets and (v) other customary conditions, including then current market conditions. This indicative financing proposal is confidential and may not be disclosed or released to any other party without the prior written consent of MUFG Bank and/or MUB.

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June 15, 2020

Charlene Sun
Treasury and Debt Officer
Santa Clara Valley Water District
csun@valleywater.org

Ed Soong Municipal Advisor Public Resources Advisory Group esoong@pragadvisors.com

Ms. Sun and Mr. Soong:

On behalf of JPMorgan Chase Bank, National Association ("JPMorgan"), I am pleased to submit the following responses to the Santa Clara Valley Water District's (the "District") request for additional information, dated June 10, 2020.

1) What is the Bank's response to Banktrak's rankings (attached)? Have you or do you plan on implementing any changes to address the issues raised by Banktrak?

We have no official response to the Banktrak rankings provided, other than to note that of the banks that responded to the District's RFP, JPMorgan was ranked in the highest category. For information on the ongoing social responsibility initiatives of the Bank's parent company, JPMorgan Chase & Co., please see use this link: <a href="https://institute.jpmorganchase.com/impact">https://institute.jpmorganchase.com/impact</a>. Please also see comments made by JPMorgan Chase & Co.'s CEO in his annual letters to shareholders over the years: <a href="https://www.jpmorganchase.com/corporate/investor-relations/annual-report-proxy.htm">https://www.jpmorganchase.com/corporate/investor-relations/annual-report-proxy.htm</a>. We would be happy to respond to specific guestions the District has about any programs described in these links.

2) What is the Bank's response to Bloomberg's rankings (attached)? Have you or do you plan on implementing any changes to address the issues raised by Bloomberg?

We have no response to the Bloomberg rankings provided.

3) Are there any other ESG information the bank wishes to provide? For example, how many branches/employees does the bank have in Santa Clara County and the 9 Bay area counties? Does the Bank have any social responsibility (corporate policies) policies that can be shared with the Board?

Please see the links provided in our response to question 1 above. JPMorgan has 57 branches and 902 resident employees in Santa Clara County. JPMorgan has 148 branches and 2,700 resident employees in the San Francisco-Oakland-Hayward MSA.

4) Will the bank consider offering Valley Water credit up to \$180million, and, act as a lead bank to offer an additional \$20 million syndicated loan to small and local banks/credit unions? The syndication agreement would be between the lead bank and the local banks. The pricing for the local banks is subject to discussion, and may be higher than pricing for the lead bank given the District board's desire to incentivize small local banks participation. If not, does the bank have other ideas/mechanisms to involve small local banks participation in the line of credit business?

JPMorgan is willing to provide \$180 million of credit to the District and to act as lead bank in syndicating an additional \$20 million. All banks in the syndication would need to receive the same terms as JPMorgan.

5) Will the bank consider revising the fee proposal after reviewing the 6/9 Staff Report summarizing the results of the RFP? If so, please submit your revised fee proposals along with the information requested here by 10 am on June 15, 2020.

JPMorgan will not revise its fee proposal.

JPMorgan has reviewed Attachment 1 – Bank Proposals Summary of the 6/9 Staff Report. To facilitate the comparison of bank proposals, we have provided the following additional terms and conditions consistent with the form of Attachment 1 – Bank Proposals Summary.

Long- / Short-Term Ratings: Fitch: AA / F1+ (Negative)

Moody's: Aa2 / P-1 (Stable) S&P" A+ / A-1 (Stable)

Credit Amount: \$200,000,000

Unutilized Fee % 1-year: 0.750% p.a.

2-year: 0.775% p.a. 3-year: 0.800% p.a.

Tax-exempt rate: Index: 80% of 1-month LIBOR +

1-year: 1.500% p.a. 2-year: 1.550% p.a. 3-year: 1.600% p.a.

Taxable rate: Index: 100% of 1-month LIBOR +

1-year: 1.800% p.a. 2-year: 1.850% p.a. 3-year: 1.900% p.a.

Index Floor: 0.75% p.a.

Base Rate: The highest of (i) JPMorgan's Prime Rate plus 1.50% p.a.;

(ii) the Federal Funds Rate plus 2.00% p.a.; or (iii) 7.50%

p.a.

Bank / Advance Rate: Days 1-180: Base Rate

Days 181+: Base Rate plus 1.00% p.a.

Default Rate: Base Rate plus 3.00% p.a.

Failure to Close Fee: \$7,500 if mandated and before delivery of 1st draft of the

credit agreement

Termination Fee: Balance of unutilized fee for the remaining term

Extension: A renewal request may be made in writing by no more than

120 days prior to the expiration date of the facility

Term Out Period: 5 years

Downgrade Provisions Increases to the initial unutilized fee rate / applicable spread,

respectively:

AA+ / Aa1: 0.00% / 0.00% AA / Aa2: 0.10% / 0.20% AA- / Aa3: 0.20% / 0.40% A+ / A1: 0.30% / 0.60% A / A2: 0.40% / 0.80% A- / A3: 0.50% / 1.00% BBB+ / Baa1: 0.60% / 1.20%

BBB / Baa2: 0.70% / 1.40% BBB- / Baa3: 0.80 / 1.60%

In the event the rating assigned by Moody's, S&P, or Fitch is withdrawn, suspended or otherwise unavailable, (i) the unutilized fee rate shall be increased immediately, without notice, by an additional 1.00% p.a. and (ii) the interest rate on advances shall increase to the Default Rate.

Please note that the terms included in this response are subject to final credit approval. Nothing expressed or implied herein constitutes a commitment by JPMorgan or any of its affiliates to lend or provide any financial services; such obligations would arise only under separate written agreements mutually acceptable to the District and JPMorgan.

Please contact me if you have any questions or comments regarding this response. Thank you for your consideration.

Best regards,

James G. Millard

Executive Director
Public Finance Credit Origination
383 Madison Avenue, Floor 03

New York, NY 10179 Phone: 212-270-2198

E-mail: james.g.millardf@jpmorgan.com

cc: Tim Self, JPMorgan Chase Bank, National Association

John Houlberg, J.P. Morgan Securities LLC Will Frymann, J.P. Morgan Securities LLC

Shawn Laljit, JPMorgan Chase Bank, National Association

# **Responses for Santa Clara Valley Water District:**

1. Can the Bank provide commentary regarding adherence to the principles outlined in the attached report from Banktrak's even though US Bank was not ranked (attached)?

We believe our sincere, dedicated focus on ethics, diversity and inclusion is in line with the guiding principles on business and human rights, although we are not specifically a part of the Banktrak benchmarking. We draw strength from diversity. Our One U.S. Bank approach to diversity, equity and inclusion (DEI) is unique. We bring together all stakeholders through a four-pillar strategy encompassing customers, communities, employees and suppliers. Inclusive, equitable actions and diverse perspectives are essential to maintaining our best-in-class culture of ethics and integrity. All of this is made possible by our employees. We support employees at all levels of the organization with tools, resources and opportunities to practice inclusive behavior, because it is the right thing to do.

To affirm our assertion, please see our information provided below regarding U.S. Bank's CRA rating, EEOC information for the bank, state of California and Bay Area Counties, Social Responsibility Report, bank debt ratings and financial reports.

Drawing strength from diversity is a core value at U.S. Bank. Our Chief Advocacy officer at U.S. Bank, Ismat Aziz leads our policy, training and commitment to human rights. In fact, the Human Rights Campaign Foundation named U.S. Bank a Best Place to Work for LGBTQ Equality for 12th year in a row. U.S. Bank received a perfect score of 100 on the 2019 Corporate Equality Index (CEI), the nation's premier benchmarking survey and report on corporate policies and practices related to LGBTQ workplace equality, administered by the Human Rights Campaign (HRC) Foundation. U.S. Bank was named alongside over 560 major U.S. businesses that also earned top marks this year.

https://www.usbank.com/newsroom/news/us-bank-earns-top-marks-in-2019-corporate-equality-index.html

Additionally, U.S. Bank has been named to Diversitylnc's <u>Top 50 Companies for Diversity</u> list. Since 2001, the list has recognized companies for their exceptional commitment to diversity and inclusion. The list has evolved significantly since its inception, reflecting how rapidly companies are adapting diversity and inclusion strategies. In addition to ranking 46 on the overall Top 50 List, U.S. Bank ranked number 6 on the Top 14 List for Employee Resource Groups, 9 on the Top 15 List for Philanthropy, and named one of the Top 36 Companies for LGBT Employees.

U.S. Bank is pleased to provide reporting information for public inspection under the Community Reinvestment Act (CRA). We are proud of our overall

"Outstanding" CRA Rating with respect to the Lending, Investment, and Service Tests as of examination date October 16, 2017. We also have an "Outstanding" CRA Rating in the State of California.

https://www.usbank.com/about-us-bank/community/community-reinvestment-act/craperformance-evaluation.html

2. What is the Bank's response to Bloomberg's rankings (attached)? Have you or do you plan on implementing any changes to address the issues raised by Bloomberg?

There are no issues raised by Bloomberg's rankings report for U.S. Bank. Founded in 1863, U.S. Bank is a Minneapolis-based financial institution whose parent company is U.S. Bancorp. We are the fifth largest commercial bank in the United States with assets of \$543 billion, providing a comprehensive line of banking, investment, mortgage, trust and payment services products to consumers, businesses, government, and institutions through our 2,790 banking offices in 26 states.

For additional financial information regarding U.S. Bank, please find a link our annual report:

https://ir.usbank.com/

Also attached is our most recent quarterly report:

 $\frac{https://sharepoint.usbank.com/teams/OC/Shared\%20Documents/Corporate\%20Profile/CorporateProfile.pdf}{ateProfile.pdf}$ 







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# U.S. Bank is one of the strongest financial institution in the world with the best debt ratings as follows:

# **Long-Term Senior Debt Ratings**

Holding Company Boor Group	Moody's		S&P		Fitch		DBRS	
Holding Company: Peer Group	Rating	Outlook	tlook Rating Outlook		Rating	Outlook	Rating	Outlook
1 U.S. Bancorp	A1	s	A+	S	AA-	on	AA	s
2 JPMorgan Chase & Co.	A2	S	A-	S	AA-	on	AAL	S
3 Wells Fargo & Co.	A2	s	A-	on	A+	on	AAL	S
4 Bank of America Corp.	A2	S	A-	S	A+	S	AH	S
5 Truist Financial Corp.	A3	S	A-	S	A+	on	AH	op
6 PNC Financial Services	A3	S	A-	S	A+	S	AH	S
7 Fifth Third Bancorp	Baa1	S	BBB+	S	A-	on	Α	S
8 KeyCorp	Baa1	S	BBB+	S	A-	on	Α	S
9 Regions Financial Corp.	Baa2	S	BBB+	S	BBB+	S	AL	S
10 Citizens Financial Group, Inc.	NR	NR	BBB+	S	BBB+	S	AL	S

# **Long-Term Bank Deposits**

BI-II-B	Mo	Moody's		S&P*		Fitch		DBRS	
Bank Level: Peer Group	Rating	Outlook	Rating Outlook		Rating	Outlook	Rating	Outlook	
1 U.S. Bank NA	Aa1	S	AA-	s	AA	on	AAH	s	
2 Wells Fargo Bank NA	Aa1	S	A+	S	AA	on	AA	S	
3 JPMorgan Chase NA	Aa1	S	A+	S	AA+	on	AA	S	
4 Truist Bank	Aa2	S	Α	S	AA-	on	AAL	op	
5 PNC Bank NA	Aa2	S	Α	S	AA-	s	AAL	s	
6 Bank of America NA	Aa2	S	A+	S	AA	S	AAL	S	
7 Fifth Third NA	Aa3	S	A-	S	Α	on	AH	S	
8 KeyBank NA	Aa3	S	A-	S	Α	on	AH	S	
9 Citizens Bank NA	A1	S	A-	S	A-	S	Α	S	
10 Regions Bank	A2	S	A-	S	A-	S	Α	S	

Accurate as of April 28, 2020 "S&P does not provide a deposit rating; the long-term issuer credit rating is shown

The senior unsecured debt ratings established for U.S. Bancorp by Moody's, Standard and Poor's, Fitch, and Dominion Bond Rating Service reflect the rating agencies' recognition of the strong, consistent financial performance of the company and the quality of the balance sheet.

Below is U.S. Bank's EEOC information for the State of California and the Bay Area Counties as of 03.31.20:

Location	Total Employees	Male	Female	Minority
All U.S. Bank				
U.S. Bank All Employees	68,807	29,106	39,701	21,606
State				
California	6,348	2,762	3,586	3,810
County				
Alameda	218	88	130	151
Contra Costa	175	77	98	94
Marin	36	21	15	20
Napa	18	3	15	13
San Francisco	349	205	144	230
San Mateo	131	53	78	96
Santa Clara	297	145	152	208
Solano	41	12	29	26
Sonoma	41	23	18	18

	NUMBER OF EMPLOYEES – ALL U.S. Bank							
JOB CATEGORIES	TOTAL	MALE	FEMALE		TOTAL MINORITY	VETERAN	DISABLED	
Exec/Senior Managers	2,941	2,020	921		345	41	29	
First/Mid Managers	9,612	4,779	4,833		2,138	211	149	
Professionals	22,248	11,573	10,675		5,841	559	517	
Sales Workers	11,845	5,076	6,769		4,360	155	275	
Clerical/Admin Support	22,161	5,658	16,503		8,922	256	831	
TOTALS	68,807	29,106	39,701		21,606	1,222	1,801	

- 3. Are there any other ESG information the bank wishes to provide? For example, how many branches/employees does the bank have in Santa Clara County and the 9 Bay area counties? Does the Bank have any social responsibility (corporate policies) policies that can be shared with the Board?
  - U.S. Bank has 2 branches in the City of Santa Clara. Our closest branch to the Santa Clara Valley Water District offices is our Santa Clara branch located just .20 of a mile away at:

2730 Homestead Rd Santa Clara, CA, 95051-5353

We have attached a list of our 124 branches located in the nine counties that touch San Francisco Bay area in the following counties as of 06.11.20:

- Alameda
- Contra Costa
- Marin
- Napa
- San Francisco
- San Mateo
- Santa Clara
- Solano
- Sonoma



U.S. Bank is proud to offer the District our Corporate Social Responsibility Report for your review. Our Chief Social Responsibility Officer is Reba Dominski.

At U.S. Bank, we are operating from a position of strength, anchored by our strong ethical culture, which has resulted in being named one of the World's Most Ethical Companies by Ethisphere Institute for the sixth consecutive year. Our unified giving and engagement strategy, Community Possible, focuses on closing the gaps between people and possibility in the areas of Work, Home and Play. Our approach also includes Environmental, Social and Governance (ESG) reporting, to share how we are approaching business risks and opportunities. Following our materiality assessment with Ceres, we have identified five key priority areas for U.S. Bank: data security and privacy, ethical conduct, fair and responsible products and services, human capital management and climate impact. We have established working groups focusing on strategy, disclosure and environmental and social risk management, and will work hard to make forward progress. We are also working to establish external goals to engage,

inspire and guide our work. We know we do not have all of the answers and we will continue to work with, and through, our partners, using data and insights to guide our strategy while remembering that behind every data point, is a heartbeat.

https://www.usbank.com/annual-report/2019/responsibility.html





UBS Response to Additional Questions - Request for Proposals: Revolving Line of Credit - Santa Clara Valley Water District



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# Appendix:

Exhibit A – UBS Environmental and Social Risk Policy

Exhibit B – UBS in society Constitutional Document

**Exhibit C – UBS Code of Conduct and Ethics** 

**Exhibit D – UBS Climate Strategy** 

**Exhibit E – UBS Climate Factsheet** 

Exhibit F – UBS Diversity and Inclusion Impact Report

**Exhibit G – UBS Sustainability Report 2019** 

# A. Board Questions

1. What is the Bank's response to Banktrak's rankings (attached)? Have you or do you plan on implementing any changes to address the issues raised by Banktrak?

Below please find information relating to UBS's social risk and environmental framework.

# **UBS Comprehensive Environmental and Social Risk Framework**

The UBS Comprehensive Environmental and Social Risk Framework:

- governs client and supplier relationships and applies firm-wide to all activities;
- meets the highest industry standards as confirmed by external auditors and recognized by environmental, social, governance ratings; and
- is deeply rooted in our culture, management practices and control principles, overseen at Group Executive Board-level.

We use an environmental and social risk policy framework (Exhibit A) to identify and manage potential adverse effects on the environment and human rights, as well as the associated environmental and social risks our clients' and our own assets are exposed to. Our comprehensive standards are aligned with the UBS in Society program; they govern client and supplier relationships and are enforced firm-wide.

# **Definition**

Environmental and social risks are broadly defined as the possibility that UBS supports clients, or sources from suppliers, who cause or contribute to severe environmental damage or human rights infringements. Environmental and social risks can also arise if UBS's operational activities and its employees (or contractors working on behalf of UBS) fail to operate within relevant environmental and human rights regulations. Environmental and social risks may result in adverse financial and reputation impacts for UBS.

**UBS in Society.** UBS's goal is to be the financial provider of choice for clients wishing to mobilize capital towards the United Nation's Sustainable Development Goals ("SDGs") and the orderly transition to a low carbon economy (the Paris Agreement). The attached UBS in society Constitutional Document (Exhibit B) defines the principles and responsibilities for promoting this commitment systematically across all relevant businesses and for implementing the ethical standards defined in the UBS Code of Conduct and Ethics (Exhibit C) that govern UBS's interaction with society and the environment.

2. What is the Bank's response to Bloomberg's rankings (attached)? Have you or do you plan on implementing any changes to address the issues raised by Bloomberg?

Climate Strategy. UBS aspires to drive positive change in society and the environment for future generations. Our climate strategy underlines our commitment to the Sustainable Development Goals on climate action and on affordable and clean energy as well as the Paris Agreement. These key UBS commitments are embedded in the United Nations ("UN")-backed Principles for Responsible Banking ("PRB"). This global framework specifies the role of banks in supporting a sustainable future and scaling up their contribution to the achievement of both the SDGs and the Paris Agreement. UBS became a founding signatory of the PRB in September 2019. Attached, we have provided our Climate Strategy document (Exhibit D) and Climate Factsheet (Exhibit E).

3. Are there any other ESG information the bank wishes to provide? For example, how many branches/employees does the bank have in Santa Clara County and the 9 Bay area counties? Does the Bank have any social responsibility (corporate policies) policies that can be shared with the Board?

**UBS Bay Area Presence.** As shown in the chart and table below, UBS has nine branches in the nine Bay area counties with 262 Financial Advisors. This includes three branches in Santa Clara County, Palo Alto, Los Gatos and San Jose. In Santa Clara County, UBS has 47 Financial Advisors.

**Diversity.** Attached you will find UBS's inaugural *Diversity & Inclusion (D&I) Impact Report* (Exhibit F) for the Americas region. In the attachment, we provide information on where we are as a company, and where we aspire to be in the future. The report details our D&I priority areas of focus, our strategic goals and our approach to achieving them in the region, with a particular emphasis on the United States.

UBS Office	Counties	
UBS Branch	FAs	
San Jose*	24	(19)
Palo Alto*	13	The state of the s
Los Gatos*	10	47.
San Francisco	119	Marin County San Francisco
Walnut Creek	45	San Mateo Menio Park Palo Alto
Menlo Park	16	San Jose Los Gatos
San Mateo	15	
Mill Valley	11	
Napa	9	DO C
Total	262	
**	<u> </u>	* Natic frame Office

\* Branches located in Santa Clara County

**Sustainability.** Our concept of sustainability is

guided by the United Nations (UN) Sustainable Development Goals, which bring together the enormous societal and environmental challenges the world faces. We recognize that it is important to understand these challenges as well as the opportunities arising from them, to consider their relevance to UBS and to identify potential actions our firm may need to take.

As a founding signatory of the UN-backed Principles for Responsible Banking, UBS has committed to aligning our business strategy to be consistent with and contribute to society's goals. By doing so, we pledged to strategically align our business with the SDGs and the Paris Agreement on Climate Change. A detailed discussion of sustainability at UBS based on Global Reporting Initiative ("GRI") standards is attached in the UBS Sustainability Report 2019 (Exhibit G).

4. Will the bank consider offering Valley Water credit up to \$180 million, and, act as a lead bank to offer an additional \$20 million syndicated loan to small and local banks/credit unions? The syndication agreement would be between the lead bank and the local banks. The pricing for the local banks is subject to discussion, and may be higher than pricing for the lead bank given the District board's desire to incentivize small local banks participation. If not, does the bank have other ideas/mechanisms to involve small local banks participation in the line of credit business?

Pursuant to the Term Sheet dated May 22, 2020, UBS AG, Stamford Branch is offering a revolving line of credit of \$50 million. Subject to negotiation of terms, UBS would use its best efforts to consider acting as a lead bank to offer an additional \$20 million syndicated loan to small and local banks/credit unions. Any syndication activity would increase bank counsel fees. Any syndication would be subject to full credit review and approval, due diligence and negotiation of satisfactory agreements.

5. Will the bank consider extending the term to 2 years with renewal options? Are there any other changes the Bank would offer after reviewing the 6/9 Staff Report summarizing the results of the RFP? If so, please submit your revised fee proposals along with the information requested here by 10 am on June 15, 2020.

Pursuant to the Term Sheet dated May 22, 2020, UBS AG, Stamford Branch is offering a 1 year revolving line of credit. The Bank is not offering term of 2 years with review options.

There are no additional changes that the Bank is offering after reviewing the 6/9 Staff Report.

# B. Appendix Exhibit A.



# Environmental and social risk policy framework

Comprehensive, highest industry standards, deeply rooted in our culture

Our comprehensive environmental and social risk framework is deeply rooted in our culture, and

- governs client and supplier relationships and applies firm-wide to all activities
- meets the highest industry standards as recognized by environmental, social, governance ratings
- is integrated in management practices and control principles and overseen at the most senior level of our firm.

This framework is aligned with our **UBS in society** organization that covers all the activities and capabilities related to sustainable finance (including sustainable investing), philanthropy, environmental, climate and human rights policies governing client and supplier relationships, our environmental footprint, human resources as well as community investment.

# Introduction

We live in a world that is more interconnected, more interdependent and more interactive than ever before. Rapid technological advances in particular continue to have a profound effect on the economic, political, cultural, environmental and social landscape. These advances have changed the way we think and act. They have altered the way we do business. They have transformed the products and services we consume, and reshaped the perceptions of the world around us. While this has brought with it significant benefits and opportunities, it has also created far greater awareness of the challenges we all face.

As a global company, and the largest truly global wealth manager to high net worth and ultra high net worth clients, UBS is in a unique position to help address these challenges, both together with our clients and through our own efforts. Our principles and standards clearly define how we want to do things at UBS. They apply to all aspects of our business and the ways in which we engage with our stakeholders. Our Code of Conduct and Ethics documents our corporate responsibility. Our work in key societal areas such as protecting the environment and respecting human rights are part of this. Living up to our societal responsibilities contributes to the wider goal of sustainable development. As a global firm we take responsibility to lead the debate on important societal topics, contribute to the setting of standards and collaborate in and beyond our industry.

Managing environmental and social risks is a key component of our corporate responsibility. We apply an environmental and social risk policy framework to all our activities. This helps us identify and manage potential adverse impacts to the environment and to human rights, as well as the associated risks affecting our clients and us. We have set standards in product development, investments, financing and for supply chain management decisions. We have identified certain controversial activities we will not engage in, or will only engage in under stringent criteria. As part of this process, we engage with clients and suppliers to better understand their processes and policies and to explore how any environmental and social risks may be mitigated.

The foundation of UBS's environmental and social risk policy framework is established in the Code of Conduct and Ethics of UBS and the **UBS in society** constitutional document.

## **Our focus**

Our industry is playing an active role in addressing global issues such as human rights and the protection of our environment. Climate change impacts ecosystems, societies, and economies worldwide, and we support clients achieving their goals in support of the transition to a low-carbon economy. Growing environmental and human rights concerns have resulted in a fast-changing regulatory and competitive land-scape which is affecting our firm, our suppliers and our clients. In response to these emerging risks and opportunities, we are shaping appropriate solutions and commitments.

Over twenty-five years ago, UBS was one of the first financial institutions to sign the United Nations (UN) Environment Programme's "Statement by Financial Institutions on the Environment and Sustainable Development." We were also among the first companies to endorse the UN Global Compact, we were an original signatory of the CDP, and our Asset Management (AM) business is an Investment Manager signatory to the Principles for Responsible Investment.

In 2019, we became a founding signatory of the UN Principles for Responsible Banking. The Principles constitute a comprehensive framework for the integration of sustainability across banks. They define accountabilities and require each bank to set, publish and work toward ambitious targets.

In 2000, our firm was a founding member of the Wolfsberg Group of banks, which was originally set up to promote good practice in combatting money laundering. In 2011, the firm was a driving force behind the establishment of the Thun Group of Banks, which has in the meantime published two discussion papers that seek to establish a framework to facilitate the identification of the key challenges and best

practice examples for the banking sector's implementation of the UN Guiding Principles on Business and Human Rights (UNGPs). We are a member of the Roundtable on Sustainable Palm Oil (RSPO), and joined its complaints panel in 2014. Also in 2014, we endorsed the Banking Environment Initiative's and Consumer Goods Forum's "Soft Commodities" Compact, which reconfirms our commitment to developing and implementing responsible business standards.

Progress made in implementing **UBS in society** is reported as part of UBS's annual reporting. This reporting is reviewed and assured externally according to the requirements of the Global Reporting Initiative's (GRI) Sustainability Reporting Guideline. UBS is certified according to ISO 14001, the international environmental management standard.

Refer to the "Driving change in business" section of the Sustainability Report 2019 for an overview of external commitments and memberships

# Climate change

Climate change is one of the most significant challenges of our time. The world's key environmental and social challenges – such as population growth, energy security, loss of biodiversity and access to drinking water and food – are all closely intertwined with climate change. This makes the transition to a low-carbon economy vital. We support this transition through our comprehensive climate strategy, focusing on four pillars:

- Protecting our own assets: We have reduced carbon-related assets on our balance sheet to 0.8% or USD 1.9 billion as of 31 December 2019, down from 1.6% at the end of 2018 and 2.8% at the end of 2017. In 2019 we also revised our standards in the energy and utilities sector and further embedded climate-related risk into our standard risk management framework.
- Protecting our clients' assets: We support our clients' efforts to assess, manage and protect them from climate-related risks by offering innovative products and services in investment, financing and research. We also actively engage on climate topics with companies that we invest in.
- Mobilizing private and institutional capital: We mobilize
  private and institutional capital towards investments facilitating climate change mitigation and adaptation and in supporting the transition to a low-carbon economy as corporate
  advisor, and/or with our lending capacity.
- Reducing our direct climate impact: We have committed to using 100% renewable electricity by mid-2020. This will reduce our firm's GHG footprint by 75% compared with 2004 levels

We publicly support international, collaborative action against climate change. Our Chairman is a signatory to the European Financial Services Round Table's statement in support of a strong, ambitious response to climate change. Our Group CEO is a member of the Alliance of CEO Climate Leaders, an informal network of CEOs convened by the World Economic Forum and committed to climate action. Our Head Sustainable Equity Team within AM is a member of the Task Force on Climate-related Financial Disclosures (TCFD).

Find our Climate strategy under www.ubs.com/climate

#### Forests and biodiversity

Deforestation and forest degradation can cause biodiversity to decline. As approximately 80% of the world's documented species are found in tropical rainforests, deforestation will impact global biodiversity. Deforestation is, in fact, second only to the energy sector as a source of global greenhouse gas emissions and accounts for up to 20% of emissions, more than the entire global transport sector.

It is further estimated that more than 50% of tropical deforestation is due to the production of soy, palm oil, timber and beef. In human terms, millions of people rely directly on forests (small-scale agriculture, hunting and gathering, and harvesting forest products such as rubber). Yet, deforestation continues to cause severe societal problems, sometimes leading to violent conflict.

Recognizing these risks, we:

- became member of the RSPO in 2012
- endorsed the Banking Environment Initiative's and Consumer Goods Forum's "Soft Commodities" Compact. In doing so, we aim to support the transformation of soft commodity supply chains by expecting producers to be committed to achieving full certification according to applicable sustainability certification schemes, such as the RSPO. We acknowledge that land acquired without adequate consultation, compensation, and consideration of customary land rights (commonly referred to as land grabbing), can significantly impact local communities: often smallholders who primarily rely on subsistence farming to sustain their livelihood.
- have identified and will not engage in certain activities that contribute to deforestation and its related impacts (sections Controversial Activities – Where UBS will not do business and Areas of Concern – Where UBS will only do business under stringent criteria).

# Human rights

UBS is committed to respecting and promoting human rights in all our business activities. We believe this is a responsible approach underlining our desire to reduce as far as possible potentially negative impacts on society. Our commitment in this important area is long standing. In July 2000, UBS was one of 43 companies that pledged to adhere to the Global Compact.

The principles of the Global Compact, today the largest corporate responsibility initiative globally, stem from the Universal Declaration of Human Rights, the International Labor Organization's Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development and the UN Convention Against Corruption. The United Nations took a significant step in 2011 by endorsing the UNGPs. At this point, UBS together with other banks formed the Thun Group of Banks to jointly consider these developments and conclusions and to share experiences and ideas regarding the implementation of the UNGPs. To this end, the Thun Group of Banks has published two discussion papers that seek to establish a framework to facilitate the identification of the key challenges and best practice examples for the banking sector's implementation of the UNGPs.

Both discussion papers were also intended to inform other pertinent initiatives, in the specific case of the second the OECD's proactive agenda on Responsible Business Conduct, which released in 2019 its guidance on due diligence for Responsible Business Conduct in General Corporate Lending and Securities Underwriting. UBS is a member of the Advisory Group to the OECD's project.

#### Recognizing these risks, we:

- established a UBS Position on human rights in 2006. In 2013, we revised the firm's Environmental and Social Risk Framework to formalize accountability for human rights issues.
- stipulated that we will not engage in commercial activities that make use of child labor and forced labor, or that infringe the rights of indigenous peoples (see section Controversial Activities – Where UBS will not do business).
- will continue our work internally, and externally with the Thun Group of Banks and the OECD, to understand how best to implement the UNGPs across our operations.

#### Our standards

UBS has set standards in product development, investments, financing and supply chain management decisions, which include the stipulation of controversial activities and other areas of concern UBS will not engage in, or will only engage in under stringent criteria.

# Controversial Activities – Where UBS will not do business

UBS will not knowingly provide financial or advisory services to clients whose primary business activity, or where the proposed transaction, is associated with severe environmental or social damage to or through use of:

- World heritage sites as classified by UNESCO;
- Wetlands on the "Ramsar list";
- Endangered species of wild flora and fauna listed in "Appendix 1" of the Convention on International Trade in Endangered Species;
- High conservation value forests as defined by the six categories of the Forestry Stewardship Council (FSC);
- Illegal fire: uncontrolled and/or illegal use of fire for land clearance;
- Illegal logging including purchase of illegal harvested timber (logs or roundwood);
- Child labor according to "ILO-conventions 138" (minimum age) and 182 (worst forms);
- Forced labor according to ILO-convention 29; and
- Indigenous peoples' rights in accordance with "IFC Performance Standard 7".

The same standards apply when UBS purchases goods or services from suppliers.

In addition, UBS does not directly or indirectly finance the development, production or purchase of controversial weapons of such companies determined to fall within the "Swiss Federal Act on War Materials."

## On the topic of cluster munitions and anti-personnel

**mines**: UBS does not provide credit facilities to, nor conduct capital market transactions for, companies that are involved in the development, production or purchase of cluster munitions and anti-personnel mines. UBS does not include securities of affected companies in its actively managed retail and institutional funds and in discretionary mandates. UBS draws upon external expertise to decide whether a company is subject to the restrictions imposed by Swiss law.

# Areas of Concern – Where UBS will only do business under stringent criteria

Specific guidelines and assessment criteria apply to transactions with corporate clients engaged in the areas of concern listed below. The guidelines and assessment criteria apply to loans, trade finance, direct investments in real estate and infrastructure, securities and loan underwriting transactions, and investment banking advisory assignments.

Transactions in the areas listed below trigger an enhanced due diligence and approval process. In addition to the assessment of regulatory compliance, adherence to UBS's controversial activities standards, past and present environmental and human rights performance, as well as concerns of stakeholder groups, these transactions require an assessment of the following criteria:

## Soft commodities

- Palm oil: Companies must be a member of the RSPO and not subject to any unresolved public criticism from the RSPO. Companies must further have some level of mill or plantation certification and be publicly committed to achieving full certification (evidence must be available). Company must also be committed to "No Deforestation, No Peat and No Exploitation" (NDPE).
- Soy: Companies producing soy in markets at high risk of tropical deforestation must be a member of the Roundtable on Responsible Soy (RTRS) and not subject to any unresolved public criticism from the RTRS. Companies must further be publicly committed to achieving full certification (evidence must be available).
- Timber: Companies producing timber in markets at high risk of tropical deforestation must seek to achieve full certification of their production according to the Forest Stewardship Council (FSC) or a national scheme endorsed against the 2010 Programme for the Endorsement of Forest Certification (PEFC) meta standard for timber products. Company must also have fire prevention, monitoring and suppression measures in place.
- Fish and seafood: Companies producing, processing or trading fish and seafood must provide credible evidence of no illegal, unreported and unregulated fishing in their own production and supply chain.

# **Power Generation**

Coal-fired power plants (CFPP): We do not provide project-level finance for new coal-fired power plants globally and only support financing transactions of existing coal-fired operators (>30% coal reliance) who have a transition strategy in place that aligns with a pathway under the Paris Agreement, or the transaction is related to renewable energy.

- Large dams: Transactions directly related to large dams include an assessment against the recommendations made by the World Commission on Dams (WCD) and the International Hydropower Association Sustainability Assessment Protocol.
- Nuclear power: Transactions directly related to the construction of new, or the upgrading of existing nuclear power plants include an assessment on whether the country of domicile of the client / operation has ratified the Treaty on the Non-Proliferation of Nuclear Weapons.

#### Extractives

- Arctic oil and oil sands: We do not provide financing where the stated use of proceeds is for new offshore oil projects in the Arctic or greenfield<sup>1</sup> oil sands projects, and only provide financing to companies, which have significant reserves or production in arctic oil and/or oil sands (>30% of reserves or production), where the stated use of proceeds is related to renewable energy or conventional oil & gas assets.
- **Coal mining:** We do not provide financing where the stated use of proceeds is for greenfield<sup>1</sup> thermal coal mines and do not provide financing to coal mining companies engaged in mountain top removal operations. We continue to severely restrict lending and capital raising to the coal mining sector.
- **Liquefied Natural Gas (LNG):** Transactions directly related to LNG infrastructure assets are subject to enhanced ESR due diligence considering relevant factors such as management of methane leaks, and the company's past and present environmental and social performance.
- **Ultra-deepwater drilling:** Transactions directly related to ultra-deepwater drilling assets are subject to enhanced ESR due diligence considering relevant factors such as environmental impact analysis, spill prevention and response plans, and the company's past and present environmental and social performance
- **Hydraulic fracturing:** Transactions with companies that practice hydraulic fracturing in environmentally and socially sensitive areas are assessed against their commitment to and certification of voluntary standards, such as the American Petroleum Institute's documents and standards for hydraulic fracturing.
- **Precious metals:** Transactions directly related to precious metals assets that have a controversial environmental and social risk track record are assessed against the client's commitment to and certification of voluntary standards, such as the International Council on Mining & Metals' (ICMM) International Cyanide Management Code (ICMC).
- **Diamonds:** Transactions with companies that mine and trade rough diamonds are assessed on the client's commitment to and certification of voluntary standards, such as the ICMC, and rough diamonds must be certified under the Kimberley Process.

# Our processes and governance

UBS applies an environmental and social risk framework to all transactions, products, services and activities such as lending, capital raising, advisory services or investments that involve a party associated with environmentally or socially sensitive

activities. The framework seeks to identify and manage potential adverse impacts to the environment and to human rights, as well as the financial and reputation risks of being associated with them.

# Integration in risk, compliance and operations processes

Procedures and tools for the identification, assessment and monitoring of environmental and social risks are applied and integrated into standard risk, compliance and operations processes.

- Client onboarding: Potential clients are assessed for environmental and social risks associated with their business activities as part of UBS's Know Your Client compliance processes.
- Transaction due diligence: Environmental and social risks are identified and assessed as part of standard transaction due diligence and decision-making processes in all business divisions and relevant product lines.
- Product development and investment decision processes: New financial products and services are reviewed before their launch in order to assess their compatibility and consistency with UBS's environmental and human rights standards. Environmental and social risks are also considered in investment decision processes and when exercising ownership rights like proxy voting and engagement with the management of investee entities.
- **Own operations:** Our operational activities and employees, or contractors working on UBS premises, are assessed for compliance with relevant environmental, health and safety, and labor rights regulations.
- **Supply chain management:** Environmental and social risks are assessed when selecting and dealing with suppliers. UBS also evaluates goods and services that pose potential environmental, labor and human rights risks during lifecycle (production, usage, and disposal) as part of its purchasing processes.
- Portfolio review: At portfolio level, we regularly review sensitive sectors and activities prone to bearing environmental and social risks. We assess client exposure and revenue in such sectors and attempt to benchmark the portfolio quality against regional and/or sector averages. Such portfolio reviews give us an accurate aggregated exposure profile and an enhanced insight into our transaction and client onboarding processes. Based on the outcome of these reviews, we can explore ways to improve the future portfolio profile along a range of risk parameters.

Clients, transactions or suppliers potentially in breach of UBS's position, or otherwise subject to significant environmental and human rights controversies, are identified as part of UBS's standard risk and compliance processes. Advanced data analytics on companies associated with such risks is integrated into the web-based compliance tool used by our staff before they enter into a client or supplier relationship, or a transaction. The systematic nature of this tool significantly enhances our ability to identify potential risk. In 2019, 1,889 referrals were assessed by our environmental and social risk unit, of which 82 were rejected or not pursued, 299 were approved with qualifications and 32 were pending.

# Environmental and social risk assessments

	Fc	or the year ended		% change from
	31.12.19	31.12.18	31.12.17	31.12.18
Cases referred for assessment <sup>1</sup>	1,889	2,114	2,170	(11)
by region				
Americas	248	288	305	(14)
Asia Pacific	479	718	604	(33)
Europe, Middle East and Africa (excluding Switzerland)	282	293	253	(4)
Switzerland	880	815	1,008	8
by business division				
Global Wealth Management <sup>2</sup>	199	426	507	(53)
Personal & Corporate Banking	801	684	795	17
Asset Management	4	7	7	(43)
Investment Bank	849	980	852	(13)
Corporate Center <sup>3</sup>	36	17	9	112
by sector				
Agribusiness <sup>4</sup>	197	277	291	(29)
Chemicals	61	91	87	(33)
Financial <sup>5</sup>	722	589	617	23
Infrastructure	82	109	53	(25)
Metals and mining	200	249	233	(20)
Oil and gas	150	187	207	(20)
Technology <sup>6</sup>	105	164	140	(36)
Transport	40	51	53	(22)
Utilities	108	176	191	(39)
Other <sup>7</sup>	224	221	298	1
by outcome <sup>8</sup>				
approved <sup>9</sup>	1,476	1,648	1,679	(10)
approved with qualifications <sup>10</sup>	299	358	397	(16)
rejected or not further pursued <sup>11</sup>	82	108	94	(24)
pending <sup>12</sup>	32	0	0	

<sup>&</sup>lt;sup>1</sup> Transactions and client onboarding requests referred to the environmental and social risk (ESR) function. <sup>2</sup> Wealth Management and Wealth Management Americas reported as Global Wealth Management from 2018. Therefore, 2017 numbers were restated. <sup>3</sup> Relates to procurement / sourcing of products and services. <sup>4</sup> Includes, e.g., companies producing or processing fish and seafood, forestry products, biofuels, food and beverage. <sup>5</sup> Includes, e.g., banks, commodity traders, investments and equity firms. <sup>6</sup> Includes technology and telecom companies. <sup>7</sup> Includes, e.g., aerospace and defense, general industrials, retail and wholesale (from 2017). <sup>8</sup> "By outcome" 2019 data is from 22.1.2020 <sup>9</sup> Client / transaction / supplier subject to an ESR assessment and considered in compliance with UBS's ESR framework. <sup>10</sup> Client / transaction / supplier subject to an ESR assessment and approved with qualifications. Qualifications may include ring-fencing of certain assets, conditions towards client / supplier or internal recommendations. <sup>11</sup> Client / transaction / supplier subject to an ESR assessment and rejected or not further pursued. <sup>12</sup> Decision pending. Pending cases 2018 have been closed and reallocated to the other outcome categories.

# Escalation and approval processes

Where business or control functions responsible for identifying and assessing environmental and social risks as part of due diligence processes determine the existence of potential material risks, they refer the client, supplier or transaction to a

specialized environmental and social risk unit for enhanced due diligence. If identified risks are believed to pose potentially significant environmental or social risks, they are rejected by the risk unit or are escalated according to the firm's reputation risk escalation process.

# **Environmental and social risk escalation process**

# Step 4

Escalation of firm-wide issues/risks to group level

# Step 3

Escalation to divisional level

# Step 2

Referral to control function for enhanced assessment and decision

#### Step 1

Risk identification and initial analysis

# Governance and oversight

In view of the many environmental and social challenges globally, these topics will continue to increase in relevance for banks. These developments therefore require regular and critical assessment of our policies and practices, based on an accurate monitoring and analysis of societal topics of potential relevance to UBS.

This process is the responsibility of a committee at Group Executive Board-level, the Global Environmental and Social Risk Committee, which sets the overall risk appetite for the firm and resolves and policy matters relating to environmental and social risks and their associated reputation risks.

# Global ESR Committee

**Divisional Senior Management** 

Environmental and social risk unit

Business or control function

It is chaired by the Group Chief Risk Officer, who is responsible for the development and implementation of principles and appropriate independent control frameworks for environmental and social risks within UBS.

All corporate responsibility and sustainability developments at UBS are monitored and reviewed by the UBS Corporate Culture and Responsibility Committee, a Board of Directors' committee of UBS Group AG. The Committee supports the Board in its duties to safeguard and advance UBS's reputation for responsible corporate conduct. In this capacity it reviews and monitors the implementation of UBS's ESR framework.

# Exhibit B.

# **UBS** in society Constitutional Document

UBS's goal is to be the financial provider of choice for clients wishing to mobilize capital towards the United Nation's Sustainable Development Goals (SDGs) and the orderly transition to a low carbon economy (the Paris Agreement). This document defines the principles and responsibilities for promoting this commitment systematically across all relevant businesses and for implementing the ethical standards defined in the UBS Code of Conduct and Ethics that govern UBS's interaction with society and the environment.

# **Key Principles**

We implement our vision across four pillars: in finance, in philanthropy, in communities and in business:

- We play an important role in the allocation of capital and strive to support our clients with innovative products and services that address societal concerns and drive change for the better (in finance and in philanthropy)
- We want to make a positive impact across the geographical areas in which we operate to support the development of prosperous and healthy societies (in communities)
- We regard clear principles as necessary, collaboration as essential, and a strong corporate culture as paramount to address the ambitious SDGs and the Paris Agreement (in business )

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# 1. Our Commitment

UBS's goal is to be the financial provider of choice for clients wishing to mobilize capital towards the achievement of the United Nation's Sustainable Development Goals (SDGs) and the orderly transition to a low carbon economy (the Paris Agreement). We work towards this goal by integrating sustainability into our mainstream offerings, through new and innovative financial products with a positive effect on the environment and society, and by advising clients on their philanthropy. And it is through the management of environmental and social risks, the management of our environmental footprint and our sustainability disclosure that we continue to set standards in the industry.

Our cross divisional organization, UBS in society, focuses our firm on this direction. UBS in society is committed to making UBS a force for driving positive change in society and the environment for future generations. It will do so by focusing our firm on creating long term positive impact for clients, employees, investors and society. Our ambition is to be:

- A leader in sustainable finance across all client segments
- A recognized innovator and thought leader in philanthropy<sup>1</sup>
- An industry leader for sustainable business practices
- An employer of choice

UBS in society covers all the activities and capabilities related to sustainable finance (including sustainable investing), philanthropy, environmental, climate and human rights policies governing client and supplier relationships, our environmental footprint, human resources as well as community investment. It is through this cross divisional organization that UBS leverages its expertise across all of these areas to drive sustainable performance.

We intend to make sustainable performance the standard across our firm and part of every client conversation. This means that we will focus on the long term and work to provide appropriate returns to all of our stakeholders in a responsible manner. In addition, we are transparent about our targets and progress wherever possible to demonstrate our commitment.

# 2. Scope

The document defines the principles, governance and controls for implementing this commitment. It outlines how UBS is becoming a force for driving positive change – in finance, in philanthropy, in communities and in our business. Our banking activities, in-house operations, supply chain management and community interactions are subject to, and must be conducted in compliance with this commitment.

<sup>&</sup>lt;sup>1</sup> Includes client and corporate donations (section 3.2 and 3.3)

# 3. Principles

The following principles outline how UBS in society promotes the implementation of its commitment to make UBS a force for driving positive change in society and the environment for future generations, across four areas; in finance, in philanthropy, in communities and in our business.

#### 3.1. In finance

We're reshaping the landscape of sustainable finance by using thought leadership, innovation and partnerships to support clients in their sustainability efforts. For:

- **Private investors:** We're helping clients invest in companies that use their resources wisely and deliver reliable, long-term results. It's important to us that our clients can invest in what they care about, make the difference they desire and still get the returns they are looking for.
- **Institutional investors:** We're transforming the business of asset management and taking a long-term perspective by establishing sustainable and impact investing as core components across our offering and solutions.
- **Corporate organizations:** We're offering in-depth research, innovative products and expert advice to organizations who would like to consider environmental, societal and governance criteria in their financing and investing decisions.
- **Swiss businesses:** We're creating programs to help Swiss companies prepare for the new, low-carbon economy.

#### 3.2. In philanthropy

We're partnering with clients and others for good, by offering expert advice, carefully selected programs from UBS Optimus Foundation, and innovative social financing mechanisms, so that our clients can make meaningful and measureable impact:

- **UBS Optimus Foundation:** We're making a measureable improvement in the lives of world's most vulnerable children. From getting more girls into school, to using solar power to improve maternal health we're bringing our clients, partners and extensive network together to support SDG-focused initiatives with the potential to be transformative, scalable and sustainable. We do this through evidence based grant making and innovative social finance, finding the most effective ways to use capital to drive social change.
- **Philanthropy advisors:** We're dedicated to making the philanthropic vision of our clients come to life. From helping them understand where they can begin, to how they can give in the most effective way, our advice is supported by in-depth research. We offer access to a global philanthropist network and insight experiences through our Philanthropy Forums and visits to the foundation's programs.

#### 3.3. In communities

We recognize that UBS's long-term success depends on the health and prosperity of the communities of which we are part.

Our Community Affairs programs represent the firm's investment in communities. Our programs seek to overcome disadvantage through long-term investment in education and entrepreneurship. We provide UBS resources (both financial and employee volunteering) to drive change and create a positive impact. Our approach is to build sustainable and successful partnerships with non-profit organizations and social enterprises to ensure that our contributions have a lasting impact.

Our Community Affairs framework is global in scope and delivers both community and business impact in each of the regions in which we operate. Regional execution of the global strategy ensures we are effectively aligning our programs to address local community issues and support business priorities.

#### 3.4. In our business

We're leading by example in that we challenge ourselves and our peers to raise the bar and be open about the impact our actions have on society and the environment. Our focus is on:

- **Environmental and social risk:** We apply an environmental and social risk (ESR) framework to identify and manage potential adverse impacts to the environment, the climate and to human rights as well as the associated environmental and social risks our clients' and our own assets are exposed to. UBS's comprehensive ESR standards are aligned with UBS in society, govern client and supplier relationships, and are enforced firmwide and applied to all activities.
- Environmental footprint: We set quantitative targets to reduce group-wide greenhouse gas emissions and the environmental impact of our operations. Environmental programs include investments in sustainable real estate and efficient information technology, energy and water efficiency, paper and waste reduction and recycling, the use of environmentally friendly products (such as renewable energy or recycled paper), business travel and employee commuting. UBS aims to reduce negative environmental and social impacts of goods and services it purchases and engages with suppliers to promote responsible practices.
- **Human resources:** Our employees are crucial to our business success. We seek to attract, develop and retain talented people at all levels with diverse background and skills to effectively advise our clients, deliver innovative solutions, manage risk, navigate evolving regulatory requirements, and drive change. We also focus on increasing awareness of UBS in society amongst our employees by integrating sustainability topics in our employee lifecycle activities.
- **Corporate responsibility:** We report openly and transparently about our firm's environmental, social, governance (ESG) performance, including UBS in society, and seek to maintain open dialogue and active communications with our stakeholders

# 4. Responsibilities and Structure

The **Corporate Culture and Responsibility Committee (CCRC)**<sup>2</sup> supports the UBS Board of Directors in its duties to safeguard and advance the Group's reputation for responsible and sustainable conduct. It approves and monitors UBS in society's overall strategy and annual objectives, reviews that the UBS in society constitutional document is relevant and up to date, and oversees the program's annual management review (see section 5).

The **Group CEO**<sup>3</sup> supervises the execution of the UBS in society strategy and annual objectives. The Group CEO also informs the Group Executive Board (GEB) and Corporate Culture and Responsibility Committee (CCRC) about UBS in society updates as appropriate.

The **Head UBS in society** is UBS's senior level representative for environmental and sustainability issues. He or she is nominated by the Group CEO, chairs the UBS in society Steering Committee, is a member of the Global Environmental Social Risk Committee, and is a permanent guest to the CCRC. He or she develops the UBS in society strategy, leads in its execution, and submits annual objectives to the Group CEO. On behalf of the Group CEO, he or she proposes the UBS in society strategy and annual objectives to the CCRC for approval. He or she is supported by the UBS in society Executive Committee (EC)<sup>4</sup> in this effort.

The **UBS** in society **Steering Committee** (**SC**)<sup>5</sup> ensures firm-wide execution of the UBS in society strategy across business divisions, functions and regions. The Committee is chaired by the Head UBS in society and is composed of divisional, regional, and Group COO EC members as well as UBS in society EC members. SC members are nominated by their respective GEB member and/or the Head UBS in society, and are responsible to define and implement the sustainability strategy of their BA/Function (and to allocate resources accordingly) in-line with the UBS in society strategy. SC members ensure their objectives and plans are signed off by their GEB member/ECs.

The **Global Environmental & Social Risk Committee**<sup>6</sup> defines an ESR framework and independent controls that align UBS's environmental and social risk appetite with that of UBS in society. It is chaired by the Group Chief Risk Officer, who is responsible for the development and implementation of principles and appropriate independent control frameworks for environmental and social risks within UBS.

The **Business Divisions** are responsible for developing, providing resources to, and executing the UBS in society annual objectives in their respective division as they relate to client relationships, product development, investment management, distribution and risk management, predominantly in the areas of sustainable finance and client philanthropy.

The **Regions** are responsible for providing resources to, and executing Community Affairs objectives in their region through their respective regional Community Affairs teams. The Community Affairs objectives are aligned with the global framework of UBS in society.

The **Corporate Center** functions are responsible for developing, providing resources to, and executing UBS in society annual objectives as they relate to risk control, sustainability regulation, employee training and development, in-house environmental and supply chain management, and communications.

<sup>&</sup>lt;sup>2</sup> Responsibilities and authority of the CCRC are defined in Annex C of the Organization Regulations of UBS Group AG

<sup>&</sup>lt;sup>3</sup> As set out in the Corporate Center Business Regulations

<sup>&</sup>lt;sup>4</sup> As set out in the UBS in society Executive Committee Terms of Reference

<sup>&</sup>lt;sup>5</sup> As set out in the UBS in society Steering Committee Terms of Reference

<sup>&</sup>lt;sup>6</sup> As set out in the Global Environmental and Social Risk Committee Terms of Reference

# 5. Reporting and Controls

Our commitment is implemented through a firm-wide management system steered by defined measurable objectives. Their achievement is reviewed on a semi-annual basis by the Head of UBS in society, and on an annual basis by the Corporate Culture and Responsibility Committee.

Progress made in implementing UBS in society's strategy, commitment, and objectives is reported as part of UBS's annual reporting. This reporting is reviewed and assured externally according to the requirements of the Global Reporting Initiative's (GRI) sustainability reporting guideline. We also regularly report on the implementation of our climate strategy and follow the recommendations provided by the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) and externally verify our greenhouse gas reporting according to ISO 14064.

UBS is certified according to ISO 14001 and ISO 50001 international environmental and energy management standards. These certificates attest that UBS's environmental management system is an appropriate tool for evaluating compliance with the relevant environmental regulations, achieving self-defined environmental objectives, and maintaining continual improvement of environmental performance.

The implementation of our commitment and principles, as laid out in this document, is a process of continual improvement.

# Standard Information

#### The Sustainable Development Goals (SDGs)

In September 2015, with the support of 193 nations, the United Nations launched the 2030 Agenda for Sustainable Development to end poverty, combat climate change, and fight injustice. Seventeen Sustainable Development Goals (SDGs) went into effect in January 2016 to address global socio economic imbalances threatening the lives of people living in developing economies and the future of generations to come.

#### The Paris Agreement

The Paris Agreement is an agreement within the United Nations Framework Convention on Climate Change (UNFCCC) signed in 2016. As of March 2019, 195 countries had signed committing to keep the long-term global average temperature increase to well below 2 °C above pre-industrial levels; and to pursue efforts to limit the increase to 1.5 °C above pre-industrial levels, recognizing that this would substantially reduce the risks and impacts of climate change. It also aims to increase the ability of parties to adapt to the adverse impacts of climate change, and make finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

#### Climate strategy

UBS considers an orderly transition to a low-carbon economy as vital. Orderly means that emissions are reduced in a measured way to meet climate goals, starting now<sup>7</sup>. We support this transition through our comprehensive climate strategy. We are determined to protect our clients, and our own assets from climate-related risks in the context of uncertain policy and technology developments, mobilize private and institutional capital to finance the transition and reduce our own direct climate impact.

#### **Environmental and social risk (ESR)**

Environmental and social risks are broadly defined as the risk that UBS supports clients, or sources from suppliers, who cause or contribute to severe environmental damage or human rights infringements. Environmental and social risks can also arise if UBS's operational activities and its employees (or contractors working on behalf of UBS) fail to operate within relevant environmental and human rights regulations. Environmental and social risks (including human rights and climate-related risks) may result in adverse financial and reputational impacts for UBS.

#### Sustainable Investments (SI)

Sustainable investing is an approach that seeks to incorporate environmental, social and governance (ESG) considerations into investment decisions. SI strategies seek to 1) achieve a positive environmental or social impact, and/or 2) align investments with an investor's values regarding ESG topics, while aiming to improve the portfolio risk and return characteristics.

#### **Sustainable Finance**

Sustainable finance refers to any form of financial service that integrates environmental, social and governance (ESG) criteria into the business or investment decisions for the lasting benefit of both clients and society at large.

<sup>&</sup>lt;sup>7</sup> NGFS - A call for action , Climate change as a source of financial risk, First comprehensive report, 2019.

### Exhibit C.



# The way we do business

Our Code of Conduct and Ethics



## Our Code of Conduct and Ethics

In this Code, the Board of Directors and the Group Executive Board set out the principles and practices that define our ethical standards and the way we do business.

By following it, we will foster a culture where responsible behavior is ingrained in a way that protects our people, our reputation, and our ability to create lasting value for our shareholders. The Code sets the standards that help us to make that happen.

It is based on three Principles: client focus, which is about building relationships that create long-term value, focusing on investment returns and anticipating and managing conflicts of interest; excellence in everything from our products and services to how we collaborate across the firm to deliver the best of what UBS has to offer; and sustainable performance, which is about working continuously to strengthen our reputation as a rock-solid firm that is committed to sustainable business practices for all our stakeholders and provides consistent returns for shareholders.

It is essential that we all follow these Principles. In short, if we do business in the right way, we will be a better business, an even more successful one, and one that we can all be proud about.

Every year, the Board of Directors and Group Executive Board conduct a review of our Code. In this way, we ensure that key developments of pertinence to our clients, employees and other key stakeholders are reflected in the Code. Following our 2020 review, we have revised the Code, with key updates reinforcing the critical importance we attach to our firm's culture, our focus on clients and employees, our commitment to sustainability, and the need to be scrupulous in the way we use confidential data and information

# The Code applies to everything and everyone

Our Code is owned by each UBS employee and sets out the principles and standards we have defined for ourselves. It covers our dealings with clients, counterparties, shareholders, regulators and business partners – and each other. And it is the basis for all of our policies, guidelines and procedures.

Collectively, we have the responsibility to maintain the UBS culture of ethical behavior and accountability.

#### Ignorance of the Code is no excuse

As part of our governance framework, and training programs everyone at UBS learns about the standards in the Code and how to apply them. Not knowing the Code is no excuse for violating it.

# Our Boards are fully behind the Code – and need the whole bank to be behind it. too

The Code has the full backing of the Board of Directors and Group Executive Board. Every one of us needs to make sure that our day-to-day actions and decisions follow the standards set out here. Above all, we must put the interests of our clients, shareholders and UBS first.

Of course, the Code cannot describe every possible situation. If you find yourself dealing with something unexpected, apply these ethical standards in your judgment and seek guidance or help.

Thank you for your support.

Axel A. Weber

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Chairman of the Board of Directors

Sergio P. Ermotti

Group Chief Executive Officer

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# Creating the right culture and conduct

#### Culture

At UBS, we maintain a culture based on high standards of ethical behavior and accountability. We believe that the right strategy and culture drive strong performance. The three keys to success – our Pillars, Principles and Behaviors – embody the foundation of our strategy and culture. They define what we stand for both as a firm and individually and they define the way we think, work and act at UBS.

We don't just follow the laws, rules and regulations in everything we do. We do what is right. We don't just ask ourselves whether what we're doing is legal, but whether it fits with our three UBS Behaviors: Collaboration, Challenge and Integrity, and with our long-term strategy.

# Fair dealing and fair and effective competition

We act in the interest of fair and effective competition and respect all the laws, rules and regulations that are designed to create a level playing field for all – including antitrust and competition laws.

We don't stretch, distort or try to hide the facts or the truth. Nor do we use information we are not meant to have to our own advantage.

We act fairly, honestly and in good faith with everyone we deal with: our clients, business partners, competitors, suppliers, the public and each other.

#### **Client relationships**

We look after our clients for the long term, winning their loyalty by earning their trust.

We try to anticipate what our clients are going to need. We go out of our way to give them an exceptional service. We make sure our products and services are adequate for our clients and are sold in a way that is not detrimental to their interests. And we treat them fairly, and with the same courtesy and respect, however large or small they may be.

#### **Conflicts of interest**

We put our clients' best interests before our own – and UBS's interests before our personal interests. We never let UBS's or our personal interests influence our advice to a client, or our dealings with them.

We hold ourselves accountable to identify and manage potential conflicts of interest, including perceived conflicts. As soon as we identify any such conflicts, we raise them immediately with our line manager or with control functions.

# Behaving responsibly

#### Diversity and equal opportunity

We believe that people from different backgrounds, with different thoughts and opinions, make us a stronger business. They bring us valuable new ideas, approaches and experiences.

Regardless of their status, everyone has the same chance to get ahead at UBS – whatever their ethnicity, gender, nationality, age, ability, sexual orientation or religion. And we work to create a culture where everyone feels that they are welcome, respected and that they are a valuable part of our team – whatever part of UBS they work in.

We do not tolerate any kind of discrimination, bullying or harassment. And we encourage each other to speak up and report any concerns, without fear of reprisals.

#### Performance and professionalism

Our professionalism, integrity and pursuit of excellence are how we create value for our clients and shareholders. Therefore our compensation system is designed to reward long-term value creation by balancing performance and prudent risk-taking with a focus on conduct and sound risk management practices.

We know that our business is only as strong as our people, so we work hard to create a working environment where talent can thrive and reach its full potential.

#### **Protecting our assets and resources**

We keep UBS's assets secure – from sensitive, confidential information about our clients, business, plans and people to our intellectual property, systems and equipment, as well as documents, information and other materials belonging to others that are entrusted or made available to us. This includes the efficient use of UBS's financial resources for investments, expenditures, and procurement. That means making sure that these assets and resources are handled properly and used in line with relevant laws, rules and regulations and doing what we can to prevent them from being lost, stolen, damaged or misused. We retain data to fulfill regulatory retention and legal hold obligations.

We will not use such assets or resources for non-UBS business or for our own personal advantage.

#### **Health and safety**

We never do anything that might put people in danger or harm them in any way – whether they're clients, colleagues, partners, competitors, visitors or anyone else.

We keep our workplaces safe by following health and safety rules. Doing this makes sure we have safe and healthy working conditions in which our dignity is respected.

# Laws, rules and regulations

#### **Obeying the law**

We obey the laws, rules and regulations where we live, work and do business – as well as our own governance framework, documents and policies.

And we cooperate with our regulators, being open and transparent in our dealings with them.

#### Cross-border business

When we are working across borders, we obey all pertinent laws, rules and regulations – both at home and abroad.

If we are selling to, buying from, visiting or dealing with clients from outside our home country, it is our job to understand both the laws, rules, and regulations that apply, as well as our own policies – and follow them.

#### **Fighting crime**

We have a duty to contribute to the integrity of the financial system, as well as our own business.

So we do whatever we can to combat money laundering, corruption and terrorist financing – including adhering to global sanctions in line with our policies and with jurisdictional authorities.

#### Money laundering

We have rigorous systems in place and hold ourselves accountable to detect, stop and report any suspected money laundering.

#### Corruption

We have zero tolerance for corruption or any kind of bribery, including so-called "facilitation payments". We don't offer or accept improper gifts or payments in the course of our business.

#### Tax matters

We follow all the laws, rules, regulations and treaties around tax that apply to us, all over the world – not just to the letter, but in their true spirit. We pay and report all taxes due. We report information relating to our own tax position and that of our clients and employees as required.

We will not help or advise our clients or any other party avoid either paying the tax that they owe or reporting their income and gains, nor will we support any transactions where we know or shall presume that the tax outcome is dependent on unrealistic assumptions or the hiding of facts.

We will also not contract with third parties that provide services for or on our behalf, where those acts help others to avoid taxes owed.

# Sharing, using and storing information

#### **Client confidentiality**

Our clients trust us to keep the information they've shared with us safe and secure and only use it in the ways we've agreed with them.

We follow the highest standards of information security to keep information we hold on clients confidential and to protect legitimate client privacy rights. We have strict data security standards and procedures designed to prevent data being tampered with, seen or used by the wrong people, stolen, lost or destroyed.

We do not share our clients' details with anyone outside of UBS, unless we have their permission to do so – or where we have a legal duty to share it with the relevant authorities. And even within UBS, we will only share client details with those colleagues who we believe need to see it to better serve that client.

# Appropriate use of data and information

We approach the use of data and information, including client information, from an ethical perspective, assessing what is the right thing do, beyond what laws, rules or regulations say we must do. We use data and information to enhance the service we provide to clients, or to make UBS more resilient and operationally sound.

Our principles and standards guide us in how we use data and information and develop and deploy technological solutions. We are accountable, robust and transparent in how we operate. We consider the societal impacts. And we do not use data and information in ways that could harm our clients, employees, the public, or the markets.

#### Reporting and information sharing

When we share or report anything, especially financial information – to either the public or our regulators – we take great care to make sure it is accurate, up to date and as easy to understand as it can be (and in line with any legal or regulatory requirements and best practice).

We maintain an internal control framework that is designed to support the preparation and fair representation of consolidated financial statements in accordance with International Financial Reporting Standards (IFRS) and that are free from material misstatement.

Based on their audit work, our independent external auditors express an opinion on our internal controls over financial reporting as well as on the financial statements themselves. Our internal audit function provides support to our external auditors in discharging their responsibilities, and also assesses the adherence to our strategy and the effectiveness of our governance, risk management and control processes.

#### **Inside information**

We never use inside information (material information that is not public) to do anything other than for what it was given to us in the first place.

Having made every effort to ascertain whether information is inside information, we only ever share such information on a need-to-know basis. That applies to people inside and outside UBS, in line with our internal procedures, as well as any relevant laws, rules and regulations.

# Society and the environment

# Integrating financial and societal performance

We integrate financial and societal performance for the mutual benefit of our clients and our firm.

We are constantly looking for better ways to do business in an environmentally sound and socially responsible manner.

That includes monitoring, managing and reducing any negative impact we might have on the environment and on human rights. It means managing social and environmental risks that our clients' and our own assets are exposed to. And it means looking for sustainable investment opportunities, for ourselves and our clients.

#### Investing in our communities

We look for ways to contribute to the well-being of our local communities – by supporting charitable and non-profit activities financially and non-financially, including through our volunteering efforts.

# Violating the Code

#### **Disciplinary procedures**

Anyone who breaks the rules (whether it is our Code, UBS policies or laws, rules and regulations) will face consequences – from reprimands and warnings to dismissal.

This includes not only the person who broke the rules, but also their line manager and anyone who knew about it but did not report it.

Where a violation amounts to criminal behavior, we will not hesitate to bring it to the attention of the relevant authorities.

# Upholding the Code

We live up to this Code at all times, with no exceptions.

UBS will not accept any justification or excuse for breaking the Code, whatever the reason – whether for profit, convenience or competitive advantage or because a client or someone else asked for it.

#### **Changes to the Code**

The Code defines the way we do business. It is reviewed regularly to make sure it reflects our principles and standards and is consistent with the law. Whenever there's a change, an announcement goes to every employee.

#### **Affirmation process**

Each of us declares that we have read and affirmed our awareness of the Code, as part of our annual affirmation process.

#### Speak Up

We immediately report any potential violations of laws, rules, regulations, policies, professional standards and the principles of the Code to our line manager or local investigations officer. We can also report them confidentially or anonymously using the whistleblowing procedures published on the intranet site goto/speakup.

Any form of retaliation against whistleblowers is unacceptable.

And UBS expects its line managers to escalate and report any violations of laws, rules, regulations, policies, professional standards and the principles of the Code.

#### **Questions about the Code**

Any questions about any part of this Code, or what it means in practice, should go to the Group General Counsel or the Group Chief Compliance and Governance Officer.

UBS Group AG P.O. Box CH-8098 Zurich

ubs.com



### Exhibit D.



# Our climate strategy

# Taking action towards a low-carbon future



#### Climate action - a snapshot

Nearly five years have passed since the adoption of the Paris Agreement on Climate Change (the Paris Agreement). Collective progress towards achieving the goals of the Paris Agreement will be assessed in a global stocktake in 2023, acknowledging the 2 °C benchmark and the more recent 1.5 °C limit in global warming urged by the Intergovernmental Panel on Climate Change (IPCC) in its 2018 special report. Achieving the Paris Agreement goals demands unprecedented levels of investment. In terms of the current state of climate action, there is a recognized climate finance gap as well as a Sustainable Development Goals (SDGs) investment gap – to meet the low-carbon transition targets. At the same time, we see a clear investor appetite for directing capital toward a low-carbon future. To support in scaling up collective action, UBS assists private and institutional clients in their desire to invest in accordance with their social and environmental objectives, thus helping to close the gap.

We aspire to drive positive change in society and the environment for future generations. Our climate strategy underlines our commitment to the SDGs on climate action and on affordable and clean energy as well as the Paris Agreement. These key UBS commitments are embedded in the United Nations (UN)-backed Principles for Responsible Banking (PRB). This global framework specifies the role of banks in supporting a sustainable future and scaling up their contribution to the achievement of both the SDGs and the Paris Agreement. UBS became a founding signatory of the PRB in September 2019.

We regularly report on the implementation of our climate strategy and follow the recommendations provided by the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD). The recommendations call on companies to disclose the impacts of climate change on their businesses. This will allow investors and financial institutions to make better investment decisions with a common set of data to assess the climate-related risks and opportunities of specific companies. We are committed to aligning our climate disclosure within the five-year pathway outlined by the TCFD (until end of 2022) and to collaborating within the industry to close gaps.

We publicly support international, collaborative action against climate change. Our Chairman is a signatory to the European Financial Services Round Table's statement in support of a strong, ambitious response to climate change. Our Group CEO is a member of the Alliance of CEO Climate Leaders, an informal network of CEOs convened by the World Economic Forum and committed to climate action. Our Head Sustainable Equity Team within UBS Asset Management (AM) is a member of the TCFD.

Our climate-related achievements have been recognized by external experts. For the fifth year running, UBS has been named the best performer in the Diversified Financial Services and Capital Markets Industry of the Dow Jones Sustainability Indices (DJSI), the most widely recognized corporate sustainability rating. CDP, which runs a global disclosure system that enables companies, cities, states and regions to measure and manage their environmental impacts, has awarded UBS with Leadership status and a A- rating on climate change. In 2019, ShareAction, an international organization focused on advancing responsible investment, awarded UBS as the best performing asset manager in climate proxy voting in its report, "Voting matters – Are asset managers using their proxy votes for climate action?"

#### Climate-related highlights

- Our climate strategy underlines our commitment to the SDGs on climate action and on affordable and clean energy and supports an orderly transition to a low-carbon economy, as defined by the Paris Agreement.
- Our exposure to carbon-related assets on our banking balance sheet is low, at 0.8% or USD 1.9 billion as of 31 December 2019, decreasing further from 1.6% at the end of 2018 and 2.8% at the end of 2017.
- Our climate-related sustainable investments increased to USD 108 billion in 2019 from USD 87.5 billion in 2018.
- We actively engaged on climate topics with 50 oil & gas and utilities companies, and voted on 44 climate-related shareholder resolutions.
- We reduced our firm's greenhouse gas (GHG) footprint by 71% by 2019 compared with 2004 levels. We were awarded top ratings and rankings by external experts; climate industry group leader (Dow Jones Sustainability Indices);
   Climate A- rating (CDP) and best performing asset manager in proxy voting (ShareAction, 2019).



#### **Climate governance**

As embedded in the Organization Regulations of UBS Group AG, the Board of Directors' (BoD) Corporate Culture and Responsibility Committee

(CCRC) oversees our climate strategy. Within the parameters set by the CCRC, the *UBS in society* Steering Committee ensures firm-wide execution of the climate strategy while our firm's climate-related risk appetite is set by the Global Environmental & Social Risk (ESR) Committee. In joint meetings, the CCRC and the BoD's Risk Committee regularly and critically review the assessments and steps taken by these management bodies towards executing our climate strategy. The CCRC approves UBS's annual climate-related objectives and oversees the progressive alignment of our climate disclosure with the TCFD recommendations. These annual plans and objectives are managed as part of our ISO 14001-certified environmental management system (EMS) with defined management accountabilities across the firm. The EMS helps us to systematically reduce environmental risks, seize market opportunities and continuously improve our environmental and climate performance and resource efficiency.

Refer to the "Sustainability governance" graph in the Sustainability Report 2019



#### **Climate strategy**

As one of the world's largest managers of private and institutional wealth, we play an active role in shaping a sustainable future. As with the SDGs, we

aim to be a leading financial provider in enabling investors to mobilize private and institutional capital to climate change mitigation and adaptation while supporting the transition to a low-carbon economy. At UBS we see a clear investor appetite for directing capital in climate solutions. We address this by continuously developing our offering in sustainable finance and actively engaging with clients. Our climate strategy supports our clients and our firm preparing for success in an increasingly carbon-constrained world.

We support this goal through our innovative financial product offering and advisory, as well as through embedding climate risk in our firm-wide risk management framework and in our own operations. Our climate strategy focuses on four pillars:

 Protecting our own assets: We seek to protect our assets by limiting our risk appetite for carbon-related assets and by estimating our firm's vulnerability to climate-related risks using scenario-based stress testing approaches and other forward-looking portfolio analyses. We have reduced carbon-related assets on our balance sheet to 0.8% or USD 1.9 billion as of 31 December 2019, down from 1.6% at the end of 2018 and 2.8% at the end of 2017.

- Protecting our clients' assets: We support our clients' efforts to assess, manage and protect them from climate-related risks by offering innovative products and services in investment, financing and research. We actively engage on climate topics with companies that we invest in; AM has implemented an engagement program with 50 companies from oil and gas and utilities sectors and we voted on 44 climate-related shareholder resolutions during 2019.
- Mobilizing private and institutional capital: We mobilize private and institutional capital towards investments facilitating climate change mitigation and adaptation and in supporting the transition to a low-carbon economy as corporate advisor, and/or with our lending capacity. In 2019, our climate-related sustainable investments rose to USD 108 billion from USD 87.5 billion at the end of 2018, and the deal value in equity and debt capital market services, and in financial advisory services, related to climate change mitigation and adaptation, rose to USD 87.2 billion, from USD 56.5 billion in 2018.
- Reducing our direct climate impact: We continue to reduce our greenhouse gas (GHG) emissions and increase the firm's share in renewable energy. We have committed to using 100% renewable electricity by mid-2020. This will reduce our firm's GHG footprint by 75% compared with 2004 levels. At the end of 2019, we had reduced our GHG emissions by 71% compared to baseline year 2004.
- Refer to the "Our focus on ESG" sub-section of the Sustainability Report 2019 for more information on our sustainable investments
- Refer to the "In-house environmental management" section of the <u>Sustainability Report 2019</u> for more information



#### Climate risk management

The physical and transition risks of climate change contribute to a structural change affecting banks and the financial sector at large. In order to protect

our own and our clients' assets from climate-related risks, we continue to drive the integration of climate-related risk into our standard risk management framework. This framework involves procedures and tools for identifying, assessing and monitoring environmental and social risks in our standard risk,

compliance and operations processes. These include client onboarding, transaction due diligence, product development and investment decision processes, own operations, supply chain management and portfolio reviews. These processes are geared toward identifying clients, transactions or suppliers potentially in breach of our standards or otherwise subject to significant environmental and human rights controversies, including climate change.

In 2019, we embedded climate risk into our risk taxonomy and operational risk appetite statement, further reduced our

exposure to carbon-related assets and, more broadly, to climate-sensitive sectors. We also refined our ability to estimate the firm's vulnerability to climate-related risks using forward-looking scenario-based approaches, and revised our standards in the energy and utilities sectors.

Refer to the "Climate-related standards in the energy and utilities sectors" table below

Refer to "Scenario analysis" further below

Climate	Climate-related standards in the energy and utilities sectors				
	Coal-fired power plants	Not providing project-level finance to new coal-fired power plants globally.			
Coal		Only supporting financing to transactions of existing coal-fired operators (>30% coal reliance) who have a transition strategy in place that aligns with a pathway under the Paris Agreement, or the transaction is related to renewable energy.			
Ö	Coal mining	<b>New:</b> Not providing financing where the stated use of proceeds is for greenfield¹ thermal coal mines.  Continuing to severely restrict lending and capital raising to the coal mining sector.			
	Mountaintop removal (MTR)	Not providing financing to coal mining companies engaged in MTR operations.			
Oil and gas	Arctic oil and oil sands	<b>New:</b> Not providing financing where the stated use of proceeds is for new offshore oil projects in the Arctic or greenfield¹ oil sands projects. <b>New:</b> Only provide financing to companies which have significant reserves or production in arctic oil and/or oil sands (>30% of reserves or production) where the stated use of proceeds is related to renewable energy or conventional oil & gas assets.			
	Liquefied natural gas (LNG) and ultra-deepwater drilling	<b>New:</b> Transactions directly related to LNG infrastructure assets are subject to enhanced Environmental & Social Risk (ESR) due diligence considering relevant factors such as management of methane leaks, and the company's past and present environmental and social performance. <b>New:</b> Transactions directly related to ultra-deepwater drilling assets are subject to enhanced ESR due diligence considering relevant factors such as environmental impact analysis, spill prevention and response plans, and the company's past and present environmental and social performance.			

<sup>1</sup> Greenfield means a new mine / well or an expansion of an existing mine / well which results in a material increase in existing production capacity.

#### Scenario analysis

We have been using scenario-based approaches since 2014 to assess our exposure to physical and transition risks associated with climate change. We have performed both top-down balance sheet stress testing (across the firm), as well as

targeted, bottom-up analysis of specific sector exposures in short, mid-, and long-term horizons. The table below summarizes the UBS scenario assessments performed to date.

#### **Scenario assessments**

Assessment	Year	Scenarios used	Outcomes		
Top-down					
UBS climate stress test to assess UBS's vulnerability (balance sheet, operational income and physical assets) to climate change.	2014	Climate scenario developed in-house	Moderate financial impact in line with other stress scenarios, such as those that foresee an oil shock.		
Bottom-up					
Assessment on exposure of loan portfolios secured by real estate to climate-related hazards.	2015	Climate scenario developed in-house	Low financial impact due to insurance coverage and loan maturity profile.		
Assessment on impacts of changing oil, gas and coal prices on oil, gas and electric utilities credit portfolios.	2015	Climate scenario developed in-house	Low financial impact due to high quality and maturity profile of portfolio.		
Drought stress test (Natural Capital Finance Alliance tool) on UBS's energy portfolio.	2017	Based on historic academic precipitation observations	No significant production impact from drought.		
UNEP FI TCFD pilot project for banks: standardizing climate risk identification and translating climate risks into credit impacts. Testing in 2019 focused on our power utilities credit portfolio, work on other sectors continues in 2020.	2018 - 2020	Integrated Assessment Modelling Consortium (IAMC)	No significant credit loss from transition risks in 1.5 and 2 degree scenarios, nor from physical risks in 2 and 4 degree scenarios.		
Paris Agreement Capital Transition Assessment (PACTA): testing alignment of corporate lending portfolios with Paris Agreement benchmarks.	2019 - 2020	<ul> <li>IEA¹</li> <li>B2DS²</li> <li>SDS³</li> <li>NPS⁴</li> <li>CPS⁵</li> </ul>	Low lending exposure to high-carbon sectors.		
	Top-down  UBS climate stress test to assess UBS's vulnerability (balance sheet, operational income and physical assets) to climate change.  Bottom-up  Assessment on exposure of loan portfolios secured by real estate to climate-related hazards.  Assessment on impacts of changing oil, gas and coal prices on oil, gas and electric utilities credit portfolios.  Drought stress test (Natural Capital Finance Alliance tool) on UBS's energy portfolio.  UNEP FI TCFD pilot project for banks: standardizing climate risk identification and translating climate risks into credit impacts. Testing in 2019 focused on our power utilities credit portfolio, work on other sectors continues in 2020.  Paris Agreement Capital Transition Assessment (PACTA): testing alignment of corporate lending	Top-down  UBS climate stress test to assess UBS's vulnerability (balance sheet, operational income and physical assets) to climate change.  Bottom-up  Assessment on exposure of loan portfolios secured by real estate to climate-related hazards.  Assessment on impacts of changing oil, gas and coal prices on oil, gas and electric utilities credit portfolios.  Drought stress test (Natural Capital Finance Alliance tool) on UBS's energy portfolio.  UNEP FI TCFD pilot project for banks: standardizing climate risk identification and translating climate risks into credit impacts. Testing in 2019 focused on our power utilities credit portfolio, work on other sectors continues in 2020.  Paris Agreement Capital Transition Assessment (PACTA): testing alignment of corporate lending —	Top-down  UBS climate stress test to assess UBS's vulnerability (balance sheet, operational income and physical assets) to climate change.  Bottom-up  Assessment on exposure of loan portfolios secured by real estate to climate-related hazards.  Assessment on impacts of changing oil, gas and coal prices on oil, gas and electric utilities credit portfolios.  Drought stress test (Natural Capital Finance Alliance tool) on UBS's energy portfolio.  Drought stress test (Natural Capital Finance Alliance trisk identification and translating climate risk identification and translating climate risk into credit impacts. Testing in 2019 focused on our power utilities credit portfolio, work on other sectors continues in 2020.  Paris Agreement Capital Transition Assessment (PACTA): testing alignment of corporate lending portfolios with Paris Agreement benchmarks.  Climate scenario developed in-house  Climate scenario developed in-house  2015  Climate scenario developed in-house  2016  Climate scenario developed in-house  2017  Based on historic academic precipitation observations  Modelling Consortium (IAMC)  • B2DS²  • SDS³  • NPS⁴		

<sup>1</sup> International Energy Agency (IEA), World Energy Outlook 2 Beyond 2 Degrees Scenario 3 Sustainable Development Scenario

<sup>4</sup> New Policies Scenario 5 Current Policies Scenario

Our initial (2014) top-down approach consisted of a scenariobased stress test to assess UBS's balance sheet vulnerability across the firm. Leveraging our existing firm-wide top-down stress testing methodology, we developed a climate change scenario (which assumes that severe weather events result in governments around the world agreeing to implement carbon pricing mechanisms to assess the impact on financial assets, operational income and physical assets). The scenario anticipated that these mechanisms will prompt a shift away from coal and other fossil fuels to cleaner alternatives and adversely impact markets and gross domestic product. Our subsequent (2015) bottom-up analyses of oil and gas utilities as well as electric utilities loan portfolios consisted of a forward-looking analysis to assess impacts of a long-term low fossil fuel price scenario resulting from policies promoting greater use of renewables, enhancing efficiency standards and limiting emissions. We calculated the impact this scenario would have on company probability of default and aggregated company-level results at the portfolio level to assess changes to expected loss. We also assessed the vulnerability of loan portfolios secured by real estate in Switzerland and the US to physical risk by mapping the location of collateral in over 6,000 postal code areas against Swiss Re's CatNet tool, which aggregates a large dataset of observed natural hazards such as wildfire, river and pluvial flooding and tropical cyclones.

From both top-down and bottom-up approaches, our internal stress tests suggested no immediate threat to UBS's balance sheet. However, we identified methodological challenges ranging from the suitability of climate scenarios for banking risk modelling to data availability. To address these challenges, 16 banks, including UBS, the UN Environment Programme Finance Initiative (UNEP FI), the Integrated Assessment Modelling Consortium (IAMC), and risk consultancies Oliver Wyman and Acclimatise began a collaboration of several years in 2018. The objective is to develop analytical tools that help banks define and disclose climate-related risks and opportunities as envisioned by the TCFD. This includes developing and further refining scenario-based stress-testing methodologies. Now in its second phase, the UNEP FI TCFD working group for banks has grown to 35 banks and has expanded the development of these analytical tools to include a range of possible scenarios, further advancement on scenario-based stress testing methodologies, and standardization between institutions on what defines climate-sensitive activities. These advancements aim for banks to more robustly identify and disclose exposure to climate-related risks and opportunities.

In addition to the UNEP FI TCFD working group, UBS is one of the pilot banks testing the Paris Agreement Capital Transition Assessment (PACTA). In the context of the PACTA pilot, we studied the alignment of select climate-sensitive sectors in our corporate credit portfolio with Paris Agreement benchmarks. The methodology provides an assessment of a bank's credit-financed activities in relation to the global shift to a low-carbon economy. For example, the assessment showed that the fuel mix in UBS's power utilities credit portfolio, according to the PACTA methodology, is significantly less carbon intensive than the global corporate economy, as of 2019 (see "PACTA methodology for power generation" further below). However, the limitations of the outputs from this assessment are very similar to the other pilots and we will continue to work on improving methodology, data availability and scenario applicability.

Both pilots promote industry learning and provide guidance for disclosing climate-related risks and opportunities in line with TCFD recommendations. Overall, the results of the 2019 climate risk pilots have confirmed findings from our previous pilot stress tests on climate, which started in 2014: we have so far not identified significant climate-related financial risk on our balance sheet. We explain this by UBS's relatively small lending book in climate-sensitive-sectors (see "UBS corporate lending to climate-sensitive sectors 2019" further below) and availability of insurance where we have relevant exposures to such sectors (e.g., Swiss mortgage lending book).

#### Protecting our clients' assets

We help our clients assess, manage and protect their assets from climate-related risks by offering innovative products and services in investment, financing and research. AM has developed a suite of products allowing clients to identify the carbon intensity of their investments and/or to align them with the Paris Agreement: In 2017, AM together with the New Employment Savings Trust launched a strategy called *Climate* Aware with an aim to do more than manage investments based on carbon foot-printing. In 2018, AM followed its successful UK Climate Aware rules-based fund with an Irish-based fund that is available for international investors outside of the UK. The portfolio is oriented towards companies that are better prepared for a low-carbon future while reducing exposure to, rather than excluding, companies with higher carbon risk, in order to pursue strategic engagement with these companies. The strategy involves not only a reduction of the CO<sub>2</sub> footprint of the portfolio but also an innovative approach to aligning the portfolio with the 2 °C carbon reduction scenario.

Finally, AM empowers equity portfolio managers to examine the carbon footprint of their portfolios and compare the relative carbon footprints of their company holdings to that of the benchmark.

#### Engagement

On behalf of clients, AM engages with companies it invests in to discuss approaches to mitigating climate-related risk. AM also actively votes on shareholder resolutions to improve transparency and disclosure around climate-related reporting. Specifically in the context of its *Climate Aware* fund, AM has implemented an engagement program with 50 oil and gas companies as well as utilities companies underweighted in the fund. Communication with these companies aims at improving their disclosure and performance alignment with the TCFD recommendations. Engagement also makes it possible to share the results of the quantitative and qualitative assessments included in the fund methodology with investee companies. This allows for the verification of company performance with additional information collected before and after meetings. It also means AM can collect feedback, explicitly communicate objectives for change in corporate practices and further enhance the model used to inform the under- / overweights in the strategy.

AM is also involved in Climate Action 100+, a collaborative engagement initiative launched in December 2017. Its aim is to engage with high-level greenhouse gas emitters, and other companies across the global economy, that have significant opportunities to drive the clean energy transition and help achieve the goals of the Paris Agreement. It has the support of 320 investors, representing more than USD 33 trillion of assets

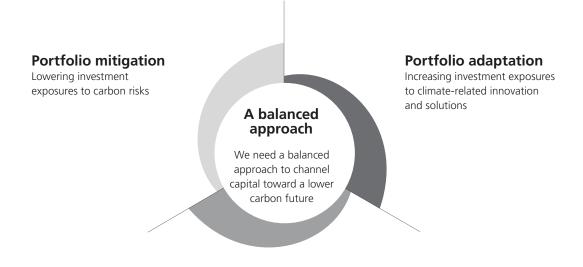
under management (at end of 2019). AM is directly involved in 30 coalitions of investors (at the end of 2019) within Climate Action 100+ and leads seven of the company dialogues across regions. Whether AM is a lead or participating investor, it is an active member of these coalitions, providing feedback on the climate change performance of companies, the discussion agenda, engagement goals and the progress of these dialogues.

#### **Opportunities**

We mobilize private and institutional capital for investments that facilitate climate change mitigation and adaptation. UBS supports the orderly transition to a low-carbon economy as corporate advisor, and/or with its lending capacity. As we outlined in our 2020 white paper for the World Economic Forum annual meeting, "Becoming climate aware: Mobilizing capital to help meet climate change goals", we have formulated a *Climate Aware* framework which helps investors align their portfolios towards a climate-smart future. The framework is built on the methodology which underlies UBS-AM's *Climate Aware* strategy. The main characteristics of the framework are:

- Portfolio mitigation: Lowering investment exposures to carbon risk
- Portfolio adaptation: Increasing investment exposure to climate-related innovation and solutions
- Portfolio transition: Aligning portfolios to an investor's chosen climate glidepath

#### A Climate Aware framework for investors



#### **Portfolio transition**

Aligning portfolios to an investor's chosen climate glidepath

#### Portfolio mitigation

Based on our experience, maintaining a balance between required investment returns and minimizing climate risks works most effectively when investors integrate climate change considerations into a diversified portfolio. Similar to ESG integration, this is an important element in understanding the specific effects of climate change. As TCFD has highlighted, these can be viewed as regulatory, market, technology and physical risks. How they play out at the level of markets, industry sectors and individual issuers depends on an interplay of:

- regulation;
- commercial considerations;
- impact of technology on business models, revenues, costs and capital requirements.

Integrating these three aspects puts the focus on the most material issues relating to the reduction of emissions generated by the most carbon-intensive sectors. It also leads to a deeper and more investment-relevant understanding of the physical risks.

#### Portfolio adaptation

Investing for a low-carbon future hinges on the ability to invest in, and fund, new technologies and solutions. The key investing areas relate to GHG emissions reduction, energy transition, and energy efficiency. They include companies that manufacture and deploy these technologies as well as the infrastructure and services that make these achievable at scale. There are variety of developments in business structure, asset ownership, supply chains and delivery models that may be deployed as part of the climate change transition. It is also important to recognize that there are different kinds of investors that are better-placed for certain kinds of investments. Venture capital, private equity, real estate, public equity and public fixed income all have different appetites for technology risk.

#### Portfolio transition

It is important for investors to understand the difference between where they are now and the possibilities of the climate transition. Scenario analysis is emerging as a response to the uncertainties of climate change. Engagement, meanwhile, provides an opportunity for investors to encourage good corporate practice and, together with voting, keep management accountable for the actions needed to keep pace with the climate transition. It also allows investors to understand the investment dynamics in individual sectors and countries and determine the overall direction of travel. By applying the tools of scenario analysis and engagement, investors are better able to manage the transition to a climate-smart future.

AM is also a member of the Institutional Investors Group on Climate Change (IIGCC) Climate Action 100+ European Advisory Group, which advocates for the world's transition to a low-carbon economy.

Our other business divisions also translate this strategic thinking on climate into concrete products and services.

UBS offers 100% sustainable discretionary mandates and asset allocation funds based on an innovative dedicated Sustainable Investing Strategic Asset Allocation for private clients in Global Wealth Management (GWM) and Personal & Corporate Banking (P&C). These include an explicit allocation to strategies that aim at mitigating climate change, such as green bonds and thematic investments, but also others that contribute indirectly to climate change mitigation such as Multilateral Development Bank bonds, ESG leaders and ESG improvers. GWM developed a new advisory solution that includes an explicit climate change dimension, allowing clients to tilt their portfolios towards the issues they care about. Ultimately our goal in developing new products and services is to ensure that all material risks and opportunities are addressed, and to allow clients to select sustainable investments aligned to their interests while receiving financial returns in line with traditional investment approaches.

GWM integrates sustainability assessments, focusing on the sustainability intentionality of fund managers, into all fund and ETF onboardings. We have set a target of directing USD 5 billion of client assets by the end of 2021 into new impact investments contributing to the SDGs. These investments include a significant climate component. GWM's mutual fund and ETF offering includes climate-focused investment strategies, comprising those focused on clean / alternative energy.

We participated in launching, and have an ongoing partnership with, Align17, an independent, third-party digital marketplace. Align17 stands out in connecting a wider range of public, institutional, and private wealth investors with SDGrelated investment opportunities. These opportunities are available to qualifying UBS clients and often serve to finance climate-related projects.

Our AM and GWM businesses have in place a comprehensive approach to address environmental, social and corporate governance factors across investment disciplines. For example, sustainability themes are embedded in GWM's equity research processes, while AM's Real Estate and Private Markets has developed a Responsible Investment Strategy to enhance investment performance of mandates for direct and indirect real estate and infrastructure investments. The 2019 GRESB (formerly Global Real Estate Sustainability Benchmark) awarded 15 out of 20 of AM's submitted real estate and infrastructure funds 5-star ratings with the remaining funds achieving a 4-star rating.

Our Investment Bank provides capital-raising and strategic advisory services globally to companies that make a positive contribution to climate change mitigation and adaptation, including those in the solar, wind, hydro, energy efficiency, waste and biofuels, and transport sectors. In 2019, the deal value in equity or debt capital market services, and of financial advisory services, related to climate change mitigation and adaptation, rose to USD 87.2 billion, from USD 56.5 billion in 2018.

We strive to be the preferred strategic financial partner relating to Switzerland's Energy Strategy 2050. In 2019, P&C supported 12 strategic transactions in support of the strategy. The UBS Clean Energy Infrastructure Switzerland strategy offers institutional investors unprecedented access to a diversified portfolio of Swiss Infrastructure facilities and renewable energy companies. Due to clients' demand, a successor strategy was launched in September 2017. In our P&C business we have also integrated Sustainable Investing Advisory into the strategic dialogue with our institutional clients.

To support philanthropists entering the climate space, UBS Optimus Foundation and the Climate Leadership Initiative (CLI) have developed four principles for effective climate philanthropy. CLI was created by six of the top climate donors this year with the express goal of making it easier for new philanthropists to learn, become connected to peers and experts and join the fight.

The four principles are Understand Climate Solutions and Impact; Collaborate and Take Action Swiftly; Be Prepared to Stick With It; Marshall All Your Resources.

#### **Climate-related metrics**

In 2019, we have again significantly reduced the share of our carbon-related assets to 0.8%, down from 1.6% in 2018 (and 2.8% in 2017). More broadly, our share of exposure to climate-sensitive sectors has reduced in 2019 to 15.5% from 19.6% in 2018 (% of total gross banking exposure across IB and P&C).

Climate-related sustainable investments increased to USD 108 billion, up from USD 87.5 billion in the previous year. At the end of 2019, we had reduced our GHG emissions by 71% compared to baseline year 2004.

#### Climate-related metrics 2019

	For	For the year ended		% change from
	31.12.19	31.12.18	31.12.17	31.12.18
Risk management				
Identified significant climate-related financial risk on balance sheet <sup>1</sup>	None	None	None	
Carbon-related assets (USD bn) <sup>2</sup>	1.9	3.2	5.8	(41)
Proportion of total banking products exposure, gross (%)	0.8	1.6	2.8	
Total exposure to climate-sensitive sectors (USD bn) <sup>3</sup>	37.6	38.6	42.6	(3)
Proportion of total banking products exposure, gross (%)	15.5	19.6	20.5	
Weighted carbon intensity of the Climate Aware equities strategy (in tons ${\rm CO_2e}$ per million of USD revenue) $^4$	74.8	95.6	117.5	(22)
Compared to benchmark (FTSE Developed World Index) (%)	(56.0)	(55.7)	(44.0)	
Number of climate-related shareholder resolutions voted upon	44	43	34	2
Proportion of supported climate-related shareholder resolutions (%) <sup>5</sup>	81.8	88.0	82.0	
Opportunities				
Climate-related sustainable investments (USD bn) <sup>6</sup>	108.0	87.5	74.0	23
Proportion of UBS clients' total invested assets (%)	3.0	2.8	2.3	
Total deal value in equity or debt capital market services related to climate change mitigation and adaptation (CCMA) <sup>7</sup> (USD bn)	52.7	31.6	44.3	67
Total deal value of financial advisory services related to CCMA (USD bn)	34.5	24.9	5.5	39
Number of strategic transactions in support of Switzerland's Energy Strategy 2050	12	8	4	50
Own operations				
GHG footprint (kilotons CO <sub>2</sub> e) <sup>8</sup>	104	132	148	(21)
Percentage change from baseline 2004 (Target: -75% by 2020) (%)	(71.2)	(63.4)	(59.0)	

1 Methodologies for climate-related financial risk are emerging and may change over time, as described earlier under Scenario Analysis. 2 Carbon-related assets exposures are adjusted from previous years' versions to align with IFRS 9: Banking products across Investment Bank and Personal & Corporate Banking. IFRS 9 gross exposure including other financial assets at amortized cost, but excluding cash, receivables from securities financing transactions, cash collateral receivables on derivative instruments, financial assets at FVOCI, irrevocable committed prolongation of existing loans and unconditionally revocable committed credit lines and forward starting reverse repurchase and securities borrowing agreements. As recommended by the TCFD, carbon-related assets are defined as assets tied to the energy and utilities sectors (Global Industry Classification Standard). Non-carbon-related assets, such as renewables, water utilities, and nuclear power are excluded. For grid utilities, the national grid mix is applied. 3 Gross banking products across Investment Bank and Personal & Corporate Banking (IFRS 9). Climate-sensitive sectors defined as inventory of activities with higher vulnerability to transition and physical climate risks, for more see in-text description. 4 Year-on-year decrease of carbon intensity is mainly driven by higher carbon targets of the investment strategy. Carbon intensity is based on scope 1 and 2 CO<sub>2</sub> emissions of investee companies, which often rely on third-party estimates. 5 On all proposals that we supported, we voted against the recommendation provided by the issuer. 6 Invested assets of products such as sustainably managed properties and infrastructure, and renewable energy. 7 Refer to "Calculating and reporting on climate change-related financing and advisory activities" in the Appendix of this document. 8 GHG footprint equals gross GHG emissions minus GHG reductions from renewable energy and GHG offsets (gross GHG emissions include: direct GHG emissions by UBS; indirect GHG emissions associated with the generation of imported / purchased electricity (grid average emission factor), heat or steam and other indirect GHG emissions associated with business travel, paper consumption and waste disposal). A breakdown of our GHG emissions (scope 1, 2, 3) is available in the in-house environmental section of the UBS Sustainability Report 2019.

#### UBS corporate lending to climate-sensitive sectors 2019

UBS is leading an effort, with UNEP FI and peer banks, to define an inventory of climate-sensitive activities based on TCFD, regulators' and rating agencies' climate risk definitions. The current inventory is summarized in the table below at the sector level.

#### **UBS corporate lending to climate-sensitive sectors 2019**

banking products across Personal & Corporate Banking and the Investment Bank	As of 31.12.19			
USD million, except where indicated	Gross exposure <sup>2</sup>	Share of total exposure to all sectors (%)		
Climate-sensitive sector <sup>1</sup>				
Aerospace and defence <sup>3</sup>	2,115	0.9		
Automotive	449	0.2		
Chemicals	1,052	0.4		
Constructions and materials <sup>4</sup>	3,993	1.6		
Food and beverage <sup>5</sup>	2,460	1.0		
Industrial Materials <sup>6</sup>	345	0.1		
Machinery and equipment <sup>7</sup>	2,576	1.1		
Mining <sup>8</sup>	3,000	1.2		
Oil and gas <sup>9</sup>	1,415	0.6		
Plastic and rubber	356	0.1		
Primary materials <sup>10</sup>	332	0.1		
Real estate <sup>11</sup>	15,031	6.2		
Transportation 12	3,272	1.3		
Utilities <sup>13</sup>	1,186	0.5		
Total exposure to climate-sensitive sectors	37,582	15.5		
Total exposure to all sectors	242,565	100.0		

<sup>1</sup> Climate-sensitive sectors defined as inventory of activities with higher vulnerability to transition and physical climate risks, for more see in-text description.

2 Banking products across the Investment Bank and Personal and Corporate banking divisions. IFRS 9 gross exposure including other financial assets at amortized cost, but excluding cash, receivables from securities financing transactions, cash collateral receivables on derivative instruments, financial assets at FVOCI, irrevocable committed prolongation of existing loans and unconditionally revocable committed credit lines and forward starting reverse repurchase and securities borrowing agreements.

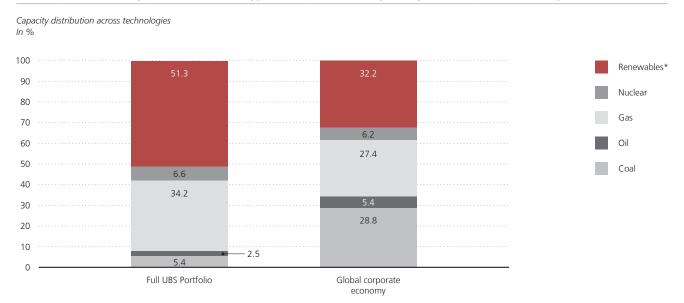
3 Of which air transport: USD 1.9 billion 4 Of which construction: USD 3.2 billion, mfg. concrete / cement: USD 0.4 billion 5 Of which food / grain traders / wholesalers: USD 1.4 billion, mfg. food / bev: USD 1.1 billion 6 Of which mfg. iron / steel: USD 0.2 billion, mfg. pulp / paper: USD 0.06 billion 7 Of which mfg. metal products: USD 0.7 billion 8 Of which metal ore traders USD 2.7 billion, coal mining: USD 0.02 billion 9 Of which upstream extraction: USD 1.1 billion, integrated O&G: USD 0.2 billion 10 Of which agriculture-related: USD 0.2 billion, forestry / wood: USD 0.02 billion 11 Of which development / selling real estate: USD 14 billion, agencies: USD 0.8 billion. In addition UBS has loans and advances to customers backed by residential real estate totaling USD 155 billion across Global Wealth Management and Personal & Corporate Banking 12 Of which shipping: USD 0.5 billion, mfg. trains: USD 0.8 billion, logistics / post: USD 0.5 billion 13 Of which prod. / dist. electricity: USD 0.8 billion (for a closer look at the carbon exposure of UBS's power utilities portfolio, see PACTA graph below), refuse / recycling: USD 0.2 billion, water collection / purification: USD 0.01 billion

#### PACTA methodology for power generation:

#### UBS corporate lending portfolio technology mix of production against global corporate economy

In 2019 we further assessed select climate-sensitive sectors using the PACTA methodology. Results on power sector show that the technology mix of UBS' s power sector corporate lending portfolio is significantly less carbon intensive than the global corporate economy, as of 2019<sup>1</sup>.

#### UBS corporate lending portfolio technology mix of production against global corporate economy



<sup>\*</sup> Renewables, including solar, wind, hydro, biofuels and others.

<sup>1</sup> Across the Investment Bank and Personal & Corporate Banking, banking products only. As of 30.9.19, includes clients who are classified as power utilities. The methodology is driven by the 2° Investing Initiative's PACTA pilot.

## Exhibit E.



# One planet, one future.

Only by working together can we safeguard our future.



# What are the challenges of climate change?

Global warming has increased sharply through the use of fossil fuels, deforestation and livestock farming. The consequences are a significant burden on the environment and our natural resources. But if we are all prepared to take ambitious measures, we can protect the climate together.



# Why are we getting involved?

We are taking responsibility for future generations and want to be part of the solution. The needs of our clients have also changed. That's why we're supporting investors and companies that want to help bring about a more climate-friendly economy.

#### As a financial services provider

Because we are stronger together



#### 108 billion

3+ billion



#### 25

12

US dollars in climate-related investments by our clients (e.g., in the Swiss energy transition).

US dollars of wealth in our "Climate Aware" strategy (e.g., investments by Swiss pension funds in line with the Paris Agreement).

Issues of green and sustainable bonds (e.g., first green bond for an energy and infrastructure company listed on the Swiss stock exchange). Strategic transactions for public utilities to adapt to the Swiss Energy Strategy 2050.

#### As a company

Because we take responsibility



166

41%

100%



0

49

Pages of transparency. Our annual sustainability report is industry-leading, comprehensive and follows internationally recognized disclosure standards.

Drop in financing of companies in carbon-intensive sectors since 2018 (our exposure to carbon-related assets on our banking balance sheet is low, at 0.8%).

Financing of new coal-fired power plant projects, offshore oil projects in the Arctic, greenfield projects for coal mines or oil sands mining.

Oil, gas and utilities companies at the heart of our Climate Aware engagement program (results: e.g., linking of management rewards with CO<sub>2</sub> reduction targets).



71%

Reduction in our own green-

Electricity from renewable sources in Switzerland since 2007 (worldwide from mid-2020) while reducing our energy consumption.



55%

4

Reduction in our business air travel since 2007, in addition to full compensation for the resulting emissions.

Environmental education projects for students.

house gas footprint since 2004. We are well on track to reach the target of 75% for 2020.

Supplemental Attachment 6

#### Because they are the most important agreements for climate protection

#### The Paris Agreement

The Paris climate agreement aims to limit average global warming to well below 2 degrees Celsius compared with preindustrial levels. Public and private financial resources are to be diverted in such a way as to ensure economic development low in greenhouse gases and better adaptability to a changing climate.

# Sustainable Development Goals (SDGs)

We are working to achieve the UN's 17 SDGs, including climate protection. By the end of last year, for example, we had invested USD 3.9 billion of client assets into new impact investments that help achieve the SDGs. We want to increase this volume to 5 billion US dollars by the end of 2021.

# Principles for responsible banking

As a founding member, UBS was one of the first signatories of the Principles for Responsible Banking (PRB) in September 2019. The global framework defines what banks can and should contribute to a sustainable future. This includes aligning our business with the SDGs and the Paris climate agreement.

#### We are pursuing these strategies

Because of our leading role in their implementation

#### Ambitious targets

We want to play a leading role in climate protection. With innovative investment solutions, we are motivating our clients to invest in the environment. We finance companies with a more climate-friendly business model. We set ambitious goals and report comprehensively on our progress every year.

#### An orderly transition

We support an orderly transition to a climate-friendly economy. We are driving change, raising awareness and using our influence – in discussions with clients and the companies we invest in. We have introduced stricter criteria and have greatly reduced our financing of companies that pollute the atmosphere.

#### Strong cooperation

No industry or company can meet the challenges of climate change on its own. That's why we are committed to greater cooperation. We actively support the development of industry standards and often achieve more in dialog with companies than if we simply no longer do business with them. We are increasing our impact through our participation in organizations such as Climate Action 100+ and UNEP FI.

#### We receive these awards

Because independent experts also appreciate our commitment

# #1 industry leader in the Dow Jones Sustainability Index

Last year we achieved a first-place rating in the prestigious sustainability rankings for the fifth straight time and are the leaders in the category "Climate Strategy."

# "A-" ranking for our handling of climate risks (CDP)

For our handling of climate risks, we were awarded an A- last year by CDP, which assessed the most important listed companies in the world on a scale from A to D-.

# #1 in climate change votes (ShareAction)

For our voting behavior on climate issues, we finished first in the 2019 ranking by ShareAction, which looked at asset managers worldwide.



Outstanding: We're proud of how far we've come, but we also know that there's still a lot to do ...

ubs.com/climate





## Exhibit F.

# Americas Region Diversity & Inclusion

2019 Impact Report



Being the change





I'm pleased to share UBS's inaugural Diversity & Inclusion (D&I) Impact Report for the Americas region. On the following pages, you'll learn more about where we are as a company, and where we aspire to be in the future. The report details our D&I priority areas of focus, our strategic goals and our approach to achieving them in the region, with a particular emphasis on the United States.

Across our businesses, our clients look to UBS to provide the best possible advice, capabilities and solutions based on our ability to synthesize a range of views and perspectives. Fully delivering on those expectations requires high-performing, diverse teams at all levels of our company. Creating a workplace where colleagues with varied backgrounds and experiences can all grow and contribute is the right thing to do—for our clients, our shareholders and our communities.

As a company, we will only succeed when we know where we're heading, and when we hold ourselves collectively accountable to get there. And because we believe in transparency and the power of data, we've established and are now measuring a range of benchmarks that will help us to gauge our progress relative to our ambitions. While UBS is committed to improving in all dimensions of diversity, we're starting with what we can measure today: gender and racial/ethnic diversity. In 2020, we will also add the ability for employees to self-identify as a member of the LGBTQ+ community, and in the future we expect to add additional self-identification dimensions to deepen our understanding of our workforce.

To help drive progress, I am pleased to announce that this year we will establish the UBS Americas D&I Council, chaired by and composed of leaders from across the company who represent a range of diverse employee groups. The Council's mandate will be identifying common firm-wide needs and opportunities, as well as driving solutions across all of our regional business divisions. Underscoring the importance of our D&I efforts to our broader business strategy, UBS Asset Management President Suni Harford, UBS Investment Bank Co-President Rob Karofsky and I will serve as the Council's Executive Sponsors.

We hope this report is informative, and we also recognize that it may raise some questions. If we're going to be proud of what we're achieving, we also have to be candid about how we can improve. This report serves both of those purposes, and we believe it reaffirms our mission to create an even more inclusive culture and an even more diverse UBS.

Tom Naratil

President UBS Americas

You Maintil

Co-President UBS Global Wealth Management

## An overview of our D&I strategy

UBS's D&I-focused mission is to create a diverse workforce and inclusive culture that is more innovative, provides better service to clients and makes our company the best place for all of our colleagues to grow and succeed.

To achieve this, we've established five priority areas of focus and three strategic goals. These span a multi-year time horizon, and each of our business divisions and regions may pursue these goals in different ways.

#### Five priority areas of focus

- Inclusion: All employees feel known, valued and appreciated, have equal access to opportunities and can achieve their career aspirations.
- **2. Gender diversity:** More women in visible senior leadership and Financial Advisor roles.
- Racial/Ethnic diversity: More people of color\* in visible senior leadership and Financial Advisor roles
- **4. Brand and reputation:** Showcase UBS as a best practice employer in terms of our D&I policies and practices.
- **5. Governance:** Leaders and Line Managers are engaged, have responsibility for execution and accountability for progress.

#### Three strategic goals

1. Hire more women and people of color



2. Develop/promote more women and people of color



**3. Retain** more women and people of color—an **inclusive culture** for all employees



Parity—50% diverse talent in hiring, promotion and retention—is our aspirational goal, and we've put processes and measurements in place to help us move toward that.

## Our framework for making progress on our strategic goals

#### We measure ourselves

Our core talent processes in the US—sourcing, hiring, developing, promoting and retaining the industry's best people—now have specific D&I targets: At least 50% of those hired and promoted are diverse. Reaching parity is both aspirational and possible. Our strategic goals don't guarantee success, but they keep us accountable.

#### We believe D&I is everyone's job

Creating a firm that's diverse and inclusive is the responsibility of everyone at UBS. That means all employees have a part to play in helping us achieve our strategic goals—in the way we attract diverse talent to UBS, in how we coach and elevate our colleagues and in the way we each contribute to strengthening an inclusive culture.

#### We have dedicated D&I leaders in each region

Senior Human Resources leaders have a sole focus to advise on our D&I strategy and execution in each of our regions. These professionals work with leaders across each business and function to ensure UBS's strategic D&I goals are reflected in our policies, programs, processes and practices.

#### **Brand and reputation**

How we're perceived in the marketplace is important to our current and prospective employees as well as to our individual and institutional clients. To better understand our positioning and progress relative to peer companies and other organizations, we engage in benchmarking, studies and public recognition.

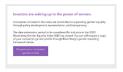
Organizations that we use for benchmarking and that we are proud to be recognized by include:



McKinsey Women in the Workplace



Working Mother
Top 100 Companies



Bloomberg Gender Equality Index



<u>Human Rights Campaign</u> <u>Corporate Equality Index</u>

These provide us with best practices and insight into how our programs and polices compare to our peers, and recognize leadership in D&I through published rankings and scores.

We also participate in several public recognition programs, including, but not limited to, MAKERS@ and 100 Women in Finance. These platforms provide women at UBS with external visibility, networking and professional development opportunities.



MAKERS@



100 Women in Finance

## Progress on our D&I objectives

All UBS Group Executive Board (GEB) members and divisional Executive Committee members are evaluated on their efforts to improve the representation of women and underrepresented talent in our senior ranks, year over year. Annual improvement goals are specific to each division's overall growth plan. Progress is reviewed on a quarterly basis, side by side with business performance.

In 2019 we made important changes to our diversity recruiting, development and retention strategies in the US. Many of the steps we took were informed by learnings from peer institutions and best practices at other organizations, but the most significant source of ideas has been our own people. Both formal and informal feedback about what our colleagues see as our greatest opportunities are key to developing a concrete and results-oriented action plan.

Our new Multicultural Senior Talent Retention Program is a great example of our commitment to solicit perspectives and recommendations from our existing diverse talent about how we can better support them and also attract additional diverse talent to UBS. In a series of gatherings at the beginning of 2019, we brought together rising and established leaders who self-identify as Black or African-American, Hispanic/Latino or Asian-American with many of the firm's senior executives. The conversations at those events and the ongoing dialogue that followed throughout the year yielded valuable insights and ideas about how to move our D&I talent strategy forward.



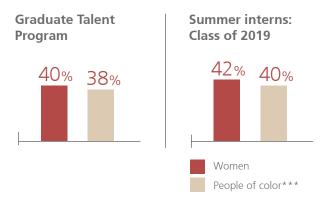
## Progress on goal #1: Hire more diverse talent

We are focused on building a robust, diverse pipeline of talent. Because we are able to measure them, gender and race/ethnicity are our priority areas of focus. Below are some of the changes and programs we've instituted to help us achieve our aspirational goal of hiring 50% women and/or people of color as well as address other dimensions of diversity.

#### Our efforts to date

- We created six new recruiting roles to ensure a dedicated focus on sourcing and hiring diverse talent at various levels. These HR specialists include: an internal diversity researcher to map the market for diverse talent;\* a diversity coordinator for college/university recruiting; two internal diversity recruiters for Financial Advisors and two other recruiters for non-Financial Advisor positions.
- We updated all of our recruiting agency contracts to require them to deliver multiple diverse candidates for all open roles they are helping us to fill.
- We created metrics to track and measure the diversity of candidate slates and new hires across all major entry points and programs. We now require that, wherever possible, half of the candidates interviewed for a role must be either women, people of color or both. Our Human Resources team tracks this via candidate disclosure, and addresses shortfalls directly with the business doing the hiring.
- We created new relationships with historically black colleagues and universities (HBCUs), women-only higher education institutions, and other pipelines that offer a broader pool of talent than where we've typically looked for interns and early career professionals.
- We deepened our relationships with various external diversity organizations to expand the pipeline of talent. For example, our Investment Bank created the Futures in Finance program with Knowledge is Power Program (KIPP) schools. The high school level program introduces students to careers in finance and the road to get there, which includes developing a network of UBS bankers. [For examples of other organizations we work with regularly, see footnote. \*\*]

- Our Investment Bank sponsored both Out 4 Undergraduate Business and Reaching Out MBA, conferences for LGBTQ+ MBA students and undergrads interested in pursuing careers in business.
- In Brazil, in partnership with Goldman Sachs, BNP Paribas and Deutsche Bank, we introduced Dn'A Women. In its initial launch, the program received 1,318 applications and offered over 900 mentoring hours to underprivileged, high-potential female students.
- We launched Tomorrow's Leaders Program (TLP) to identify college students of color in their sophomore year. The program offers summer internships for these students between their sophomore and junior year. Our expectation is that TLP participants will over time broaden the diversity of our **Graduate Talent Program** (GTP) for new college graduates.



- We continued to hire via our Career Comeback Program, which focuses on senior talent (Director and above) returning to the workforce after a break of two or more years. Since its inception in 2016, the program has hired 150 women globally, including 39 in the US, with a retention rate of 85%.
- Our Veterans Associate Program, a US-based 20-week internship for military officers looking to transition to civilian life, has placed 18 veterans in permanent roles in the US over the past three years, with a retention rate of 85%. These men and women join an expansive network of reservists and former service members, as well as military family members, at UBS.

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Market mapping tells us the available pool of diverse financial services talent in any given market.

Multicultural: Jopwell, Seizing Every Opportunity (SEO), Modern Guild, Toigo Foundation, Leadership Enterprise for A Diverse America, Knowledge is Power Program (KIPP), Association of Latino Professionals For America, National Association of Securities Professionals, The Greenwood Project. LGBTQ+: Human Rights Multicultural: Jopwen, Seizing Every Opportunity OES, Historia (String) (Secondary Seizing Every Opportunity OES), Historia (Secondary Seizing Every Opportunity OES), Historia (Secondary Secondary Secondary

## Progress on goal #2: Develop and promote more diverse talent

We are focused on building a diverse workforce across ranks. A key part of that is making sure people of color and women at the firm have access to training, networking, mentoring and development opportunities that help them envision and realize successful careers at UBS. Importantly, we're holding senior managers accountable for progress.

#### Our efforts to date

- Businesses and functions are now expected, wherever possible, to have 50% diverse promotion candidates as part of their annual talent review. When a promotion slate is less than 50% women and/or people of color, Human Resources will work with the unit on how to diversify the future pipeline.
- In the fourth quarter of 2019, our Investment Bank launched a new targeted global sponsorship program for all "high potential" Managing Directors, Executive Directors, Directors and women or people of color being considered for promotion. The program pairs employees with a senior Managing Director leader as their sponsor for a year and educates all participants on their roles and responsibilities. For sponsors, that includes using their influence to advocate for their paired employees, to gain visibility for them and to help them rise to the next level. The program's goal is, over time, to increase retention and advancement of diverse talent, increase senior awareness of diverse talent, and help foster an inclusive leadership culture.

- Our Asset Management division, following the success the Investment Bank generated through a similar program, launched a digital ad hoc mentoring tool via Rungway. This internal online tool enables employees to get advice from senior leaders and peers on sensitive subjects, to ask questions or share experiences—openly or anonymously.
- As part of our commitment to the growth of diverse talent, we've launched division-specific key talent programs for women, which prepare high-potential female colleagues to either move into a new or expanded role within the organization in the next one to two years, or to become an enterprise-wide leader.
- In Global Wealth Management, participants in the division's primary development program, Leading the Future, have been 34.3% women and 15.9% people of color.
- In the fourth quarter of 2019, our Wealth Management USA Divisional Directors launched tactical action plans focused on hiring, developing, promoting and retaining diversity in branch office leadership positions and among Financial Advisors.







## Progress on goal #3: Retain more diverse talent

We are committed to ensuring that our diverse talent recognizes and feels valued, appreciated and that UBS is the best place for them to achieve their professional ambitions. We focus on providing resources and support that enable them to thrive, that foster a sense of belonging, that inspire loyalty and that strengthen a culture of inclusion.

#### Our efforts to date

 Managed by employees for employees, our Employee Networks help colleagues connect with each other, expand their professional networks and contribute to the advancement of UBS's policies and practices.

#### **Employee Network Membership**



6,704 employees



Up 35% from 2018

At UBS we have seven employee networks in the US and membership for each is open to all employees:

#### All Bar None (women)



PRIDE (LGBTQ+)



**Family Connections** 



**Headscape** (mental health)

**MOSAIC** (multicultural)



Veterans



**Young Professionals** 



- Our divisions also support affinity networks specific to their employees' D&I needs, profiles and interests.
   For example, the Women in Technology network in our Corporate Center division focuses on engaging, empowering and enabling women in UBS Technology to help increase their impact and the firm's competitiveness in a digitized world.
- Pioneered in our Investment Bank, Dads4Daughters, Brothers4Sisters (D4D, B4S) is now rolled out globally across the Investment Bank with content accessible to all employees. D4D, B4S at UBS is part of a global movement that advocates for workplace gender equality and making financial services a desirable, accessible career choice for young women. It aims to achieve this by: (a) actively advocating for everyone to speak up against non-inclusive workplace behaviors; and (b) building partnership with local schools and other financial industry companies to address gender diversity at an early age.
- Our Investment Bank is currently piloting a new D&l ambassadorship program, which challenges senior leaders to be more visible, active advocates for inclusive behavior and to promote an open door policy for conversations. Participating leaders receive training to develop a deeper understanding of professional conduct and escalation channels for potential policy violations. They also learn how to provide a safe, confidential space for their colleagues to seek advice or discuss sensitive issues.
- We've embedded the fundamentals of unconscious bias and inclusive leadership/management into two key development programs: the UBS House View on Leadership 2.0 for senior leaders, and Line Manager Effectiveness for leaders of any rank.
- We've launched more than 25 online training courses on inclusive leadership, unconscious bias and D&I topics through UBS University, our internal learning platform.



- In early 2019, we launched the Multicultural Senior Talent Retention Program, which serves as a forum for senior business leaders to hear the unique issues and opportunities of our underrepresented talent directly from these diverse senior employees. The program significantly opened up critical communication pathways and the ongoing dialogue is shaping how we define and address many of our D&I priorities.
- In May 2019, we held our inaugural Women of Wealth Management US Summit, a three-day event that gathered 400 women from across Global Wealth Management in the US for networking and professional and personal development. The goal of the Summit was to provide inspiration and motivation to attract, retain and continue to empower the best female employees at UBS.
- Our 2020 benefits package for eligible employees, introduced in fall 2019, includes several existing offerings and new enhancements, all of which were informed by feedback from colleagues. Supportive policies and offerings include:
  - 20 weeks gender-neutral parental care leave, which can be taken in two blocks if desired (no primary/ secondary caregiver designation requirement)\*
  - Two weeks phase-back-to-work program following parental leave
  - New parent coaching to support the transition back to work
  - New grandparents leave
  - Milk storage and shipping \*\*
  - Full suite of flexible work arrangements
  - Elective egg freezing coverage (in addition to medically indicated)\*\*
  - Transgender reassignment coverage
  - Adoption financial support



\*\* Indicates new benefit in 2020. More information is available on <u>ubs.com/usbenefits</u>.

<sup>\*</sup> In the US, UBS has offered 20 weeks parental care leave since 2017. In 2019, we expanded this offering to non-primary caregivers as well.

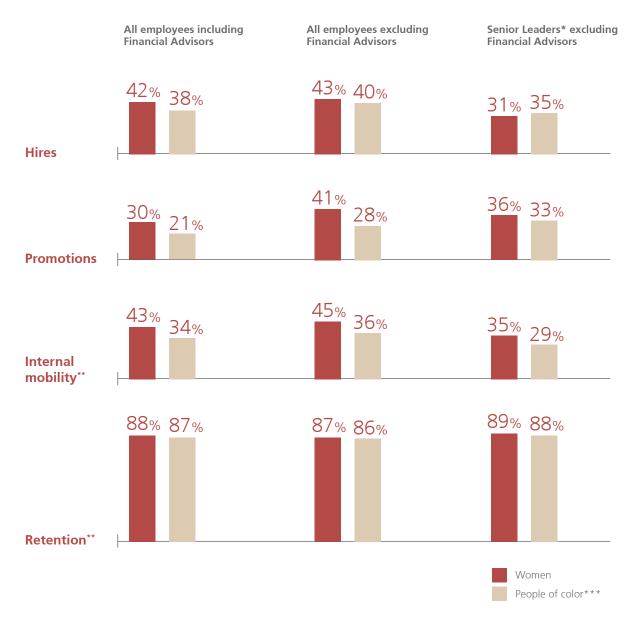
## Our performance in 2019

The decisions we make around hiring and talent development are our most direct indicators of progress on our D&I goals. The full-year 2019

data below establishes a number of baselines against which future progress will be measured.

#### **Key Measures**

Americas unless otherwise noted



Senior Leaders are defined as those ranked Director and higher and excludes Financial Advisors.

Internal Mobility is the percentage of roles filled by internal candidates versus those filled by external hires; retention is the percentage of employees who stayed with UBS through the entire year.

People of color is US only and includes Asian, Black or African-American, Hispanic or Latino, American Indian or Alaska Native, Native Hawaiian or Pacific Islander and Two or More Races.

Supplemental Attachment 6 of 12

# 2019 year end snapshot

We are optimistic that our targets around hiring, promotion and retention, as well as the supportive resources and programs we're implementing, will help us to increase our demographic diversity.

We do recognize, however, that progress is rarely linear. In fact, there are likely to be year-over-year

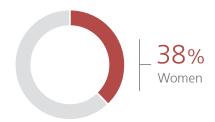
fluctuations. But if we can sustain gains across hiring, promotion and retention, we would expect to see improvement in the demographic representation of women and people of color over the coming years.

Here's how UBS in the Americas looked at the end of 2019.

#### **Demographic representation**

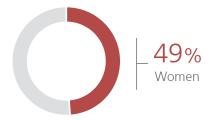
Americas unless otherwise noted

#### All employees including Financial Advisors





#### All employees excluding Financial Advisors





#### Senior Leaders\* excluding Financial Advisors





Senior Leaders are defined as those ranked Director and higher and excludes Financial Advisors.

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People of color is US only and includes Asian, Black or African-American, Hispanic or Latino, American Indian or Alaska Native, Native Hawaiian or Pacific Islander and Two or More Races.

Supplemental Attachment 6 of 12

More information and resources:

UBS Global D&I website

ubs.com/diversity.

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ubs.com/fs

**UBS** 

## Exhibit G.



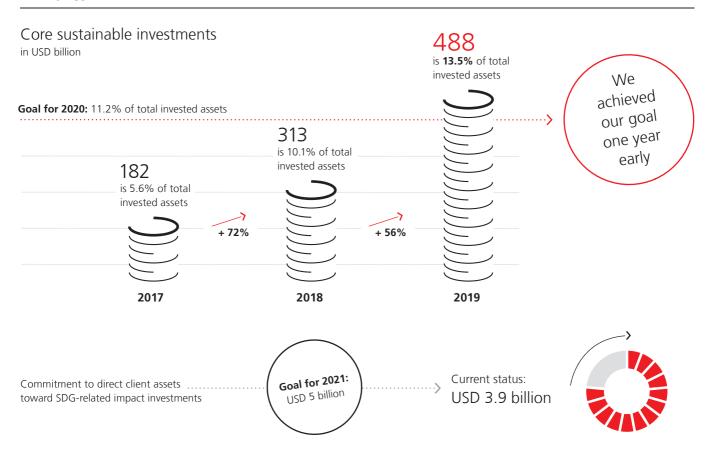


# Sustainability Report 2019

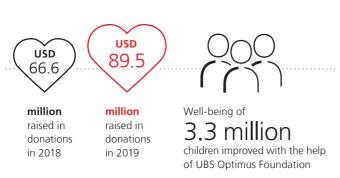
Based on GRI Standards

# Sustainability Highlights 2019

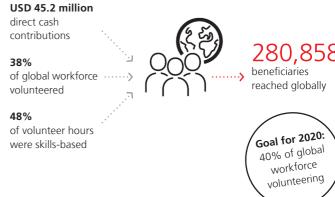
#### In finance



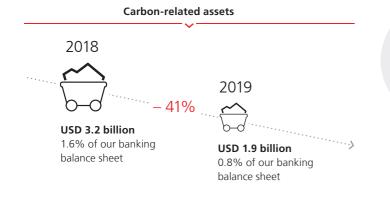
#### In philanthropy



#### In communities



#### In business Awards







# Industry leader in sustainability

validated by major ratings including Dow Jones Sustainability Indices and MSCI ESG Research (AA-Rating)

Supplemental Attachment 6 Page 70 of 242



Our Pillars are the foundation for everything we do.

Capital strength Efficiency and effectiveness Risk management Our Principles are what we stand for as a firm.

Client focus Excellence Sustainable performance Our Behaviors are what we stand for individually.

Integrity Collaboration Challenge

> Supplemental Attachment 6 Page 71 of 242

# Our approach to long-term value creation

As of or for the year ended 31 December 2019

#### What we put into the equation

Input

#### What we do

**Business activities** 



#### Financial capital

- Common equity tier 1 (CET1) capital ratio: 13.7%.
- CET1 leverage ratio: 3.9%.
- Going concern leverage ratio: 5.7%.
- Total loss-absorbing capacity: USD 89.6 billion.
- CET1 capital: USD 35.6 billion.



#### Relationships and intellectual capital

- Strong brand with over 150 years of experience in banking.
- Presence in all major financial centers worldwide.
- Strong culture and strategy based on our Pillars, Principles and Behaviors.
- We have access to the majority of the world's billionaires.
- We spent more than 10% of our revenues (around USD 3.5 billion) on technology in 2019, including amounts spent on regulatory change programs and innovative solutions for our businesses and clients.



#### Human capital

- We foster a corporate culture that supports and engages employees.
- Our 69,966 employees (by headcount) work in 50 countries, are citizens of 136 nations and speak more than 150 languages.
- 39% women and 61% men, with an average of 8 years of service.
- 19% under 30 years old, 60% between 30 and 50, and 21% over 50 years old.







#### Social and natural capital

- Our UBS in society organization focuses our firm on being a force for driving positive change in society and the environment.
- Our comprehensive environmental and social risk standards govern client and vendor relationships and are enforced firm-wide.
- We invest in communities: our employees have valuable skills and knowledge, which they use to make a difference in their communities.
- UBS Optimus Foundation is an award-winning grant-making foundation that helps our clients use their wealth to drive positive and sustainable social change for children.
- We regularly contribute to debates about important societal topics and, in collaboration with other firms and industry bodies, help to set standards on these topics.

#### Catalyst: digitalization and innovation

ABCDE (automation, un-bundling, cloud, data, experience) trends drive the changes in how we operate.

Modernizing and modularizing technical estates leveraging new technologies, such as public cloud, microservices architecture, APIs, and front-to-back automation

#### The results we deliver

#### Output



#### Investors

Our financial results

- Net profit attributable to shareholders: USD 4,304 million.
- Diluted earnings per share: USD 1.14.
- Return on CET1 capital: 12.4% (with a target of 12–15% for 2020–2022).
- Invested assets: USD 3,607 billion.
- Cost / income ratio was 80.5%, compared with 79.9% in 2018. We are targeting a cost / income ratio of 75–78% in 2020–2022.



#### Clients

The products and services we offer

- We build and strengthen client relationships through various platforms and offerings, such as UBS Evidence Lab Innovations, GWM platforms and WM Online portal, UBS Partner, we.trade, UBS Atrium and Mobile Banking.
- A broad range of well-designed products and services for clients' personal wealth and their businesses.
- Effective procedures and processes to handle complaints.



#### **Employees**

How we work at UBS

- We are committed to further increasing our diversity, treating our employees fairly and providing equal opportunities for all.
- We strive to hire, promote and retain more women across the firm, with a stated aspiration of increasing the representation of women in management roles to one-third.
- Our in-house UBS University offers customized training and skills development opportunities.
- We support employees' career growth; our new Career Navigator online platform supports the mobility of internal talent.
- · Modern cloud-enabled virtual workstations and mobile technologies have been deployed.



#### Society and environment

What we deliver on sustainability



- USD 488.5 billion of sustainable investing assets (13.5% of our total invested assets).
- USD 3.9 billion of clients' assets in SDG-related impact investments. • With a market share of 20.2% among asset and wealth managers offering sustainable investment solutions, we are a leading provider of such products in Switzerland.
- USD 52.7 billion of the total deal value in equity or debt capital market services and USD 34.5 billion in financial advisory services provided by our Investment Bank to companies that make a positive contribution to climate change mitigation
- In 2019, we donated USD 45.2 million to local programs. 38% of our employees volunteered and invested 202,784 hours in community projects.
- UBS Optimus Foundation raised USD 89.5 million in donations.

Co-developing digital innovation and ecosystems through partnerships, research and innovation pipeline management, facilitated by centers of excellence.

Strengthening our digital culture and engineering approach through training, communications, and adopting new toolsets and agile ways of collaborating.

#### How our stakeholders benefit

#### Outcome

#### How our investors benefit

- Attractive capital returns to our shareholders. A dividend of USD 0.73 per share proposed for the financial year 2019. We aim to increase our ordinary dividend per share by USD 0.01 per year, and to return excess capital through share repurchases.
- Total payout ratio for 2019 will be 80%, combining the proposed dividend with our share repurchases of USD 806 million in 2019.
- We aim to balance growth opportunities with cost and capital efficiency in order to drive attractive risk-adjusted returns and sustainable performance.

#### How our clients benefit

- Sustaining long-term relationships based on mutual respect, trust and integrity.
   Access to outstanding, tailored advice, financial solutions and services from around the globe delivered by experts our clients can trust; superior investment performance.
- Improved satisfaction through the offering of suitable products and services.
- Services accessible through convenient digital banking portals, which enable our clients to bank at their convenience, and through our branches and presences in Switzerland and abroad.

#### How our employees benefit

- UBS is widely recognized as an employer of choice and a great place to build a career.
- Levels of employee satisfaction and engagement, as shown in our most recent employee survey, are above the norm for financial services organizations.
- A diverse and inclusive culture across the firm to drive sustainable growth and innovation and to build a better place to work for all employees.
- Support for leadership development, as great leaders are the key to growing our people, client relationships and results.
- Pay for performance, with a strong commitment to pay equity embedded into our compensation policies and practices.

#### How society and the environment benefit

- Total reduction of greenhouse gas footprint by 71% from the 2004 baseline year, targeting a 75% reduction by the end of 2020.
- We further reduced our carbon-related assets to less than 1% of our total banking products exposure and strengthened our standards in the energy and utilities sectors.
- More than 280,000 direct beneficiaries and 107,388 lives substantially improved as a result of our community investments.
- UBS Optimus Foundation committed USD 109.5 million to carefully selected programs.
- The well-being of 3.3 million vulnerable children around the world was improved with help of the work of UBS Optimus Foundation.

#### The impact we create

**Impact** 

Driving change in the world needs leadership. As the largest truly global wealth manager, we have a responsibility to take a leading role in shaping a positive future – for all of us and the generations to come.

We are an integral part of the Swiss economy and broader society – not only as a leading universal bank, but also as the third biggest private employer and one of the top taxpayers.

We significantly contribute to the prosperity of the Swiss economy by providing efficient financial services, capital allocation, stability, security and reliability.

We aim to protect and increase the value of our clients' assets. Understanding our clients' needs and expectations allows us to serve their best interests and to create value for them.

In sustainable and impact investing, we set standards across the industry and constantly challenge ourselves and our peers to raise the bar.

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#### **About this Sustainability Report**

We strive to report openly and transparently about our firm's sustainability approach and activities, consistently applying our firm's information policy and disclosure principles. The core medium for our sustainability disclosure is this Sustainability Report 2019, supplemented – as referenced in the GRI Content Index – by other relevant information, which can be found in the UBS Annual Report 2019.

We have included the following sections from the UBS Annual Report 2019 at the beginning of this document:

- Our strategy
- Performance targets and measurement
- Our businesses
- Our environment
- How we create value for our stakeholders

Except where clearly identified, all of UBS's sustainability information included in this Sustainability Report is presented for UBS Group AG and all its subsidiaries. Information on our consolidated subsidiaries can be found in Note 31 "Interests in subsidiaries and other entities" in our Annual Report 2019. UBS AG consolidated information does not differ in any material respect from UBS Group AG's consolidated information.

We use the Global Reporting Initiative (GRI) as the basis for our sustainability reporting and apply a careful process weighing up the materiality and relevance of the information reported and the expectations of all our stakeholders.

This document also includes our group's disclosures of non-financial information required by Germany's implementation law of EU directive 2014/95 (CSR-Richtlinie-Umsetzungsgesetz / CSR-RUG) (nichtfinanzieller Konzernbericht). A table at the end of this document (page 166) provides the references to such non-financial information.

This Sustainability Report has been reviewed by Ernst & Young Ltd (EY) against the GRI Standards (limited assurance). The content has been prepared in accordance with the GRI Standards, Comprehensive option, as evidenced in the EY assurance report. Both, the GRI content index and the assurance report, have been included in this document and can also be downloaded from <a href="https://www.ubs.com/gri.">www.ubs.com/gri.</a>

5 March 2020 UBS Group AG and UBS AG

#### Terms used in this report, unless the context requires otherwise

"UBS," "UBS Group," "UBS Group AG consolidated," "Group," "the Group," "we," "us" and "our"	UBS Group AG and its consolidated subsidiaries
"UBS Group AG" and "UBS Group AG standalone"	UBS Group AG on a standalone basis

#### Contacts

#### **UBS Corporate Responsibility Management**

The Corporate Responsibility team manages UBS's sustainability disclosure and also acts as information provider for sustainability-related enquiries.

cr@ubs.com

# Driving change that matters



#### Chairman's statement

In this statement, UBS Chairman and Corporate Culture and Responsibility Committee Chairman Axel A. Weber provides his views on UBS's long-term value creation

In 2019, we again demonstrated our commitment to advancing sustainability in our firm, for and with our clients, and in our industry. We are proud of what our firm has achieved during the course of last year – and of our ambitious plans going forward.

The Corporate Culture and Responsibility Committee (CCRC) regularly monitors our firm's sustainability activities and ambitions and approves its strategy and goals. In 2019, we witnessed an accelerated momentum in our *UBS in society* program as well as in our sustainable finance activities. A key indicator is the development of our Core SI (sustainable investing) assets under management where we managed to more than double penetration from 5.6% of total invested assets in 2017 to 13.5% in 2019 – and thus reached the goal we set ourselves then one year earlier than planned.

Highlights presented to the CCRC included the further strengthening of our firm's sustainability strategy. Notable examples include the integration of sustainability topics in our employee lifecycle activities – with the explicit ambition (included in our *UBS in society* constitutional document) of being an employer of choice, as well as the expansion of sustainable finance activities across our firm.

At UBS, we are convinced that this momentum will continue to accelerate during the coming years. Continually growing interest by our clients in sustainable finance solutions is evidenced in major surveys that we conducted among our private and institutional clients, as well as in our biannual stakeholder survey. I also experience it in my regular, personal interactions with clients across all of our firm's businesses and regions.

As we move into the 2020s, we will further expand our firm's sustainability efforts, shaping them in particular around three interconnected frameworks: the United Nations Sustainable Development Goals (SDGs); the recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD); and the UN-backed Principles for Responsible Banking (PRB).

We were among the very first banks that shone a light on the importance of the SDGs – and specifically on what it takes to make them investable for clients, recognizing the major investment gap associated with their achievement with estimates ranging from USD 2 trillion to as high as USD 7 trillion annually. This gap needs to be closed if the world wants to successfully tackle the enormous societal and environmental challenges expressed through the SDGs. We are keen to help develop solutions in this regard, building on our successful and sometimes pioneering work aimed at mobilizing private and institutional capital towards the Goals.

Secondly, the TCFD's recommendations, focusing on the risks associated with climate change, try to help address in particular information gaps that prevent investors from properly assessing related financial risks for their portfolios and thus to direct capital flows to more sustainable uses. Following the launch of these recommendations in 2017, we have continuously improved and expanded our climate-related disclosures to demonstrate our active engagement for an orderly transition to a low-carbon economy. A key component of our comprehensive climate strategy is to offer innovative products and services in the areas of investments, financing and research as well as to encourage more transparency by companies. At the same time, we are working on further restricting assets that are associated with climate-related risks. We continue to be successful on both fronts, increasing our climate-related SI by 23% to USD 108 billion from 2018 to 2019 while reducing our carbonrelated assets from USD 3.2 billion to USD 1.9 billion.

Finally, in 2019 we became a founding signatory of the PRB, a framework that is meant to support banks in integrating society's goals into their business strategy — and that incorporates both the SDGs and the Paris Agreement on Climate Change. For the PRB's four-year implementation period, we have committed to set, publish and work towards ambitious targets. This commitment reinforces our long-standing focus on maximizing positive effects through our sustainable business activities and on minimizing negative impacts, notably through our management of environmental and social risks.

This Sustainability Report provides comprehensive information on all of the aforementioned commitments and activities – and more. I invite you to read it, in particular as it demonstrates how our employees contribute to UBS's sustainable performance.

#### UBS's commitment to the UN Global Compact

UBS was among the 43 companies that first signed the UN Global Compact upon its launch in 2000 and is committed to its principles on human rights, labor standards, the environment and anti-corruption. We are also a member of the UN Global Compact Network Switzerland. As reflected in detail in this document, we have a comprehensive set of commitments and activities in place pertaining to the principles of the UN Global Compact.

Axel A. Weber

Chairman of the Board of Directors

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#### **Sustainability at UBS**

Our concept of sustainability is guided by the United Nations (UN) Sustainable Development Goals (SDGs), which bring together the enormous societal and environmental challenges the world faces. We recognize that it is important to understand these challenges as well as the opportunities arising from them, to consider their relevance to UBS and to identify potential actions our firm may need to take.

#### Our commitment to the SDGs

As a founding signatory of the UN-backed Principles for Responsible Banking, UBS has committed to aligning our business strategy to be consistent with and contribute to society's goals. By doing so, we pledged to strategically align our business with the SDGs and the Paris Agreement on Climate Change.

#### What are the SDGs?

The 17 SDGs provide a global roadmap to address environmental, economic, and social imbalances that affect the world's population and its institutions. Such sustainability aims are relevant to everyone. The SDGs were agreed upon by 193 states in 2015 and officially launched by the UN on 1 January 2016.

#### How do they pertain to UBS?

We were among the very first banks that shone a light on the importance of the SDGs. Already in 2015, before their official launch, we published a paper on what it takes to make the SDGs investable for clients. Our focus has continued to be on investability as this is consistent with a key message that accompanied the launch of the SDGs – the recognition of a major investment gap (with estimates ranging from USD 2 trillion to as high as USD 7 trillion annually) that will need to be closed if the world was to achieve the Goals by 2030.

We have refined our analysis of and commitments to the SDGs ever since, not least in four successive white papers for the World Economic Forum (WEF) Annual Meeting. In our 2017 white paper we set out commitments to sustainable and impact investing, which we executed on by working with other institutions to create innovative solutions that can help private and institutional clients achieve their financial and societal objectives.

We have also executed on our 2018 white paper commitments to partnership for the Goals, by working more closely with multilateral development banks, through our partnership with the World Bank, to offer development bank bond solutions for private clients; by collaborating to fill gaps in the sustainable investing landscape with innovative new solutions; and by acknowledging the demand and impact of collaborative philanthropy.

In 2019 we highlighted the need for people to become more aware of the SDGs; for sustainability to be easier understood; and for more solutions that enable the public to make a real contribution to people and planet. We outlined eight potential solutions on how to improve the sustainable investing, giving, and consumption ecosystems to mobilize greater support for tackling world's most urgent challenges.

In 2020 we again published a white paper on the occasion of the WEF Annual Meeting, focusing on SDG 13, Climate action, and on ways in which investors can align their investments towards a climate-smart future.

Through the #TOGETHERBAND campaign, which we launched jointly with BOTTLETOP in 2019, we raise public awareness and inspire action to achieve the SDGs. The campaign is supported by a group of high-profile ambassadors and experts with a strong commitment to sustainability.

- → Refer to www.ubs.com/wef-2020 for more information about our white paper
- → Refer to www.ubs.com/togetherband for more details about the campaign

#### What do we do?

At UBS we see a strong business rationale for catering to the growing importance of and demand for sustainability – as embodied by the SDGs. We are committed to play a leading role in providing both finance and expertise to meet these ambitious global goals. As the largest truly global wealth manager to high net worth and ultra high net worth clients, we regard it as particularly critical to help private wealth contribute to fund the development of a more sustainable world.

UBS has touchpoints to the SDGs across the entire firm. With a business model covering retail, private and institutional clients we have links to every single SDG through one or more of our firm's activities. Some of the key examples include the UBS Optimus Foundation's support for The Power of Nutrition foundation (SDG 2), the UBS Oncology Impact Fund (SDG 3), and the Gender Equality ETF (SDG 5).

We believe, however, that five SDGs (4, 8, 12, 13, 17), as per the table below, are of particular pertinence to our firm. In particular due to our strategy and business model and (business) focus areas it is with these five that we see the most material impacts across our value chain – notably by helping to advance positive developments through sustainable finance & investing and ESG expertise as well as minimizing negative impacts through the management of environmental and social risks.

We have captured these five SDGs, our rationale for each one and key focus areas pertaining to each of them in the graph on the following page. Over the coming years, we will continue to refine our analysis of our firm's links to the SDGs – in order to better understand and depict positive and negative impacts across our value chain and to set objectives accordingly.

#### Sustainable Development Goals in our focus

Sustainab Developm		Our rationale	Our key focus areas	Where to find out more in this report
4 QUALITY EDUCATION	Quality Education	Quality education is crucial for a well-functioning society.  Constant change in the business world and the drive towards digitalization means our employees must continually build new skills and adapt to remain competitive.	Client and corporate philanthropy We focus on education both in our client foundation (UBS Optimus Foundation) and in our firm's commu- nity investments.  UBS as an employer We help employees prepare for future work challenges, in particular by investing in learning and career devel- opment initiatives that are transforming our approach to talent management.	Society ) pages 46–50  Driving change in philanthropy ) page 75  Driving change in communities ) pages 98–102  Employees ) pages 35–45
8 DECENTIVIDENCE AND ECONOMIC GROWTH	Decent Work and Economic Growth	Banks play a crucial role in the economy through their business activities and through their generation of employment.	Business activities As the largest bank in Switzerland, we provide products and services to more than 125,000 firms. Our corporate and institutional clients benefit from our financing and investment services to grow their businesses, Our personal banking clients have access to a comprehensive, life-cycle-based offering and convenient digital banking.  UBS as an employer Our 69,966 employees around the world work in 50 countries, are citizens of 136 nations and speak more than 150 languages.	Indirect economic impacts ) page 129  Employees ) pages 35–45
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	Responsible Consumption and Production	Positive environmental and social impact can be achieved by providing sustainable finance offerings, including sustainable and impact investing, to all our client segments.	We support clients with regard to their sustainability efforts and strive to incorporate ESG factors into the products and services we provide.	Our focus on ESG ) pages 31–33  Society – Aims and progress ) page 48  Driving change in business ) pages 76–97
13 CLIMATE ACTION	Climate Action	Climate change is one of the most significant challenges of our time. The world's key environmental and social challenges are all closely intertwined with climate change. This makes the orderly transition to a low-carbon economy vital.	We mobilize private and institutional capital for investments that facilitate climate change mitigation and adaptation.  We protect our clients' and our own assets from climate-related financial risk.  We are committed to reducing our direct climate impact and to taking collaborative action through climate initiatives, pilot programs and industry groups.	Our climate strategy > pages 54–63  Advancing sustainability in the financial sector > pages 76–77
17 PARTIMETARS FOR THE COALS	Partnerships for the Goals	Achieving the SDGs demands new approaches to philanthropy and sustainable investing and partnerships for the Goals are critical to building these approaches.	We have been working with others across the industry for years to drive change, and are creating unique sustainability products and services that address the SDGs.	Advancing sustainability in the financial sector ) pages 76–77  Our focus on ESG ) pages 31–33  Key sustainable investing products and services in 2019 ) pages 72–74  Driving change in philanthropy ) page 75

# Our strategy

We aim to drive higher and superior returns by growing and leveraging our unique, integrated and complementary business portfolio and geographic footprint.

UBS is the largest truly global wealth manager and a leading personal and corporate bank in Switzerland, with focused investment bank and asset management divisions. We concentrate on capital-efficient businesses in our targeted markets, where we have a strong competitive position and an attractive long-term growth or profitability outlook. We view capital strength as the foundation of our strategy.

In delivering all of UBS as one firm to our clients, we intend to: strengthen our leading client franchises and grow share; position UBS for growth by expanding our services and capabilities; drive greater efficiencies and scale; and further intensify collaboration for the benefit of our clients.

#### **Driving increasing returns**

We manage UBS for the long term, focusing on sustainable profit growth and responsible resource deployment. We aim to balance growth opportunities with cost and capital efficiency in order to drive attractive risk-adjusted returns and sustainable performance.

For the years 2020–2022, we have seven strategic priorities, which are outlined below.

Priority I We aim to increase profit before tax in our Global Wealth Management business by 10–15% and drive higher pretax margins by elevating our leading franchise. We are adjusting our coverage across the client spectrum to deliver more tailored services and solutions. We are reorganizing ourselves to be closer to clients, in order to increase time spent with them, empowering regions, improving our responsiveness and speed to market, as well as delivering on all of the firm's capabilities through expanded strategic partnerships with the Investment Bank and Asset Management. Furthermore, we are expanding our product offering while becoming more efficient, leveraging scale through partnerships and optimizing processes to increase productivity.

*Priority II* In our Investment Bank, we intend to improve returns by driving profitable growth, by further optimizing resources and through collaboration. We will maintain our capital-light business model that is focused on advice and execution and leverages our digital capabilities. Together with our other business divisions and through external partnerships, we aim to deliver market-leading digital, research and banking capabilities to our clients, while consuming up to one-third of Group resources.

*Priority III* In Asset Management, we intend to capitalize on our differentiated client offering for further growth,

performance and scale. We plan to build on our strengths in fast-growing areas of the industry, such as sustainable investing, private markets and alternatives.

*Priority IV* Personal & Corporate Banking aims to deliver steady profit growth by enhancing its digital initiatives and services, while improving efficiency. By expanding our leading position in digital services in Switzerland, along with broadening our advisory solutions and product offering, we expect to increase profits despite the current negative interest rate environment.

*Priority V* We want to deliver more as one firm to our clients. The collaboration between our business divisions is critical to the success of our strategy and is a source of competitive advantage. This collaboration also provides further revenue growth potential and enables us to better meet client needs; for example, in the ultra high net worth and Global Family Office space.

Another area where collaboration between our business divisions can bring more value to clients is in sustainable finance. As the largest truly global wealth manager, we have a responsibility to take a leading role in shaping a positive future, and our goal is to be the financial provider of choice for clients who wish to mobilize capital toward the achievement of specific environmental or social outcomes. We are shaping the landscape of sustainable finance by using thought leadership, innovation and partnerships to support clients in their sustainability efforts.

→ Refer to "Society" and "Our focus on ESG" in the "How we create value for our stakeholders" section of this report for more information about our engagement and leadership in sustainability matters

*Priority VI* We aim to drive improvements in firm-wide efficiency to fund growth and enhance returns. We believe continued optimization of processes, platforms, our organization and capital resources will help us to achieve this.

We will continue to invest in technology with the goal of improving efficiency and effectiveness, driving growth and better serving our clients.

We also intend to realize the benefits of existing external partnerships and to explore selected new opportunities.

*Priority VII* We plan to maintain an attractive capital return profile through dividends and share repurchases. Our capital strength and capital-accretive business model allows us to grow our business while delivering attractive capital returns to our shareholders.

We aim to increase our ordinary dividend per share by USD 0.01 each year, and to return excess capital through share repurchases. We consider business conditions and any idiosyncratic developments when determining excess capital available for share repurchases.

#### Our sustainability strategy

Our firm's sustainability strategy is guided by our goal to be the financial provider of choice for clients wishing to mobilize capital towards the achievement of the SDGs and the orderly transition to a low-carbon economy. We work towards this goal by integrating sustainability into our mainstream offerings, through new and innovative financial products with a positive effect on the environment and society, and by advising clients on their

philanthropic works. And it is through the management of environmental and social risks, the management of our environmental footprint and our sustainability disclosure that we continue to set standards in our industry.

- → Refer to the UBS in society constitutional document in the Appendix 1 for more information about our sustainability strategy
- ightarrow Refer to "Society" in this section for more information about our sustainability strategy

# Performance targets and measurement

#### Targets and capital guidance

In January 2020, we updated and simplified our performance target framework. We reduced the number of targets to concentrate primarily on the Group rather than our business divisions, underlining our focus on cross-divisional collaboration. Our targets are underpinned by the latest three-year strategic plan, which reflects our strategic initiatives, management actions, as well as certain economic and market assumptions. The return and efficiency targets have been revised to reflect changes in the market outlook since the previously communicated targets were set in October 2018.

The table below shows the performance targets and capital guidance for the 2020–2022 period. Our updated performance targets are based on reported results. From the first quarter of

2020, we will no longer disclose adjusted results in our financial reports. We will continue to provide disclosure of restructuring and litigation expenses as well as other material profit or loss items that management believes are not representative of underlying business performance in our management's discussion and analysis.

Performance against targets is taken into account when determining variable compensation.

- → Refer to "Performance and compensation at a glance" in the "Compensation" section of this report for more information about variable compensation
- → Refer to "Alternative performance measures" in the appendix to this report for definitions of and further information about our performance measures

#### Targets and capital guidance 2020–2022

(on a reported basis)

Group returns	<b>12–15%</b> return on CET1 capital (RoCET1)
Cost efficiency	Positive operating leverage and <b>75–78%</b> cost / income ratio
Growth	10–15% profit before tax growth in Global Wealth Management
Capital allocation	<b>Up to</b> ⅓ of Group RWA and LRD in the Investment Bank
Capital guidance	~13% CET1 capital ratio ~3.7% CET1 leverage ratio

#### **Sustainability objectives**

We have set strong overarching ambitions that guide our sustainability performance. We are transparent about our aims and progress wherever possible to demonstrate our commitment. We set annual sustainability goals, which are reflected in the comprehensive set of GRI objectives included in this document.

In addition, our firm's sustainability aims, i.e., beyond the 2020 time horizon, reflect our focus on the mid- to long-term.

- ightarrow Refer to "Society" in this section for more information about our sustainability aims and key goals
- → Refer to the Appendix 3 for our sustainability objectives and achievements 2019 and sustainability objectives 2020

# Our businesses

## Working in partnership

We operate through four business divisions – Global Wealth Management, Personal & Corporate Banking, Asset Management and the Investment Bank. Our global reach and the breadth of our expertise are major assets that set us apart from our competitors. We see partnership as key to our growth, both within and between business divisions. We are at our best when we combine our strengths to provide our clients with more

comprehensive and better solutions through, for example, the creation of a unified capital markets group across Global Wealth Management and the Investment Bank, and a Global Family Office joint venture.

Combining our strengths makes us a better firm. Initiatives such as the *Group Franchise Awards* encourage employees to look for ways to build bridges between areas and offer the whole firm to our clients.

#### How we deliver the whole firm to our clients - examples



# Wealth Management Platform

Outside the US, Global Wealth Management continues to migrate to one operating platform, which has been built on our Swiss IT platform. Our clients benefit from a broader universe of products and services, simplified onboarding, and a better banking experience through an intuitive digital platform with leading-edge advice capabilities across all channels. The same interface is shared by Personal & Corporate Banking clients in Switzerland and Global Wealth Management clients outside the US. In the US, the Wealth Management Americas Platform is improving advisor productivity by leveraging a newly created advisory utility.



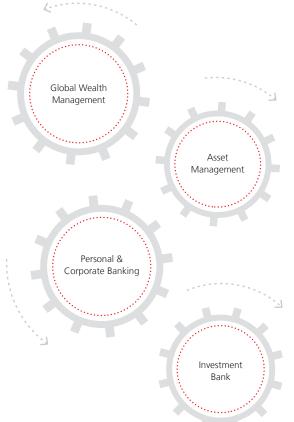
# Client shifts and referrals

Personal & Corporate Banking generates client shifts and referrals to other business divisions. For example, personal banking clients are shifted to Global Wealth Management, and corporate and institutional segment clients are referred to Asset Management for pension fund solutions or the Investment Bank for capital market and corporate transactions.



#### Global Family Office

Our Global Family Office unit brings together the capabilities of Global Wealth Management, Asset Management and the Investment Bank to leverage growth and efficiency opportunities. It provides customized, institutional-style services to wealthy families and individuals seeking access to, or advice on, capital market activities.



# Separately managed accounts in the Americas

In the US, we have combined the portfolio management and related execution resources from across Global Wealth Management and Asset Management within Asset Management. Alongside this, in January 2020 we introduced an industry-leading approach enabling Global Wealth Management clients to access separately managed accounts in the Americas at no incremental fee. This transformative move allows our financial advisors to focus on delivering the best ideas, solutions and capabilities to our clients – regardless of where they originate in the firm – and positions UBS as an industry leader.



# Unified capital markets group

We have created a strategic partnership between Global Wealth Management and the Investment Bank that is focused on spurring growth – in our ultra high net worth, middle market institutions and public finance businesses – and identifying synergies across the supporting infrastructure. This important initiative includes a unified capital markets team, integrating risk management systems and the simplification of our regional operating structure.

## Global Wealth Management

We are the largest truly global wealth manager, with USD 2.6 trillion in invested assets. Our goal is to provide tailored advice and solutions to private clients and family offices.

Since the combination of Wealth Management and Wealth Management Americas in 2018, we have continued to deliver comprehensive services to clients, capture operational efficiencies, and invest in our business. More than 22,000 Global Wealth Management employees assist our clients with achieving their goals. Our presence in the ultra high net worth segment is particularly strong, and we have access to the majority of the world's billionaires.

In Japan, we have entered into a comprehensive strategic wealth management partnership with Sumitomo Mitsui Trust Holdings, Inc. (SuMi Trust Holdings). The new joint venture will combine UBS's wealth management capabilities with SuMi Trust Holdings' stature as Japan's largest independent trust bank. SuMi Trust Holdings offers a range of services, including banking, real estate, asset and wealth advisory services, and has strong client access and brand name awareness in Japan.

#### **Global Wealth Management organizational changes**

In January 2020, we announced several initiatives designed to achieve Global Wealth Management's growth ambitions and to elevate the quality and value of the service we deliver to our clients. First, we have reframed our offering around each client's needs to deliver more tailored services and solutions. Second, we have made it easier for advisors to spend more time with clients and to better understand their needs and preferences, and we have taken measures to improve our responsiveness and speed to market. We created three distinct business units in EMEA – Europe; Central and Eastern Europe; and the Middle East and Africa – to better capture the diverse opportunities in these markets. Finally, we intend to deliver all of the firm's capabilities through strategic partnerships with the Investment Bank and Asset Management.

#### **Our focus**

We serve high net worth and ultra high net worth individuals, families and family offices around the world, as well as affluent clients in selected markets. Through our organizational changes, we are making our Global Family Office capabilities, which are provided to ultra high net worth individuals, available to more clients, targeting coverage of around 1,500 in total.

While we are already a market leader in the ultra high net worth segment outside the US,<sup>1</sup> we believe that we can also become the firm of choice for the wealthiest clients in the US,

many of whom already have a relationship with UBS. Our globally diversified footprint allows us to capture growth both in the largest (the US) and the fastest-growing (Asia Pacific) wealth markets.

We are focusing on increasing mandate and lending penetration, delivering innovative solutions for our clients (e.g., structured solutions, private markets, sustainability and thematic investing), as well as enhancing our advisors' productivity by making operational processes more efficient. Additionally, we aim to maintain low attrition and to increase our share of clients' business

We are investing in our operating platforms and tools to support our clients and client advisors, in order to better serve our clients' needs and improve our efficiency. As of 31 December 2019, approximately 80% of invested assets booked outside the Americas were on the *Wealth Management Platform* as we continue to consolidate our operating platforms there. In the US, and in collaboration with our third-party software provider Broadridge, we are building the *Wealth Management Americas Platform*, which we expect to become operational in 2021. The development of our platforms is happening alongside enhancements to our digital capabilities for the benefit of our clients and advisors.

→ Refer to "Clients" in the "How we create value for our stakeholders" section of this report for more information about innovation and digitalization

#### How we operate

We have a global footprint, with a presence in the world's largest and fastest-growing markets and are well positioned to serve clients with global interests and demands. The US is our largest market, accounting for more than 50% of our invested assets. We are the largest wealth manager in Asia Pacific and the second largest in Latin America in terms of invested assets.<sup>1</sup>

In Switzerland, we hold a leading market position<sup>1</sup> and can deploy the full range of the Group's products and services across Personal & Corporate Banking, Asset Management and the Investment Bank.

Our broad domestic footprint in Europe enables us to provide locally adapted offerings, and our local offices across Central Europe, the Middle East and Africa keep us close to our clients.

Through strategic partnerships with the Investment Bank and Asset Management, we provide clients with broad access to financing, global capital markets and portfolio solutions.

→ Refer to "Working in partnership" in this section for examples of collaboration between the business divisions

<sup>1</sup> Statements of market position for Global Wealth Management are UBS's estimates based on published invested assets and internal estimates.



As part of our organizational changes, ultra high net worth client relationships and advisors were integrated into regional business units to increase speed and proximity to clients. In our newly established Global Capital Markets team, we combined our Investment Product Services (IPS) unit and Investment Bank teams and their respective expertise. The Global Capital Markets team provides clients with an enhanced offering, faster execution, and more competitive conditions.

Our main competitors are either large US players that have a smaller presence outside the US (including Bank of America, JPMorgan Chase, Morgan Stanley and Wells Fargo) or geographically diverse firms with a smaller presence in the US (including BNP Paribas, Credit Suisse, HSBC and Julius Baer). Our size, geographic presence and diversified client portfolio are exceptional and would be difficult for other wealth managers to replicate organically.

#### What we offer

Our distinctive approach to wealth management is designed to strengthen engagement with our clients and to help them pursue what matters most to them.

By operating as a unified business, we aim to offer our clients the best wealth management solutions, services and expertise globally. Our experts provide our clients with thought leadership, investment analysis and formulated investment strategies, as well as develop and source solutions for them. The Chief Investment Office (CIO) provides the concise, comprehensive UBS House View, which identifies and communicates investment opportunities designed to protect and increase our clients' wealth over generations. Regional client strategy teams deepen our understanding of clients' needs, behaviors and preferences, enabling us to tailor our offerings to serve them better. Our product specialists deliver investment solutions, including our flagship investment mandates, innovative long-term themes and sustainable investment offerings.

→ Refer to "Clients" in the "How we create value for our stakeholders" section of this report for more information about innovation and digitalization Clients benefit from our comprehensive set of capabilities and expertise, including wealth planning, investing, philanthropy, corporate and banking services, as well as family advisory services. We also offer considerable expertise across structured, mortgage and securities-based lending.

We work to improve our offerings and respond to changing client needs. In 2019, we launched a new line of *UBS Manage* offerings in Switzerland. In addition, to meet growing demand, we expanded the number of exclusive private markets opportunities for clients. Our sustainable investing solutions continue to be well received. Currently, invested assets in 100% sustainable investing solutions and bespoke sustainable investing solutions have grown to over USD 9 billion. We also broadened our sustainable investing offering, teaming up with external partners such as BMO Global Asset Management, Generation Investment Management and KKR & Co. Inc. to offer clients innovative sustainable development-related investment opportunities.

#### How we serve our clients

We serve our clients through local offices, dedicated advisors and experienced specialists. We use a mix of digital and non-digital channels (including marketing campaigns, events, advertising, publications and digital-only solutions) to help drive greater awareness of UBS among prospects and reinforce trust-based relationships between advisors and clients.

#### How we are organized

Our business division is organized into regional business units: the US and Canada; Latin America; Europe; Central and Eastern Europe; the Middle East and Africa; Asia Pacific; and Switzerland. We also have a business unit for our Global Family Office clients. Central functions for global capabilities supporting these business units are the CIO, Global Banking, Global Capital Markets and the Chief Operating Office. We are governed by the executive, risk, operating, and asset and liability committees.

# Personal & Corporate Banking

As a leading personal and corporate bank in Switzerland, we provide comprehensive financial products and services to private, corporate and institutional clients. We are among the country's foremost players in the private and corporate loan market, with a substantial lending portfolio. Personal & Corporate Banking is at the core of our universal bank delivery model in Switzerland.

#### **Our focus**

We are a leading personal and corporate bank in Switzerland, providing a superior client experience and combining technology with a personal touch.

We have established a strong pipeline of growth initiatives across our business areas. Effective 1 November 2019, we have set up a new business area, Digital Platforms & Marketplaces, to rapidly extend our platform offering for mortgages.

We also aim to improve efficiency by streamlining processes and introducing new digital self-service tools. For example, we have rolled out an integrated mortgage workflow for extensions, which significantly reduces the time it takes to set up a contract. In addition, we have further optimized our contact center setup, increased automation of repetitive processes, and launched a pilot for a digital mailroom that reduces processing time by digitizing incoming physical mail and documents. Technology plays a key role in our client-centered operating model and we aim to expand our digital leadership. Our multi-year digitalization program enables us to further enhance the client experience. Thanks to technological solutions, we are able to offer clients new products and identify new cross-selling opportunities in a more targeted way.

→ Refer to "Clients" in the "How we create value for our stakeholders" section of this report for more information about innovation and digitalization

Operationally, we strive for excellence in execution, focusing on efficiency while improving our service quality and overall agility. To scale our digital transformation efforts, in 2019 we opened our second digital factory in Switzerland, which is larger than our first one. These digital factories are now home to approximately 1,100 employees across various functions. Moreover, we introduced an agile academy and quick-launch formats to drive innovation and attract key talent.

#### How we operate

While we operate primarily in our home market of Switzerland, we also provide capabilities to support the growth of the international business activities of our Swiss corporate and institutional clients through our local hubs in Frankfurt, New York, Hong Kong and Singapore. We are the only Swiss bank providing local banking capabilities abroad to its corporate clients.

In the Corporate & Institutional Clients business, our main competitors are Credit Suisse, the cantonal banks and globally active foreign banks. We compete in areas covering basic banking services, cash management, trade and export finance, asset servicing, investment advice for institutional clients, corporate finance and lending, and cash and securities transactions for banks.

In the Swiss Personal Banking business, our competitors are Credit Suisse, PostFinance, Raiffeisen, the cantonal banks and other regional and local Swiss banks. In addition to those traditional players, we also face competition from international players entering the Swiss market and neobanks. We compete in areas such as basic banking, mortgages and foreign exchange, as well as investment mandates and funds.

#### What we offer

Our personal banking clients have access to a comprehensive, life cycle-based offering and convenient digital banking. We deliver a broad range of basic banking products, from payments to deposits, cards, online and mobile banking, as well as lending (predominantly mortgages), investments and retirement services. The overall service range is complemented by our *UBS KeyClub* reward program, which provides clients residing in Switzerland with exclusive and attractive offers, including those from third-party partners. In close collaboration with Global Wealth Management, we offer leading private banking and wealth management services.

Our corporate and institutional clients benefit from our financing and investment solutions, particularly access to equity and debt capital markets, syndicated and structured credit, private placements, leasing, and traditional financing. Our transaction banking offers solutions for payment and cash management services, trade and export finance, as well as global custody solutions for institutional clients.

We collaborate closely with the Investment Bank to offer capital market and foreign exchange products, hedging strategies and trading capabilities, as well as corporate finance advice. In cooperation with Asset Management, we also provide fund and portfolio management solutions.

→ Refer to "Working in partnership" in this section for examples of collaboration between the business divisions

#### How we serve our clients

We are the recognized digital leader, with the highest online and mobile banking penetration in Switzerland, and continue to invest in a multi-channel distribution model to further enhance our leading position. We are adapting existing branch formats to suit evolving client needs by converting some locations to smaller, more agile branches that serve as digital support hubs and are intended to ensure a strong local presence along with advice on basic client needs. We aim to further reshape our physical footprint in an innovative and client-centric way, particularly by defining future branch formats with different purposes.

In addition, we continue to provide our expertise to our clients through our contact center and our digital channels, offering basic banking services and transactions. Dedicated client advisors serve personal banking clients who need tailored solutions.

As part of our sustainability road map, we are substantially expanding our offerings. Our personal banking and institutional clients have access to a number of sustainable investment solutions, and we promote innovative approaches for corporate banking clients. For example, we issued the first green bond for a listed company in Switzerland.

For marketing campaigns, we use online media (including social media and search engine advertising), out-of-home media (posters and digital billboards) and, very selectively, print, TV, radio and cinema advertising. In line with our position as a digital leader in Swiss banking, and because of the channel's cost-effectiveness, we follow a digital-first media strategy. More than 50% of our media spending goes into online channels.

#### How we are organized

Our business division is organized into Personal Banking, Corporate & Institutional Clients, and Digital Platforms & Marketplaces. Geographically, our business, with its 267 branches, is organized into 10 regions, covering distinct Swiss economic areas. We are governed by the executive, risk and operating committees, and operate mainly through UBS Switzerland AG.

# 267 branches in Switzerland

Personal Banking has 267 branches¹ in Switzerland, of which more than 80 are shared with Global Wealth Management and 60 are shared with Corporate & Institutional Clients



1 The size of the circles on the map reflects the number of branches in each location.

# Asset Management

UBS Asset Management is a large-scale and diversified global asset manager, with USD 903 billion in invested assets. We offer investment capabilities and styles across all major traditional and alternative asset classes, as well as advisory support to institutions, wholesale intermediaries and Global Wealth Management clients around the world.

#### **Our focus**

Our strategy is focused on capitalizing on the areas where we have a leading position to drive further profitable growth and scale.

Sustainable and Impact Investing remains a key area, as clients increasingly seek solutions that combine their investment goals with sustainability objectives. We continue the expansion of our world-class capabilities in areas such as climate-aware solutions. We do this through: product and service innovation; dedicated research; integration of environmental, social and governance factors into our investment processes, leveraging our proprietary analytics; and active corporate engagement.

In response to the increasing importance of private markets and alternative investments, we are building on our existing expertise in these areas, including our hedge fund and real estate businesses, as well as our capabilities across infrastructure, private equity and private debt.

We continue to develop our award-winning<sup>1</sup> Indexed and Alternative Beta business, including exchange-traded funds (ETFs) in Asia Pacific, Europe and Switzerland. We provide customization while leveraging our highly scalable platform, with a particular focus on key areas such as sustainability and fixed income products. Since 2016, the Alternative Beta business has seen growth in invested assets of approximately 85%.

Geographically, we are investing in our leading presence and products in China, both onshore and offshore, one of the fastest-growing asset management markets in the world, building on our extensive and long-standing presence in the Asia Pacific region.

In the rapidly evolving and attractive wholesale segment, we aim to significantly expand our market share through a combination of continued client penetration, expansion of our strategic partnerships with distributors and the build-out of our client service offerings.

→ Refer to "Clients" in the "How we create value for our stakeholders" section of this report for more information about innovation and digitalization

To drive further growth in our Investment Solutions business, which provides access to and combines the breadth and depth of our capabilities across public and private markets, we are

focused on delivering superior multi-asset strategies and whitelabel solutions to meet the needs of clients around the world.

We also continue to intensify our cross-divisional collaboration, in particular with Global Wealth Management, to enable our teams to draw on the best ideas, solutions and capabilities from across the firm to deliver superior investment performance and experiences for our clients.

→ Refer to "Working in partnership" in this section for examples of collaboration between the business divisions

To support our growth, we are focused on disciplined execution of our operational excellence initiatives. This includes further automation, simplification, process optimization and offshoring / nearshoring of selected activities, complemented by a continued modernization of our platform and development of our analytics and data capabilities.

In January 2020, we announced a number of changes to the operational setup of our Platforms businesses intended to deliver greater scale and breadth of offering for our clients and ensure the ongoing development of these world-class businesses in a highly competitive marketplace. The changes include the proposed sale of a majority stake (51.2%) in UBS Fondcenter to Clearstream, Deutsche Börse Group's post-trade services provider. The sale is expected to close in the second half of 2020, subject to customary closing conditions. In addition, in order to fully leverage the expertise and resources within the wider Group to accelerate the growth of the business, we have decided to transfer UBS Partner, our highly innovative whitelabel technology solution, to the Corporate & Institutional Clients International business within the Personal & Corporate Banking business division. UBS Partner will be part of UBS's "The Bank for Banks" client offering, and this is an exciting step in our collaboration efforts across the firm to bring the best of UBS to our clients

With these changes, we are making a step change in the proposition for our clients, who will have seamless access to expanded platform capabilities, while at the same time enabling us to sharpen our focus on the execution of our strategic priorities.

#### How we operate

We cover the main asset management markets globally, and have a local presence in four regions: the Americas; Europe, the Middle East and Africa; Switzerland; and Asia Pacific.

Our main competitors are global firms with wide-ranging capabilities and distribution channels, such as Amundi, BlackRock, DWS, Goldman Sachs Asset Management, Invesco, JPMorgan Asset Management, Morgan Stanley Investment Management and Schroders, as well as firms with a specific market or asset class focus.

<sup>1</sup> Second largest Europe-based indexed player based on peers' public reporting (UBS calculation, 3Q19) and ranked fourth largest ETF provider in Europe as of December 2019 (source: ETFGI).

#### What we offer

We offer clients a wide range of investment products and services in different asset classes in the form of segregated, pooled or advisory mandates, as well as registered investment funds in various jurisdictions.

Our traditional and alternative capabilities include equities, fixed income, hedge funds, real estate and private markets, and indexed and alternative beta strategies (including ETFs), as well as sustainable and impact investing products and solutions.

Our Investment Solutions business draws on the breadth of our capabilities to offer: asset allocation and currency investment strategies across the risk / return spectrum; customized multi-asset solutions, advisory and fiduciary services; and multi-manager hedge fund solutions and advisory services.

#### How we serve our clients

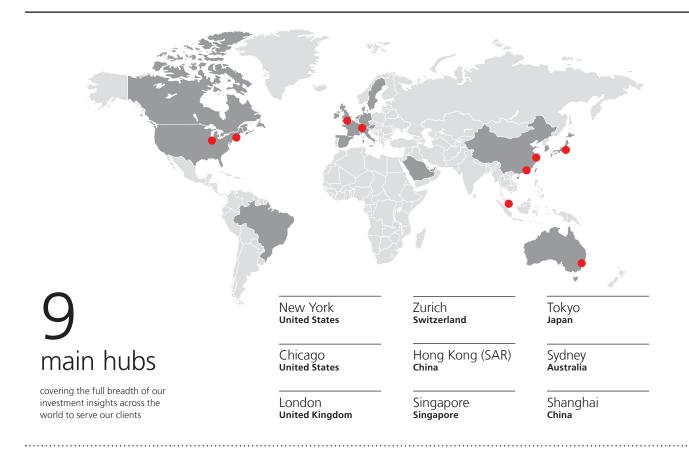
We deliver our investment products and services directly to institutional clients. High net worth and retail clients are served through Global Wealth Management, third-party banks and distributors.

Our teams are based in the key financial markets, bringing our unique perspectives and global expertise to our clients around the world. This, in combination with our presence on the ground, enables our teams to develop long-term relationships with our clients and a deep understanding of their specific needs.

#### How we are organized

Our business division is organized along five areas: Client Coverage, Investments, Real Estate & Private Markets, Products and the COO Area. We are based worldwide across four regions, with nine main hubs: Chicago, Hong Kong, London, New York, Shanghai, Singapore, Sydney, Tokyo and Zurich.

We are governed by executive, risk and operating committees, supplemented by business unit-specific committees.



### Investment Bank

The Investment Bank provides a range of services to institutional, corporate and wealth management clients to help them raise capital, grow their businesses, invest for growth and manage risks. We are focused on our traditional strengths in equities, foreign exchange, research, advisory services and capital markets, complemented by a targeted rates and credit platform. We use our powerful research and technology capabilities to support our clients as they adapt to the evolving market structures and changes in the regulatory, technological, economic and competitive landscapes.

We aspire to deliver market-leading solutions to clients, using our intellectual capital and electronic platforms. We also provide services to Global Wealth Management, Personal & Corporate Banking and Asset Management, while managing our balance sheet, costs, risk-weighted assets and leverage ratio denominator with discipline.

Our capital-light business model allows the Investment Bank to deliver digital, research and banking capabilities, consuming up to one-third of Group resources.

#### Structural changes in the Investment Bank

In January 2020, we realigned our Investment Bank to meet the evolving needs of our clients and to further focus resources on opportunities for profitable growth and digital transformation. Corporate Client Solutions and Investor Client Services were renamed Global Banking and Global Markets, respectively. Global Banking moves to two product verticals (Capital Markets and Advisory), adopting a global coverage model. Global Markets combines Equities and Foreign Exchange, Rates and Credit, and introduces three product verticals (Execution & Platform, Derivatives & Solutions, and Financing) and three horizontal functions (Risk & Trading, Distribution and Digital Transformation). The new Global Markets structure is designed to facilitate the alignment of business processes and operations and to reduce inefficiencies and duplication. It further permits a more holistic understanding of our clients' cross-product needs and is designed to foster tighter coordination of client coverage and distribution. This will allow for improved oversight of key risks and the allocation of resources. Investment Bank Research and UBS Evidence Lab Innovations continue to be a critical part of our advisory and content offering.

The changes are effective 1 January and we will provide restated prior-period information in advance of our first quarter 2020 results.

#### **Our focus**

Our key priority is disciplined growth in the capital-light advisory and execution businesses, while accelerating our digital transformation. Global Banking has a global coverage model and will utilize its deep global industry expertise to meet the emerging needs of its clients. In Global Markets, we are focused on clients' expectation of excellence in execution, financing and structured solutions.

Our digital strategy is led by our businesses, which harness technology to deliver superior and differentiated client service and content. We established the *UBS Investment Bank Innovation Lab* to speed up innovation by facilitating proofs of concept. In Global Markets, the new Digital Transformation horizontal function facilitates adoption of best-in-class practices around trade idea generation, liquidity management, pricing tools and risk management. In Investment Bank Research, we continue to build *UBS Evidence Lab Innovations* to concentrate on data-driven outcomes.

Our balanced global reach gives us attractive options for growth across various regions. In the Americas, the largest investment banking fee pool globally, we are focusing on increasing our market share in our core Global Banking and Global Markets businesses.

In Asia Pacific, we see opportunities primarily from expected market internationalization and growth in China. We are planning to grow by further strengthening Global Banking, both onshore and offshore. Partnerships between the Investment Bank's businesses and the Group, including the creation of a unified capital markets group, and, externally, joint ventures such as that with Banco do Brasil, are a key strategic focus. These initiatives should lead to growth by delivering global products to each region, leveraging our global connectivity across borders and sharing and strengthening our best client relationships.

→ Refer to "Working in partnership" in this section for examples of collaboration between the business divisions

#### How we operate

Our geographically balanced business has a global reach, with a presence in more than 30 countries and principal offices in the major financial hubs.

Competing firms are active in many of our markets, but our strategy differentiates us, with its focus on leadership in the selected areas where we have chosen to compete, and a business model that leverages talent and technology rather than balance sheet.

Our main competitors are the major global investment banks, including Morgan Stanley, Credit Suisse and Goldman Sachs, as well as corporate investment banks, including Bank of America, Barclays, Citigroup, BNP Paribas, Deutsche Bank and JPMorgan Chase. We also compete with boutique investment banks and fintech firms in certain regions and with regard to certain products.

Through strategic partnerships with Global Wealth Management and Asset Management, we provide clients with broad access to financing, global capital markets and portfolio solutions.

→ Refer to "Working in partnership" in this section for examples of collaboration between the business divisions

#### What we offer

Through our Global Banking business, we advise our clients on strategic business opportunities and help them raise capital to fund their activities.

Our Global Markets business enables our clients to buy, sell and finance securities on capital markets across the globe and to manage their risks and liquidity. Furthermore, in Investment Bank Research, we offer clients key insights on major financial markets and securities around the globe. Separately, our team of experts in UBS Evidence Lab Innovations specializes in creating insightful data sets on diverse topics for companies of all sizes, spanning more than 30 countries and 50 sectors. We seek to develop new products and solutions that are consistent with our capital-efficient business model. These are typically related to new technologies or changing market standards.

→ Refer to "Clients" in the "How we create value for our stakeholders" section of this report for more information about innovation and digitalization Since 2005, we have addressed increasing client demand for sustainable investing by providing thematic and sector research. We also provide investment solutions through socially responsible and impact exchange-traded funds and index-linked notes. In addition, we offer capital-raising and strategic advisory services globally to companies that make a positive contribution to climate change mitigation and adaptation.

#### How we serve our clients

We interact with our clients digitally and in person. In Global Banking, we leverage our intellectual capital and relationships to deliver high-quality solutions for our clients. In Global Markets, we use our execution capabilities, differentiated research content, bespoke solutions, client franchise model, and our global platform to expand coverage across a broad set of institutional and corporate clients. In Investment Bank Research, we deliver high-quality differentiated research to our institutional clients using a wide range of methods, including UBS Neo, our multi-channel platform.

#### How we are organized

Our business division is organized into the following three units: Global Banking, Global Markets, and Investment Bank Research and UBS Evidence Lab Innovations. We are governed by the executive, operating, risk, and asset and liability committees. Each business unit is organized globally by product.



# Corporate Center

Our Corporate Center provides services to the Group, with a focus on effectiveness, risk mitigation and efficiency. Corporate Center also includes the Non-core and Legacy Portfolio unit.

#### How we are organized

#### Corporate Center

The major areas within Corporate Center are Group Chief Operating Officer (Group Technology, Group Corporate Services, Group Human Resources and Group Operations), Group Treasury, Group Finance, Group Legal, Group Risk Control, Group Communications & Branding, Group Compliance, Regulatory & Governance, *UBS in society*, and Non-core and Legacy Portfolio.

Over recent years, we have progressively aligned our support functions with our business divisions. We operate the Group with the vast majority of these functions either fully aligned or shared among business divisions, where they have full management responsibility. By keeping the activities of the businesses and support functions close together, we increase efficiency and create a working environment built on a culture of accountability and collaboration

The Non-core and Legacy Portfolio, a small residual set of activities in Group Treasury and certain other function costs mainly related to deferred tax assets and costs relating to our legal entity transformation program are retained centrally.

Since our first quarter 2019 report and in compliance with IFRS 8, *Operating Segments*, we provide results for total Corporate Center only and do not separately report Corporate Center – Services, Group Asset and Liability Management (Group ALM) and Non-core and Legacy Portfolio. Furthermore, we have combined Group Treasury operationally with Group ALM and call this combined function Group Treasury.

→ Refer to the "Significant accounting and financial reporting changes" section and "Note 1 Summary of significant accounting policies" in the "Consolidated financial statements" section of this report for more information about the changes in the structure of Corporate Center

#### Group Treasury

Group Treasury manages the structural risk of our balance sheet, including interest rate risk, structural foreign exchange risk and collateral risk, as well as the risks associated with our liquidity and funding portfolios. Group Treasury serves all business divisions and its risk management is fully integrated into the Group's risk governance framework.

#### Non-core and Legacy Portfolio

Non-core and Legacy Portfolio manages legacy positions from businesses exited by the Investment Bank, following a largely passive wind-down strategy. It is overseen by a committee chaired by the Group Chief Risk Officer. The portfolio also includes positions relating to legal matters arising from businesses that were transferred to it at the time of its formation

→ Refer to "Note 21 Provisions and contingent liabilities" in the "Consolidated financial statements" section of this report for more information about litigation, regulatory and similar matters

# Our environment

### Current market climate

#### Global economic developments in 2019

In a year characterized by strong equity markets, ultra-low volatility and an inflection in interest rates, the pace of the global economy slowed on a broad basis in 2019. World GDP grew by 3.1%, which was substantially lower than the 3.7% growth achieved in 2018 and represents the weakest growth rate since the financial crisis.

US GDP increased 2.3%, compared with 2.9% in 2018, as trade tensions between the US and China hindered business investment and the boost from tax cuts introduced in December 2017 ebbed.

Trade tensions represented an even more serious drag on growth in the eurozone, which relies more than the US on global trade, manufacturing output, and business investment. Growth in the eurozone decreased to 1.2% in 2019, compared with 1.9% in 2018. Germany's economy expanded by only 0.6%, after a 1.5% increase in the previous year. Outside the Eurozone, Swiss growth decreased as well, to 0.8%, compared with 2.8% in 2018.

China's government attempted to partially offset the effects of increasing tariffs on its exports to the US by reducing bank reserve requirements and providing extra fiscal leeway to local governments. However, this stimulus was limited by concerns over high leverage in the economy. GDP growth decreased to around 6.1%, compared with 6.7% in 2018.

In other leading emerging economies, growth slowed or stabilized at low levels. The economy of India, which until recently had been one of the world's fastest-growing major nations, expanded by 5%, compared with 6.1% in 2018. Momentum was weakened by the problems of the shadowbanking sector, which has been reducing the availability of credit to consumers. The Mexican economy, meanwhile, was roughly flat after expanding 2% in 2018, and Brazil's growth rate decreased to 1.1% from 1.3%.

Major central banks were able to keep their accommodating monetary policies in place in 2019, given that low inflation rates persisted. Eurozone inflation stayed below the European Central Bank's (the ECB) target (of at or below 2%), at around 1.2% for

the year. The ECB cut its deposit rate from negative 0.4% to negative 0.5%. US inflation was close to the target at 1.8%, permitting three quarter-point rate cuts over the course of the year to between 1.5% and 1.75%.

Equity markets rallied, with all major indices advancing. The MSCI All Country World Index gave a total return of 27% in US dollars. The S&P 500 index in the US returned 31%, while the technology-heavy Nasdaq Composite gained 37%. China's CSI 300 was up 41% in local currency terms. Less well-performing markets included the UK's FTSE 100 and Hong Kong's Hang Seng, which both returned 17% in local currency terms.

It was also a favorable year for investors holding government bonds. The yield on 10-year US Treasury bonds fell around 80 basis points to 1.9%. The yield on the German Bund of the same tenor fell 40 basis points to negative 0.2%.

#### **Economic and market outlook for 2020**

We expect continued sub-trend growth in the coming year, and the global economy to continue expanding at about the same pace as in 2019. Consumer spending has remained robust in much of the world, especially in the US, where it is supported by a vibrant job market. The year ended with news of a "Phase 1" trade deal between the US and China, along with indications that tensions between the two powers may lessen. Not only did the agreement withdraw planned tariff increases and reverse some existing tariffs, it also moved negotiations forward in other areas of contention, such as intellectual property protection and US access to China's financial services market. While this truce could be fragile and the US—China rivalry is not about to end anytime soon, the deal appears to reduce the risks to the global economy and business investment.

The UK left the European Union on 31 January 2020 and has entered a transition period in which the UK now faces a race to conclude talks on a trade deal with the EU ahead of the end of its transition period on 31 December 2020.

The next major political focus for markets will be the US election in November, which could generate higher volatility and affect key US sectors, such as technology, energy, finance and health care. Against a backdrop of sluggish growth and continued political risk, we believe central banks will be in no rush to raise rates. We do not expect the US Federal Reserve to increase rates in the coming year, barring an unexpected shift in the trajectory of the economic data. Rates are unlikely to rise again until 2021. We expect the ECB to cut rates to negative 0.6%, with the Swiss National Bank maintaining rates at a negative 0.75%.

The outbreak of novel Coronavirus or Covid-19 in China and its subsequent spread to other countries is likely to increase investor uncertainty. Although our base economic forecast is that the outbreak of Covid-19 will be contained and the effect on full-year economic growth will be relatively limited, the virus and containment measures are likely to have at least a short-term adverse effect on economic activity in China and other affected countries, with a collateral impact on the global

economy. A significant rise in the number of Covid-19 infections, infections in a wide range of countries and regions, or a prolongation of the outbreak, could increase the adverse economic effects.

In terms of investing, stocks in most major markets are trading above historical averages on a price-to-earnings basis. As a result, we believe equity market returns are more likely to be driven by earnings growth than by a further expansion of multiples. Markets should also be supported by continuing economic growth in 2020. The risk of a recession remains relatively low. Uncertainty over the effects of the Covid-19 outbreak has substantially increased the macroeconomic risk to growth and this increased risk has at least partially been reflected in recent declines in equity markets.

# Industry trends

While our industry was heavily affected by regulatory developments over the past decade, technology has clearly emerged as the main driver of change today and is expected to further affect the competitive landscape as well as our products and operations going forward. In parallel, our industry is materially driven by market and macroeconomic conditions.

→ Refer to "Current market climate" in this section for information about global economic growth

#### **Digitalization**

Technology is changing the way banks operate and we expect this to continue, in step with exponential advances in computing capability, evolving customer needs and digital trends. Investment in technology is no longer solely considered a means of making banks more efficient. Today, such investment is the key to keeping banks flexible and competitive in a digitalized world, and it creates the opportunity to develop new business models.

By connecting across the financial industry ecosystem through our innovation labs, digital factories, Future of Finance initiatives, and project collaborations, we aim to remain at the forefront of the digital movement to drive client experience as well as operational excellence. At the heart of our digital journey is the focus on our clients and their evolving needs. The speed, scale, security, transparency and precision that new technologies can offer enable us to create new services and experiences for our clients.

We also aim to improve operational efficiency by increasing the range of modernized and modularized applications and infrastructure in our IT portfolio, as well as by leveraging cloud technology and a growing number of front-to-back automated systems and processes. Effective data management and protection are crucial to us. The generated and curated data from our applications is protected under our data management framework, and supports the development of responsible artificial intelligence for better tailoring our client and employee experience.

#### Consolidation

In the financial services industry, many regions and businesses are still highly fragmented. We expect further consolidation, with ongoing margin pressure, the search for cost efficiencies and increasing scale advantages resulting from the fixed costs of technology and regulation being the key drivers. Many banks also seek increasing exposure and access to regions with attractive growth profiles, such as Asia and emerging markets, through local acquisitions or partnerships. Lastly, the increased focus on core capabilities or geographical footprints and the ongoing simplification of business models to reduce operational and compliance risks will result in further disposals of non-core businesses and assets.

#### **New competitors**

Our competitive environment is also evolving. In addition to our traditional competitors in the asset-gathering businesses, new entrants are targeting selected components of the value chain. However, we have not yet seen a fundamental unbundling of the value chain and client relationships, which might ultimately result in the disintermediation of banks by new competitors. Over the longer term, we believe the entry into the financial services industry of large platform companies could pose a significant competitive threat, given their strong client franchises and access to client data. Fintech firms are gaining momentum; however, they have not materially disrupted our asset-gathering businesses to date. We see a trend in forging partnerships between new entrants and incumbent banks, with the latter acquiring technology from fintech firms, thus gaining an edge over competitors in terms of technology, cost efficiency, and service quality.

#### Regulation

The post-2008 regulatory reform agenda has largely been completed. While some areas, such as funding in resolution, must still be fully addressed, and the implementation of certain standards, such as the finalized Basel III capital standard, is continuing on a national level, the focus is shifting from regulation to supervision. In parallel, some regulators are reviewing the efficiency of the new frameworks.

In general, regulatory-driven change continues to consume substantial resources. In 2020, we expect further consideration of adjustments to the Swiss too-big-to-fail framework, in particular focused on additional liquidity requirements for systemically important banks, and the national implementation of final Basel III rules. We expect continued work on resolution-related reforms, including stress testing, and a sustained focus on conduct and anti-money laundering. Furthermore, we are experiencing a surge in sustainability-related policy proposals targeted at various aspects of financial services across the globe. We also expect regulatory initiatives to address some of the more recent challenges that could affect financial stability, such as shadow banking and digital currencies.

Many of these developments are happening in the context of increased protectionism, posing challenges to the provision of cross-border financial services. Further restrictions with regard to market access into the EU in particular would have a significant effect on Switzerland as a financial center, affecting also UBS. Variations in how different countries implement rules, and an increasing national focus, bring a risk of additional regulatory fragmentation, which in turn may lead to higher costs for us and new financial stability risks.

However, we believe the adaptations made to our business model and our proactive management of regulatory change put us in a strong position to absorb upcoming changes to the regulatory environment.

→ Refer to the "Regulatory and legal developments" section of this report for more information

#### Wealth creation

In 2018, global wealth overall grew marginally, given a steep decline in equity market performance in the fourth quarter. This trend was partially reversed in 2019, as equity markets rallied. Today, half of global wealth is concentrated in the Americas, followed by Asia Pacific (with approximately 30%) and the remainder in Europe, the Middle East and Africa. 1 By segment, 2 approximately half of global wealth is with high net worth individuals, ultra high net worth individuals hold approximately 30% of global wealth, and the remaining approximately 20% is within the affluent segment. Over the next four years, global wealth is expected to grow by 5–10% annually.1 Regionally, wealth creation will likely be driven by Asia Pacific and North America. The share of the Americas is expected to remain stable over the next four years at approximately 50% of global wealth, while the share of Europe, the Middle East and Africa is expected to further reduce as Asia Pacific grows. In particular, China's share of global wealth is expected to grow to around 15% by 2023.

#### Wealth transfer

Demographic and socioeconomic developments continue to generate shifts in wealth. By 2030 for example, USD 15.4 trillion of global wealth is expected to be transferred by individuals with a net worth of USD 5 million or more, according to a 2019 report by Wealth-X.³ In addition, women now control more wealth than ever before: UBS's 2019 report titled "The billionaire effect — Billionaires insights 2019" found that the number of female billionaires had grown by 46% in five years, outpacing the growth of male billionaires. We are responding to the evolving wealth landscape with a framework that addresses all aspects of our clients' financial lives, called *UBS Wealth Way. UBS Wealth Way* begins with discovery questions and a

conversation with clients about what is most important to them. We help clients organize their financial life along three key strategies: *Liquidity* to help provide cash flow for short-term expenses; *Longevity* for long-term needs; and *Legacy* for needs that go beyond their own and help improve the lives of others, a key part of wealth transfer planning.

#### Shift into passive strategies

We note a continuing trend of separation between low-cost, passive strategies and high-alpha active and alternative strategies. Passive management is beneficial in an environment with rising stock markets, such as the equity bull markets of the last decade. At the same time, central banks' monetary policies have kept interest rates at historically low levels, which has had an effect on bond yields and other asset classes. Investors searching for longer-term higher alpha than passive strategies can provide have been diversifying their portfolios into real assets and alternatives and we expect this trend to continue. We believe the breadth of UBS Asset Management's investment expertise allows us to meet client demands across asset classes and strategies.

#### **Retirement funding**

Over recent years, the pension industry has faced two key challenges: fundamental demographic shifts, such as aging populations, and lower expected returns due to all-time low interest rates.

Beyond structural answers to these challenges, such as the progressive shift from defined benefit to defined contribution pensions, we believe pension funds are reassessing their asset allocation approach. Indeed, many pension funds are now allocating a higher share of their portfolios to alternative investments, such as private equity, hedge funds, real estate and infrastructure, in a search for higher-yielding exposures.

We see this development as positive for UBS, as these funds will likely need further support to define their investment strategy and target portfolio allocation. In addition, our private banking and wealth management clients are expected to need further financial and retirement planning advice, which we are able to provide holistically through our wealth planning services.

<sup>1</sup> Based on BCG Global Wealth Report 2019.

<sup>2</sup> The BCG Global Wealth Report 2019 defines wealth segmentation as follows: wealth of greater than USD 20 million to be classified as ultra high net worth individuals; USD 1–20 million for high net worth individuals; USD 0.25–1 million for affluent individuals.

# How we create value for our stakeholders

Stakeholder group	Stakeholder needs: what do our stakeholders expect from us?	Value proposition: how we create value for our stakeholders	Key topics discussed: what was important to our stakeholders in 2019	Stakeholder engagement: how did we engage with our stakeholders?
Clients	Advice on a broad range of products and services from trusted experts  The option of personal interaction with our advisors in combination with digital service anywhere, anytime (convenient digital banking)  Top quality solutions and the highest standards in terms of asset safety, data and information security, confidentiality and privacy  A combination of global reach and local service resulting in positive investment outcomes  Competitively priced products and services	Delivering tailored advice and customized solutions, using our intellectual capital and digital capabilities  Building long-term personalized relationships with our clients  Developing new products and services in response to clients' evolving needs in the digital age  Providing access to the world's capital markets and bespoke financing  Meeting increasing demand from clients for sustainable investments	Investment performance in light of current interest rate situation  Holistic goals-based financial planning  Sustainable finance and investing possibilities  Data privacy and security  Offerings for small enterprises in Personal & Corporate Banking	Individualized client meetings  Requests for regular client feedback, feedback monitoring and complaints handling  Specialized client events and conferences including information on key developments and opportunities  Client satisfaction surveys
Investors	Disciplined execution of our strategy leading to attractive capital returns through dividends and share repurchases  Comprehensive and clear disclosures on quantitative and qualitative data necessary to make an informed investment decision  Recognize and proactively address strategic opportunities and challenges	Executing our strategy with discipline and agility as the external environment evolves, while aiming to deliver costand capital-efficient growth  Providing transparent, timely and reliable public disclosures	Structural growth and return potential in our businesses  Cost efficiency and ability to generate positive operating leverage  Ability to protect or even grow revenues in a low-for-longer interest rate environment	Financial reports, investor and analyst conference calls, and/or webcasts, as well as media updates on our performance or other disclosures  General shareholder meetings  Investor and analyst meetings
Employees	A world-class employer providing an engaging and supportive workplace culture  Skill and career development opportunities and rewards for performance  An environment that provides a sense of belonging and of adding value to clients and to society	Attracting and developing great talent  Fostering a workplace culture that supports and engages our employees, enabling them to develop their careers and unlock their full potential	The three keys to a strong corporate culture  Our approach to hiring great people and supporting their growth  The importance of diversity and inclusion	Regular employee surveys  Group Franchise Awards program  Regular "Ask the CEO" events, along with senior leadership, regional and functional employee sessions
Society	Facilitation of economic development that is sustainable for the planet and humanity  Maximization of our positive effect and minimization of any negative effects on society and the environment  Proactive management of the environmental and societal impacts of our business	Promoting significant and lasting improvements in the well-being of communities in which we operate  Taking an active role in the transition of our economy toward environmentally and socially sustainable solutions	Sustainable finance Our climate strategy Our client and corporate philanthropy efforts	Dialogs with regulators and governments  Partnerships with social institutions  Community investments  Interaction with NGOs  Participation in forums and round tables, as well as industry-, sectorand topic-specific debates

### Clients

Our clients are the heart of our business. We are committed to building and sustaining long-term relationships based on mutual respect, trust and integrity. Understanding our clients' needs and expectations enables us to best serve their interests and to create value for them.

#### Our clients and what matters most to them

There is no archetypal UBS client. Our clients have varying needs, but each of them expects outstanding advice and service, a wide range of choices, and an excellent client experience.

Global Wealth Management is focused on serving the unique and sophisticated needs of high net worth and ultra high net worth individuals, families, and family offices around the world, as well as affluent clients in selected markets. We provide these clients with access to outstanding advice, service, and investment opportunities from around the globe, delivered by experts they can trust. Using a holistic, goals-based approach to financial planning, we deliver a personalized wealth management experience and work side-by-side with clients to help them realize their ambitions.

Our client-facing advisors and the global teams that support them are focused on developing long-term client relationships, which often span generations. Global Wealth Management clients look to us for our expertise in helping them to plan for, protect and grow their wealth, as well as helping them make some of the most important decisions in their lives. From significant liquidity events to professional milestones and personal turning points, we aim to give our clients the confidence to move forward and achieve their goals. Through extensive research into our clients' preferences and goals, as well as broader analysis of investor sentiment globally, we are constantly evolving our offerings to meet the shifting priorities of today's wealthy clients. This includes investing in digital capabilities and developing products that help clients fund their lifestyles and manage their cash flow, as well as offering guidance on how clients can create a lasting and positive impact for their communities and the causes about which they care the most. We have been recognized as the leading global wealth manager for clients interested in sustainable investing, with a commitment to developing solutions that allow clients to align their financial goals and their personal values.

→ Refer to "Our focus on ESG" in this section for examples of how sustainable finance solutions are used across our business divisions and for the benefit of our clients

Personal & Corporate Banking serves a total of approximately 2.6 million individuals and 128,000 firms. We provide services to companies ranging from start-ups to large multi-nationals, including specialized entities, such as pension funds and insurers, real estate companies, commodity traders, and

1 Euromoney Private Banking and Wealth Management Survey 2019: Global Results.

banks. Personal & Corporate Banking clients look for financial advice based on their needs at each stage of their individual or corporate journey. We aim to deliver outstanding advice to them via our client advisors and also through digital banking. Our clients demand convenience, 24/7 availability, security and value for money. We provide clients with access to a broad range of services and products offered in all relevant areas: basic banking, investing, financing (including mortgages), retirement planning, cash management, trade and export finance, global custody, and company succession, among others.

In Asset Management, we deliver investment products and services directly to approximately 3,000 clients around the world including sovereign institutions, central banks, supranational corporations, pension funds, insurers and charities – as well as to Global Wealth Management and its clients, wholesale intermediaries and financial institutions. Our clients seek global insights and a holistic approach to tailoring solutions. By building long-term, personalized relationships with our clients and partners, we aim to achieve a deep understanding of their needs and to earn their trust. We draw on the breadth and depth of our global investment capabilities - across traditional and alternative, active and passive categories - and provide seamless access to world-class platform services to deliver the solutions they need. We integrate sustainability into our financial analysis enabling us to help clients meet their sustainability objectives and their fiduciary duties.

The Investment Bank provides corporate, institutional and wealth management clients with expert advice, financial solutions, execution, and access to the world's capital markets. Our business model is specifically built around our clients and their needs. Corporate clients can access advisory services, debt and equity capital market solutions, and bespoke financing through our newly reshaped Global Banking business. Meanwhile, our Global Markets business is focused on helping institutional clients engage with local markets around the world, offering equities and equity-linked products, foreign exchange, rates and credit.

→ Refer to "Investment Bank" in the "Our businesses" section of this report for more information about the structural changes in the Investment Bank

Our advisory and content offering is underpinned by the research we provide. The differentiated nature of this research, combined with *UBS Evidence Lab Innovations*, which offers access to insight-ready data sets for thousands of companies, aims to give clients an informational edge when it comes to understanding markets. As a new offering for 2019, we have established the *UBS Research Academy*, where our fundamental analytics team provides training for institutional investors on all aspects of fundamental investing, leveraging the best of the *UBS Research* and *UBS Evidence Lab Innovations* platforms.

Our clients place the highest priority on the confidentiality and security of their data. The protection of our clients' data is of the utmost importance to us and we have comprehensive measures in place designed to ensure that data confidentiality and integrity are maintained. We are investing in our IT platform to preserve and improve our IT security standards, while enabling our clients to have secure access to their data via our digital channels. The volume, level of sophistication and impact of cyberattacks constantly increase, and we aim to maintain a robust and agile cybersecurity and information security program to manage cyber risk.

# Enhancing the client experience through innovation and digitalization

We strive to streamline and simplify interactions with our clients through front-to-back digitalization and innovations.

In Global Wealth Management, we develop and deploy digital tools that preserve and enhance the value of human relationships. Clients expect the convenience and speed that technology offers but, simultaneously, consider personal communication with our advisors to be more important than ever. Modern technology that our advisors use enables them to spend more time with clients. And our clients appreciate digital tools that improve their experience, such as easy ways to view their portfolios, access to research that is tailored to their needs, and multiple ways to communicate with their advisors. In 2019, we introduced a number of new tools to help deliver on those expectations. For example, our Asset Wizard platform provides ultra high net worth clients in the US with consolidated and sophisticated performance and risk analytics for their assets held at UBS and across multiple banks, portfolios, managers, and locations. Also, in Asia, we launched the UBS Advisor Messaging for WhatsApp, allowing for real-time conversations between clients and advisors, to create a better client experience. And we continue to make progress by executing our multi-year strategy to serve clients globally from two platforms: the Wealth Management Americas Platform in the US and the Wealth Management Platform outside the US. Our core investment solutions consist of: UBS Manage, a discretionary mandate solution where we use our expertise to invest clients' assets according to a predefined investment strategy; UBS Advice, which adds portfolio monitoring and investment recommendations based on an agreed investment strategy to self-directed accounts; and UBS Transact, a self-directed account providing clients access to UBS execution capabilities and the UBS House View. All our solutions draw on our broad range of investment instruments across stocks, bonds, currencies, structured products, investment funds and alternative investments.

Personal & Corporate Banking launched several initiatives in 2019. Effective 1 November 2019, we have established a new business area, Digital Platforms & Marketplaces, which reflects our commitment to engage in new digital business models. In addition to the mortgage platform UBS Atrium, which we launched in 2017 and is directed at corporate and institutional clients. UBS is set to introduce a mortgage platform for private clients in the first half of 2020. We launched new tools for our client advisors aimed at improving the in-branch advisory experience for clients, so that we are able to suggest the right products that match the clients' needs. Thanks to our new mortgage workflow, we have been able to reduce contracting time substantially, from 10–15 days for extensions to 24 hours. We also further simplified our digital banking platform (for both mobile and desktop) and added new services, in addition to expanding the number of possible payment transaction currencies to more than 120. Our clients can now pay in stores directly with their smartphones and a wide array of wearables via Mobile Pay and Swatch Pay. Furthermore, we have introduced the ability to pay parking fees via Twint, which has more than 1.5 million users in Switzerland. As of October 2019, our clients can access we.trade, a blockchain-based trade finance platform, which was the first such platform to be launched by a Swiss bank. Recognizing changing client needs and growing demand from start-up companies for a broader offering, we have launched *UBS Start Business*, which includes digital accounting, mentoring for business planning, and many other services in addition to the banking services UBS offers. The attractive offering aims to assist young entrepreneurs in every stage of their business's journey. Similarly, we bundle our digital offering for small companies in UBS Digital Business, which provides the convenience and leading digital solutions that small companies look for. We have also introduced our vendor leasing solution, an online tool that allows vendors to provide leasing proposals directly to their clients (based on online credit decisions) and to generate contracts. For corporate clients, we have made available the new UBS Payment Tracking service (SWIFT global payments innovation).

In Asset Management, we are investing in new tools and technologies, as well as our alternative data capabilities, to support our teams' investment decision-making processes and enhance client service. In addition, our operational excellence programs are focused on building a scalable and globally integrated operating platform to better enable our teams to deliver the full breadth of our capabilities to clients around the world

The Investment Bank strives to be the digital investment bank of the future, with innovation-led businesses that drive efficiencies and solutions. We set up the *UBS Investment Bank Innovation Lab* to help connect business teams in order to leverage best practice, build and test proofs of concept safely and quickly, and inspire a culture of innovation. We see increasing interest from clients in financial and alternative data sets that they can incorporate into their models. In response, we set up *UBS Data Solutions* to meet those needs through a centralized robust data processing and distribution platform.

We strive to develop new products and solutions that are consistent with our capital-efficient business model. These are typically related to new technologies or changing market standards. Examples include FX spot & STIR tree E-pricing, which provides client-tailored pricing streams and hedging optimization, and Technology Enabled Sales, which enables faster delivery and distribution of tailored content matched to our clients' interests. During 2019, we also launched the client portal of UBS Evidence Lab Innovations as part of the firm's strategy to expand our value proposition in the alternative data space, which relates to innovative ways to capture data critical for investment decisions. We also set up UBS Neo, our multichannel platform, and the One Client service model, which aims to drive superior client outcomes via collaboration, technology and data-driven client intelligence.

#### **Engaging with our clients**

Communication with our clients enables us to understand their needs and what matters most to them. We use a variety of channels to engage with clients, including regular client relationship / service meetings where we monitor feedback and satisfaction, as well as various corporate roadshows and dedicated events. We also engage with our clients while supporting cultural and sports events across Switzerland.

We conduct client events on a regular basis and on a wide array of topics. For example, in Personal & Corporate Banking, we have financing and retirement planning events, and a dedicated event for the CFO community. In the Investment Bank, we host around 350 conferences and educational seminars globally throughout the year, covering a broad range of macro, sector, regional and regulatory topics. More than 50,000 clients attended such events in 2019, providing insight and access to our own opinion leaders, policy makers and leading industry experts. In Global Wealth Management, we engage with clients in a range of ways, from personalized private briefings with subject matter experts, to segment-specific events, to large-scale gatherings such as UBS Wealth Insights, our flagship Pan-Asian investment forum series, which attracts more than 3,000 clients every year. In Asset Management, a consistent program of engagement takes place throughout the year. Thematic events, such as the UBS Reserve Management Seminar and the Sovereign Investment Circle, bring together institutional investors to debate relevant topics and share best

practices. Our experts also produce insightful thought leadership on markets and assets that is regularly shared with clients, as well as frequently meeting investors to answer questions, clarify the investment strategy or discuss issues that can affect markets.

#### How we measure client satisfaction

We utilize different measures to regularly assess our achievements and the satisfaction of our clients.

Global Wealth Management is increasingly leveraging technology and analytics software to collect client feedback. In 2019, we began introducing a digital feedback tool to supplement more traditional survey methods. The tool allows Global Wealth Management to survey clients about their satisfaction with their advisors and UBS, as well as to identify additional financial needs. Advisors are provided with real-time access to client feedback, enabling them to address concerns and to follow up on new topics of interest. The tool was piloted in selected markets in 2019 and is expected to be rolled out more broadly throughout 2020.

We conduct an annual client survey in Personal & Corporate Banking. We have been conducting client surveys in Switzerland since 2011, consistently covering all private and corporate client segments annually since 2015. Clients assess their satisfaction with regard to various topics (e.g., UBS overall, branches, client advisors, products, services) and indicate further product or advisory needs. Survey responses are distributed to client advisors, who subsequently follow up with each respondent individually. In 2019, we introduced a new machine learning model which enables us to identify the importance of internal factors (e.g., advisors, products, prices) and external factors (e.g., media impact, market development) with regard to overall satisfaction scores.

In Asset Management, we conduct regular surveys, inviting institutional and wholesale clients across all our markets to participate. They are asked about their satisfaction with client service, products and solutions, as well as other factors relevant to their investments. The results are analyzed to identify focus areas to improve client satisfaction.

For the Investment Bank, client satisfaction is closely monitored by individual product coverage points. Relationship managers then collate and review feedback holistically, conducting regular internal review sessions to address specific areas of feedback. The Investment Bank also closely monitors external surveys, such as the Global Institutional Investor Survey, which provides feedback across a range of investment banking services.

We thoroughly evaluate the feedback we receive, including complaints from clients, and take measures to address key themes identified. In 2019, clients specifically raised sustainable finance as a key priority, which provided confirmation that we are aligned with our clients' preferences in expanding our sustainable finance offering.

#### **Clients (additional information)**

#### Quality feedback management system

We have a Quality Feedback system within Global Wealth Management (GWM) and Personal & Corporate Banking (P&C), which provides a comprehensive and systematic platform to receive and process feedback and suggestions from both clients and employees. Feedback is received in a wide range of formats, including written, electronic, verbal (e.g., comments made to employees in our branches), through social media and via the Swiss Banking Ombudsman.

Client feedback, including complaints and suggestions, is of crucial importance, as it supports the development and introduction of new products and services as well as the adaptation of our offering in a client-oriented manner. By addressing client feedback, we strive to strengthen client relationships, improve client satisfaction and make a tangible improvement to client service and overall banking services. Having a wide variety of quality feedback from our clients enables us to systematically evaluate and review our actions. By sharing their views, clients contribute to quality improvements at all levels.

We strive to respond directly to each individual who provides feedback. On significant topics and key developments, we also provide a collective response in our external reporting. In 2019, key topics and enhancements included some targeted products and services that centered mostly around digital banking functionalities. These stemmed in particular from requests and improvement suggestions for existing and new features and queries regarding access and security.

Feedback from employees (i.e., quality tips and ideas) that is based on their knowledge and experience in improving and updating products, processes and services helps to foster creativity and innovation.

#### Suitability

Clients expect to be provided with products and services that are suitable for them. This is particularly the case in the divisions where we serve personal clients as opposed to institutions.

In nearly all of the countries where we do business, this expectation has been turned into a legal or regulatory requirement for banks acting as financial advisors. Most jurisdictions also require the systematic assessment and documentation of the suitability of products (including third-party products) and services, including compliance with applicable eligibility criteria and sales restrictions. These standards are reflected in local policies and procedures as well as in the respective local control framework. The European Union's Markets in Financial Instruments Directive (MiFID) and the Swiss Financial Services Act (FinSA) are examples of our reflection and implementation of specific standards required by regulators as part of a local control framework. Other locations apply similar standards as required by the relevant local regulators.

To meet both client expectations and regulatory requirements, we have established comprehensive rules for assessing the suitability of products and services. These rules are designed to align the assets in a customer's portfolio with their

defined risk profile, and the customer is advised in line with his or her needs (i.e., client suitability). In addition, the rules require product documentation to contain appropriate and easily understandable information on its features, target audience and the scenarios in which the product can be used, as well as a balanced representation of the associated opportunities and risks (i.e., product suitability).

#### Suitability framework

In the GWM and P&C divisions, a comprehensive suitability policy framework is in place. This sets out the structured advisory process governing the way we advise and implement agreed solutions and also document the steps taken during this process. In addition to other purposes, it comprises requirements for monitoring and controlling activities that aim to capture tail risks. A revised version of this policy entered into force on 1 January 2018. The Investment Bank (IB) and Asset Management (AM) take their guidance from UBS's suitability principles and have implemented processes to ensure appropriate oversight of suitability requirements where applicable.

In this framework, we distinguish between client and product suitability. Client suitability refers to the alignment between the investor profile of the client and the products and services that are recommended or made available to the client (or already held in his or her portfolio), including risk information and disclosure. Product suitability refers to a consistent set of standards applied by a product management unit to define for which specific investors a product may be suitable.

#### Client suitability

GWM and P&C have established a structured advisory process with four distinct steps – understand, propose, agree and implement, and review. This process is supported by a number of forms and tools that are available to client advisors. In the first step (understand), these forms and tools support the initial identification of a client's investor profile, including but not limited to investment objectives and risk ability. In the second step (propose), they serve to help client advisors identify an appropriate investment strategy for a specific client portfolio. Furthermore, a number of tools and platforms have been established to help client advisors match a client's investment strategies with appropriate investment proposals and to support the review step. The IB and AM have established cross-functional governance committees to ensure oversight for client suitability where specific criteria or triggers are met.

#### **Product suitability**

Advisory platforms and tools divide products according to their risk characteristics and in doing so help clients and client advisors to properly assess the impact of investment products and services on a client's portfolio. Additional processes are in place to make product documentation available to both client advisors and clients. Finally, specific legal documentation is required for certain products with specific risks (e.g., hedge funds).

#### Divisional approach to suitability

Primary ownership of suitability risk and the responsibility for addressing it is owned by the business. The suitability policies applicable to GWM, P&C, IB and AM make this clear. Accordingly, we have pursued a divisional approach to ensure compliance with rapidly changing regulatory regimes, while also addressing particular suitability obligations and remediation of identified gaps relating to the divisions.

#### Monitoring and controls

Monitoring and controls for suitability follow a three-tiered approach. The first-level controls are conducted by the business risk management team under its Origination Control Framework, a set of controls designed to prevent and detect operational risks that arise within the front unit and to ensure that residual risk corresponds to risk appetite. The second-level controls are performed by Compliance & Operational Risk Control as Global Minimum Control Standards, which are part of the overall Operational Risk Framework. These controls focus on both a check-the-checker approach, and thematic, deep dive reviews. The third-level controls are exercised by Group Internal Audit, as part of its annual audit plan.

#### After-sales communications

The UBS client experience also includes after-sales communication. Again, this communication is, supported by a number of tools and platforms, including ready-to-use reporting and presentation material.

#### Accessibility

We ensure that our facilities and services are accessible to everyone regardless of disability, capability or technology. We are continuously optimizing our websites as well as our e-banking and mobile banking platforms to fit the requirements for an AA rating for accessibility (i.e., WCAG 2.0). All cash machines have access key buttons and PIN keypads that are equipped for the visually impaired. Additionally, all ATMs are enabled with voice output through clients' headphones, covering all functions including cash deposits. Around 100 ATMs are positioned especially for people with restricted mobility. All 40 of our free-standing cash machines correspond to recommendations made by the Americans with Disabilities Act Accessibility Guidelines (ADAAG).

### Our focus on ESG

Our firm is in a powerful position to contribute toward achieving the 17 United Nations (UN) Sustainable Development Goals (the SDGs) by integrating sustainability in our mainstream offerings, through new and innovative financial products with a positive effect on the environment and society, and by advising our clients on their philanthropic works. Our goal is to be the financial provider of choice for clients who wish to mobilize capital toward the achievement of the SDGs and the orderly transition to a low-carbon economy. We are shaping the landscape of sustainable finance by using thought leadership, innovation and partnerships to support clients in their sustainability efforts.

Our clients are increasingly interested in sustainable finance, including sustainable investing (SI), which is especially attractive if it can reduce risk or improve returns. More than 80% of wealthy individuals are interested in sustainable investing and 45% already hold sustainable investments. With regard to asset owners across the globe, 78% are integrating environmental, social and governance (ESG) factors into their investment process. Switzerland, for example, saw an 87% asset growth in institutional sustainable investments in 2018 (compared with 2017), and the early indicators are that this growth continued throughout 2019.

#### Our key public commitments to sustainable finance

In 2019, we became a founding signatory of the UN Principles for Responsible Banking (the Principles). The Principles constitute a comprehensive framework for the integration of sustainability across banks. They define accountabilities and require each bank to set, publish and work toward ambitious targets.

Before signing up to the Principles, UBS had already been strongly committed both to maximizing positive effects through our sustainable business activities and to minimizing negative impacts. While our firm's growing range of sustainable finance products and services supports the former, our environmental and social risk framework helps us to better understand and respond to potential risks to the environment and human rights.

Our Asset Management business division is among the signatories of the PRI (the Principles for Responsible Investment). The PRI organization supports the signatories in incorporating ESG factors into their investment and ownership decisions. In 2019, UBS also became one of the inaugural members of the CEO Alliance on Global Investors for Sustainable Development, which is committed to scaling up and speeding up efforts to align business with the SDGs. The Alliance is aimed at harnessing the insights of private sector leaders on ways to remove impediments and

introduce solutions for scaling long-term investment for sustainable development in line with the SDGs.

Since 2017, we have presented white papers to the World Economic Forum (the WEF) putting forward recommendations for ways in which private capital can achieve the SDGs, while also outlining our own actions and pledges in that regard. For the WEF annual meeting in 2020, our white paper focused on climate action and the ways in which investors can mobilize private and institutional capital toward the orderly transition to a low-carbon economy. In response, UBS has developed a Climate Aware framework.

We actively support the development of industry standards. In 2019, we contributed to the writing of and signed the International Finance Corporation's Operating Principles for Impact Management. These Impact Principles provide a standard for impact investing, in which investors seek to generate positive impact for society alongside financial returns. We also contributed to a report by the Sustainable Finance Working Group of the Institute of International Finance on sustainable investment terminology.

→ Refer to the Sustainability Report 2019, available from 5 March 2020 under "Annual reporting" at www.ubs.com/investors, for our key documents, frameworks and external commitments, and for our climate disclosure following the recommendations of the Task Force on Climate-related Financial Disclosures

#### What is our governance on ESG?

Our governance framework on sustainability supports the creation of long-term value. Our firm's sustainability activities, including sustainable finance, are overseen at the highest level of our firm and are founded in our Code of Conduct and Ethics.

→ Refer to the Sustainability Report 2019, available from 5 March 2020 under "Annual reporting" at www.ubs.com/investors, for the sustainability governance chart

We regularly review whether our governance framework continues to reflect our ambitions with regard to sustainability. In 2019, we therefore decided to further sharpen our focus on sustainable finance and we are now establishing a Sustainable Finance Steering Committee. It will be comprised of senior business leaders engaged in our firm's sustainable finance efforts, who will work together to ensure that we continue to drive innovation and develop expertise and thought leadership regarding sustainable finance. The Chair of the Sustainable Finance Steering Committee is a member of the UBS in society Steering Committee.

<sup>1</sup> UBS Investor Watch on the Year Ahead, November 2019.

<sup>2</sup> UBS Asset Management and Responsible Investor magazine, ESG: Do You or Don't You?, June 2019. 3 Swiss Sustainable Investment Market Study 2019, June 2019.

#### How do we define sustainable finance?

Sustainable finance refers to any form of financial service that integrates ESG criteria into business or investment decisions. We provide sustainable finance solutions across all our business divisions and to all our client groups (as shown in the "Key achievements in 2019" chart on the next page), with a particular focus on sustainable investing.

Sustainable investing is an approach that seeks to incorporate ESG considerations into investment decisions. SI strategies seek to achieve a positive environmental or social impact and/or align investments with an investor's values regarding ESG topics, while aiming to improve portfolio risk and return characteristics. In the main, we identify three approaches of sustainable investing: exclusion (individual companies or entire industries are

excluded from portfolios if their areas of activity conflict with an investor's values); ESG integration (which combines ESG factors with traditional financial considerations); and impact investing (which is designed specifically to help generate a positive social or environmental impact alongside financial returns).

We were among the early movers in developing terminology to describe our sustainable investing activities and to consistently report on them. We are, however, conscious of the need to simplify and standardize the terminology for sustainable finance, which will help to develop and expand that market. We are therefore actively involved in the relevant discussions and are committed to reflecting pertinent changes to terminology in our reporting.

#### Core sustainable investments<sup>1</sup>

		For	the year ended		% change from	
USD billion, except where indicated	GRI <sup>2</sup>	31.12.19	31.12.18	31.12.17	31.12.18	
Core SI products and mandates						
Integration – sustainability focus <sup>3</sup>	FS11	46.4	20.0	12.8	132.4	
Integration — ESG integration <sup>4</sup>	FS11	372.3	224.5	63.2	65.9	
Impact investing <sup>5</sup>	FS11	9.1	4.7	2.8	92.1	
Exclusions <sup>6</sup>	FS11	52.2	50.3	93.0	3.7	
Third-party <sup>7</sup>	FS11	8.5	13.4	9.8	(37.0)	
Total core sustainable investments	FS11	488.5	312.9	181.7	56.1	
UBS total invested assets		3,607.0	3,101.0	3,262.0	16.3	
Core SI proportion of total invested assets (%)	FS11	13.5	10.1	5.6		

1 All figures are based on information available in January 2020. 2 FS stands for the performance indicators defined in the Financial Services Sector Supplement of the Global Reporting Initiative reporting framework. 3 Strategies where sustainability is an explicit part of the investment guidelines, universe, selection, and/or investment process. 4 Strategies that integrate environmental, social, and governance (ESG) factors into fundamental financial analysis to improve risk / return. 5 Strategies where the intention is to generate measurable environmental and social impact alongside financial return. 6 Strategies that exclude companies from portfolios where they are not aligned to an investor's values. Includes customized screening services (single or multiple exclusion criteria). 7 SI products from third-party providers applying a strict and diligent asset selection process; the selection criteria have been reviewed for the end of 2019 reporting cycle, following a stricter approach from the provider of sustainability ratings. Excludes third-party products that went through a systematic GWM onboarding process, now counted under "Integration – sustainability focus."

#### What do we offer?

We support clients' sustainability efforts through thought leadership, innovation and partnerships, and we strive to incorporate ESG factors into the products and services we provide. We support corporate and institutional clients who want to generate positive environmental and societal impact using our corporate advisory expertise or by directing capital through our lending or investment capacity. We assist private and institutional clients with their desire to invest in accordance with their own social and environmental objectives, and we are proactive in discussing these issues with them.

Through our Philanthropy Services platform, we are partnering with clients to manage their philanthropy and maximize their impact, by offering expert advice, carefully selected programs from UBS Optimus Foundation, and innovative social financing mechanisms, such as development impact bonds.

In 2019, we noted strong momentum in our sustainable finance activities. A key indicator is the development of our core SI assets, where we managed to more than double penetration, from 5.6% of total invested assets in 2017 to 13.5% (USD 488 billion) in 2019 (2018: 10.1% or USD 313 billion). Core sustainable investments are SI products that involve a strict and diligent asset selection process through either exclusions (of companies / sectors from portfolios where the companies / sectors are not aligned to an investor's values) or positive selections (such as best-in-class, thematic or ESG integration and impact investing).

Norms-based screening assets, i.e., assets that fall under the application of a UBS policy<sup>1</sup> and do not otherwise qualify as a core sustainable investment, amounted to USD 818 billion as of 31 December 2019 (up from USD 797 billion in 2018). Total sustainable investments, including norms-based screening assets, accounted for USD 1,306 billion (2018: USD 1,110 billion), or 36.2% (2018: 35.8%), of our total invested assets.

1 The assets in discretionary mandates, in UBS's actively managed retail and institutional funds, as well as in our firm's proprietary trading book, are subject to our firm's policy on the prohibition of investment in and indirect financing of companies involved in the development, production or purchase of anti-personnel mines and cluster munitions.



#### Group

We are committed to maximizing positive effects and to minimizing negative impact that we have on society and the environment.

- UBS Optimus Foundation: an award-winning grant-making foundation that helps our clients use their wealth to drive positive and sustainable social change for children.
- Environmental and social risk management: we engage with clients and suppliers to better understand their processes and policies, and to explore how any environmental and social risks may be mitigated.

#### Global Wealth Management

We are a leader in sustainable investing (SI), with a global footprint and a network of resources to deliver a wide range of research, advisory and product capabilities that continue to grow.

- USD 3.9 billion raised toward commitment to direct at least USD 5 billion of client assets in SDG-related impact investments by 2021.
- Launch of the SDG Engagement High Yield Credit funds.

9.4

invested in 100% SI solutions and bespoke SI solutions.



In 2019, UBS Optimus Foundation raised USD 89.5 million in donations, approved USD 109.5 million in grants and helped improve the well-being of 3.3 million children worldwide.

#### Personal & Corporate Banking

We have been building sustainable finance offerings for all client segments.

- Retail clients: access to 100% sustainable investment solutions.
- Corporate clients: USD 200 million raised in the first green bond for a Swiss-listed energy and infrastructure company.
- Institutional clients: advice on SI integrated into strategic dialog with clients.

2 core SI products

were launched for our retail clients.



#### Investment Bank

We are focused on meeting the needs of our clients with regard to ESG and sustainable finance, and helping reshape business models and investment opportunities.

- Dedicated thought-leading ESG research team in its 15th year.
- Introduced the UBS ESG icon in our research reports in 2019, flagging ESG content in 32 reports.
- UBS ESG and Sustainability Symposium in London with over 40 speakers; relevant ESG content incorporated at key client conferences.
- Sustainability-driven investment solutions: launch of ESG Global Equity Premia.

#### Asset Management

We have established an industry-leading SI platform offering a wide range of SI strategies across various asset classes, integrating sustainability and impact into all our mainstream offerings.

- Invested assets in the categories "impact investing" and "sustainability focus" increased 14-fold since beginning of 2016 to USD 38.6 billion.
- ESG integration across all traditional asset classes, at USD 323.1 billion.

3.1 USD billion

Climate Aware strategy, a pioneering approach to integrate the 2°C climate change scenario into an investment solution, at USD 3.1 billion invested assets.

25 green and sustainable bonds

Support for companies driving positive impact: 25 high-profile issuances of green and sustainable bonds.



1 Euromoney Private Banking and Wealth Management Survey 2019: Global Results.

### Investors

We generate long-term value for our investors by executing our strategy with discipline, striving for cost- and capital-efficient growth, long-term sustainable value creation, and attractive shareholder returns.

#### **Investor base**

Our investor base is well diversified. A substantial proportion of our institutional shareholders are based in the US, the UK and Switzerland.

→ Refer to the "Corporate governance" section of this report for more information about disclosed shareholdings

#### Cost- and capital-efficient revenue growth

We aim to drive higher and superior returns by growing and leveraging our unique, integrated and complementary business portfolio and geographic footprint. Our Global Wealth Management business is well positioned to take advantage of two secular trends: wealth transfer and wealth creation, partly driven by continued economic growth, particularly in Asia, where China is opening its financial markets. Each of our businesses has initiatives to achieve revenue growth and improve operating efficiency.

→ Refer to "Industry trends" in the "Our environment" section of this report for more information about wealth creation and wealth transfer

We aim to balance growth opportunities with cost and capital efficiency in order to drive attractive risk-adjusted returns and sustainable performance.

Our primary measurement of performance for the Group is return on common equity tier 1 capital (CET1), as regulatory capital is our binding constraint and drives our ability to return capital to shareholders.

→ Refer to the "Performance targets and measurement" section of this report for more information

Shareholder returns

We aim to increase our ordinary dividend per share by USD 0.01 each year, and to return excess capital through share repurchases. We consider business conditions and any idiosyncratic developments when determining excess capital available for share repurchases.

#### **Alignment of interests**

We aim to align the interests of our employees with those of our equity and debt investors. This is reflected in our compensation philosophy and practices.

→ Refer to "Our compensation philosophy" in the "Compensation" section of this report for more information

#### **Communications**

Our Investor Relations function serves as the primary point of contact between UBS and all shareholders. Our senior management and the Investor Relations team regularly interact with the institutional investors community, financial analysts and other market participants, such as credit rating agencies. Clear, transparent and relevant disclosures, together with regular and direct interactions with existing and prospective shareholders, form the basis for our communications. The Investor Relations team also relays the views of and feedback from institutional investors and other market participants on UBS to our senior management.

Investor Relations and Corporate Responsibility work together and interact with those investors focusing on sustainability topics relevant to UBS and society at large.

- → Refer to "Corporate governance" and "Information policy" in the "Corporate governance" section of this report for more information
- → Refer to "Society" in this section for more information about our sustainability efforts

#### **Shareholders and investors (additional information)**

Engagement with environmental, social and governance (ESG) rating and research agencies

We actively engage in dialogue with analysts at rating and research agencies. The assessment of specialized agencies helps to evaluate our sustainability performance and activities, and provides a useful means for benchmarking.

In 2019, we provided detailed information on our sustainability performance to a range of agencies, either in response to questionnaires or via meetings or calls (with ESG analysts). Our Sustainability Report regularly serves as a key source of information for these agencies.

# **Employees**

Our employees drive our success. Our employees work in 50 countries, are citizens of 136 nations and speak more than 150 languages. Their skills, experience and commitment enable us to deliver innovative solutions for our clients, foster sustainable business success, protect our reputation and drive the firm forward. As an employer, we attract, develop and retain a diverse range of talent and aim to ensure there is a workplace culture that supports and engages our employees, enabling them to build their careers and unlock their full potential.

# Our workforce at a glance<sup>1</sup>



68,601

employees (by FTE)2

69,966 employees (by headcount)







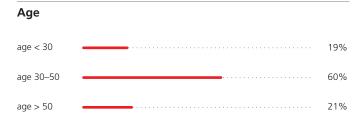
136
nationalities
(by citizenship)



150+
languages spoken



years of service on average



#### Region









<sup>1</sup> Calculated as of 31 December 2019 on a headcount basis of 69,966 internal employees only. 2 Personnel (full-time equivalents) as of 31 December 2019 has been amended compared with our fourth quarter 2019 report, resulting in a decrease of 61.

#### The keys to a strong corporate culture

Our three keys to success remain the foundation of our strategy and culture. Together, they define what we stand for as a firm and as individuals, and they drive our business strategy. We set out on our cultural transformation in 2011, defining and then embedding our *Pillars, Principles and Behaviors* into our core people management processes. We conduct regular employee surveys to obtain feedback and ensure continuous improvement, discussing the findings and further actions with our employees. In 2019, responses indicated that employee engagement, appreciation for our talent management practices, and pride in working at UBS were all above the norm for financial services organizations.

# → Refer to the foldout pages of this report for more information about our Pillars, Principles and Behaviors

Engaging and enabling employees, instilling a strong risk culture and promoting sustainability were culture-building priorities in 2019. In this respect, our *Group Franchise Awards* program provided foundational support. This Group-wide initiative rewards employees for cross-divisional collaboration and operational effectiveness improvements.

We are convinced that leadership drives culture, and culture drives performance. Great leaders are the key to developing our people, client relationships and results. For many years, our House View on Leadership has outlined what effective leadership is at UBS, as well as what employees can expect. To help leaders better adapt to continuous change and digitalization, we updated our House View in 2019 and integrated its precepts into all of our core HR processes, including recruitment, performance evaluations, training, succession planning and promotions. Characteristics such as innovation, curiosity and agility complement our long-standing emphasis on inclusivity, sustainable profits, accountability, crossfirm partnership and putting clients first. It is an evolution of how we view leadership that creates an extraordinary experience for our clients and our people.

#### Hiring, developing and retaining talent

We are widely recognized as an employer of choice and a great place to build a career. Key to our success is our long-standing commitment to investing in our employees at every career stage. It starts with recruitment, where our philosophy is to hire for potential, considering the individual's experience and competencies, learning capabilities and agility, as well as digital and data savviness. We hired a total of 10,080 external candidates in 2019. Our junior talent programs hired more than 1,700 graduate and other trainees, interns and apprentices. We also continued our insourcing and hiring activities in our Business Solutions Centers in China, India, Poland, Switzerland and the US as part of our integrated workforce strategy.

Our in-house *UBS University* further updated its curriculum in 2019 to emphasize future-skills development and personal growth for all employees, with a new digital skills curriculum that builds knowledge about topics such as blockchain, cloud computing, robotics and artificial intelligence. We also launched a mobile learning app to enable employees to learn whenever and wherever they want. We revamped our leadership development offering in 2019 to ensure that our leaders have the skills they need to develop their businesses and their people, and to lead effectively in the digital transformation age. In 2019, our permanent employees completed more than 1,100,000 learning activities, including mandatory training on compliance, business and other topics. This averaged to more than two training days per employee.

Along with line manager effectiveness, having a wide range of learning and career development opportunities, as well as tools to facilitate professional growth, are key drivers of employee engagement. In this respect, our new *Career Navigator* tool, which was launched in June 2019, has been a game-changer. This online platform enables employees to explore career paths and search for open roles that match their interests while allowing our recruiters to find internal talent more easily. It also identifies skill gaps with regard to new roles and interests and directly links to learning opportunities to help fill these gaps.

We are committed to ensuring a workplace where employees are fairly treated, with equal opportunities for all. We do not tolerate harassment of any kind. Our global measures include employee and line manager training, specialist expertise in handling concerns raised, and a global employee hotline. A Harassment Guardian provides an independent view of the firm's setup, procedures and behaviors to prevent harassment and sexual misconduct.

We pay for performance, and a strong commitment to pay equity is embedded into our compensation policies. We conduct regular internal, as well as independent external, reviews, with the aim of ensuring that all employees are paid fairly, and we seek to address any unexplained gaps.

→ Refer to www.ubs.com/employerawards,
www.ubs.com/careers and the "Compensation" section of this
report for more information

#### Personnel by region

		As of		% change from
Full-time equivalents	31.12.19	31.12.18	31.12.17	31.12.18
Americas	21,036	21,309	20,770	(1)
of which: USA	20,232	20,495	19,944	(1)
Asia Pacific	13,956	12,119	8,959	15
Europe, Middle East and Africa (excluding Switzerland)	12,918	12,620	11,097	2
of which: UK	<i>5,704</i>	5,782	5,274	(1)
of which: rest of Europe (excluding Switzerland)	7,048	6,670	5,662	6
of which: Middle East and Africa	166	168	161	(1)
Switzerland	20,691	20,840	20,427	(1)
Total <sup>1</sup>	68,601	66,888	61,253	3

<sup>1</sup> The increase in workforce in 2019 and 2018 was mainly due to insourcing initiatives and was more than offset by a decrease in external staff.

#### The importance of diversity and inclusion

A widely diverse workforce that reflects the experience of our global clients is important for our long-term success. We therefore strive to shape a diverse and inclusive culture across the firm to drive sustainable growth and innovation, deliver the best of UBS to our clients, and build a better place to work for all employees.

Our broad view of diversity encompasses a range of aspects, including gender, ethnicity, LGBTQ, disability, mental health and inclusive leadership. We remain committed to narrowing our gender representation gap, especially at the management level, through a global gender diversity strategy and a wide range of supporting initiatives to hire, promote and retain more women at all levels of the organization. We continue to make progress toward our stated aspiration of increasing the representation of women in management roles to one-third. In 2019, 25.2% of all employees in roles at Director level and above were women, up from 24.7% in 2018.

Our *UBS Career Comeback* program, which was launched in 2016, continues to help us increase our pipeline of female senior leaders. Professionals looking to return to corporate jobs after a career break are hired for permanent roles and supported with specialized onboarding, coaching and mentoring. In 2019, *Career Comeback* expanded beyond its four established hubs in the US, UK, Switzerland and India to become a global, year-round program. To date, *Career Comeback* has helped 142 women and 8 men relaunch their careers.

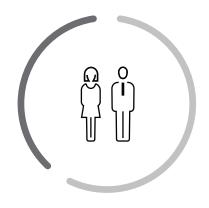
→ Refer to www.ubs.com/diversity for additional information about our priorities and commitments, and the Sustainability Report 2019, available from 5 March 2020 under "Annual reporting" at www.ubs.com/investors for our management practices and detailed employee data, including gender- and region-specific data

### More about our workforce<sup>1</sup>

39% women 27,136

61%

42,830



Switzerland		Americas	
7,905	13,558	8,154	13,134
APAC		EMEA	
5,824	8,131	5,253	8,007

<sup>1</sup> Calculated as of 31 December 2019 on a headcount basis of 69,966 internal employees only.

#### **Employees (additional information)**

#### Engaging with our employees

Our employees are key to meeting our clients' needs and our long-term business success. We therefore invest in our employees by providing them with diverse learning opportunities, fostering internal mobility and creating a rewarding work environment. Having regular dialogue with employees helps ensure that we understand their needs.

Our senior leaders regularly update employees on our business strategy, priorities and policies, as well as people management topics such as goal setting, compensation, training, internal mobility, career development, new technologies, and risk and compliance topics. We use a variety of communication channels and events to ensure our employees are aligned with our corporate culture and the firm's three keys - the Pillars, Principles and Behaviors. We promote collaboration and efficiency efforts such as our Group Franchise Awards program, gender representation initiatives like UBS Career Comeback, and we have an ongoing focus on culturebuilding topics like inclusive leadership. We also support the global philanthropic projects managed by the UBS Optimus Foundation. On a regional and divisional basis, we celebrate and support involvement in our community engagement and employee volunteering activities. We interact with employees through a number of news and information channels such as our intranet, UBS Connections (our internal social network), UBS TV and a number of other interactive help and information sites.

Direct communication with employees also takes place through individual and team meetings, emails, all-staff sessions and the firm's Quality Feedback system (see page 29). In 2019, employees in all businesses and regions attended numerous town halls and small group meetings to discuss relevant issues directly with senior management. For example, regular "Ask the CEO" events allowed all employees globally to learn about (and ask questions on) topics such as the firm's strategy and direction. These events are attended in person by local employees and broadcast live (and via replay) on UBS TV. Additionally, an "Ask the GEB" event was held in New York in December 2019.

We want our employees to be engaged and share their views and have ample opportunities to influence the firm's future. We therefore regularly survey all our permanent employees to capture feedback on how we are doing as a firm, and we use that feedback to improve as an organization. As such, in 2019, all employees were asked to participate in a global survey, and 83% did. We particularly wanted to know whether our firm's

principles and behaviors are being lived up to, how effective our line managers are and whether we are providing a positive and empowering work environment. This year, 78% of participating employees indicated high levels of engagement, 79% agreed that their line manager(s) are effective, and 81% recognized our positive work environment. All of these results are above the financial services industry norm.

Employees were informed of the Group-wide survey results, as well as divisional, regional and business area results, as applicable. Each year's data is analyzed and leveraged in future culture-building initiatives, as it is our ongoing ambition to have a highly motivated workforce that models integrity, collaboration and challenge in its daily work. We strive to be the clear employer of choice in the financial services industry and maintain overall engagement ratings in the top quartile; both ambitions have been achieved in 2019.

Our employee networks, which are sponsored by business leaders, are foundational to strengthening our culture. They help employees build cross-business relationships and support an open and inclusive workplace. In 2019, we sponsored 43 employee networks globally, including ones focused on topics around culture, gender, ethnicity, family, mental health, Pride / LGBTQ, disability and veterans. Of particular note, our disability-focused networks in the US, UK, Switzerland and Asia Pacific raise awareness of visible and invisible disabilities in the workplace, as well as our management's active support for hiring, developing and retaining employees with disabilities across the firm. Our women's networks in locations around the globe promote personal and professional development through networking, mentoring and education.

#### Employee representation

As a responsible employer, we maintain an open discourse with our formal employee representation groups. We have two pan-European forums – the UBS Employee Forum (which is our European Works Council) and the UBS Europe SE Works Council. These groups represent 17 countries and consider issues that may affect our performance, operations or prospects. Local and regional work councils, like the Employee Representation Committee in Switzerland, discuss topics such as business transfers, pensions, workplace conditions, health and safety, and redundancies. Collectively, these groups represent approximately 49% of our global workforce.

→ Find out more about topics of interest to employees and potential employees at www.ubs.com/employees or www.ubs.com/careers

#### Managing our global workforce

Our employees' skills, experience and commitment are key to delivering on our business strategy. Our human resources strategy therefore seeks to attract, develop and retain employees who have the diverse backgrounds and capabilities to advise our clients, develop new products, manage risk and adapt to evolving business trends and regulations. We invest in our employees, for example, through a comprehensive learning platform and career development programs, and we promote initiatives to build engagement and a cohesive, collaborative culture.

Further increasing the diversity of our workforce and ensuring an inclusive workplace is vital to our business success. In our experience, diverse teams better understand and relate to our equally diverse clients' needs. Likewise, diversity of thought, opinion and experience helps us make better decisions and drives innovation, while an inclusive work environment attracts high-quality people and makes the firm a better place to work. Our human resources policies and procedures underscore our commitment to a diverse and inclusive workplace, with equal opportunities for all employees and a strong commitment to equal pay that is embedded in all our management processes.

We offer competitive benefits to all employees, including insurance, pension, retirement and personal leave, aligned with local market practices and focused on employee wellbeing. These benefits often go beyond legal requirements or market practice, and we regularly review them to ensure they meet our employees' needs. When it comes to mental wellbeing we enable employees to build their careers while managing personal commitments. A wide range of resources are available to help employees navigate work-life issues and personal challenges. We support flexible working arrangements including telecommuting, working from home, part-time roles, job sharing and partial retirement.

Our Employee Assistance Programs offer support and counseling for challenges such as illness, conflict, bereavement, psychological health and elderly care. In the UK, for instance, we promoted World Mental Health Day in October with the launch of Mental Health Champions, made up of UBS volunteers accredited with specialist training by Mental Health First Aid England. While these volunteers are not therapists or counselors, they are trained to listen, reassure and respond in addition to

being a point of contact for any UBS employee who may be experiencing a mental health issue or any type of emotional distress. We have also added a variety of new learning opportunities focused on health and wellbeing to our UBS University offering.

At UBS, all new parents can take paid time off after the birth or adoption of a child. Our parental leave policies meet the legal standards in all locations and exceed them in most. For example, in the US, our gender-neutral Child Care Leave policy enables the primary caregiver to take up to 20 weeks of paid leave during the period immediately following the birth, adoption or foster care placement of the employee's (or partner's) child. In Switzerland, new fathers can take up to 10 days of paid paternity leave within the first year. In addition, they can either take up to 30 calendar days of unpaid leave or reduce their level of employment to 80% for up to six months.

In the US, just as we help our clients, our goal is to also help our employees make informed decisions so they can feel confident about their financial situation. That is why we have partnered with UBS Financial Wellness and from January 2020, employees will have access to educational content, digital tools and licensed Financial Wellness Advisors who can assist and guide them on their unique financial journey. UBS Financial Wellness strives to deliver education on a myriad of topics including budgeting, savings, debt management, insurance protection, big purchases, life changes, retirement planning, investing basics, estate planning and more.

We offer redeployment and outplacement initiatives to help employees find new roles, and we have clear policies and processes for handling redundancies. As an example, when job losses occur in the Swiss labor market due to restructuring, we offer affected employees access to our COACH process. This process supports employees in finding a new position internally or externally.

Our Code of Conduct and Ethics is the basis for all human resource policies, guidelines and procedures. It includes a commitment to the health and safety of employees and external staff

- → Refer to the Health and Safety statement in the Appendix 1 for more information
- → Refer to the UBS in society constitutional document in the Appendix 1 for more information

#### Our 2019 workforce at a glance<sup>1</sup>

We report in depth on our global workforce to give stakeholders a clear picture of our management philosophy and priorities. Our reporting covers key statistics relevant to full- and part-time employees, as well as relevant data about external staff. Both groups rely on us to provide a safe, respectful and collaborative workplace.

As of 31 December 2019, we had 68,601 employees (full-time equivalents / FTEs), 1,713 FTEs more than in 2018. This included Swiss apprentices on three-year limited contracts who received benefits equivalent to permanent employees.

A total of 16,408 external staff for core business services were active at the end of 2019, primarily in technology and operations roles. This included 2,215 FTEs employed through third parties on short-term contracts to fill positions on an interim basis. Additionally, a total of 11,647 external staff for non-core business services were active at the end of 2019, primarily in premises-related roles.

Also of note:

Our workforce in 2019 was 39% female and 61% male;
 25% of senior managers who reported to GEB members were female.

- Switzerland was our largest cross-border importer of employees from other countries; China was our largest crossborder exporter of employees.
- 1,125 employees changed business divisions in 2019; 499 changed regions.
- Employees are asked to record their absences due to illness or accident in our self-service human resources tool. In 2019, our global workforce recorded an absentee rate of 1.7% of total scheduled days.

#### Our workforce by the numbers

To give the most accurate view of our global workforce, human resources reporting considers a person (working full time or part time) as one headcount. This accounts for the total UBS employee number of 69,966 as of 31 December 2019 (versus 68,338 as of 31 December 2018). These numbers exclude staff from UBS Card Center, Hotel Seepark Thun and Wolfsberg. The following tables are all reported on this basis, unless otherwise specified. The percentages in the tables may not total 100 due to rounding.

1 All data was calculated on/as of 31 December 2019, unless otherwise noted.

#### UBS employees: full-time and part-time employees

#### Employees: full time / part time

	31.12.19		31.12.18	
	Number	%	Number	%
Male				
Full Time	41,324	96%	40,298	96%
Part Time	1,506	4%	1,473	4%
Total	42,830	100%	41,771	100%
Female				
Full Time	23,364	86%	22,800	86%
Part Time	3,772	14%	3,767	14%
Total	27,136	100%	26,567	100%
Grand Total	69,966		68,338	

### UBS employees: permanent and "limited employment period" employees (by gender and by region)

### Employees: employment term / region

	31.12.19		31.12.18	
	Number	%	Number	%
Americas				
Permanent	21,288	100%	21,563	100%
Limited Term	0	0%	0	0%
Total	21,288	100%	21,563	100%
APAC				
Permanent	13,944	100%	12,095	100%
Limited Term	11	0%	38	0%
Total	13,955	100%	12,133	100%
EMEA (excluding Switzerland)				
Permanent	13,259	100%	12,960	100%
Limited Term	1	0%	0	0%
Total	13,260	100%	12,960	100%
Switzerland				
Permanent	20,296	95%	20,466	94%
Limited Term	1,167	5%	1,216	6%
Total	21,463	100%	21,682	100%
Grand Total	69,966		68,338	
Employees: employment term / gender				
	31.12.19		31.12.18	
	31.12.19 Number	%	31.12.18 Number	%
Male		%		%
Male Permanent		% 98%		98%
	Number		Number	98%
Permanent Limited Term	Number 42,160	98%	Number 41,050	98% 2%
Permanent	Number 42,160 670	98% 2%	Number 41,050 721	98% 2%
Permanent Limited Term <b>Total</b>	Number 42,160 670	98% 2%	Number 41,050 721	98% 2% 100%
Permanent Limited Term Total Female	Number  42,160  670  42,830	98% 2% 100%	Number 41,050 721 41,771	98% 2%
Permanent Limited Term Total  Female Permanent	Number  42,160  670  42,830  26,627	98% 2% 100%	Number  41,050  721  41,771  26,034	2% 100% 98%

### UBS employees: external hires

### External hires by age group

	31.12.19		31.12.18	
	Number	%	Number	%
Under 30	4,676	46%	5,723	43%
Between 30 and 50	4,985	50%	6,928	52%
Over 50	419	4%	598	5%
Total external hires	10,080	100%	13,249	100%

### External hires by gender

	31.12.19		31.12.18	
	Number	%	Number	%
Male	6,073	60%	8,143	61%
Female	4,007	40%	5,106	39%
Total external hires	10,080	100%	13,249	100%

### External hires by region

Total external hires	10,080	100%	13,249	100%	
Switzerland	2,134	21%	3,021	23%	
EMEA (excluding Switzerland)	1,998	20%	3,062	23%	
APAC	3,620	36%	4,207	32%	
Americas	2,328	23%	2,959	22%	
	Number	%	Number	%	
	31.12.19	31.12.19			

### UBS employees: employee turnover

### Turnover by age group

	31.12.19	31.12.18
	%	%
Under 30	19%	18%
Between 30 and 50	11%	11%
Over 50	10%	9%
Overall turnover	12%	12%

### Turnover by gender

	31.12.19	31.12.18
		%
Male	12%	12%
Female	13%	12%
Overall turnover	12%	12%

### Turnover by region

	31.12.19	31.12.18
	%	%
Americas	12%	11%
APAC	14%	14%
EMEA (excluding Switzerland)	13%	13%
Switzerland	11%	11%
Overall turnover	12%	12%

Note: The turnover rate is calculated by dividing the number of employees (in FTE) who left by the average number of employees (in FTE) over the full year period.

### UBS employees: age group

### **Employees by age group**

	31.12.19	31.12.18
	%	%
Under 30	19%	20%
Between 30 and 50	60%	59%
Over 50	21%	21%
Total	100%	100%

### UBS employees: employee category (rank group)

### Distribution by employee category and gender

	31.12.19	31.12.19		31.12.18	
	Number	%	Number	%	
Officers (Director and above)					
Male	18,425	75%	18,513	75%	
Female	6,223	25%	6,079	25%	
Total	24,648	100%	24,592	100%	
Officers (other officers)					
Male	16,447	61%	15,464	61%	
Female	10,583	39%	10,060	39%	
Total	27,030	100%	25,524	100%	
Employee rank					
Male	7,958	44%	7,794	43%	
Female	10,330	56%	10,428	57%	
Total	18,288	100%	18,222	100%	
Grand Total	69,966		68,338		

### Distribution by employee category and age group

	31.12.19	31.12.19		31.12.18	
	Number	%	Number	%	
Officers (Director and above)					
Under 30	143	1%	126	1%	
Between 30 and 50	16,402	67%	16,774	68%	
Over 50	8,103	33%	7,692	31%	
Total	24,648	100%	24,592	100%	
Officers (other officers)					
Under 30	4,075	15%	3,951	15%	
Between 30 and 50	18,801	70%	17,507	69%	
Over 50	4,154	15%	4,066	16%	
Total	27,030	100%	25,524	100%	
Employee rank					
Under 30	9,287	51%	9,253	51%	
Between 30 and 50	6,369	35%	6,231	34%	
Over 50	2,632	14%	2,738	15%	
Total	18,288	100%	18,222	100%	
Grand Total	69,966		68,338		

#### UBS employees: average training days (gender)

#### Training by gender

	Average training days	
	31.12.19	31.12.18
Female	2.16	1.83
Male	2.12	1.71
Total average training days	2.14	1.76

#### UBS employees: average training days (rank group)

#### Training by rank group

	Average training days	
	31.12.19	31.12.18
Officers (Director and above)	2.36	1.88
Officers (other officers)	2.02	1.61
Employee rank	2.01	1.80
Total average training days	2.14	1.76

Note: Employee development activities include on-the-job experience and internal mobility (changing roles within the firm), exposure to senior leaders, new teams and experiences (e.g., through networking) and education (both voluntary and required). Experience and exposure generally account for approximately 90% of an employee's development activities. It is also important to note that in 2018 and 2019, our in-house university revamped its offering to better prepare for future global trends and enable employees to choose the depth of learning to meet their voluntary learning goals based on their needs. We also increased the efficiency of mandatory trainings in both 2018 and 2019.

#### UBS employees: parental leave taken

#### Parental leave taken (by gender)

	2019	2018
Male	2,557	2,196
Female	3,439	2,951
Total number of employees	5,996	5,147

All employees are entitled to take parental leave as indicated in the respective local human resources policies. This table shows number of employees who took parental leave as recorded in the UBS HRi system; data aggregation is subject to limitations such as the disparate definitions and permutations of parental leave across the firm and the various leave and absence tools used in the 50+ countries in which we operate.

# Society

As expressed in the 17 United Nations Sustainable Development Goals (the SDGs), the world faces enormous societal and environmental challenges. We recognize that it is important to understand these challenges, as well as the opportunities arising from them, to consider their relevance to UBS and to identify potential actions our firm may need to take.

As the world's largest truly global wealth manager, we have a responsibility to take a leading role in shaping a positive future, for everyone, including the generations to come.

#### **Code of Conduct and Ethics**

In our Code of Conduct and Ethics (the Code), the Board of Directors and the Group Executive Board set out the principles and practices that define our ethical standards and the way we do business. These principles apply to all aspects of our business.

All employees must confirm annually that they have read and will adhere to the Code and other key policies, supporting a culture where ethical and responsible behavior is part of our everyday operations.

In the Code, we make a commitment to integrating financial and societal performance for the mutual benefit of our clients and our firm – and that we are constantly looking for better ways to do business in an environmentally sound and socially responsible manner.

→ Refer to the Code of Conduct and Ethics of UBS, available at www.ubs.com/code, for more information

#### **Engaging with society**

We engage with representatives of wider society on a regular basis and on a wide range of topics. This engagement yields important information about society's expectations and concerns and makes a critical contribution to our understanding and management of issues with potential (positive and negative) relevance to our firm – and to society. By actively fostering such interactions, we are in a position to address expectations and concerns in an informed and effective manner.

#### **UBS** in society

*UBS in society* is a dedicated organization within the firm, focused on maximizing our positive effect and minimizing any negative effects UBS has on society and the environment. It covers all of the activities and capabilities related to sustainable finance (including sustainable investing), philanthropy, environmental, climate and human rights policies governing

client and supplier relationships, our environmental footprint, human resources, and community investment. It is through this cross-divisional organization that we leverage our expertise across all of these areas to drive sustainable performance. *UBS in society* is committed to making UBS a force for driving positive change in society and the environment.

The activities driven by *UBS in society* are overseen, at the highest level of our firm, by our Board of Directors' Corporate Culture and Responsibility Committee (the CCRC). The Group CEO supervises the execution of the *UBS in society* strategy and annual objectives and informs the Group Executive Board and CCRC about *UBS in society* updates as appropriate. Reporting to the Group CEO, the Head *UBS in society* is UBS's senior-level representative for sustainability issues and, on behalf of the Group CEO, proposes the *UBS in society* strategy and annual objectives to the CCRC for approval.

→ Refer to "Board of Directors" in the "Corporate governance" section of this report for more information about the CCRC

#### Driving change in finance

As a major financial institution, we are conscious that the activities and decisions of our clients can have a substantial impact on society. It is for that reason that we strive to incorporate environmental, social and governance (ESG) impacts into the products and services we provide to clients and partner with them to help mobilize capital toward the achievement of the SDGs and the orderly transition to a low-carbon economy.

We know that ESG topics are increasingly important to our clients. That is why we have dedicated a separate section in this report to highlight our commitment to serving the growing sustainable finance needs and expectations of our clients, and to the key activities associated with our commitment.

→ Refer to "Our focus on ESG" in this section for more information

#### Driving change in philanthropy

We believe our clients can make a meaningful, and measurable, difference for their chosen causes with advice from our philanthropy experts and the more than 200 global programs that have been carefully selected through our UBS Optimus Foundation. We increase social impact by combining our expertise with capital and networks. Through our Philanthropy Services platform, we offer clients unique access to social and financial innovation and philanthropic advice, as well as tailored program design, co-funding and co-development opportunities.

→ Refer to www.ubs.com/optimus for more information

#### Driving change in communities

We recognize that our firm's long-term success depends on the health and prosperity of the communities of which we are a part. We seek to redress disadvantages through long-term investments in education and entrepreneurship. We provide strategic financial commitments and targeted employee volunteering to drive impact across a number of the SDGs.

→ Refer to the "Driving change in communities" section in the Sustainability Report 2019, available from 5 March 2020 under "Annual reporting" at www.ubs.com/investors for more information

#### Driving change in business

We view the proper, firm-wide management of our firm's own environmental footprint and our supply chain as important proof of how we do business in a sustainable manner for the benefit

This is equally true of our comprehensive environmental and social risk management and framework that governs client and vendor relationships and is applied firm-wide to all activities. We have set environmental and social risk standards pertaining to environmental and human rights topics in product development, investments, financing and supply chain management. We have identified certain controversial activities that we will not engage in at all, or only under stringent criteria. As part of this process, we engage with clients and vendors to better understand their processes and policies, and to explore how any environmental and social risks may be mitigated.

We have set ambitious targets relating to our use of energy, water and paper, as well as to our travel and the amount of waste we produce, and we aim to increase the awareness of environmental and social matters among our employees and foster a long-term sustainable mindset in all our activities. In 2019, the year in which we celebrated 20 years since becoming the first bank to gain global environmental management system certification (ISO 14001), we ran major campaigns on key environmental themes.

Our campaigns demonstrate our strong commitment to reducing UBS's environmental footprint and further raising our employees' awareness of key environmental challenges. The "Go drastic. Cut the plastic." global campaign, which was launched in July 2019, aims at encouraging behavioral change to help tackle, reduce and phase out single-use plastic items across our firm. In October, we held our first Zero Waste Day at 22 sites across the globe, which featured numerous sustainability-themed activities. Additionally, at five major offices across the globe, we hosted events featuring subject matter experts talking about their life's work and passion, including speakers from innovative companies.

→ Refer to the Sustainability Report 2019, available from 5 March 2020 under "Annual reporting" at www.ubs.com/investors, for full descriptions of our environmental management, our responsible supply chain management and our environmental and social risk management and framework

#### Reducing our environmental footprint

Reduced environmental impact through focused management (status 2019)

Environmental performance since 2012

CO. emissions from



reduction of business



air travel are offset





air travel



electricity from renewable sources; on track to achieve 100% by mid-2020

consumption

decrease in energy = USD 30 million savings per year



reduction of paper

consumption per FTE



share of paper from sustainable sources



reduction of

on track to meet the 2020 target of 75%

#### Reporting to our stakeholders on our sustainability strategy and activities

Information about all our sustainability efforts and commitments is provided in the UBS Sustainability Report, 1 available under "Annual reporting" at www.ubs.com/investors. The content of the Sustainability Report has been prepared in accordance with the Global Reporting Initiative (GRI) Standards ("comprehensive" option) and with the German rules implementing the EU directive on disclosure of non-financial and diversity information (2014/95/EU). Our reporting on sustainability has been reviewed on a limited assurance basis by Ernst & Young Ltd against the GRI Standards. Our Sustainability Report 2019 also includes our full climate disclosure, which we have been aligning with the recommendations provided by the Financial Stability Board's Task Force on Climate-related Financial Disclosures since their introduction in 2017.

<sup>1</sup> The UBS Sustainability Report is available from 5 March 2020, and is not deemed incorporated by reference into the SEC Form 20-F filing.

#### **Aims and progress**

We work with a long-term focus on providing appropriate returns to all of our stakeholders in a responsible manner. To underline our commitment, we provide transparent goals and report on progress made against them wherever possible. In 2019, we made good progress in delivering against the Group's aims.

We aim to be / Our key goals <sup>1</sup>	Our progress
A leader in sustainable finance across all client segments	
<ul> <li>2017–2020</li> <li>Double the penetration of core SI assets from 5.6% (USD 182 billion) of total invested assets<sup>2</sup></li> </ul>	<ul> <li>Achieved our goal one year early, reaching USD 488.5 billion in core SI assets representing 13.5% of total invested assets<sup>2,3</sup></li> </ul>
<ul> <li>2016–2021</li> <li>Direct at least USD 5 billion of client assets into SDG-related impact investments</li> </ul>	<ul> <li>USD 3.9 billion of client assets directed into SDG-related impact investments<sup>4</sup></li> </ul>
A recognized innovator and thought leader in philanthropy	
<ul> <li>2017–2020</li> <li>Achieve 40% of employees volunteering with 40% of volunteer hours being skills based</li> <li>Increase donations to UBS Optimus Foundation to CHF 100 million in 2020</li> </ul>	<ul> <li>38% of global workforce volunteered and 48% of volunteer hours were skills based<sup>5</sup></li> <li>UBS Optimus Foundation: USD 89.5 million (CHF 86.9 million) in donations raised; USD 109.5 million (CHF 106.3 million) in grants approved</li> </ul>
<ul> <li>2020–2025</li> <li>Support 1 million young people and adults ("beneficiaries") to learn and develop skills for employment, decent jobs and entrepreneurship through our community investment activities</li> <li>Improve the lives of 5 million children globally by engaging at least 1,000 clients in UBS Optimus Foundation's collective giving platforms</li> </ul>	<ul> <li>Progress against these goals will be reported for the financial year 2020 onward</li> </ul>
An industry leader in sustainable business practices	
<ul> <li>Retain favorable positions in key ESG ratings</li> </ul>	<ul> <li>Maintained leadership position (Dow Jones Sustainability Indices / DJSI)</li> <li>AA rating maintained (MSCI ESG Research)</li> <li>Industry leader rank maintained (Sustainalytics)</li> <li>A— rating and included in Leadership band (CDP)</li> </ul>
<ul><li>2017–2022</li><li>Implement the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)</li></ul>	<ul> <li>First TCFD reporting introduced for the financial year 2017, continuous improvements ever since</li> </ul>
<ul><li>2019–2024</li><li>Implement the requirements of the Principles for Responsible Banking (PRB)</li></ul>	Among the founding signatories of the PRB (September 2019)
An employer of choice	
<ul> <li>Being recognized as one of the world's most attractive employers in key ratings and rankings</li> </ul>	<ul> <li>Included in Global Universum ranking of Top 50 World's Most Attractive Employers</li> <li>Peer-leading position in human resources elements of DJSI</li> <li>Score above financial services norm in employee engagement and work environment (based on employee survey results)</li> <li>Recognized by Bloomberg Gender-Equality Index</li> </ul>

1 Refer to the UBS in society constitutional document (in the Sustainability Report 2019) for more information about all aims. Goals are to be achieved by the end of the target year. 2 Core SI are SI products that involve a strict and diligent asset selection process through either exclusions (of companies / sectors from the portfolio where the companies are not aligned to an investor's values) or positive selections (such as best-in-class, thematic or ESG integration and impact investing). Refer to the "Core sustainable investments" table in "Our focus on ESG" in this section. 3 The increase in core SI assets was mainly driven by the ESG integration strategy of Asset Management. Refer to the "Core sustainable investments" table in "Our focus on ESG" in this section. 4 Strategies where the investment has the intention of generating measurable environmental and social impact alongside a financial return. 5 Refer to the "Driving change in communities" section in the Sustainability Report 2019.

#### Stakeholder relations (additional information)

#### Governments and regulators

Financial market stability is largely dependent on the overall economic, regulatory and political environment and the conduct of the firms within the sector. We actively participate in political discussions to share our expertise on proposed regulatory and supervisory changes. The regime set out by the post-2008 regulatory reform agenda is now largely completed with focus shifting to final national implementation of key prudential rules such as the Basel III standards.

With regard to corporate responsibility and sustainability issues, we actively participated in governmental discussions concerning the implementation of commitments made at the Paris Climate Change Conference and in the United Nations Sustainable Development Goals. In addition, we contribute to the Task Force on Climate-related Financial Disclosures (TCFD). On a regional basis, we contribute to various fora to engage with policymakers on the European Commission's Sustainable Finance Action Plan. In our home country Switzerland, we continue to actively contribute to pertinent sustainability discussions with various government bodies. We also contribute our experience and knowledge to supervisors in their efforts to further thinking on new topics, such as the appropriate regulatory environment for digital finance and the financial risks of climate change.

→ Refer to UBS's quarterly reports and annual reports available at www.ubs.com/investors for more information on regulatory topics

#### Politicians and political parties

We maintain a regular dialogue with politicians globally and strive to establish long-term relationships with political representatives.

We comply with legal requirements on disclosing political donations, as applicable in the relevant jurisdictions. Outside of Switzerland, we do not provide financial support to political parties. In the US, eligible employees may make financial contributions through a federal Political Action Committee (PAC), the UBS Americas Fund for Better Government. The PAC makes contributions to federal candidates. These employee contributions do not constitute political donations by UBS.

#### Support of the Swiss militia system

Swiss citizens actively and voluntarily engage in political institutions at all three levels of the Swiss state (federal, cantonal and local) as public officials (e.g., members of parliament, members of commissions and executive mandates), while they continue to pursue other professional activities. This arrangement – citizens taking on public tasks and mandates on a part-time basis – is referred to as the militia system.

In this system, members of parliament in Switzerland are (usually) not professional politicians and political parties do not receive state funding. It is for this reason that we view the support of the militia system as a crucial component of our societal responsibility in our home market. In recognition of the vital function of Switzerland's political parties, we provided a

total of CHF 1 million to political parties in 2019 as a contribution to their operational costs. Financial contributions are calculated based on the number of parliamentary seats the respective party holds at the federal and cantonal level. Swiss parties are eligible to apply for a financial contribution if they commit to free competition, the market economy and to the Swiss financial center. They should also have a national focus and either form a parliamentary group in the federal parliament or be represented in at least one cantonal government. We view our contribution to political parties in Switzerland as a long-term commitment, which is, however, subject to regular reviews.

### Annual political forum for employees who hold elected public office in Switzerland

We expressly support the political involvement of our employees. About 250 employees currently hold political office at the federal, cantonal and local level. If necessary, employees may spend a certain amount of their working time on their public duties. We organize an annual political forum at which senior management and political office holders discuss topics of relevance to UBS in Switzerland.

→ Refer to www.ubs.com/gov for more information on governmental topics pertaining to Switzerland

#### Peers

We actively engage in regular discussions on corporate responsibility and sustainability issues with specialists in peer banks, and more widely through trade bodies and associations. Sharing experiences and assessments of corporate responsibility and sustainability issues helps us to compare and improve our strategy, approach and tools.

We are a founding member of the Wolfsberg Group, an association of global banks that aims to develop financial services industry standards regarding anti-money laundering, Know Your Client and counter-terrorist financing policies. Meeting regularly, the Wolfsberg Group also works closely with the Financial Action Task Force.

With regards to climate risk, UBS is cooperating on two fronts. Firstly, we are part of the United Nations Environment Programme Finance Initiative (UNEP FI) TCFD working group for banks to refine methodologies, scenarios and data sources to assess climate-related financial risk in loan portfolios and secondly, we are pilot-testing the Paris Agreement Capital Transition Assessment (PACTA) to shape the development of methodologies and study the alignment of corporate lending portfolios with the Paris Agreement benchmarks.

In 2011, we were a driving force behind the establishment of the Thun Group of Banks. The group has published two papers that propose a framework to help identify key challenges and best practice examples for the banking sector's implementation of the UN Guiding Principles on Business and Human Rights. The Thun Group maintains regular discussions, both in calls and in annual meetings at the UBS Conference Center in Thun, Switzerland.

#### Communities

At UBS, we recognize that our long-term success depends on the health and prosperity of the communities that we are a part of. Our approach is to build sustainable and successful partnerships with non-profit organizations and social enterprises to help our contributions have a lasting impact. Our Community Affairs programs seek to overcome disadvantage through long-term investment in education and entrepreneurship in the communities within which we operate.

Through local execution and partnerships, which operate under a global framework and with coordination across regions, we endeavor to deliver business and community impact by identifying innovative and high-quality programs that are aligned to the business. We provide focused financial and human support, including skills-based employee volunteering programs and client participation where appropriate. We are an active member of the London Benchmarking Group, an internationally recognized standard for measuring corporate community investment.

→ Refer to the "Driving change in communities" section for further information and data of relevance to the communities we do business in

#### Vendors

In 2019, we spent USD 9.01 billion on a broad range of products and services. A large proportion of this expenditure comprises real estate, outsourcing, IT as well as consultancy and legal fees. Our sourcing and procurement services are provided by an external company, Chain IQ, which applies our responsible supply chain management (RSCM) framework and processes. The experienced procurement and sourcing specialists at Chain IQ perform vendor due diligence and establish remediation measures, supported by a centralized team of experts within LIRS

We aim to ensure that our social and environmental values are being followed throughout the supply chain. A firm-wide RSCM guideline provides systematic assistance on identifying,

assessing and monitoring vendor practices in the areas of human and labor rights, environmental protection and anti-corruption. A central component of this guideline is the UBS Responsible Supply Chain Standard, to which our direct vendors are normally bound by contract. We expect our vendors to apply these same standards to relationships with their vendors.

→ Refer to "Responsible supply chain management" in the 
"Driving change in business" section for more information

#### Non-governmental organizations

We regularly interact with non-governmental organizations (NGOs) and appreciate their input and insight, as it helps us consider our approach to, and understanding of, societal issues and concerns.

NGOs have long established themselves as critical watchdogs of companies, both scrutinizing and challenging how we address a broad range of environmental, social and human rights concerns. In 2019, discussions with NGOs were particularly focused on climate change (notably on fossil fuels). Other topics discussed included sustainable finance and human rights.

#### Media

Our media teams maintain direct and long-term relations with media representatives across all our business regions and provide them with timely information on a wide range of global, regional and local topics. Senior management (at the Board of Directors and Group Executive Board level) also regularly provide accounts to journalists, predominantly through interviews. In addition to interviews at our corporate events (i.e., via quarterly and annual reporting and at the Annual General Meeting), senior management conducted many other interviews in 2019.

We also communicated with media representatives – through interviews or background talks – on a broad range of corporate responsibility and sustainability topics such as climate change, human rights and environmental and social risks in general.

→ Refer to www.ubs.com/media for further information on UBS media relations

## Our governance and principles

Our firm's societal and corporate culture activities are overseen at the highest level of our firm and are founded in our Principles and Behaviors.

#### **Sustainability governance**

The Board of Directors (the BoD) of UBS Group AG decides on the strategy of the Group upon recommendation by the Group Chief Executive Officer (the Group CEO) and is responsible for the overall direction, supervision and control of the Group and its management, as well as for supervising compliance with applicable laws, rules and regulations. The BoD exercises oversight over UBS Group AG and its subsidiaries and is responsible for establishing a clear Group governance framework to provide effective steering and supervision of the Group, taking into account the material risks to which UBS Group AG and its subsidiaries are exposed. The BoD has ultimate responsibility for the success of the Group and for delivering sustainable shareholder value within a framework of prudent and effective controls.

The BoD of UBS Group AG is responsible for setting our firm's values and standards to ensure that the Group's obligations to our stakeholders are met. Both the Chairman of the BoD and the Group CEO play a key role in safeguarding our reputation and ensuring we communicate effectively with all our stakeholders.

All BoD committees have responsibilities and authorities of direct relevance to our goal of creating sustainable value. The Governance and Nominating Committee, for instance, supports the BoD in fulfilling its duty to establish best practices in corporate governance across the UBS Group. The Compensation Committee supports the BoD in its duties to set guidelines on compensation and benefits. The Risk Committee oversees and supports the BoD in fulfilling its duty to supervise and set an appropriate risk management and control framework (in the areas of risk management and control, treasury and capital management, as well as balance sheet management).

The Corporate Culture and Responsibility Committee (CCRC) is the body primarily responsible for corporate culture, responsibility and sustainability. The oversight role of the CCRC has been embedded in the Organization Regulations of UBS Group AG.

In view of the many environmental and social challenges globally, as encompassed by the Sustainable Development Goals (SDGs), these topics will continue to increase in relevance for banks. These developments therefore require regular and critical assessment of our policies and practices, based on an accurate

monitoring and analysis of societal topics of potential relevance to UBS. This process is the responsibility of a committee at Group Executive Board-level, the Global Environmental and Social Risk (ESR) Committee, which sets the overall risk appetite for the firm and resolves transactional and policy matters relating to environmental and social risks and their associated reputation risks. It is chaired by the Group Chief Risk Officer, who is responsible for the development and implementation of principles and appropriate independent control frameworks for environmental and social risks within UBS.

The GEB oversees our efforts to combat money laundering, corruption and terrorist financing. These efforts are led by a dedicated financial crime team of anti-money laundering compliance experts. The GEB also oversees our approach to diversity and inclusion. Our global head of diversity and inclusion drives a group-wide strategy complemented by divisional and regional initiatives.

- → Refer to the "Sustainability governance" graph below
- → Refer to the Appendix 1 for the CCRC charter and the ESR policy framework

#### Key policies and guidelines

#### Code of Conduct and Ethics

The Code of Conduct and Ethics of UBS (the Code) sets out the principles and practices that UBS expects all of its employees and directors to follow both in form and intention. The principles and standards set out in the Code should characterize all of UBS's business activities and all its dealings with the firm's stakeholders including clients, colleagues, shareholders, regulators and business partners. It is the basis for all UBS policies, guidelines and statements relating to each of the firm's employees' personal commitment to appropriate and responsible corporate behavior.

→ Refer to www.ubs.com/code and the Appendix1 of this document for the full text of the Code

#### UBS in society constitutional document

It is our goal to be the financial provider of choice for clients wishing to mobilize capital towards the SDGs and the orderly transition to a low-carbon economy (the Paris Agreement). The UBS in society constitutional document defines the principles responsibilities for promoting this commitment all relevant businesses systematically across and for implementing the ethical standards defined in the Code that govern UBS's interaction with society and the environment.

→ Refer to the Appendix 1 for the full text of the UBS in society constitutional document

#### Policies to combat financial crime

We have developed policies intended to prevent, detect and report money laundering, corruption and terrorist financing. These policies seek to protect the firm and our reputation from those who may be intending to use UBS to legitimize illicit assets

At UBS, we apply a risk-based approach and have a framework in place to identify and manage potential money laundering risks associated with customers and transactions. With our systematic assessment of money laundering risks we strive to arrive at the appropriate level of initial and ongoing due diligence and monitoring of transactions throughout the course of a relationship. For certain higher risk clients, face-to-face due diligence requirements are mandatory. Our anti-money laundering (AML) policy sets out the processes and risk criteria pertaining to politically exposed persons (PEPs). Global PEP clients are reviewed and reapproved on an annual basis by the responsible member of each divisional Executive Committee.

Our Code focuses on preventing the misuse of the financial system, including in relation to bribery. The specific anti-corruption standards of conduct that apply to all employees are also set out in the Group Policy Against Corruption. The policy sets out our zero-tolerance stance toward corruption and prohibits all forms of bribery by the firm and our employees, including facilitation payments.

Anti-corruption policies and procedures that aim to prevent bribery occurring throughout our operations apply to all business divisions. These policies are derived from the standards set out in the Group Policy Against Corruption and the Group Policy on Gifts and Business Entertainment.

→ Refer to the "Driving change in business" section for more information about how we are combating financial crime

### Grievances and whistleblowing protection, policies and procedures

We strive to maintaining high legal, regulatory and ethical standards. We have longstanding procedures in every region to help us resolve employee grievances, and employees are strongly encouraged to speak with their line manager or HR about any concerns.

Our global whistleblowing policy and procedures offer multiple channels (including a whistleblowing and sexual misconduct hotline) for staff to raise concerns about any suspected breaches of laws, regulations, rules or other legal requirements, sexual misconduct or harassment, or any infringement of our Code, policies or professional standards. They may raise concerns openly or anonymously.

Our policies do not tolerate harassment of any kind, including sexual harassment, and our whistleblowing policies, procedures, employee education and awareness materials specifically encourage employees to raise concerns.

As set out in the Code, employees are required to immediately report any potential violations of the Code to their line manager or local compliance officer. Employees may also report them confidentially to their Legal or Compliance teams, or using our whistleblowing procedures. UBS prohibits retaliation against employees for reporting a concern that they reasonably believe constitute a breach or violation of this kind.

→ Refer to "Risk management and control" in the "Risk, treasury and capital management" section of the UBS Annual Report 2019 for more information

#### **Human Resources policies**

Human Resources has global and country-specific policies designed to ensure effective management practices, a strong culture and a safe and respectful working environment. An overarching global employment policy sets the minimum hiring and employment standards for all UBS locations. It provides fair, consistent and transparent treatment for our employees while taking into account local legal requirements, market best practices and shareholders' interests. This policy is supplemented by Employee Handbooks providing local information and clarification. Along with the individual employment contract / offer letter, Employee Handbooks are the primary source of information for employees on the terms and conditions of employment and human resources programs, policies and procedures applicable to them.

### UBS policies and principles pertaining to (political, charitable, sponsorship) contributions

UBS has in place appropriate policies on political donations, which set out the principles (including by referencing UBS's anticorruption standards) and approval processes for corporate political donations made on behalf of UBS or its entities and their respective approval processes.

UBS's community interaction (i.e., charitable contributions and employee volunteering) is guided by a global policy, which governs the responsibilities for Community Affairs activities within UBS and represents the official guidelines for all employees to follow. It defines the governance, principles, responsibilities, focus themes, criteria (including on anticorruption and anti-bribery), financial planning framework as well as due diligence requirements applicable to all Community Affairs activities and all financial contributions to non-profit organizations and social enterprises made by UBS.

Our sponsorship activities are guided by a group-wide governance document which describes how the UBS policy on brand & marketing should be implemented in sponsorship and events. The document clarifies roles and responsibilities (including as regards anti-corruption and anti-bribery), describes ways of working and is intended to ensure effective and efficient cooperation among the various stakeholders.

#### Sustainability governance

#### Corporate Culture and Responsibility Committee

Supports the UBS Board of Directors in its duties to safeguard and advance the Group's reputation for responsible and sustainable conduct. Approves and monitors UBS in society's overall strategy and annual objectives.

#### Group CEO

Supervises execution of *UBS in society* strategy and annual objectives. Permanent guest to the Corporate Culture and Responsibility Committee (CCRC).

#### Head Sustainable Finance

Ensures that UBS drives innovation and develops expertise and thought leadership on sustainable finance.

Member of the UBS in society Steering Committee.

#### Head UBS in society

UBS's senior level representative for sustainability (including environmental) issues.

Develops *UBS in society* strategy, leads its execution, and submits annual objectives to the Group CEO. Supported by *UBS in society* Executive Committee in this effort

Chairs *UBS in society* Steering Committee, member of Global ESR Committee, permanent guest to CCRC.

## Global Environmental & Social Risk Committee

Chaired by Group Chief Risk Officer, who is responsible for development and implementation of principles and appropriate independent control frameworks for environmental and social risks (ESR).

Defines ESR framework and independent controls that align UBS's ESR appetite with that of *UBS in society*.

#### **UBS** in society Steering Committee

Ensures firm-wide execution of *UBS in society* strategy across business divisions, functions and regions.

Composed of divisional, regional, and Group COO EC members as well as UBS in society EC members.

Members are responsible to define and implement sustainability strategy of their business area / function in-line with UBS in society strategy.

#### Our climate strategy – taking action towards a low-carbon future

#### Climate action – a snapshot

Nearly five years have passed since the adoption of the Paris Agreement on Climate Change (the Paris Agreement). Collective progress towards achieving the goals of the Paris Agreement will be assessed in a global stocktake in 2023, acknowledging the 2 °C benchmark and the more recent 1.5 °C limit in global warming urged by the Intergovernmental Panel on Climate Change (IPCC) in its 2018 special report. Achieving the Paris Agreement goals demands unprecedented levels of investment. In terms of the current state of climate action, there is a recognized climate finance gap as well as a Sustainable Development Goals (SDGs) investment gap — to meet the low-carbon transition targets. At the same time, we see a clear investor appetite for directing capital toward a low-carbon future. To support in scaling up collective action, UBS assists private and institutional clients in their desire to invest in accordance with their social and environmental objectives, thus helping to close the gap.

We aspire to drive positive change in society and the environment for future generations. Our climate strategy underlines our commitment to the SDGs on climate action and on affordable and clean energy as well as the Paris Agreement. These key UBS commitments are embedded in the United Nations (UN)-backed Principles for Responsible Banking (PRB). This global framework specifies the role of banks in supporting a sustainable future and scaling up their contribution to the achievement of both the SDGs and the Paris Agreement. UBS became a founding signatory of the PRB in September 2019.

We regularly report on the implementation of our climate strategy and follow the recommendations provided by the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD). The recommendations call on companies to disclose the impacts of climate change on their businesses. This will allow investors and financial institutions to make better investment decisions with a common set of data to assess the climate-related risks and opportunities of specific companies. We are committed to aligning our climate disclosure within the five-year pathway outlined by the TCFD (until end of 2022) and to collaborating within the industry to close gaps.

We publicly support international, collaborative action against climate change. Our Chairman is a signatory to the European Financial Services Round Table's statement in support of a strong, ambitious response to climate change. Our Group CEO is a member of the Alliance of CEO Climate Leaders, an informal network of CEOs convened by the World Economic Forum and committed to climate action. Our Head Sustainable Equity Team within UBS Asset Management (AM) is a member of the TCFD.

Our climate-related achievements have been recognized by external experts. For the fifth year running, UBS has been named the best performer in the Diversified Financial Services and Capital Markets Industry of the Dow Jones Sustainability Indices (DJSI), the most widely recognized corporate sustainability rating. CDP, which runs a global disclosure system that enables companies, cities, states and regions to measure and manage their environmental impacts, has awarded UBS with Leadership status and a A- rating on climate change. In 2019, ShareAction, an international organization focused on advancing responsible investment, awarded UBS as the best performing asset manager in climate proxy voting in its report, "Voting matters – Are asset managers using their proxy votes for climate action?"

#### **Climate-related highlights**

- Our climate strategy underlines our commitment to the SDGs on climate action and on affordable and clean energy and supports an orderly transition to a low-carbon economy, as defined by the Paris Agreement.
- Our exposure to carbon-related assets on our banking balance sheet is low, at 0.8% or USD 1.9 billion as of 31 December 2019, decreasing further from 1.6% at the end of 2018 and 2.8% at the end of 2017.
- Our climate-related sustainable investments increased to USD 108 billion in 2019 from USD 87.5 billion in 2018.
- We actively engaged on climate topics with 50 oil & gas and utilities companies, and voted on 44 climate-related shareholder resolutions.
- We reduced our firm's greenhouse gas (GHG) footprint by 71% by 2019 compared with 2004 levels. We were awarded top ratings and rankings by external experts; climate industry group leader (Dow Jones Sustainability Indices); Climate A- rating (CDP) and best performing asset manager in proxy voting (ShareAction, 2019).

#### **Climate governance**

As embedded in the Organization Regulations of UBS Group AG, the Board of Directors' (BoD) Corporate Culture and Responsibility Committee (CCRC) oversees our climate strategy. Within the parameters set by the CCRC, the UBS in society Steering Committee ensures firm-wide execution of the climate strategy while our firm's climate-related risk appetite is set by the Global Environmental & Social Risk (ESR) Committee. In joint meetings, the CCRC and the BoD's Risk Committee regularly and critically review the assessments and steps taken by these management bodies towards executing our climate strategy. The CCRC approves UBS's annual climate-related objectives and oversees the progressive alignment of our climate disclosure with the TCFD recommendations. These annual plans and objectives are managed as part of our ISO 14001-certified environmental management system (EMS) with defined management accountabilities across the firm. The EMS helps us to systematically reduce environmental risks, seize market opportunities and continuously improve our environmental and climate performance and resource efficiency.

→ Refer to the "Sustainability governance" graph in this section

#### **Climate strategy**

As one of the world's largest managers of private and institutional wealth, we play an active role in shaping a sustainable future. As with the SDGs, we aim to be a leading financial provider in enabling investors to mobilize private and institutional capital to climate change mitigation and adaptation while supporting the transition to a low-carbon economy. At UBS we see a clear investor appetite for directing capital in climate solutions. We address this by continuously developing our offering in sustainable finance and actively engaging with clients. Our climate strategy supports our clients and our firm preparing for success in an increasingly carbon-constrained world.

We support this goal through our innovative financial product offering and advisory, as well as through embedding climate risk in our firm-wide risk management framework and in our own operations. Our climate strategy focuses on four pillars:

- Protecting our own assets: We seek to protect our assets by limiting our risk appetite for carbon-related assets and by estimating our firm's vulnerability to climate-related risks using scenario-based stress testing approaches and other forward-looking portfolio analyses. We have reduced carbonrelated assets on our balance sheet to 0.8% or USD 1.9 billion as of 31 December 2019, down from 1.6% at the end of 2018 and 2.8% at the end of 2017.
- Protecting our clients' assets: We support our clients' efforts to assess, manage and protect them from climate-related risks by offering innovative products and services in investment, financing and research. We actively engage on climate topics with companies that we invest in; AM has implemented an engagement program with 50 companies from oil and gas and utilities sectors and we voted on 44 climate-related shareholder resolutions during 2019.
- Mobilizing private and institutional capital: We mobilize private and institutional capital towards investments facilitating climate change mitigation and adaptation and in supporting the transition to a low-carbon economy as corporate advisor, and/or with our lending capacity. In 2019, our climate-related sustainable investments rose to USD 108 billion from USD 87.5 billion at the end of 2018, and the deal value in equity and debt capital market services, and in financial advisory services, related to climate change mitigation and adaptation, rose to USD 87.2 billion, from USD 56.5 billion in 2018.
- Reducing our direct climate impact: We continue to reduce our greenhouse gas (GHG) emissions and increase the firm's share in renewable energy. We have committed to using 100% renewable electricity by mid-2020. This will reduce our firm's GHG footprint by 75% compared with 2004 levels. At the end of 2019, we had reduced our GHG emissions by 71% compared to baseline year 2004.
  - → Refer to " "Our focus on ESG" in the "How we create value for our stakeholders" section for more information about our sustainable investments
  - → Refer to "In-house environmental management" in the "Driving change in business" section for more information

#### **Climate risk management**

The physical and transition risks of climate change contribute to a structural change affecting banks and the financial sector at large. In order to protect our own and our clients' assets from climate-related risks, we continue to drive the integration of climate-related risk into our standard risk management framework. This framework involves procedures and tools for identifying, assessing and monitoring environmental and social risks in our standard risk, compliance and operations processes. These include client onboarding, transaction due diligence, product development and investment decision processes, own operations, supply chain management and portfolio reviews. These processes are geared toward identifying clients,

transactions or suppliers potentially in breach of our standards or otherwise subject to significant environmental and human rights controversies, including climate change.

In 2019, we embedded climate risk into our risk taxonomy and operational risk appetite statement, further reduced our exposure to carbon-related assets and, more broadly, to climate-sensitive sectors. We also refined our ability to estimate the firm's vulnerability to climate-related risks using forward-looking scenario-based approaches, and revised our standards in the energy and utilities sectors.

- → Refer to the "Climate-related standards in the energy and utilities sectors" table below
- → Refer to "Scenario analysis" further below

Climate	Climate-related standards in the energy and utilities sectors				
	Coal-fired power plants	Not providing project-level finance to new coal-fired power plants globally.			
Coal		Only supporting financing to transactions of existing coal-fired operators (>30% coal reliance) who have a transition strategy in place that aligns with a pathway under the Paris Agreement, or the transaction is related to renewable energy.			
ŏ	Coal mining	<b>New:</b> Not providing financing where the stated use of proceeds is for greenfield! thermal coal mines.  Continuing to severely restrict lending and capital raising to the coal mining sector.			
	Mountaintop removal (MTR)	Not providing financing to coal mining companies engaged in MTR operations.			
Oil and gas	Arctic oil and oil sands	<b>New:</b> Not providing financing where the stated use of proceeds is for new offshore oil projects in the Arctic or greenfield¹ oil sands projects. <b>New:</b> Only provide financing to companies which have significant reserves or production in arctic oil and/or oil sands (>30% of reserves or production) where the stated use of proceeds is related to renewable energy or conventional oil & gas assets.			
	Liquefied natural gas (LNG) and ultra-deepwater drilling	<b>New:</b> Transactions directly related to LNG infrastructure assets are subject to enhanced Environmental & Social Risk (ESR) due diligence considering relevant factors such as management of methane leaks, and the company's past and present environmental and social performance. <b>New:</b> Transactions directly related to ultra-deepwater drilling assets are subject to enhanced ESR due diligence considering relevant factors such as environmental impact analysis, spill prevention and response plans, and the company's past and present environmental and social performance.			

1 Greenfield means a new mine / well or an expansion of an existing mine / well which results in a material increase in existing production capacity.

#### Scenario analysis

We have been using scenario-based approaches since 2014 to assess our exposure to physical and transition risks associated with climate change. We have performed both top-down balance sheet stress testing (across the firm), as well as targeted, bottom-up analysis of specific sector exposures in short, mid-, and long-term horizons. The table below summarizes the UBS scenario assessments performed to date.

#### Scenario assessments

Assessment	Year	Scenarios used	Outcomes
Top-down			
UBS climate stress test to assess UBS's vulnerability (balance sheet, operational income and physical assets) to climate change.	2014	Climate scenario developed in-house	Moderate financial impact in line with other stress scenarios, such as those that foresee an oil shock.
Bottom-up			
Assessment on exposure of loan portfolios secured by real estate to climate-related hazards.	2015	Climate scenario developed in-house	Low financial impact due to insurance coverage and loan maturity profile.
Assessment on impacts of changing oil, gas and coal prices on oil, gas and electric utilities credit portfolios.	2015	Climate scenario developed in-house	Low financial impact due to high quality and maturity profile of portfolio.
Drought stress test (Natural Capital Finance Alliance tool) on UBS's energy portfolio.	2017	Based on historic academic precipitation observations	No significant production impact from drought.
UNEP FI TCFD pilot project for banks: standardizing climate risk identification and translating climate risks into credit impacts. Testing in 2019 focused on our power utilities credit portfolio, work on other sectors continues in 2020.	2018 - 2020	Integrated Assessment Modelling Consortium (IAMC)	No significant credit loss from transition risks in 1.5 and 2 degree scenarios, nor from physical risks in 2 and 4 degree scenarios.
Paris Agreement Capital Transition Assessment (PACTA): testing alignment of corporate lending portfolios with Paris Agreement benchmarks.	2019 - 2020	<ul> <li>IEA¹</li> <li>B2DS²</li> <li>SDS³</li> <li>NPS⁴</li> <li>CPS⁵</li> </ul>	Low lending exposure to high-carbon sectors.
	Top-down  UBS climate stress test to assess UBS's vulnerability (balance sheet, operational income and physical assets) to climate change.  Bottom-up  Assessment on exposure of loan portfolios secured by real estate to climate-related hazards.  Assessment on impacts of changing oil, gas and coal prices on oil, gas and electric utilities credit portfolios.  Drought stress test (Natural Capital Finance Alliance tool) on UBS's energy portfolio.  UNEP FI TCFD pilot project for banks: standardizing climate risk identification and translating climate risks into credit impacts. Testing in 2019 focused on our power utilities credit portfolio, work on other sectors continues in 2020.  Paris Agreement Capital Transition Assessment (PACTA): testing alignment of corporate lending	Top-down  UBS climate stress test to assess UBS's vulnerability (balance sheet, operational income and physical assets) to climate change.  Bottom-up  Assessment on exposure of loan portfolios secured by real estate to climate-related hazards.  Assessment on impacts of changing oil, gas and coal prices on oil, gas and electric utilities credit portfolios.  Drought stress test (Natural Capital Finance Alliance tool) on UBS's energy portfolio.  UNEP FI TCFD pilot project for banks: standardizing climate risk identification and translating climate risks into credit impacts. Testing in 2019 focused on our power utilities credit portfolio, work on other sectors continues in 2020.  Paris Agreement Capital Transition Assessment (PACTA): testing alignment of corporate lending —	Top-down  UBS climate stress test to assess UBS's vulnerability (balance sheet, operational income and physical assets) to climate change.  Bottom-up  Assessment on exposure of loan portfolios secured by real estate to climate-related hazards.  Assessment on impacts of changing oil, gas and coal prices on oil, gas and electric utilities credit portfolios.  Drought stress test (Natural Capital Finance Alliance tool) on UBS's energy portfolio.  Drought stress test (Natural Capital Finance Alliance trisk identification and translating climate risk identification and translating climate risk into credit impacts. Testing in 2019 focused on our power utilities credit portfolio, work on other sectors continues in 2020.  Paris Agreement Capital Transition Assessment (PACTA): testing alignment of corporate lending portfolios with Paris Agreement benchmarks.  Climate scenario developed in-house  Climate scenario developed in-house  2015  Climate scenario developed in-house  2017  Based on historic academic precipitation observations  Hodelling Consortium (IAMC)  • B2DS² • SDS³ • NPS⁴

<sup>1</sup> International Energy Agency (IEA), World Energy Outlook 2 Beyond 2 Degrees Scenario 3 Sustainable Development Scenario 4 New Policies Scenario 5 Current Policies Scenario

Our initial (2014) top-down approach consisted of a scenario-based stress test to assess UBS's balance sheet vulnerability across the firm. Leveraging our existing firm-wide top-down stress testing methodology, we developed a climate change scenario (which assumes that severe weather events result in governments around the world agreeing to implement carbon pricing mechanisms to assess the impact on financial assets, operational income and physical assets). The scenario anticipated that these mechanisms will prompt a shift away from coal and other fossil fuels to cleaner alternatives and adversely impact markets and gross domestic product. Our subsequent (2015) bottom-up analyses of oil and gas utilities as well as electric utilities loan portfolios consisted of a forward-looking analysis to

assess impacts of a long-term low fossil fuel price scenario resulting from policies promoting greater use of renewables, enhancing efficiency standards and limiting emissions. We calculated the impact this scenario would have on company probability of default and aggregated company-level results at the portfolio level to assess changes to expected loss. We also assessed the vulnerability of loan portfolios secured by real estate in Switzerland and the US to physical risk by mapping the location of collateral in over 6,000 postal code areas against Swiss Re's CatNet tool, which aggregates a large dataset of observed natural hazards such as wildfire, river and pluvial flooding and tropical cyclones.

From both top-down and bottom-up approaches, our internal stress tests suggested no immediate threat to UBS's balance sheet. However, we identified methodological challenges ranging from the suitability of climate scenarios for banking risk modelling to data availability. To address these challenges, 16 banks, including UBS, the UN Environment Programme Finance Initiative (UNEP FI), the Integrated Assessment Modelling Consortium (IAMC), and risk consultancies Oliver Wyman and Acclimatise began a collaboration of several years in 2018. The objective is to develop analytical tools that help banks define and disclose climate-related risks and opportunities as envisioned by the TCFD. This includes developing and further refining scenario-based stress-testing methodologies. Now in its second phase, the UNEP FI TCFD working group for banks has grown to 35 banks and has expanded the development of these analytical tools to include a range of possible scenarios, further advancement on scenario-based stress testing methodologies, and standardization between institutions on what defines climate-sensitive activities. These advancements aim for banks to more robustly identify and disclose exposure to climate-related risks and opportunities.

In addition to the UNEP FI TCFD working group, UBS is one of the pilot banks testing the Paris Agreement Capital Transition Assessment (PACTA). In the context of the PACTA pilot, we studied the alignment of select climate-sensitive sectors in our corporate credit portfolio with Paris Agreement benchmarks. The methodology provides an assessment of a bank's creditfinanced activities in relation to the global shift to a low-carbon economy. For example, the assessment showed that the fuel mix in UBS's power utilities credit portfolio, according to the PACTA methodology, is significantly less carbon intensive than the global corporate economy, as of 2019 (see methodology for power generation" further below). However, the limitations of the outputs from this assessment are very similar to the other pilots and we will continue to work on improving methodology, data availability applicability.

Both pilots promote industry learning and provide guidance for disclosing climate-related risks and opportunities in line with TCFD recommendations. Overall, the results of the 2019 climate risk pilots have confirmed findings from our previous pilot stress tests on climate, which started in 2014: we have so far not identified significant climate-related financial risk on our balance sheet. We explain this by UBS's relatively small lending book in climate-sensitive-sectors (see "UBS corporate lending to climate-sensitive sectors 2019" further below) and availability of

insurance where we have relevant exposures to such sectors (e.g., Swiss mortgage lending book).

#### Protecting our clients' assets

We help our clients assess, manage and protect their assets from climate-related risks by offering innovative products and services in investment, financing and research. AM has developed a suite of products allowing clients to identify the carbon intensity of their investments and/or to align them with the Paris Agreement: In 2017, AM together with the New Employment Savings Trust launched a strategy called *Climate Aware* with an aim to do more than manage investments based on carbon footprinting. In 2018, AM followed its successful UK *Climate Aware* rules-based fund with an Irish-based fund that is available for international investors outside of the UK. The portfolio is oriented towards companies that are better prepared for a lowcarbon future while reducing exposure to, rather than excluding, companies with higher carbon risk, in order to pursue strategic engagement with these companies. The strategy involves not only a reduction of the CO<sub>2</sub> footprint of the portfolio but also an innovative approach to aligning the portfolio with the 2 °C carbon reduction scenario.

Finally, AM empowers equity portfolio managers to examine the carbon footprint of their portfolios and compare the relative carbon footprints of their company holdings to that of the benchmark.

#### Engagement

On behalf of clients, AM engages with companies it invests in to discuss approaches to mitigating climate-related risk. AM also actively votes on shareholder resolutions to improve transparency and disclosure around climate-related reporting. Specifically in the context of its *Climate Aware* fund, AM has implemented an engagement program with 50 oil and gas companies as well as utilities companies underweighted in the fund. Communication with these companies aims at improving their disclosure and performance alignment with the TCFD recommendations. Engagement also makes it possible to share the results of the quantitative and qualitative assessments included in the fund methodology with investee companies. This allows for the verification of company performance with additional information collected before and after meetings. It also means AM can collect feedback, explicitly communicate objectives for change in corporate practices and further enhance the model used to inform the under- / overweights in the

AM is also involved in Climate Action 100+, a collaborative engagement initiative launched in December 2017. Its aim is to engage with high-level greenhouse gas emitters, and other companies across the global economy, that have significant opportunities to drive the clean energy transition and help achieve the goals of the Paris Agreement. It has the support of 320 investors, representing more than USD 33 trillion of assets under management (at end of 2019). AM is directly involved in 30 coalitions of investors (at the end of 2019) within Climate Action 100+ and leads seven of the company dialogues across regions. Whether AM is a lead or participating investor, it is an active member of these coalitions, providing feedback on the climate change performance of companies, the discussion agenda, engagement goals and the progress of these dialogues.

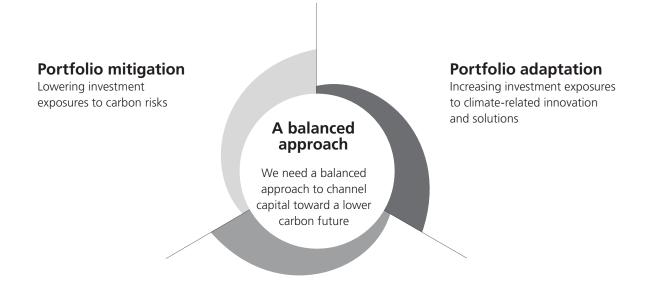
#### **Opportunities**

We mobilize private and institutional capital for investments that facilitate climate change mitigation and adaptation. UBS supports the orderly transition to a low-carbon economy as corporate advisor, and/or with its lending capacity.

As we outlined in our 2020 white paper for the World Economic Forum annual meeting, "Becoming climate aware: Mobilizing capital to help meet climate change goals", we have formulated a *Climate Aware* framework which helps investors align their portfolios towards a climate-smart future. The framework is built on the methodology which underlies UBS-AM's *Climate Aware* strategy. The main characteristics of the framework are:

- Portfolio mitigation: Lowering investment exposures to carbon risk
- Portfolio adaptation: Increasing investment exposure to climate-related innovation and solutions
- Portfolio transition: Aligning portfolios to an investor's chosen climate glidepath

#### A Climate Aware framework for investors



#### Portfolio transition

Aligning portfolios to an investor's chosen climate glidepath

#### Portfolio mitigation

Based on our experience, maintaining a balance between required investment returns and minimizing climate risks works most effectively when investors integrate climate change considerations into a diversified portfolio. Similar to ESG integration, this is an important element in understanding the specific effects of climate change. As TCFD has highlighted, these can be viewed as regulatory, market, technology and physical risks. How they play out at the level of markets, industry sectors and individual issuers depends on an interplay of:

- regulation;
- commercial considerations;
- impact of technology on business models, revenues, costs and capital requirements.

Integrating these three aspects puts the focus on the most material issues relating to the reduction of emissions generated by the most carbon-intensive sectors. It also leads to a deeper and more investment-relevant understanding of the physical risks.

#### Portfolio adaptation

Investing for a low-carbon future hinges on the ability to invest in, and fund, new technologies and solutions. The key investing areas relate to GHG emissions reduction, energy transition, and energy efficiency. They include companies that manufacture and deploy these technologies as well as the infrastructure and services that make these achievable at scale. There are variety of developments in business structure, asset ownership, supply chains and delivery models that may be deployed as part of the climate change transition. It is also important to recognize that there are different kinds of investors that are better-placed for certain kinds of investments. Venture capital, private equity, real estate, public equity and public fixed income all have different appetites for technology risk.

#### Portfolio transition

It is important for investors to understand the difference between where they are now and the possibilities of the climate transition. Scenario analysis is emerging as a response to the uncertainties of climate change. Engagement, meanwhile, provides an opportunity for investors to encourage good corporate practice and, together with voting, keep management accountable for the actions needed to keep pace with the climate transition. It also allows investors to understand the investment dynamics in individual sectors and countries and determine the overall direction of travel. By applying the tools of scenario analysis and engagement, investors are better able to manage the transition to a climate-smart future.

AM is also a member of the Institutional Investors Group on Climate Change (IIGCC) Climate Action 100+ European Advisory Group, which advocates for the world's transition to a low-carbon economy.

Our other business divisions also translate this strategic thinking on climate into concrete products and services. UBS offers 100% sustainable discretionary mandates and asset allocation funds based on an innovative dedicated Sustainable Investing Strategic Asset Allocation for private clients in Global Wealth Management (GWM) and Personal & Corporate Banking (P&C). These include an explicit allocation to strategies that aim at mitigating climate change, such as green bonds and thematic investments, but also others that contribute indirectly to climate change mitigation such as Multilateral Development Bank bonds, ESG leaders and ESG improvers. GWM developed a new advisory solution that includes an explicit climate change dimension, allowing clients to tilt their portfolios towards the issues they care about. Ultimately our goal in developing new products and services is to ensure that all material risks and opportunities are addressed, and to allow clients to select sustainable investments aligned to their interests while receiving financial returns in line with traditional investment approaches.

GWM integrates sustainability assessments, focusing on the sustainability intentionality of fund managers, into all fund and ETF onboardings. We have set a target of directing USD 5 billion of client assets by the end of 2021 into new impact investments contributing to the SDGs. These investments include a significant climate component. GWM's mutual fund and ETF offering includes climate-focused investment strategies, comprising those focused on clean / alternative energy.

We participated in launching, and have an ongoing partnership with, Align17, an independent, third-party digital marketplace. Align17 stands out in connecting a wider range of public, institutional, and private wealth investors with SDG-related investment opportunities. These opportunities are available to qualifying UBS clients and often serve to finance climate-related projects.

Our AM and GWM businesses have in place a comprehensive approach to address environmental, social and corporate governance factors across investment disciplines. For example, sustainability themes are embedded in GWM's equity research processes, while AM's Real Estate and Private Markets has developed a Responsible Investment Strategy to enhance investment performance of mandates for direct and indirect real estate and infrastructure investments. The 2019 GRESB (formerly Global Real Estate Sustainability Benchmark) awarded 15 out of 20 of AM's submitted real estate and infrastructure funds 5-star ratings with the remaining funds achieving a 4-star rating.

Our Investment Bank provides capital-raising and strategic advisory services globally to companies that make a positive contribution to climate change mitigation and adaptation, including those in the solar, wind, hydro, energy efficiency, waste and biofuels, and transport sectors. In 2019, the deal value in equity or debt capital market services, and of financial advisory services, related to climate change mitigation and adaptation, rose to USD 87.2 billion, from USD 56.5 billion in 2018.

We strive to be the preferred strategic financial partner relating to Switzerland's Energy Strategy 2050. In 2019, P&C supported 12 strategic transactions in support of the strategy. The UBS Clean Energy Infrastructure Switzerland strategy offers institutional investors unprecedented access to a diversified portfolio of Swiss Infrastructure facilities and renewable energy companies. Due to clients' demand, a successor strategy was launched in September 2017. In our P&C business we have also integrated Sustainable Investing Advisory into the strategic dialogue with our institutional clients.

To support philanthropists entering the climate space, UBS Optimus Foundation and the Climate Leadership Initiative (CLI) have developed four principles for effective climate philanthropy. CLI was created by six of the top climate donors this year with the express goal of making it easier for new philanthropists to

learn, become connected to peers and experts and join the fight.

The four principles are Understand Climate Solutions and Impact; Collaborate and Take Action Swiftly; Be Prepared to Stick With It; Marshall All Your Resources.

#### Climate-related metrics

In 2019, we have again significantly reduced the share of our carbon-related assets to 0.8%, down from 1.6% in 2018 (and 2.8% in 2017). More broadly, our share of exposure to climate-sensitive sectors has reduced in 2019 to 15.5% from 19.6% in 2018 (% of total gross banking exposure across IB and P&C).

Climate-related sustainable investments increased to USD 108 billion, up from USD 87.5 billion in the previous year. At the end of 2019, we had reduced our GHG emissions by 71% compared to baseline year 2004.

#### **Climate-related metrics 2019**

	For	the year ended		% change from	
	31.12.19	31.12.18	31.12.17	31.12.18	
Risk management					
Identified significant climate-related financial risk on balance sheet <sup>1</sup>	None	None	None		
Carbon-related assets (USD bn) <sup>2</sup>	1.9	3.2	5.8	(41)	
Proportion of total banking products exposure, gross (%)	0.8	1.6	2.8		
Total exposure to climate-sensitive sectors (USD bn) <sup>3</sup>	37.6	38.6	42.6	(3)	
Proportion of total banking products exposure, gross (%)	15.5	19.6	20.5		
Weighted carbon intensity of the Climate Aware equities strategy (in tons CO <sub>2</sub> e per million of USD revenue) <sup>4</sup>	74.8	95.6	117.5	(22)	
Compared to benchmark (FTSE Developed World Index) (%)	(56.0)	(55.7)	(44.0)		
Number of climate-related shareholder resolutions voted upon	44	43	34	2	
Proportion of supported climate-related shareholder resolutions (%) 5	81.8	88.0	82.0		
Opportunities					
Climate-related sustainable investments (USD bn) <sup>6</sup>	108.0	87.5	74.0	23	
Proportion of UBS clients' total invested assets (%)	3.0	2.8	2.3		
Total deal value in equity or debt capital market services related to climate change mitigation and adaptation (CCMA) <sup>7</sup> (USD bn)	52.7	31.6	44.3	67	
Total deal value of financial advisory services related to CCMA (USD bn)	34.5	24.9	5.5	39	
Number of strategic transactions in support of Switzerland's Energy Strategy 2050	12	8	4	50	
Own operations					
GHG footprint (kilotons CO <sub>2</sub> e) <sup>8</sup>	104	132	148	(21)	
Percentage change from baseline 2004 (Target: -75% by 2020) (%)	(71.2)	(63.4)	(59.0)		

1 Methodologies for climate-related financial risk are emerging and may change over time, as described earlier under Scenario Analysis.

2 Carbon-related assets exposures are adjusted from previous years' versions to align with IFRS 9: Banking products across Investment Bank and Personal & Corporate Banking. IFRS 9 gross exposure including other financial assets at amortized cost, but excluding cash, receivables from securities financing transactions, cash collateral receivables on derivative instruments, financial assets at FVOCI, irrevocable committed prolongation of existing loans and unconditionally revocable committed credit lines and forward starting reverse repurchase and securities borrowing agreements. As recommended by the TCFD, carbon-related assets are defined as assets tied to the energy and utilities sectors (Global Industry Classification Standard). Non-carbon-related assets, such as renewables, water utilities, and nuclear power are excluded. For grid utilities, the national grid mix is applied.

3 Gross banking products across Investment Bank and Personal & Corporate Banking (IFRS 9). Climate-sensitive sectors defined as inventory of activities with higher vulnerability to transition and physical climate risks, for more see in-text description.

4 Year-on-year decrease of carbon intensity is mainly driven by higher carbon targets of the investment strategy. Carbon intensity is based on scope 1 and 2 CO<sub>2</sub> emissions of investee companies, which often rely on third-party estimates.

5 On all proposals that we supported, we voted against the recommendation provided by the issuer.

6 Invested assets of products such as sustainably managed properties and infrastructure, and renewable energy.

7 Refer to "Calculating and reporting on climate change-related financing and advisory activities" in the Appendix of this document.

8 GHG footprint equals gross GHG emissions minus GHG reductions from renewable energy and GHG offsets (gross GHG emissions include: direct GHG emissions by UBS; indirect GHG emis

#### UBS corporate lending to climate-sensitive sectors 2019

UBS is leading an effort, with UNEP FI and peer banks, to define an inventory of climate-sensitive activities based on TCFD, regulators' and rating agencies' climate risk definitions. The current inventory is summarized in the table below at the sector level.

#### **UBS** corporate lending to climate-sensitive sectors 2019

banking products across Personal & Corporate Banking and the Investment Bank	As of 31.12	2.19
USD million, except where indicated	Gross exposure <sup>2</sup>	Share of total exposure to all sectors (%)
Climate-sensitive sector <sup>1</sup>		
Aerospace and defence <sup>3</sup>	2,115	0.9
Automotive	449	0.2
Chemicals	1,052	0.4
Constructions and materials <sup>4</sup>	3,993	1.6
Food and beverage <sup>5</sup>	2,460	1.0
Industrial Materials <sup>6</sup>	345	0.1
Machinery and equipment <sup>7</sup>	2,576	1.1
Mining <sup>8</sup>	3,000	1.2
Oil and gas <sup>9</sup>	1,415	0.6
Plastic and rubber	356	0.1
Primary materials <sup>10</sup>	332	0.1
Real estate <sup>11</sup>	15,031	6.2
Transportation <sup>12</sup>	3,272	1.3
Utilities <sup>13</sup>	1,186	0.5
Total exposure to climate-sensitive sectors	37,582	15.5
Total exposure to all sectors	242,565	100.0

<sup>1</sup> Climate-sensitive sectors defined as inventory of activities with higher vulnerability to transition and physical climate risks, for more see in-text description.

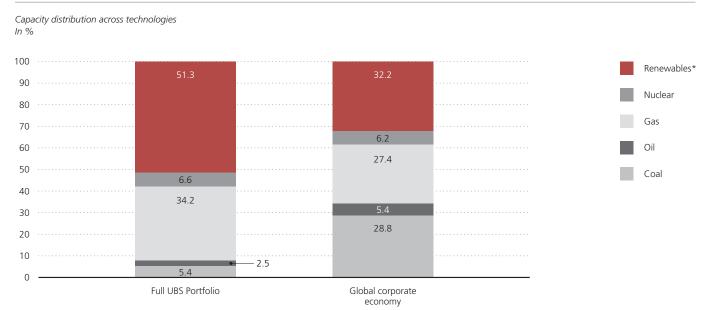
2 Banking products across the Investment Bank and Personal and Corporate banking divisions. IFRS 9 gross exposure including other financial assets at a mortized cost, but excluding cash, receivables from securities financing transactions, cash collateral receivables on derivative instruments, financial assets at FVOCI, irrevocable committed prolongation of existing loans and unconditionally revocable committed credit lines and forward starting reverse repurchase and securities borrowing agreements.

3 Of which air transport: USD 1.9 billion 4 Of which construction: USD 3.2 billion, mfg. concrete / cement: USD 0.4 billion 5 Of which food / grain traders / wholesalers: USD 1.4 billion, mfg. food / bev: USD 1.1 billion 6 Of which mfg. iron / steel: USD 0.2 billion, mfg. paper: USD 0.00 billion 7 Of which mfg. metal products: USD 0.7 billion 8 Of which metal ore traders USD 2.7 billion, coal mining: USD 0.02 billion 9 Of which upstream extraction: USD 1.1 billion, integrated 0&Gr: USD 0.2 billion 10 Of which agriculture-related: USD 0.2 billion, forestry / wood: USD 0.02 billion 11 Of which development / selling real estate: USD 1.4 billion, agriculture-related: USD 0.2 billion, forestry / wood: USD 0.02 billion across Global Wealth Management and Personal & Corporate Banking 12 Of which shipping: USD 0.5 billion, mfg. trains: USD 0.8 billion, logistics / post: USD 0.5 billion 13 Of which prod. / dist. electricity: USD 0.8 billion (for a closer look at the carbon exposure of UBS's power utilities portfolio, see PACTA graph below), refuse / recycling: USD 0.2 billion, water collection / purification: USD 0.01 billion

#### PACTA methodology for power generation

In 2019 we further assessed select climate-sensitive sectors using the PACTA methodology. Results on power sector show that the technology mix of UBS's power sector corporate lending portfolio is significantly less carbon intensive than the global corporate economy, as of 2019<sup>1</sup>.

#### UBS corporate lending portfolio technology mix of production against global corporate economy



<sup>\*</sup> Renewables, including solar, wind, hydro, biofuels and others.

<sup>1</sup> Across the Investment Bank and Personal & Corporate Banking, banking products only. As of 30.9.19, includes clients who are classified as power utilities. The methodology is driven by the 2° Investing Initiative's PACTA pilot.

#### Sustainability-related training and raising awareness

#### Overview

Throughout the year, we continued training and raising the awareness of employees, including with respect to embracing our Code of Conduct and Ethics (the Code). All employees have to confirm annually that they have read UBS's key documents and policies, including the Code.

We actively engage in internal and external education and awareness raising on corporate responsibility and sustainability topics and issues. Through induction, education and broader awareness-raising activities, we ensure that our employees understand their responsibilities in complying with our policies and the importance of our societal commitments.

#### **UBS** in society

UBS promotes employees' understanding of the goals and actions of *UBS in society* through a wide range of training and awareness-raising activities, as well as performance management. For example, in 2019, specialist training program on environmental and human rights topics (including sustainable investing) has been provided to approximately 14,000 employees in front-office and support functions who are dealing directly with the related aspects in every day's business processes. In addition, employee volunteering activities across all regions help raise awareness of *UBS in society* and our sustainability goals.

General information is published on our intranet and on our *UBS in society* internet site.

→ Refer to the Appendix 2 for the UBS in society management indicators (including training numbers)

#### Combating financial crime

All employees are required to complete financial crime training which covers anti-money laundering (AML), sanctions, fraud and anti-corruption. The training is mandatory and must be completed at least on an annual basis.

We regularly update web-based training modules to address compliance issues, including anti-corruption standards. Employees in specific areas also receive targeted training on client-related corruption, including the bank's own corruption risks in regard to intermediaries, gifts and entertainment or when major new developments require additional training.

→ Refer to "Combating financial crime" in the "Driving change in business" section for more information about our AML and anti-corruption activities

#### Sustainable performance and compensation

#### **Total Reward Principles**

Our compensation philosophy is to align the interests of our employees with those of our investors and clients, building on our three keys to success – our Pillars, Principles and Behaviors. Our Total Reward Principles establish a framework that balances sustainable performance, supporting our growth ambitions and prudent risk-taking with a focus on conduct and sound risk management practices.

Our compensation structure is aligned with our strategic priorities. It aligns the interests of our employees with those of our stakeholders and encourages our employees to focus on our clients, create sustainable value, deliver on our growth ambitions and achieve the highest standards of performance. Moreover, we reward behaviors that help build and protect the firm's reputation, specifically integrity, collaboration and challenge. We strive for client focus, excellence and sustainable performance in everything we do. Compensation for each employee is based on individual, team, business division and Group performance, within the context of the markets in which we operate.

Our Total Reward Principles apply to all employees globally. They may vary in certain locations according to local legal requirements and regulations.

#### Managing a high-performing workforce

Managing our people effectively is vital for our long-term success. As such, our global performance management process evaluates both performance and behavior. This helps us assess how well integrity, collaboration and challenge (the firm's expected behaviors) are demonstrated in daily business activities. It also makes our management, promotion and reward processes more transparent. For 2019, 99.9% of eligible employees received a performance review.

To help us attract and retain a skilled global workforce, our pay is differentiated by location, rank and role. We pay for performance and are committed to ensuring that all employees are paid fairly, embedding pay equity principles into our compensation policies and practices. We conduct regular internal and external reviews, and we seek to address any unexplained gaps. Certain jurisdictions such as the UK may require specific disclosure on this topic, which we fully adhere to.

#### ESG in the compensation determination process

ESG (Environmental, Social and Governance) is considered in the compensation determination process in different phases through objective setting, performance award pool funding, performance assessment and compensation decision.

At the beginning of the year, objectives relative to Group, business divisions, Pillars, Principles and Behaviors are set. ESG-related objectives have been embedded in our Pillars and Principles since they were established in 2011. To maintain the focus on these important ESG topics, our Group CEO and other GEB members have specific ESG-aligned goals under Pillars and Principles including governance and risk management, talent management and diversity, client satisfaction and corporate responsibility. These include goals for reducing our carbon footprint and corporate waste, and progressing our philanthropic efforts.

In the performance award pool funding, ESG is reflected through the assessment of risks, such as legal, compliance, reputational and operational risks. Therefore ESG is taken into consideration when the Compensation Committee assesses not only what results were achieved, but also how they were achieved. These achievements versus the ESG-related goals are reflected in the qualitative performance assessment and affect the final compensation decision.

Objectives focusing on our key ESG commitments are also set for managers and employees in pertinent departments or units. Most notably, this includes managers and employees in investment, research and product development, *UBS in society*, anti-money laundering, human resources, environmental and Community Affairs functions.

#### **Group Executive Board**

Annual performance awards for the Group CEO and the other GEB members are based on the GEB compensation determination process and, in aggregate, subject to shareholder approval at the AGM. We assess the GEB members' performance against a number of financial targets and goals related to Pillars, Principles, and Behaviors. The financial measures for the Group CEO are based on overall Group performance. For the other GEB members, such measures are based on both Group performance and the performance of the relevant business division and/or region; those who lead Group functions are assessed on the performance of the Group and the function they oversee.

The weighting between Group, business division, regional and functional measures varies depending on a GEB member's role. A significant weight is given to Group measures for all GEB members. The achievements relative to goals related to Pillars and Principles are additional factors for assessing the overall quality and sustainability of the financial results. We have adjusted the metric and goal weightings and enhanced the transparency of the respective disclosure. New for 2019, the financial measures account for 70% of the assessment while Pillars and Principles account for 15% and Behaviors account for the remaining 15%.

#### **Board of Directors**

As set out in the Organization Regulations of UBS Group AG, BoD members, as a group, must have the necessary qualifications, skills and diversity to perform all BoD duties In particular, the BoD must together possess financial literacy, experience in banking and risk management, as well as international experience, including experience of international financial matters, and knowledge of the duties of directors.

At least every three years an external assessment of the effectiveness of the BoD is conducted. In each year when there is no independent external assessment, a thorough self-assessment is completed at the level of the BoD, while the committees perform self-assessments every year.

The results of the in-depth external assessment undertaken from end 2018 until May 2019 concluded that the BoD and its committees were operating effectively, in line with best practice and best in class in comparison with leading European peers. The final report did not raise any material issues, but did make a number of recommendations for consideration by the BoD. These led to minor adjustments in the BoD agenda and served as a source for the definition of the BoD's priorities for 2019/2020. Areas of particular focus for the BoD were strategy, growth and value creation, as well as succession planning. Furthermore, a particular focus remained on the oversight of the regulatory, risk and legal issues as well as on digital transformation. Environment, social and governance topics, in particular sustainability and the continued emphasis on cultural values were other key priorities.

→ Refer to the "Corporate governance and compensation" section of the UBS Annual Report 2019 and the Organization Regulations of UBS Group AG available at 
www.ubs.com/governance for further information

## Materiality under GRI Standards

#### **GRI-based materiality assessment**

We put great emphasis on learning the views and values of our stakeholders with regard to the business activities of UBS and its role in society. Every year, we conduct a materiality assessment, as defined by the guidelines of the Global Reporting Initiative (GRI), to collect stakeholder views on key topics pertaining to our firm's economic, social and environmental performance and impacts. Our materiality assessment draws on formal and informal monitoring, from our dialog with stakeholders and from relevant external studies and reports.

Requested and supervised by the Corporate Culture and Responsibility Committee (CCRC), UBS's comprehensive materiality assessment process is managed by a UBS-internal, cross-business division and cross-regional materiality assessment team. The team consists of a group of experts who – due to their function – deal with stakeholder expectations and concerns on a daily basis. The team is responsible for delivering the outcome of the materiality assessment to the CCRC on an annual basis.

We also regularly invite stakeholders to directly share their views. In 2019, we did so through our biannual online survey that was completed by nearly 3,300 stakeholders, with clients being by far the largest stakeholder group. We plan to undertake a stakeholder survey again in 2021.

#### UBS materiality matrix 2019

The overall results of the materiality assessment are expressed in the UBS 2019 materiality matrix below. The matrix ranks topics by their relevance to UBS stakeholders and their impact on UBS's sustainable performance. Sustainable performance, one of UBS's three principles, signifies our focus on the long term and our efforts to provide consistent returns to our stakeholders.

For the 2018 materiality matrix, we substantially reduced the number of topics, including by subsuming several topics

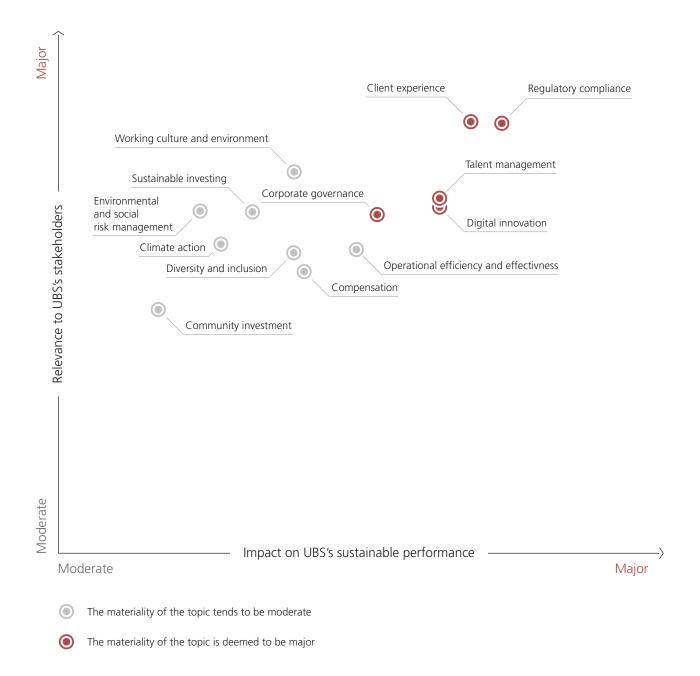
previously listed separately in the matrix (Combating financial crime; Financial stability and resilience; Cyber security; Conduct; Client protection) within the topic of Regulatory compliance and by merging topics. In 2019, we continued with this list of topics. Among the 13 topics, Regulatory compliance continues to be the most material, followed by, as in 2018, Client experience.

Our materiality assessment also included a consultation of internal experts on our firm's significant economic, environmental and social impacts. We concluded that these impacts are directly reflected in the topics deemed most material in the GRI-based materiality assessment and that they are overwhelmingly concerned with economic impacts. These topics fall within two significant impact areas of our firm: ensuring the provision of high-quality services to clients and actively managing potential major risks to clients as well as other stakeholders. Jointly, these two significant impact areas of our firm are reflected in the highly ranked topics of Regulatory compliance and Client experience.

#### → Refer to the Appendix 2 for a detailed overview of the impact of material GRI topics

As shown in the matrix, stakeholders currently regard the impact of environmental and social topics as partly influencing their assessments and decisions. The relevance of these topics has, however, increased compared to 2018 and, with it, the probability that the relevance of some of these topics to UBS, notably Climate action and Sustainable investing will further increase in coming years.

As in previous years, the overall result of the assessment was reviewed by the CCRC. It also becomes part of the decision-making processes of this Board of Directors committee with a particular focus on those topics that were assessed as very relevant or have considerably increased their relevance since the preceding year.



#### **Material GRI topics 2019**

For the purpose of the GRI Standards materiality assessment we map the GRI topics to UBS's materiality matrix and we identify the most material topics on the basis of their significance to stakeholders and their impact on sustainable performance.

All material topics are relevant to all entities consolidated within UBS. Information describing any relevant impacts of the topics outside UBS is provided as part of the description of the respective GRI indicator or material topic in the following pages.

The following table provides an overview of all topics on the UBS materiality matrix and their subtopics.

ightarrow Refer to the Appendix 2 for relevant management approaches

Material topics	Sub topics	GRI topics
Governance		
Regulatory compliance	<ul> <li>client protection: data confidentiality; transparency (clear terms and conditions of products); fair pricing schemes; easy-to-understand products and services</li> <li>combating financial crime: anti-corruption and anti-money laundering; crime and manipulation detection processes</li> <li>conduct: compliance with laws, rules and regulations; integrity of the financial system; Code of Conduct and Ethics; forward-looking engagement with risk topics and risk prevention</li> <li>cyber security; data confidentiality and cyber security</li> <li>financial stability and resilience: going concern leverage ratio (phase-in, %); common equity tier 1 capital ratio; manage risk-weighted assets within increasingly stringent risk framework; clear strategy</li> </ul>	GRI 417: Marketing and Labeling GRI 418: Customer Privacy GRI 205: Anti-corruption GRI 206: Anti-competitive Behavior GRI 419: Socioeconomic Compliance
Corporate governance	<ul><li>internal policies and guidelines</li><li>governance structure</li><li>strategy</li></ul>	GRI 102: General Disclosures
Financial and economics		
Digital innovation	<ul> <li>innovation lab</li> <li>digital transformation</li> <li>digital product and service offering</li> </ul>	
Operational efficiency and effectiveness	<ul> <li>cost and process efficiency</li> <li>focus on core competencies</li> <li>flexibility to adapt to changing regulatory environment</li> <li>outsourcing / nearshoring / offshoring</li> <li>automation</li> <li>location strategy</li> <li>product and execution excellence</li> </ul>	GRI 201: Economic Performance
Client experience	<ul><li>excellence</li><li>above-average performance</li><li>best services and practices</li></ul>	
Employees and workplace		
Compensation	<ul> <li>compensation structure</li> <li>bonus and executive payments</li> <li>reward long-term performance</li> </ul>	GRI 401: Employment
Diversity and inclusion	<ul> <li>diverse work force</li> <li>inclusive culture</li> <li>equal employment conditions and opportunities</li> <li>women in management</li> <li>age diversity within teams</li> <li>flexible working conditions</li> <li>diverse client base</li> </ul>	GRI 405: Diversity and Equal Opportunity GRI 406: Non-Discrimination GRI 419: Socioeconomic Compliance
Talent management	<ul> <li>talent attraction</li> <li>employee training on particular skills</li> <li>internal mobility</li> <li>management of talent pipeline and succession planning</li> <li>talent and leadership development programs</li> <li>provision of apprenticeships and vocational training</li> </ul>	GRI 404: Training and Education

Material topics	Sub topics	GRI topics
Working culture and environment	<ul> <li>behaviors</li> <li>flexible working times</li> <li>availability of remote working and/or home office</li> <li>occupational health and well-being: work-life balance; health protection; health and safety of employees</li> </ul>	
Environmental and social		
Climate action	<ul> <li>commitment and strategy for the topic of climate change</li> <li>climate-related investments, financing and research</li> <li>climate-related risk management</li> <li>external disclosure on the topic</li> <li>increasing energy efficiency and reducing our CO<sub>2</sub> emissions</li> <li>reduction of resource (energy, paper, water) consumption and increased resource efficiency</li> </ul>	GRI 201 Economic Performance GRI 302: Energy GRI 305: Emissions Financial Supplement (FS) Product Portfolio
Environmental and social risk management	<ul> <li>identify and manage potential negative effects on the environment and human rights</li> <li>standards in environmentally and socially sensitive industries and activities</li> <li>standards in product development, investments, financing and for supply chain management decisions</li> <li>responsible supply chain management</li> </ul>	FS Audit FS Product Portfolio GRI 308: Supplier Environmental Assessment GRI 414: Supplier Social Assessment
Community investment	<ul> <li>employee engagement through employee volunteering</li> <li>support of non-profits, charitable organizations and social enterprises (positive impact on communities)</li> <li>supporting education and entrepreneurship in local communities</li> <li>financial inclusion</li> </ul>	GRI 203: Indirect Economic Impacts
Sustainable investing	<ul> <li>sustainable finance</li> <li>combination of societal and financial returns</li> <li>sustainable investment criteria</li> <li>impact investing</li> <li>ESG integration</li> <li>client foundation</li> <li>philanthropy advisory</li> </ul>	FS Product Portfolio FS Active Ownership

## Driving change in finance

We strive to systematically incorporate the economic impacts of environmental, social and governance (ESG) issues into the products and services we provide to clients. We support corporate and institutional clients who want to generate positive environment and social impact using our corporate advisory expertise or by directing capital through our lending or investment capacity. We assist private and institutional clients in their desire to invest in accordance with their own social and environmental objectives and we are proactive in discussing these issues with them.

#### Sustainable investing

Sustainable investing (SI) is an approach that seeks to incorporate environmental, social and/or governance considerations into investment decisions. SI strategies seek to achieve one or more of the following objectives: achieve a positive environmental or social impact, align investments with an investor's personal environmental or social values, or improve portfolio risk and return characteristics.

As of 31 December 2019, our core SI assets increased to USD 488 billion (2018: USD 313 billion) representing 13.5% (2018:10.1%) of our total invested assets. The major driver behind this increase was the growth in the "ESG integration" and "sustainability focus" categories, which went up 65.9% and 132.4% respectively. Norms-based screening assets, i.e., assets that fall under the application of a UBS policy<sup>1</sup> and do not otherwise qualify as a core sustainable investment, amounted to USD 818 billion as of 31 December 2019 (up from USD 797 billion in 2018). Total sustainable investments, including norms-based screening assets, accounted for USD 1,306 billion (2018: USD 1,110 billion), or 36.2% (2018: 35.8%), of our total invested assets.

→ Refer to "Our focus on ESG" in the "How we create value for our stakeholders" section for more information about our sustainable investing numbers

In its efforts to achieve UBS's goal to be a leader in SI for private clients, Global Wealth Management (GWM) provides clients with a comprehensive set of SI solutions in its mandate and advisory offerings as well as through impact investments opportunities. We offer a suite of discretionary *UBS Manage* offerings with 100% (excluding liquidity) sustainable and impact investments available in our main booking centers worldwide. These offerings are based on our global Chief Investment Office's (CIO) UBS House View and align to its SI strategic asset allocation. In 2019, we successfully piloted our innovative *UBS Advice Premium [Sustainable Investing]* offering. Starting from January 2020, our clients in Booking Center Switzerland can

express their sustainability preferences and receive, after appropriate fiduciary checks, investment recommendations that are personalized to their interests and values.

Our global CIO includes material ESG considerations in its investment research and regularly translates key societal and environmental concerns into investment themes as part of its Longer Term Investments series (aimed at investing in long-term solutions to key environmental and social challenges) and global Research-based Advice. In 2019, some notable examples of CIO perspectives were the World Economic Forum white paper aimed at encouraging the sustainable finance community to agree on common terminology and the launch of a new ESG data management methodology that combines insights from multiple data providers; the new ESG data framework also aligns with the Sustainability Accounting Standard Board's (SASB) materiality framework terminology. Simplifying standardizing sustainable investment terminology is a crucial part of growing sustainable finance, which is why we partner with Blackrock and the Institute of International Finance to outline a simplified sustainable investing taxonomy. We also arrange networking platforms, roundtables and events for our clients to exchange ideas with one another.

We believe the private sector has a crucial role to play in bringing innovative solutions to some of the world's most pressing issues. This is why UBS supports social entrepreneurs, via the UBS Global Visionaries program, who are tackling some of the world's biggest social and environmental challenges. These *Global Visionaries* have been recognized by our teams in GWM for their plans to improve the world in areas such as health, education, equality and the environment. We connect these Global Visionaries with our clients, and UBS employees volunteer their time and expertise to help the Global Visionaries in their endeavors.

Asset Management (AM) has integrated sustainability into its entire investment approach. We are convinced that sustainable and impact investing can add value to portfolios within the same risk / return profile. Investment strategies customized to address particular sustainability objectives, such as reducing carbon risk or tilting a portfolio toward specific environmental, social or governance factors, in combination with traditional financial and risk / return expectations are increasingly popular. Over the last decade, we have developed capabilities to provide customized solutions to meet the specific goals and needs of individual investors. We offer a wide range of SI strategies across various asset classes, integrating sustainability and impact into our entire mainstream offerings, including in active equities, fixed income, hedge funds, infrastructure and private equity, real estate and passive strategies.

<sup>1</sup> The assets in discretionary mandates, in UBS's actively-managed retail and institutional funds, as well as in our firm's proprietary trading book are subject to our firm's policy on the prohibition of investment on and indirect financing of companies involved in the development, production or purchase of anti-personnel mines and cluster munitions.

The Investment Bank provides industry-leading thematic and sector research in ESG / SI through a widely recognized team working closely with our global line-up of outstanding expert sector teams, and UBS Evidence Lab's primary research specialists. Our investment solutions include, for example, sustainable and socially responsible Index-linked notes. We offer capital-raising and strategic advisory services globally to companies that make a positive contribution to climate change mitigation and adaptation, including those in the solar, wind, hydro, energy efficiency, waste and biofuels, and transport sectors. In 2019, the total deal value in equity or debt capital market services relating to these areas was USD 52.7 billion, and USD 34.5 billion in financial advisory services.

Personal & Corporate Banking clients have access to appropriate and relevant sustainable investment products from AM and GWM that follow our Group-wide approach to SI. In addition, our sustainability analytics offering enables institutional clients to achieve full transparency by screening their portfolio for industry exposure. We also support energy utilities in raising capital on international capital markets to progress their quest for renewable energy. Furthermore, we support Swiss small and medium-sized enterprises (SMEs) in their energy-saving efforts and transition to a low-carbon economy. SMEs benefit from initiatives such as energy check-ups or leasing bonuses (financial contributions toward enhancing environmental performance) for production machines. In addition, we support Swiss start-ups in developing innovative circular economy solutions.

Having the financial expertise, networks and access to the capital required to build or support innovative financial products, we remain committed to introducing and funding innovative financial solutions. Examples include the SDG Engagement High Yield Credit funds (in co-operation with Federated Investors and Hermes Investment Management); the Climate Aware Equity (TTF), the UBS Managed Portfolio of Sustainable Investments, and our partnership with Align 17.

As of 31 December 2019, we also held green and social bonds in the amount of USD 867 million in our high-quality liquid assets portfolios under the management of Group Treasury.

- → Refer to the table *Key sustainable investing products and* services in 2019 on the following pages for further information
- → Refer to www.ubs.com/globalvisionaries for more information about UBS Global Visionaries

#### Stewardship / voting rights

UBS Asset Management's stewardship policy is our commitment to act as responsible stewards of assets held and managed on behalf of our clients. We recognize that clients expect us to ensure the alignment of our approach with their own investment beliefs, policies and guidelines. We have a strong interest in ensuring that companies in which we invest on behalf of clients are successful, and through our stewardship activities we seek to encourage a high standard of corporate practices, develop a relationship with investee companies and an understanding of mutual objectives and concerns. In addition, where clients of AM have delegated to us the discretion to exercise the voting rights for shares they beneficially own, we have a fiduciary duty to vote such shares in the clients' best interest and in a manner which achieves the best economic outcome for their investments.

We maintain a comprehensive database of our meetings with companies and our voting activities. We review progress over time and follow up on issues identified. In the 12-month period ended 31 December 2019, we gave instructions (based on AM's corporate governance principles) to vote on 104,372 separate resolutions at 10,432 company meetings. Information on such resolutions and company meetings is provided in the Proxy Voting Dashboard.

→ Refer to www.ubs.com/am-sustainability and vds.issgovernance.com/vds/#/MjU0/ for more information and for the Proxy Voting Dashboard.

#### Key sustainable investing products and services in 2019 $^{\rm 2}$

Product / service	Business division	Key features
The Rise Fund	Global Wealth Management (GWM)	USD 325 million raised of client commitments (fund raising concluded) Invests in seven sectors — education, financial services, health care, infrastructure, energy, food and agriculture, and IT — with a dual mandate: generating competitive financial returns and measurable positive societal outcomes
Rethink Impact Fund	GWM	USD 75 million of client commitments (fund raising concluded) Direct-access social impact private equity fund that invests in early- to growth-stage, high-impact companies, primarily in the United States. The fund focuses on four themes: health care, economic opportunity, environmental sustainability, and education
OrbiMed Asia Partners III	GWM	USD 85 million of client commitments (fund raising concluded) Growth investments in health care companies in China and India, focusing on biopharmaceuticals, medical technology and health care services
Generation Partners Sustainable Solutions Fund III	GWM	USD 94 million of client commitments (fund raising concluded) Invests in transformative technologies providing disruptive solutions to global sustainability challenges
Impact Direct Investing Offering	GWM	Initiated to address high demand for direct impact deals as well as UBS's strong commitment to support the SDGs Complements the UBS SI Offering with direct impact investing opportunities
ADM Cibus Fund	GWM	USD 125 million of client commitments (fund raising concluded) Aims to find investment opportunities arising out of the high-value food supply-demand imbalance faced by many developing economies, particularly in Asia and Middle East and North Africa
KKR Global Impact Fund	GWM	USD 244 million of client commitments Invests in businesses that contribute measurable progress toward one or more of the SDGs
RXR Qualified Opportunity Zone Fund	GWM	USD 283 million of client commitments Invests in real estate and/or real estate –focused businesses within qualified opportunity zones
Bridge Workforce & Affordable Housing Fund	GWM	USD 167 million of client commitments Invests in real estate located throughout the United States, with a focus on workforce and affordable multifamily housing communities
UBS Manage SI (discretionary mandate and SI fund)	GWM, Personal & Corporate (P&C)	Based on Chief Investment Office (CIO) SI (sustainable investing) Strategic Asset Allocation (SAA) (100% SI excl. liquidity allocation) AuM: USD 9.1 billion (of which USD 7.1 billion track the SI SAA)
UBS Managed Portfolio of SI (US only)	GWM	Based on CIO SI SAA (100% SI excl. liquidity allocation) AuM: USD 284 million
UBS Advice Premium SI	GWM	Innovative Advice mandate, reflecting our clients' individual preferences; launched in January 2020

Product / service	Business division	Key features
SI-focused UBS Advice solutions	GWM	Expanded SI offering that includes mutual funds, exchange-traded funds, separately managed accounts, unit investment trusts, private equity and structured products
SDG Engagement High Yield Credit funds	GWM	Launched in co-operation with Federated Investors and Hermes Investment Management
ESG Portfolio Analyzer	GWM	Provides transparency and analysis of ESG topics in client portfolios
Align 17	GWM	UBS-initiated third-party digital marketplace for impact investments that connects private wealth to vetted co-investment opportunities with diligence done by some of the world's leading impact fund managers
SI Strategy Fund	GWM, P&C	Based on CIO SI SAA and aligned to UBS Manage SI (discretionary mandate) AuM: USD 154 million
UBS Long Term Themes Equity Fund UBS Long Term Themes Portfolio SMA	GWM, Asset Management (AM)	USD 2.5 billion held in Long Term Themes Fund and mandates Invests in companies that are solution providers for challenges such as water scarcity, emerging market infrastructure and health care, waste management and recycling
Climate Aware Equity (TTF) Climate Aware CH Institutional Climate Aware UK Life	AM	Innovative rules-based equities strategy to address carbon risks and opportunities in portfolios
Global (Engage for) Impact Equity	AM	Strategy focusing on engagement as a key driver of impact and investment results
US Sustainable Equity	AM	Sustainability focused US equity fund
US Sustainable Growth Equity	AM	Sustainability focused US equity fund
Multilateral Development Bank (MDB)	AM	Innovative product investing in Development Bank bonds to support the SDGs through high-grade fixed income exposure
Sustainable Corporate Bonds	AM	Investment Grade USD / EUR / CHF bond portfolios with superior ESG profile
Multi Asset	AM	Multi asset portfolio with enhanced ESG profile in asset categories where possible
Short Duration High Yield Sustainable Bond	AM	Investment guidelines with sustainability criteria aiming to deliver a better sustainability profile relative to their investment universe
Global Gender Equality	AM	Systematic strategy targeting companies committed to sustainability and gender diversity
S&P 500 ESG	AM	ETF invested in all equities included in the S&P 500 ESG index
Eurostoxx 50 ESG	AM	ETF invested in all equities included in the EURO STOXX 50® ESG index

Product / service	Business division	Key features
MSCI China ESG Universal	AM	ETF invested in all equities included in the MSCI China ESG Universal 5% Issuer Capped Index
JPM Emerging Markets Debt IG ESG Bonds	AM	Designed to track the performance of US Dollar-denominated emerging market fixed and floating-rate debt instruments classified as investment grade (IG) and issued by Sovereigns, Quasi-Sovereigns and Corporates.
JPM Global Government ESG	AM	Provides exposure to local currency sovereign debt that meets certain sustainability standards
Voting (on behalf of clients)	AM	Provided instructions (based on AM's corporate governance principles) to vote on 104,372 separate resolutions at 10,432 company meetings
World Bank Index-Linked Sustainable Development Bond	Investment Bank (IB) / GWM	Debt securities issued by the International Bank for Reconstruction and Development, with a return at maturity based on the performance of the Global Sustainability Signatories Index Provides investors access to a sustainable development bond issued by the World Bank and access to a global equity index with companies selected based on ESG ratings
Green and sustainable bonds	IB	25 green and sustainable bond transactions supported
Global Sustainability Leaders index	IB, GWM	Companies selected include leaders with regard to the UN Global Compact principles
Renewable energy and cleantech financing	IB	Participation in significant renewables and cleantech deals globally, for both established utilities clients and innovative growth-stage companies
Energy check-up for SMEs	P&C	UBS SME efficiency bonus for energy reduction plan with overall energy savings of 58,000 MWh/a, equivalent to the annual energy consumption of approximately 3,000 single-family homes <sup>3</sup>
Preferred strategic partner for advisory and financing transactions related to Switzerland's Energy Strategy 2050	P&C	Supports energy utilities in raising capital on international capital markets to progress their quest for renewable energy Twelve strategic transactions executed for Switzerland's Energy Strategy 2050

2 All information provided is as of 31 December 2019, except where otherwise noted. 3 Information provided is as of 31 December 2018

## Driving change in philanthropy

#### **UBS Philanthropy**

Developed over more than two decades, our unique, award-winning¹ offering partners with clients and their families to manage their philanthropy and maximize their impact. It is based on three core pillars: comprehensive advice, insight experiences, and execution services. We employ an investment-based approach delivering solutions to pressing social and environmental issues.

UBS Philanthropy Services connects clients to an international network of expertise and support. With a team of close to 60 philanthropy experts in 12 locations, we can support clients wherever their philanthropic objectives lead. We work closely with government bodies such as the United States Agency for International Development and the Department for International Development in the UK. And alongside academic institutions such as Oxford, Stanford and Harvard. This breadth and depth of know-how makes sure that every piece of advice we offer is informed by the latest thinking and a clear understanding of the prevailing rules and regulations in each territory.

#### Advice

We provide comprehensive advice to clients and their families, whatever their philanthropic goals. Examples include clients considering establishing their first charitable fund and guidance on how to ensure their giving is tax-efficient, thereby maximizing the value of their charitable funds.

#### Insights

We want our clients to be able to make the best informed decisions about their philanthropy, and a key way we do that is by connecting people and providing insight through our global network. This can be anything from a philanthropy insights trip, to a report on the latest charitable giving tax rules or an invitation to a networking event with fellow philanthropists.

#### Execution

We offer a number of execution services, providing our clients with flexible options on how to manage their philanthropic giving. They include structures that make it easier and more cost-effective to put their strategy into practice.

#### Donor-Advised Fund

A UBS Donor Advised Fund (DAF) offers clients an easy flexible and efficient alternative to setting up an independent foundation. Quick to set up and simple in structure, a DAF can be managed in line with a client's usual investment approach. Their charitable donations are invested within the parameters they select, such as capital, growth or income, so they can grow their fund to make grants at a later date.

#### **UBS** Optimus Foundation

The Foundation connects clients with inspiring entrepreneurs, new technologies and proven models that are making a measurable, long-term difference to the most serious and enduring social and environmental problems.

UBS Optimus Foundation has a 20-year track record, is recognized globally as a philanthropic thought leader and as a pioneer in the social finance space. The latter aims for "impact first", and often entails greater financial risk than investing in mainstream assets. In fact, impact bonds or loans for impact are a way to drive financial returns that are directly linked to actual social impact.

In all its activities, the Foundation always takes an evidence-based approach and focuses on programs that have the potential to be transformative, scalable and sustainable. This gives our clients the reassurance that they are funding innovative projects that have a stronger chance of achieving all-important systemic change. In some cases, UBS also makes matching contributions to the Foundation, ensuring that our clients' donations go even further.

#### Achievements in 2019

UBS Optimus Foundation raised USD 89.5 million in donations and approved USD 109.5 million grants. Across our portfolios and programs, we helped improve the well-being of 3.3 million children worldwide (500,000 more than last year).

Approximately 400 ultra-high net worth individuals or philanthropists attended our events on the topic of philanthropy to foster collaboration, share knowledge and best practice.

## Driving change in business

This section includes key initiatives and activities that we are committed to in order to incorporate sustainability in our way to do business and that meet the expectations of our stakeholders. These include our management of environmental and social risks, our firm's environmental footprint, our responsible supply chain management and our approach to combating financial crime.

We recognize that we have a role to play in leading debates on important societal topics and, in collaboration with other firms and industry bodies, in setting high standards for these topics in and beyond our industry. Our key activities in 2019 in this regard are set out in the table below and on the next page.

#### Advancing sustainability in the financial sector - UBS's key activities in 2019

Initiative	Focus topic	Role / activity of UBS	Key outcome of initiative in 2019
Principles for Responsible Banking (PRB)	Sustainable finance	Founding signatory of the PRB	Active input to the consultation process and participation at PRB launch event
Financial Stability Board Task Force on Climate-related Financial Disclosures (TCFD)	Climate change	Member of TCFD and aligning of UBS disclosure with TCFD recommendations	Continued development and implementation of TCFD
UN Environment Programme Finance Initiative (UNEP FI)	Climate change	Collaborates in developing approaches to help banks disclose their exposures to climate- related risks and opportunities, as envisioned by the TCFD	Launched second phase working group to expand risk and opportunity assessment methodologies, climate scenarios, and related data and tools, building on previous efforts disclosed in two publicly available reports
EnergyCom	Climate change	Premium partner	Key annual Swiss SME event on climate and energy topics
Climate Action 100+	Stewardship / climate change	Directly involved in 30 coalitions of investors and engagement lead on seven coalition dialogues	Engagement resulted in strengthened climate change commitments from some of the world's largest energy producers
Institutional Investors Group on Climate Change	Climate change	Participant and stream lead	Chairing working group dedicated to exploring the alignment of portfolios to the goals of the Paris Agreement
Circular Economy Incubator (Impact Hub)	Responsible production	Premium partner. In addition, we support Swiss start-ups in developing innovative business models which follow the idea of a circular economy (resell and reuse, repair and refurbish).	Incubator for Swiss sustainable start-ups

Initiative	Focus topic	Role / activity of UBS	Key outcome of initiative in 2019	
Paris Agreement Capital Transition Assessment (PACTA)	Climate change	One of 17 banks pilot-testing and shaping the development of the methodology	First assessment on the alignment of corporate lending portfolios with the Paris Agreement benchmarks completed	
Natural Capital Finance Alliance	Natural capital	Participant in various work streams	Continued participation in advisory committee for the second stage of the project tool ENCORE (Exploring Natural Capital Opportunities, Risks and Exposure)	
Swiss Sustainable Finance (SSF)	Sustainable finance	Member of SSF board	Events and projects to promote sustainable finance in Switzerland	
Association for Environmental Management and Sustainability in Financial Institutions (VfU)	Sustainable finance	Member of VfU board	Events and projects to advance sustainable finance in Germany, Austria and Switzerland	
Thun Group of Banks	Human rights	Convener of Group	Thun Group input to OECD Responsible Business Conduct (RBC) guidance	
Organisation for Economic Cooperation and Development (OECD)	Due diligence	Member of advisory group of OECD Responsible Business Conduct (RBC) project	Launch of OECD guidance on Due Diligence for Responsible Corporate Lending and Securities Underwriting	
Belt and Road Green Investment Principles (GIP)	Climate change and sustainable finance	Signatory to the GIP	Participation at the first GIP Plenary meeting	
Institute of International Finance (IIF) Sustainable Finance Working Group (SFWG)	Sustainability standards and regulation	Member of IIF SFWG and lead on policy and regulatory engagement	Best practices on TCFD, proposal to simplify SI taxonomy, greening infrastructure, and continued input to other initiatives including EC TEG	
Global Impact Investing Network	Sustainable finance	Member of Investor Council	Regular dialogue and event presentations	
IFC Operating Principles for Impact Management	Sustainable finance	Founding signatory, Advisory Board member	Launch and publication of Principles, led by World Bank's IFC	
Impact Management Project (IMP)	Sustainable finance	Project partner	Integration of IMP conventions into diligence and investment approach	
PRI (Principles for Responsible Investment)	Sustainable finance	Various, including members of SDG Advisory Committee	Proposals on how to measure SDGs for corporations	
Global Research Alliance for Sustainable Finance and Investment (GRAFSI)	Sustainable finance	Sponsor	Advance theoretical understanding of SI / ESG integration	
UBS ESG and Sustainability Symposium	Sustainable finance and investing	Organizer	One-day conference around the key issues the financial markets are navigating, including academic panel (in collaboration with GRAFSI)	
UBS Conferences, e.g., European Conference, Greater China Conference	Various	Organizer	Variety of panels on sustainable finance, climate risk, energy transition, etc.	

#### **Environment and human rights**

Our environmental management system covers the entire scope of UBS products, services and in-house operations that may give rise to an environmental impact. It is externally audited annually and recertified every three years.

We view the proper management of our firm's own environmental footprint and our supply chain as important proof points for how we do business in a sustainable manner. This is equally true for our comprehensive management of environmental and social risks (ESR). Our in-house environmental management, responsible supply chain management (RSCM), and ESR standards and management are aligned with the *UBS in society* strategy and enforced across the firm.

We constantly strive to reduce our greenhouse gas (GHG) emissions, waste production, energy and paper consumption as well as water usage.

By engaging with vendors to promote responsible practices, we look to reduce negative environmental and social effects of the goods and services UBS purchases. Our RSCM principles embed UBS's ethics and values in our interactions with our vendors, contractors and service partners. Since 2008, firm-wide guidelines have provided systematic assistance on identifying, assessing and monitoring vendor practices in the areas of human and labor rights, environmental protection and corruption. A central component of this guideline is the UBS Responsible Supply Chain Standard to which our vendors are bound by contract.

We apply an ESR framework to identify and manage potential adverse impacts to the environment and/or human rights, as well as the associated environmental and/or social risks that our clients' and our own assets are exposed to. We support the orderly transition to a low-carbon economy. Our climate strategy underlines our commitment to the United Nations Sustainable Development Goals on climate action and on affordable and clean energy – and to the Paris Agreement on Climate Change

(Paris Agreement). We regularly report on the implementation of our climate strategy and follow the recommendations of the Task Force on Climate-related Financial Disclosures.

In assessing UBS's potential human rights impacts we focus on three key stakeholder groups: employees, clients and vendors. With regard to employees, UBS, through its human resource (HR) policies and practices, meets the obligations that a responsible company is expected to comply with. We review our HR policies and practices on a regular basis to ensure that human and labor rights continue to be respected. With regard to clients, we conduct ongoing reviews of our business relationships to assess whether they might lead to potential negative impacts on rights holders. All client relationships that are considered important from an ESR point of view are subject to enhanced ESR due diligence.

With regard to our vendors, we identify high-risk vendors when establishing new contracts or renewals based on the vendors' provision of goods and services that have either a substantial environmental and social impact, or are sourced in markets with potentially high social risks. We also regularly screen active vendors as part of our ESR control processes.

Both our firm's approach to the environment and human rights and our commitment to our employees (as reflected in our HR processes and policies) are overseen by the Board of Directors, notably by the Corporate Culture and Responsibility Committee (CCRC). Within the parameters set by the CCRC, environmental and human rights issues at Group Executive Board-level are overseen by the Global ESR Committee. The CCRC regularly reviews the assessments and steps taken by the Global ESR Committee toward executing UBS's environmental and human rights commitments and climate strategy.

- → Refer to "Our climate strategy" in the "Our governance and principles" section and to the "ESR policy framework" in the Appendix 1 for more information
- → Refer to "In-house environmental management" in this section for more information

#### Management of environmental and social risks

We apply an environmental & social risk (ESR) framework to identify and manage potential adverse impacts on the environment and/or to human rights, as well as the associated environmental and social risks to which our clients' and our own assets are exposed to. Our comprehensive ESR standards, which are in line with the principles expressed in the UBS in society constitutional document, govern client and vendor relationships and are enforced firm-wide

We have set ESR standards for product development, investments, financing and supply chain management decisions. As part of our due diligence process, we engage with clients and vendors to better understand their processes and policies and to explore how any environmental and social risks may be mitigated. We apply a precautionary approach by avoiding transactions, products, services, activities or vendors if they are associated with material, environmental or social risks that cannot be properly assessed or mitigated.

Our ESR standards include a description of controversial activities and other areas of concern where we will not engage, or where we will only engage with stringent criteria in place, as outlined below. These standards are reviewed on a regular basis.

Our standard risk, compliance and operations processes involve procedures and tools for identifying, assessing, reporting and monitoring environmental and social risks. These include client onboarding, ongoing Know Your Client reviews, transaction due diligence, product development, investment decisions, supply chain management and portfolio reviews.

These processes are geared toward identifying clients, transactions or vendors potentially in breach of our standards, or otherwise subject to significant environmental and human rights controversies. We use advanced data analytics to assess companies associated with such risks, integrated into our webbased compliance tool, before we enter into a client or vendor relationship or transaction. This significantly enhances our ability to identify potential risks. In 2019, 1,889 referrals were assessed by our ESR unit, of which 82 were rejected or not further pursued, while 299 were approved with qualifications and 32 were still pending.

→ Refer to the "ESR policy framework" in the Appendix 1 for more information

We will not do business if associated with severe environmental or social damage to or through the use of:

- wetlands, endangered species,

UNESCO world heritage sites

- high conservation value forests, illegal logging and use of fire,
- child labor, forced labor, indigenous peoples' rights

We will only do business under stringent criteria in the following

- soft commodities: palm oil, soy, timber, fish and seafood
- power generation: coal-fired power plants, large dams, nuclear power
- extractives: arctic oil and oil sands, coal mining, Liquefied Natural Gas (LNG), ultra-deepwater drilling, hydraulic fracturing, oil sands, arctic drilling, coal mining, precious metals, diamonds

#### Case studies on the management of environmental and human rights matters

Environmental and social risk in trade finance and commodity trade finance

#### Why is trade finance relevant?

Trade finance supports about 20% of world trade, playing a central role in facilitating the global trade of raw commodities and other goods. Commercial banks support importers, exporters and traders (for commodities) to secure or finance international transactions. Trade may be exposed to heightened environmental and social risks, especially when linked with extraction of raw commodities and/or specific projects. Depending on the type of the trade, such risks may arise for the producer, the exporter and/or the importer of traded goods – as well as for the bank providing the financing.

#### What do we do?

UBS enables buyers, sellers and traders to successfully trade goods and commodities, by guaranteeing deal performance through a variety of financial instruments. For example, in Commodity Trade Finance, UBS offers structured, short- to mid-term loans that finance deals trading metals, energy, and soft-commodities between producers and end users. Recognizing the role that UBS plays in facilitating and growing global trade, UBS implements its environmental and social risk framework in the context of individual transactions.

# How do we implement the ESR framework in trade finance, commodity trade finance?

ESR controls are part of the standard transaction due diligence processes. Based on our daily feed into the standard compliance tool, every transaction is checked against ESR. We use a risk-based approach. This means for commodity trade finance, we focus on the originator of the commodity. For trade finance, we focus on the counterparty and on projects that will use the goods involved, for example machinery produced by our client in Switzerland. This means we apply checks beyond our clients on all relevant counterparties in a transaction. We may ask additional questions to clarify the origin or the final use of the goods and we may approve or decline. With a fast moving underlying business (same day in and out), additional in-depth due diligence is limited on transactional level. It is however possible to perform enhanced due diligence during periodic Know Your Client reviews or with separate deep-dive reviews in between transactions, which we conduct on a periodic and ongoing basis.

Climate risks in financing electric utilities

## What are the climate risks associated with electric utilities?

According to the International Energy Agency, approximately 35% of global power generation today is coal-fired. As the world transitions to a low-carbon economy, reliance on coal-fired power generation will reduce significantly, eventually to 0%. Risks embedded in this transition are found with clients who have a significant reliance on coal-fired power plants in their own asset portfolios.

#### What is our commitment?

We are supporting the utility sector in providing solutions that are in line with a sustainable development pathway. Recognizing the climate implications created by the extraction and burning of coal, we are committed to not providing project-level financing for new coal-fired power plants globally and only supporting financing transactions of existing coal-fired operators (>30% coal reliance) who have a transition strategy in place that aligns with a pathway under the Paris Agreement, or if the transaction is related to renewable energy.

### How do we execute our commitment when financing electric utilities?

ESR controls are part of our standard transaction due diligence processes. Utilities are screened for exposure to coalfired power plants. Where a client or related entity has coal-fired power plants in their portfolio, we first determine the current and future asset base of the client, by megawatt capacity of the various fuel types in the client's power generation portfolio (e.g., nuclear, natural gas and coal). This is determined through desk research, third-party specialty databases and engaging with the client in question. We then benchmark the coal reduction trajectory against the Paris Agreement-aligned benchmarks for host countries, as determined by our thirdparty environmental, social and corporate governance data partner. The rates are then compared to determine if the client's forward-looking strategy meets our Paris Agreement-aligned commitment.

Case study: Non-compliance with the standards of the Roundtable on Sustainable Palm Oil (RSPO)

#### Why is palm oil such a hot topic?

It is estimated that more than 50% of tropical deforestation is due to the production of palm oil, soy, timber and beef. Deforestation and forest degradation can cause biodiversity to decline. Deforestation is, in fact, second only to the energy sector as a source of global greenhouse gas emissions and accounts for up to 20% of global emissions. Furthermore, as millions of people rely directly on forests, deforestation continues to cause severe societal problems, sometimes leading to violent conflict.

#### What do we do?

Before doing business with any company involved in palm oil production or trading, our experts for environmental and social risk inquire how a company manages environmental and social challenges in its palm oil operations, as required by UBS's standards for palm oil production. Depending on the client and the type of transaction that UBS is confronted with, for example lending, trade finance, underwriting or investment banking advisory mandates, due diligence may involve desk research and interaction with the companies, external experts, as well as global and local non-governmental organizations. Depending on the results, this can lead to a variety of actions, from requesting the client to certify its production or trading processes against the standards of the RSPO to declining to do business with the client.

### How does our ESR approach impact a particular case?

UBS negotiated the commencement of a relationship with a corporate client whose activities also included the palm oil business. At that point, the corporate entity was not a member of the RSPO, which is a requirement under the respective UBS standard. UBS therefore agreed to a conditional onboarding of the corporate entity under the condition that it adhered to the RSPO within a predefined time period. After the agreed period had passed without the client taking the necessary steps, UBS exited the relationship.

#### In-house environmental management

#### Introduction

We are committed to reducing our environmental footprint and make an effort to go beyond our duty to protect the environment. We continuously seek to increase recycling and the use of environmentally friendly products as well as the efficiency of our energy and water use, decreasing waste, paper usage, business travel and employee commuting.

We manage our environmental management system in accordance with ISO 14001. In 1999, we were the first bank to obtain this ISO certification for our worldwide environmental management system, which covers the entire scope of UBS products, services and in-house operations that may cause an environmental impact. It is externally audited on an annual basis, with our latest recertification having taken place in 2017. We have also further developed our Environmental and Energy Management System in our European locations to be compliant with ISO 50001. We received our first ISO 50001 certification (energy management system standard) in 2017, the recertification is due in 2020.

Our environmental indicators (energy, water, paper, waste, recycling and travel) and related greenhouse gas (GHG) emissions data are externally verified on the basis of the ISO 14064 standard. These comprehensive audits confirm not only that appropriate policies and processes are in place to manage environmental issues but also that they are applied on a day-to-day basis.

→ Refer to the "Assurance and certification" section for our ISO certificates

#### **ISO Standard**

The International Organization for Standardization (ISO) is an independent, non-governmental organization with boards of experts who develop worldwide proprietary, industrial and commercial standards for global challenges in various market-relevant topics. ISO Standards help organizations of any size to drive their internal processes forward and develop their business. ISO 14001 specifies the requirements for an environmental management system of organizations, ISO 14064 helps companies to quantify and report their GHG and manage its verification, whereas ISO 50001 focuses on their energy management system and their continual improvement of energy performance.

#### Objectives and targets

We have established environmental objectives at relevant levels and functions. To continuously improve our environmental performance, we have set quantitative targets related to our significant environmental aspects since 2006. The current quantitative objectives were set in 2016 and have 2020 as the target year.

#### Environmental targets and performance in our operations<sup>1</sup>

	GRI <sup>2</sup>	2019	Target 2020	Baseline	% change from baseline	Progress / Achievement <sup>7</sup>	2018	2017
Total net greenhouse gas emissions (GHG footprint) in t CO <sub>2</sub> e <sup>3</sup>	305	103,670	-75%	360,5014	-71.2	•	131,960	147,757
Energy consumption in GWh	302	556	-5%	661 <sup>5</sup>	-15.9	•	584	627
Share of renewable electricity	302	72.0%	100%	27.7% <sup>4</sup>	158.7	•	59.2%	56.0%
GHG offsetting (business air travel) in t CO <sub>2</sub> e <sup>3</sup>	305	42,949	100%	04	100	•	50,166	54,412
Paper consumption in kg per FTE <sup>6</sup>	301	78	-5%	114 <sup>5</sup>	-31.5	•	91	95
Share of recycled and FSC paper	301	83.4%	90%	89.5% <sup>5</sup>	-6.8	•	79.8%	90.8%
Waste in kg per FTE <sup>6</sup>	306	156	-5%	206 <sup>5</sup>	-24.2	•	175	203
Waste recycling ratio	306	51.2%	60%	54.1% <sup>5</sup>	-5.5	•	50.8%	55.0%
Water consumption in m m <sup>3</sup>	303	0.79	-5%	0.965	-17.7	•	0.79	0.87

 $\label{eq:complex} \textbf{Legend: CO}_2 = \textbf{CO}_2 \ \text{equivalents; FTE} = \text{full-time employee; GWh} = \textbf{giga watt hour; kWh} = \text{kilo watt hour; km} = \text{kilometer; kg} = \text{kilogram; m m}^3 = \text{million cubic meter; t} = \text{tonne}$ 

<sup>1</sup> Reporting period 2019 (1 July 2018-30 June 2019). 2 Reference to GRI Sustainability Reporting Standards (see also www.globalreporting.org). 3 GHG footprint equals gross GHG emissions minus GHG reductions from renewable energy and GHG offsets (gross GHG emissions include: direct GHG emissions by UBS; indirect GHG emissions associated with the generation of imported / purchased electricity (grid average emission factor), heat or steam and other indirect GHG emissions associated with business travel, paper consumption and waste disposal). 4 Baseline year 2004. 5 Baseline year 2016. 6 FTEs are calculated on an average basis including contractors. 7 Green: on track; Amber: improvements required.

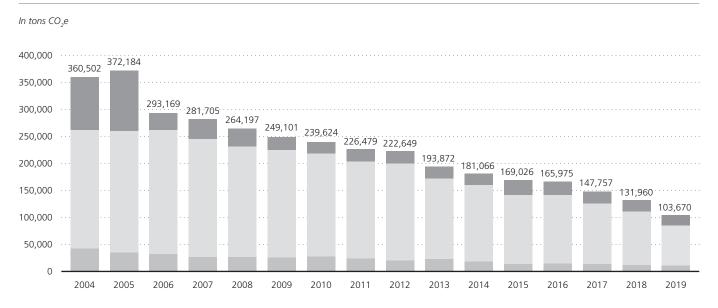
#### **GHG** emissions

In line with our climate strategy, we aim to reduce our GHG footprint 75% by 2020 compared to 2004.

Our strategy to reduce GHG emissions is based on increasing energy efficiency, replacing fossil fuel-based heating systems with renewable heating systems and increasing our share of renewable energy. In various branches in Switzerland, we have replaced oil heating systems with geothermal heat pumps and district heating with heat from waste incineration plants.

In 2019, we cut UBS's GHG footprint by another 21%, or 26% per full-time employee, year on year. This is a total reduction of 71% since 2004.

#### **UBS's Greenhouse Gas (GHG) Footprint**



- Direct GHG emissions (oil, gas, fuels)
- Indirect GHG emissions (electricity, heat)
- Other indirect GHG emissions (travel incl. offsetting, paper, waste)

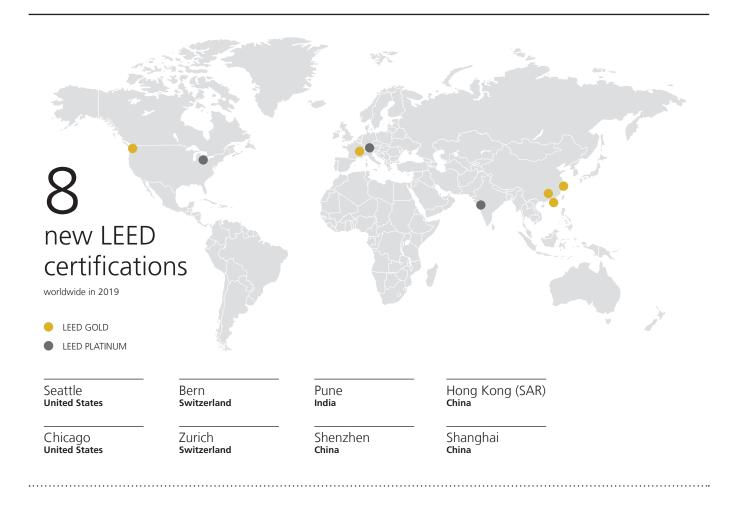
#### Sustainable real estate

The building infrastructure directly impacts our environmental footprint. Taking a building life cycle perspective, we apply our environmental consideration before we enter a new building and until we exit the building. To reduce our impact on the environment, we have adopted well-recognized green building standards, such as LEED (Leadership in Energy and Environmental Design) or local green building standards, to manage our real estate's environmental aspect, including green lease. Across our global building portfolio, eight projects achieved LEED certification in 2019.

In India Pune EON, our office has been certified to LEED Platinum. It was designed to optimize energy consumption which helps us reduce our environmental footprint. In this newly built office, we achieved 57% energy saving in lighting over the LEED baseline.

Collaboration is at the core of our culture, and a key to our success. We are committed to creating smart and engaging workspaces that bring employees closer together and focused on increased productivity and more frequent interaction.

Transitioning to an agile desk sharing work space in our newest build outs in our campus in Lincoln Harbor enables us to reduce our real estate footprint. We are in the process of attaining a LEED certification for these new spaces.



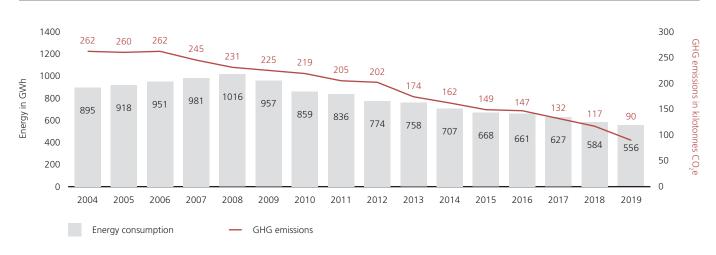
#### Energy consumption

For the last decade, we have managed to consistently reduce our energy consumption. In 2019, we used 556 GWh, which is equal to a reduction in energy consumption of 5% compared to 2018. This success was mainly driven by environmental as well as energy management measures. We pursue a holistic approach, incorporating all levels of our organization. For example, through strategic measures at company level, like the targeted adaption of energy composition, adaptive measures in portfolio management (such as consolidating workspaces in energy-efficient buildings and alternative workplace concepts) or stricter procurement guidelines, we set the framework for continued improvement. This strategic orientation is then implemented throughout the firm, leading to tangible changes in the whole organization. Thereby, we implement smaller measures like switching to LEDs, refurbishing windows or optimizing building services (such as heating, cooling, ventilation

and lighting). To ensure successful implementation, as well as for monitoring purposes, we have externally audited and certified the accuracy of our energy reporting (ISO 14064), document successful building projects with LEED certificates and constantly review and update quantitative targets.

Global IT demand has drastically increased over the years. However, we have achieved significant improvements in IT operational efficiencies. Strategic programs include transformation to next-generation networks, modernization and virtualization of the global server estate. Consolidation of desktop computers to centrally based systems within data centers has also significantly reduced desktop power and hardware requirements. Although business demand in 2019 has increased by 10% for computers and by 36% for storage, the technology refresh strategy and virtualization programs have meant that data center power demand has remained stable.

#### Energy consumption and related greenhouse gas emissions



Footnote: GHG emission = Direct GHG emissions (scope 1) + Gross indirect GHG emissions (Gross scope 2) - GHG reductions from renewable energy + GHG emissions from leased assets not included in scope 1 and 2.

#### Renewable energy

In order to strengthen our commitment to limiting the effects of climate change and enabling the orderly transition to a low-carbon economy, we joined the RE100 initiative in September 2015. By mid-2020, we will source 100% of our electricity from renewable sources, which will help reduce our GHG footprint by 75% compared to 2004.

Where possible, we try to produce our own renewable electricity for the buildings we occupy.

In 2019, 72% of UBS's worldwide electricity consumption was drawn from renewable sources. In Switzerland we started over 12 years ago and have been sourcing electricity from 100%

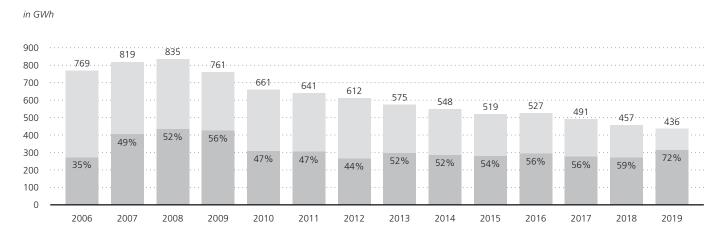
renewable sources in various countries around the globe, such as Germany, the UK and Austria. In 2019, we signed a long-term solar energy deal in Singapore, which will locally supply renewable energy to support our operations in Singapore over the next 10 years.

As part of the effort to meet UBS's global RE 100 commitment, we signed an agreement to purchase approximately 135,000 renewable energy credits (RECs) to match our 2019 electricity consumption in twelve countries across the Americas region, including Brazil, Canada, Chile, Colombia, Mexico and the US.

#### **RE 100**

RE100 is a global initiative launched by The Climate Group in partnership with CDP, urging the world's most influential companies to commit to source 100% of their electricity from renewable sources. RE100 brings together more than 200 multinationals committed to 100% renewable electricity.

#### Electricity consumption and share of electricity from renewable sources



Share of renewable electricity

Electricity from non-renewable sources

#### Business travel and offsetting CO<sub>2</sub> emissions

Business travel is a necessary part of the way we work, and is regarded as an enabler for business. Nevertheless, we continue to challenge ourselves on the need, frequency and type of travel. Working with partners that invest in sustainable aviation fuel (SAF), improved waste management (in the air and on the ground) and more fuel-efficient aircraft fleets, we maintain a keen interest in lowering the carbon intensity of our business travel

Over the years, we have taken many steps to encourage the use of collaborative work tools, like Skype or video conference, in order to reduce the need to travel. Overall demand management as well as general behavioral change have led to a 19% reduction in air spend, non-client-related air travel was reduced by 30%. In addition, high-speed rail travel has increased by 5%, compared to 2018.

Since 2007, we have been offsetting all of our  $CO_2$  emissions from business air travel. We currently support two major wind power Gold Standard projects in Europe and Asia, reducing the same amount of  $CO_2$  emissions and contributing to local sustainable development.

We encourage the shift to electric mobility and are expanding our e-charging stations in Switzerland and Germany. This gives our employees and clients the opportunity to charge their electric or hybrid cars with renewable energy while on site.

#### **Gold Standard**

Gold Standard was established in 2003 by WWF and other international non-governmental organizations to ensure projects that reduced carbon emissions featured the highest levels of environmental integrity, are trustful, verifiable and make measurable contributions to sustainable development.

#### **Business travel**



kilometers flown in 2019, this is an all-time low



reduction of business air travel since our all-time high in 2007



CO<sub>2</sub> emissions from business air travel globally offset via Gold Standard projects

#### Paper

Our total paper consumption is at an all-time low and is composed of 36% copier or printer paper, 36% client output, 16% publications and the remainder are for various paper products. Globally, around 83% of our paper consumption originates from recycled sources or those certified by the Forest Stewardship Council (FSC). UBS has been using paper from sustainable sources since 2006.

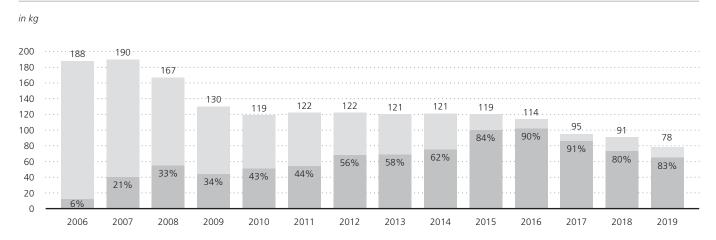
Digitalization brings environmental, economic and client experience benefits. The more digitally based online services we offer to our clients, the more we improve our efforts to go paperless. In September 2019, our active UBS Digital Banking clients in Booking Center Switzerland were informed that bank documents, credit card and prepaid card invoices would be sent to them digitally. By going digital, documents are now available faster and the environmental impact is reduced significantly. We

are also moving away from paper internally. Our digitalization efforts here involve creating digital copies of paper-based information, through scanning and machine-reading technologies turning paper into data. Simplifying, automating and digitizing processes leads to more efficiency and effectiveness. Many of our meeting rooms have video capability which saves the need to print multiple presentations.

Our Digital Mailroom program is a further concrete example of our sustainable engagement. The objective of this program is to support the implementation of our digital office strategy, by digitizing all physical inbound mail and therefore allowing integrated and digital processing within the bank.

Over the past year, our Secure Print team has been working on installing 8,400 new secure printers in UBS offices in 32 UBS countries around the world. This helps preventing accidental extra printing.

#### Paper per FTE



Share of sustainable paper

Paper per FTE

Note: FTEs are calculated on an average basis including FTEs which were employed through third parties on short-term contracts.

#### Waste and recycling

"Single-use" was named word of the year by Collins Dictionary in 2018. Global awareness on the adverse impact of single-use plastic and plastics waste streams – which harm wildlife, pollute beaches and threaten our food security – has continued to increase since.

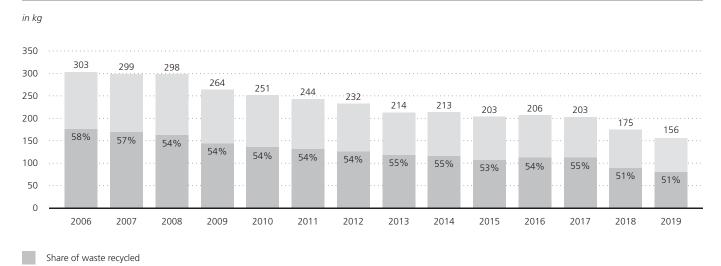
We have implemented a variety of strategies across our firm to reduce waste and increase the amount of reused and recycled products. At the beginning of 2019, we started to remove single-use (plastic) items globally. We eliminated disposable coffee and water cups in office kitchens with a limited number of compostable coffee cups being made available if necessary. Employees have been encouraged to bring their own reusable coffee mugs and water bottles to support this effort, and our firm has either provided reusable mugs or sold branded mugs, water bottles and reusable cutlery to support these initiatives. Plastic bottles in vending machines and other points of sale are

being replaced with glass and aluminum product alternatives. We removed the option to choose disposables for internal catering orders.

UBS technology is constantly changing and evolving, from end user desktop computers to servers, storage, networks and the data center physical infrastructure itself. Our asset recovery program includes hardware and peripheral components from both our data centers and office buildings. On occasion, these changes require the decommissioning and disposal of hardware, which is always performed in alignment with the ISO 14001 standard by our accredited, licensed global providers.

With all these activities, we are looking to drastically reduce our amount of waste, specifically the plastic and non-recyclable material found in all our locations worldwide. In 2019, 51% of waste produced in UBS locations was recycled.

#### Waste per FTE



Note: FTEs are calculated on an average basis including FTEs which were employed through third parties on short-term contracts.

#### Water

Waste per FTE

Water, both waste and clean, is a central focus of our environmental program. We are determined to reduce the overall usage of fresh water at. Many measures have been taken, ranging from water-saving fittings to rainwater collection. To ensure continuous reduction in water consumption, rules have been implemented for procurement, building utility replacements and new developments, thus allowing for longterm refinement. Adequate disposal of wastewater is also a priority. Negative environmental impacts, especially ecotoxicology, loading of waterbodies with nitrogen and phosphorus as well as public health are taken into consideration. Overall, we reduced our water usage by 52% since 2009.

#### Reporting standards and methodologies

We have prepared our GHG reporting in accordance with key concepts and requirements stated by the International Organization for Standardization in ISO 14064-1 (specification with guidance at the organization level for quantification and reporting of GHG emissions and removals) and the World Business Council for Sustainable Development / World Resources Institute in the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard.

Our firm's environmental and GHG reporting has been prepared based on a reporting year of 1 July to 30 June. This differs from UBS's financial reporting period (1 January to 31 December).

All GHG emission figures are in tons of carbon dioxide equivalents ( $CO_2e$ ) and include three of the six GHGs covered by the Kyoto Protocol – carbon dioxide ( $CO_2$ ), methane ( $CH_4$ ) and nitrous oxide ( $N_2O$ ). We have omitted hydrofluorocarbon (HFC) emissions from our reporting, as they are not a material source of GHGs for the business. There are no GHG sources contributing to perfluorocarbons (PFCs) and sulphurhexafluoride ( $SF_6$ ) emissions.

Direct GHG emissions and indirect GHG emissions from electricity have been reported by UBS Group AG, its branches, representative offices and entities where UBS has operational control and through which UBS conducts its banking and finance business or provides services in support of such business. Based on the GHG protocol Scope 2 Guidance and Scope 3 Standard, energy consumption for heating purposes of leased space, where UBS does not have any operational control of the heating system, is classified as other indirect GHG emissions.

We have determined the GHG emissions associated with UBS activities on the basis of measured or estimated energy and fuel use, multiplied by relevant GHG emission factors.

Where possible, fuel or energy use is based on direct measurement, purchase invoices or actual mileage data covering more than 80% of our reported energy usage. In other cases it has been necessary to make estimations.

We used published national conversion factors and global warming potentials (GWPs) to calculate emissions from operations. In the absence of any such national data, we used the UK Government GHG Conversion Factors for Company Reporting for the calculation of GHG emissions.

The GHG base year was set as 2004 (July 2003 to June 2004), as this was the first year we reported detailed GHG emissions verified according to ISO 14064. The 2004 GHG footprint baseline is 360,502 tons and consists of 41,858 tons scope 1, 219,727 tons net scope 2, and 98,918 tons scope 3 emissions. The appropriateness of the base year is reviewed on an annual basis. In 2006, we set global quantitative objectives for energy, paper, waste and water for 2009. They were revised and extended three times so far and covered the periods 2009 until 2012 and 2012 until 2016. The current quantitative objectives have 2016 as a baseline and 2020 as a target year.

#### Environmental indicators<sup>1</sup>

			2019 <sup>2</sup>		2018 <sup>2</sup>	2017 <sup>2</sup>
		Absolute			Absolute	Absolute
	GRI <sup>3</sup>	normalized <sup>4</sup>	Data quality <sup>5</sup>	Trend <sup>6</sup>	normalized <sup>4</sup>	normalized <sup>4</sup>
Total direct and intermediate energy consumption <sup>7</sup>	302	556 GWh	***	<b>→</b>	584 GWh	627 GWh
Total direct energy consumption <sup>8</sup>	302	55 GWh	***	<u> </u>	60 GWh	68 GWh
natural gas		87.2%	***	<b>→</b>	88.0%	84.8%
heating oil		7.4%	***	7	7.9%	10.4%
fuels (petrol, diesel, gas)		4.6%	***	<b>^</b>	3.7%	4.4%
renewable energy (solar power, etc.)		0.8%	***	<b>^</b>	0.4%	0.4%
Total intermediate energy purchased <sup>9</sup>	302	501 GWh	***	<b>→</b>	524 GWh	559 GWh
electricity		436 GWh	***	<b>→</b>	457 GWh	491 GWh
electricity from gas-fired power stations		10.1%	***	Ψ	13.9%	15.2%
electricity from oil-fired power stations		1.8%	***	Ψ	2.3%	2.5%
electricity from coal-fired power stations		11.9%	***	Ψ	16.5%	16.7%
electricity from nuclear power stations		4.6%	***	Ψ	8.2%	9.6%
electricity from hydroelectric power stations		35.8%	***	<b>→</b>	35.6%	34.6%
electricity from other renewable resources		35.8%	***	<b>^</b>	23.5%	21.4%
heat (e.g., district heating)		65 GWh	**	<b>→</b>	67 GWh	68 GWh
Share of electricity from renewable sources	302	72%	***	<b>1</b>	59%	56%
Total business travel		459 m Pkm	***	<b>V</b>	532 m Pkm	579 m Pkm
rail travel <sup>10</sup>		2.4%	***	<b>^</b>	2.2%	1.9%
road travel <sup>10</sup>		1.1%	***	<b>→</b>	1.0%	1.6%
air travel		96.5%	***	<b>→</b>	96.8%	96.4%
Number of flights (segments)		218,679	***	Ψ	246,107	250,743
Total paper consumption	301	5,370 t	***	7	5,852 t	5,866 t
post-consumer recycled		21.9%	***	Λ	14.1%	14.9%
new fibers FSC <sup>11</sup>		61.5%	***	7	65.7%	75.9%
new fibers ECF + TCF <sup>11</sup>		16.5%	***	Ψ	20.2%	9.2%
new fibers chlorine-bleached		0.02%	**	<u> </u>	0.04%	0.07%
Total waste	306	10,749 t	***	<b>→</b>	11,252 t	12,543 t
valuable materials separated and recycled		51.1%	***	<b>→</b>	50.8%	55.0%
incinerated		16.1%	***	<b>→</b>	16.0%	16.9%
landfilled		32.7%	**	<b>→</b>	33.2%	28.1%
Total water consumption	303	0.79 m m3	**	<b>→</b>	0.79 m m3	0.87 m m3
Greenhouse Gas (GHG) Emissions in CO₂e	305					
Direct GHG emissions (Scope 1) <sup>12</sup>		10.574 t	***	<u> </u>	11,522 t	13,305 t
Gross indirect GHG emissions (Gross Scope 2) <sup>12</sup>		142,636 t	***		150,957 t	161,349 t
Gross other indirect GHG emissions (Gross Scope 3) <sup>12</sup>		62,585 t	***	Ψ	71,389 t	76,763 t
Total Gross GHG Emissions		215,794 t	***	<u>.</u>	233,868 t	251,417 t
GHG reductions from renewable energy <sup>13</sup>		(69,175) t	***		(51,742) t	(49,247) t
CO <sub>2</sub> e offsets (business air travel) <sup>14</sup>		(42,949) t	***	<u>†</u>	(50,166) t	(54,412) t
COZC OTISCIS (Dustriess all traver)		(72,J7J) l		·······	(50,100) t	147,757 t

 $Legend: GWh = giga \ watt \ hour; Pkm = person \ kilometer; \ t = ton; \ m^3 = cubic \ meter; \ m = million; \ CO_2e = CO_2 \ equivalents$ 

1 All figures are based on the level of knowledge as of January 2020. 2 Reporting period: 2019 (1 July 2018 – 30 June 2019), 2018 (1 July 2017 – 30 June 2018), 2017 (1 July 2016 – 30 June 2017) 3 Reference to GRI Sustainability Reporting Standards (see also www.globalreporting.org). 4 Non-significant discrepancies from 100% are possible due to roundings. 5 Specifies the estimated reliability of the aggregated data and corresponds approximately to the following uncertainty (confidence level 95%): up to 5% – \*\*\*, up to 15% – \*\*\*, up to 30% – \*. Uncertainty is the likely difference between a reported value and a real value. 6 Trend: at a \*\*\*\*/\*\*/\* data quality, the respective trend is stable (→) if the variance equals 5/10/15%, low decreasing / increasing (□, ¬)) if it equals 10 /20/30% (□, ¬). 7 Refers to energy consumed within the operational boundaries of UBS. 8 Refers to primary energy purchased that is consumed within the operational boundaries of UBS. 8 Refers to primary energy purchased that is produced by converting primary energy and consumed within the operational boundaries of UBS (electricity and district heating). 10 Rail and road travel: Switzerland only. 11 Paper produced from new fibers. FSC stands for Forest Stewardship Council, ECF for Elementary Chlorine Free and TCF for Totally Chlorine Free. 12 Refers to ISO 14064 and the "GHG (greenhouse gas) protocol initiative" (www.ghgprotocol.org), the international standards for GHG reporting: scope 1 accounts for direct GHG emissions sociated with business travel, paper consumption and waste disposal. 13 GHG savings by consuming electricity from renewable sources 14 Offsets from third-party GHG reduction projects measured in CO₂ equivalents (CO₂e). These offsets neutralize GHG emission from our business air travel. 15 GHG footprint equals gross GHG emissions minus GHG reductions from renewable energy and CO₂e offsets.

#### Environmental indicators per full time employee

	I lait	2010	Tuonal	2018	2017
	Unit	2019	Trend	2018	2017
Direct and intermediate energy	kWh / FTE	8,081		9,080	10,151
Business travel	Pkm / FTE	6,670	$\downarrow$	8,272	9,377
Paper consumption	kg / FTE	78	<b>V</b>	91	95
Waste	kg / FTE	156	$\downarrow$	175	203
Water consumption	m <sup>3</sup> / FTE	11.5	R	12.3	14
CO <sub>2</sub> footprint	t / FTE	1.51	↓	2.05	2.39

Legend: FTE = full-time employee; kWh = kilo watt hour; Pkm = person kilometer; kg = kilogram;  $m^3 = cubic$  meter; t = ton Note: FTEs are calculated on an average basis including FTEs that were employed through third parties on short term contracts.

#### Responsible supply chain management

We embed environmental and social standards into our sourcing and procurement activities. Our firm-wide responsible supply chain management (RSCM) framework is based on identifying, assessing and monitoring vendor practices in the areas of human and labor rights, the environment, health and safety and anticorruption, in line with our commitment to the UN Global Compact and the UBS in society constitutional document.

In 2019, remediation measures were requested for 18 vendors that provide UBS with goods and services with high risk. Improving their adherence to UBS's RSCM standards has a potentially high positive impact.

#### Committing our vendors to our standards

We aim to reduce negative environmental and social effects of the goods and services UBS purchases and we engage with vendors to promote responsible practices. A central component of our RSCM framework is the UBS Responsible Supply Chain Standard to which our direct vendors are bound by contract. The standard defines our expectations towards vendors and their subcontractors regarding legal compliance, environmental protection, avoidance of child and forced labor, non-discrimination, remuneration, hours of work, freedom of association, humane treatment, health and safety and anticorruption issues and a whistleblowing mechanism to support and protect employees.

→ Refer to the "Our documents" page on www.ubs.com/insociety to download the Responsible Supply Chain Standard in various languages

#### Identifying, assessing and monitoring high-impact vendors

The RSCM framework includes an impact assessment of newly sourced goods and services, which takes into account potential negative environmental and social impacts along the lifecycle of a product or a service, and all purchased goods and services are categorized accordingly.

We identify high-impact vendors when establishing new contracts or renewals based on the vendors' provision of goods and services that have either a substantial environmental and social impact or are sourced in markets with potentially high social risks. Such high-impact vendors are requested to fulfill further requirements towards product and service provision and are assessed against the UBS Responsible Supply Chain Standard. If this assessment reveals any non-compliance with our standard, UBS defines and agrees, together with the vendor, on specific improvement measures, which we monitor. Lack of improvement may lead to the termination of the vendor relationship. We also regularly screen active vendors as part of our environmental and social risk control processes.

Vendors of potentially high-impact goods or services are requested to conduct a self-assessment on their responsible management practices and to provide corresponding evidence. Actual and potential negative impacts that are considered in the impact assessment of purchased goods and services include:

- → Adverse environmental impacts due to inefficient use of resources (e.g., water, energy, biomass) and emissions during the lifecycle of the product
- → Hazardous substances, emissions, pollutants and limited recyclability of products, adversely affecting people and the environment
- → Unfair employment practices, such as low wages, excessive overtime, absence of occupational health and safety measures
- → Risks for consumer health and safety
- → Procurement and use of materials with a strongly negative environmental and/or social impact
- → Insufficient management of subcontractors regarding sustainability aspects

In 2019, 103 vendors were classified as vendors that provide UBS with goods or services with potentially high impacts, both newly sourced as well as ongoing engagements, which are regularly re-assessed. 17% of these vendors were considered as in need of improving their management practices. Specific remediation actions were agreed with all of them and the implementation progress has been closely monitored.

In 2019, no UBS vendor relationship was terminated as a result of RSCM assessments. This can partly be related to the fact that we assess the vendor's potential risks before entering into a contract with them.

#### **Combating financial crime**

We are committed to combating money laundering, corruption and terrorist financing and have implemented policies, procedures and internal controls that are designed to comply with such laws and regulations. We have developed a financial crime prevention framework that is intended to prevent, detect and report money laundering, corruption and terrorist financing.

We annually assess the money laundering, bribery and corruption, and sanctions risks associated with all of our business operations against our control framework, and take actions to further mitigate these risks.

We are a founding member of the Wolfsberg Group, an association of global banks that aims to develop financial services industry standards for policies on preventing financial crime such as corruption, money laundering and terrorist financing, and on Know Your Client principles. The Wolfsberg Group brings together banks globally at its annual forum and regional reach-out meetings focused on financial crime topics and works on guidance papers in related key areas of AML.

Together with the other members of the Wolfsberg Group, we work closely with the Financial Action Task Force (FATF), an intergovernmental body that helps develop national and international policies on preventing money laundering and terrorist financing through consultation with the private sector. We have adopted the global FATF standards with respect to record keeping.

In 2019, we have successfully achieved ISO certification in accordance with ISO standard Anti Bribery Management System 37001:2016. The audit certifies that UBS's global anti-bribery &

corruption framework meets global requirements to prevent and detect bribery as defined by ISO, and it evidences UBS's commitment. The ISO certification is renewed annually and is the result of UBS proactively engaging an accredited ISO auditor. The ISO standard requires a series of measures which are aimed at preventing, detecting and addressing bribery. Such measures include, but are not limited to: policies and procedures, culture and tone from the top, appropriate resourcing, training, risk assessments, third party due diligence, and implementing appropriate controls.

→ Refer to the "Assurance and certification" section for the ISO 37001:2016 certificate

#### Monitoring

We apply Know Your Client rules and use advanced technology to help identify suspicious transaction patterns and compliance risk issues

We continue to invest in our detection capabilities and core systems as part of our financial crime prevention program.

Our framework requires any suspicious activities to be promptly escalated to independent control units and external authorities, as required by law. Our monitoring framework covers risk-based transaction monitoring, real-time screening and retroactive searches. The UBS AML monitoring framework is established in accordance with the Monitoring Screening and Searching Wolfsberg Statement and is reviewed on an annual basis.

→ Refer to the "Our governance and principles" section for information about combating financial crime governance and policies

#### **Ratings and recognitions**

In 2019, we continued to gain industry recognition for our commitment to improving performance under ESG criteria and for our efforts in offering clients world-class expertise and sustainable products. For the fifth year running, we were named

the best performer in the Diversified Financial Services and Capital Markets Industry of the Dow Jones Sustainability Index (DJSI), the most widely recognized corporate sustainability rating. MSCI ESG Research maintained our rating at AA, while Sustainalytics ranked our firm as an industry leader.

#### Ratings and recognitions<sup>1</sup>

Ratings and recognitions	Scope	UBS result
Dow Jones Sustainability Indices (DJSI)	Environmental, social and governance (ESG) performance	Industry leader Index member of DJSI World and DJSI Europe
CDP	Climate change	Climate A- rating (on Leadership band) <sup>2</sup>
Sustainalytics	ESG performance	Leader score within our industry 95 <sup>th</sup> percentile ranking
MSCI	ESG performance	AA rating Top three among primary peer group <sup>3</sup>
ISS-ESG	ESG performance	Corporate responsibility prime status
FTSE4Good Index	ESG performance	Index member
Euromoney Private Banking and Wealth Management Survey 2019	Philanthropic advice	Winner
Euromoney Private Banking and Wealth Management Survey 2019	SRI / Social impact investing	Winner
PWM / The Banker Global Private Banking Awards 2019	Sustainable investing	Winner
Environmental Finance Sustainable Investment Awards 2019	Best ESG Hybrid Fund	Winner
Environmental Finance Sustainable Investments Awards 2019	Best ESG Initiative of the Year	Winner
GRESB Real Estate, Debt and Infrastructure assessments	Sustainability performance of real asset portfolios worldwide	Submission of 20 of REPM's (Real Estate & Private Markets) flagship funds (across real estate equity, real estate debt and infrastructure globally), representing 95% of REPM's direct pooled real estate and infrastructure vehicles globally. 15 real estate and infrastructure funds achieved 5-star status, the highest recognition available
ShareAction	Stewardship	AM ranked as the leading asset manager globally for voting on climate-related resolutions

#### Ratings and recognitions (continued)

Ratings and recognitions	Scope	UBS result
Corporate Engagement Awards	Community investment	Gold for Best Educational Programme Best alignment of brand values through sponsorship activity
Better Society Awards (UK)	Community investment	Highly Commended for Commitment to Local Community
Global Good Awards (UK)	Community investment	Gold for Community Partnerships in Education and Entrepreneurships Silver Award in the Best Education Project category for UBS's 10 year partnership with The Bridge Academy
2019 Top 10 Enterprises for Public Welfare (China)	Community investment	Winner of the Charity Award
Japan Corporate Philanthropy Award (Japan)	Community investment	Grand Prix of the Award
Employer of Tomorrow Award (Polish Agency for Enterprise Development)	Employment-related and community investment	Winner
World's Most Attractive Employers (Universum)	Employment-related	Top 50
Bloomberg Gender-Equality Index	Employment-related	Index member
Working Mother magazine's "100 Best Companies" (US)	Employment-related	Top 100
Best Places to Work for LGBT Equality (Human Rights Campaign), US	Employment-related	15 <sup>th</sup> consecutive year
The Times Top 100 Graduate Employers (UK)	Employment-related	Top 100
Best HR Center of Expertise in Greater China Award (HRoot 2019)	Employment-related	Winner

<sup>1</sup> All information provided is as of 31 December 2019, except where indicated. 2 As of 20 January 2020 3 As defined in the UBS Compensation Report 2019

# External commitments and memberships

#### Transparency & reporting



- ISO 37001 certified Anti Bribery Management System (since 2019)
- Task Force on Climate-related Financial Disclosures (implementing recommendations since 2017)
- ISO 50001 certified Energy Management System (since 2017)
- SASB (member since 2013)
- Global Reporting Initiative (user of GRI reporting framework since reporting year 2008)
- ISO 14064 certified Greenhouse gases (since 2004)
- CDP (founding signatory in 2002)
- ISO 14001 certified Environmental Management System (since 1999)

# Corporate responsibility & sustainability



#### Sustainable finance



- UN LGBTI Standards of Conduct for Business (member since 2018)
- CEO Climate Leaders (signatory in 2015)
- European Bankers Alliance (member since 2015)
- RE100 (member since 2015)
- Conference Board (CR&S Council member since 2014)
- Swiss Better Gold Association (member since 2014)
- Global Apprenticeship Network (member since 2013)
- Banking Environment Initiative's and Consumer Goods Forum's Soft Commodities Compact (member since 2013)
- Roundtable on Sustainable Palm Oil (RSPO member since 2012)
- Global Compact Network Switzerland (member since 2011)
- Thun Group of Banks (founding participant in 2011 and Convener)
- Swiss Center of Expertise in Human Rights (member of advisory board since 2010)
- University of Zurich Competence Center for Human Rights (member of advisory board since 2010)
- UN Global Compact (signatory since 2000)
- Wolfsberg Group (founding member in 2000)
- Business in the Community (cofounding member in 1988)
- Zurich Energy Model (founding member in 1987)

- Principles for Responsible Banking (founding signatory in 2019)
- Global Investors for Sustainable Development Alliance (founding member in 2019)
- IFC Operating Principles for Impact Management (founding signatory in 2019)
- Green investment principles for the Belt and Road (signatory in 2019)
- Transition Pathway Initiative (since 2019)
- Climate Action 100+ (member since 2017)
- Swiss Sustainable Finance (member since 2015)
- USSIF (member since 2015)
- CSFI (member since 2015)
- GRESB (member since 2012 and member of the advisory board since 2015)
- Sustainable Finance Geneva (member since 2012)
- Global Impact Investing Network (member since 2011)
- Principles for Responsible Investment (PRI signatory since 2009)
- European Venture Philanthropy Association (member since 2007)
- Association for Environmental Management and Sustainability in Financial Institutions (VfU member since 1996)
- UNEP FI (member since 1992)

## Driving change in communities

#### Overview

At UBS, we are committed to making a lasting impact by addressing and overcoming disadvantage within our local communities. Our Community Affairs programs enable us to achieve this commitment. Through successful and sustainable partnerships with non-profit organizations and social enterprises, we make long-term investments into education and entrepreneurship. We provide strategic financial commitments and focused employee volunteering to drive change.

We believe every individual plays a role in ensuring a healthy and thriving future for our communities. This is why we offer UBS employees two days of paid leave to volunteer each year. Our focus on skills-based volunteering aims to address issues within society that hinder sustainable growth and development.

→ Refer to www.ubs.com/insociety for more information

#### Our contributions in 2019

Our Community Affairs framework is global in scope and delivers both community and business impact in each of the regions in which we operate. The globally mandated strategy is flexible in nature, and regional execution of the strategy ensures we are aligning our programs to address local community issues and support business priorities. The impact of our Community Affairs program is driven by both financial donations and hours volunteered by our employees.

We use a global framework, based on the industry-leading London Benchmarking Group (LBG) model, for measuring and reporting on our Community Affairs programs and investments. Use of such a standardized model across our global strategy ensures that we are able to effectively focus our approach.

#### 2019 in numbers



direct cash contributions

45.2 million

202.784



280,858

volunteer hours (145,148 during work hours and 57,636 outside of work hours)

beneficiaries reached



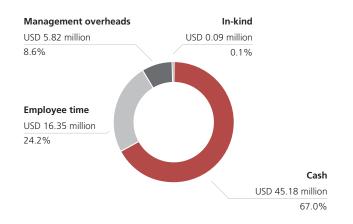
of the UBS workforce volunteered (27,297 employees)

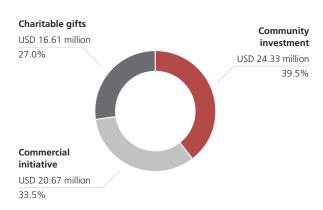


of volunteer hours were skills-based

#### Contributions by type

#### **Contributions by motivation**





- Cash direct cash contributions from the firm, including support through its affiliated foundations in Switzerland and the UBS Anniversary Education Initiative and contributions to the UBS Optimus Foundation.<sup>1</sup>
- Employee time the cost to UBS of the time that employees spend on community programs during working hours. This is calculated by multiplying the number of volunteer hours during working hours by the average hourly salary.
- In-kind contributions of products, equipment, services and other non-cash items from the company to the community.
   For UBS, this is primarily the cost of making our premises available to our partner charities for events.
- Management overheads the cost associated with the firm's Community Affairs function.

- Community investment long-term strategic involvement in community partnerships in the areas of education and entrepreneurship. 88% of UBS's Community Affairs grants were made in these areas.
- Commercial initiative activities in the community, to directly support the success of the company, promoting corporate brand identities and other policies, in partnership with charities and community-based organizations.
- Charitable gifts intermittent support to a wide range of good causes in response to the needs and appeals of charitable and community organizations. This includes our programs to match employee donations.

<sup>1</sup> All cash contributions shown here are recognized on a cash rather than accrual basis. The cash contribution does not include contributions totaling USD 513,845 which are required by law (India and South Africa). This is consistent with LBG methodology. Separately (see page 48 of this report), we recognize UBS Optimus Foundation contributions on an accrual basis reflecting committed grants made in the reporting period.

#### Employee volunteering

In 2018, we made a commitment to our local communities by setting a target to achieve 40% of employees volunteering by the end of 2020, of which 40% of volunteer hours will be skills-based.

By encouraging our employee volunteering efforts towards skills-based volunteering, we ensure that we work to tackle local social issues in the most powerful and effective way. Our skills-based volunteering programs include building the capacity of

social enterprises through mentoring and supporting the career aspirations of local students. Leveraging the specialized skills and talents of our employees is key to the success of our program and to our business.

#### Progress against 2020 target

We are making progress towards our 2020 target, and at the end of 2019, 38% of our global workforce volunteered, with 48% of the hours being skills-based.

	Target 2020	2019	2018	2017
Number of employees volunteering		27,297	25,256	20,140
% employees engaged	40%	38%	36%	31%
Number of volunteer hours		202,784	197,807	168,226
% hours that are skills-based	40%	48%	45%	38%

#### Measuring Impact

Our strategic focus is on education and entrepreneurship. We offer programs which support young people globally, to help increase their educational attainment and acquire workplace skills. We also work with entrepreneurs to help them build and scale businesses that tackle unemployment and revitalize underserved communities. Many of our offices focus on social entrepreneurship, supporting businesses that have social impact at the heart of their business model.

UBS uses the global LBG framework to capture data from our Community Affairs partners on the impact that UBS's contributions have made.

#### Individual beneficiaries in 2019

Our Community Affairs program benefited 280,858 young people and entrepreneurs across all of the regions in which we

We also measure the extent to which our support has benefitted them (i.e., by using the LBG depth of impact scale in the figure below). Measuring based on this model has shown that UBS's support has substantively improved or transformed the lives of 107,388 individuals in 2019. This represents 38% of the number of beneficiaries for whom depth of impact was reported.



280,858

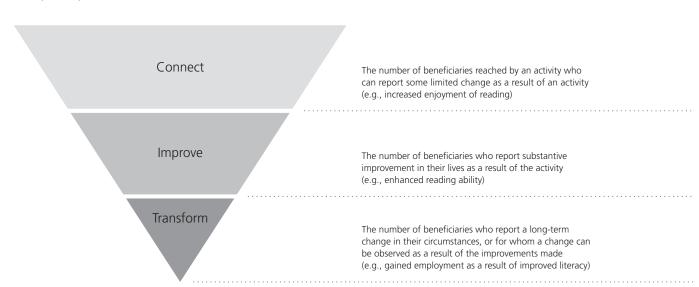


individual beneficiaries reached globally

community partners

#### LBG depth of impact scale

LBG depth of impact scale



#### **Impacting organizations in 2019**

36

intermediary organizations supported by UBS that are building the capacity of charities, social enterprises and social sector organizations 1,742

third-party organizations reached by UBS's support for intermediary organizations

#### 2025 goal

We know that long-term change can only be achieved by setting long term and impactful targets. In 2020, for the first time, we are setting a long-term target on the change that we want to make.

Our 2025 goal is to support 1 million young people and adults to learn, and develop skills for employment, decent jobs and entrepreneurship by 2025. We recognize this is best achieved through strategic grant funding and by engaging our

employees in skills-based volunteering. Our work will focus on supporting three UN Sustainable Development Goals (SDGs) specifically: SDG 4 Quality Education, SDG 8 Decent work and economic growth and SDG 10 Reduced inequalities.

We will continue to use our depth of impact scale (see above) to report both, the number of beneficiaries we have reached, and the extent to which our support has changed lives. We also have a 2020 target to maintain 38% of beneficiaries whose lives are "improved" or "transformed" by UBS's support.

# Our sustainability track record

1954	Beginnings of Community Affairs at Wealth Management US
1962	Establishment of Union Bank of Switzerland's 100th anniversary foundation (since 1999: UBS Culture Foundation)
1971	Launch of A Helping Hand from UBS Employees (UBS Mitarbeiter helfen) in Switzerland
1972	Establishment of Swiss Bank Corporation's 100-year anniversary foundation (since 1999: UBS Foundation for Social Issues and Education)
1978	Beginnings of Community Affairs in EMEA
1982	Establishment of first energy-functional unit
1988	Co-founding member of Business in the Community in the UK
1989	First bank in Switzerland with the position of environmental officer
1992	First formal energy guidelines
1993	Among the first signatories of the United Nations Environment Programme bank declaration (UNEP FI)
1994	Introduction of first environmental policy
1995	Publication of first environmental report and introduction of environmental credit assessment procedure for Swiss corporate clients
1996	Introduction of employee volunteering at Wealth Management US and of matched-giving scheme for London employees
1997	Launch of Socially Responsible Investment (SRI) Funds Establishment of the Investment Bank Community Affairs in Stamford (monetary and in-kind donations, and employee volunteering).
1998	Merger of Union Bank of Switzerland and Swiss Bank Corporation to create UBS
1999	Founding member of Wolfsberg Group First bank to obtain ISO 14001 certification for worldwide environmental management system in banking business and launch of Environmental Risk Policy in the Investment Bank Establishment of UBS Optimus Foundation
2000	UBS among first companies to sign UN Global Compact Wolfsberg Group Anti-Money Laundering (AML) Principles for Private Banking (revised 2002) UBS commences reporting on corporate responsibility in Annual Report
2001	Establishment of Corporate Responsibility Committee, a Board of Directors committee, and publication of first Corporate Responsibility section in Annual Report Establishment of a Global Diversity Steering Committee within the Investment Bank Founding member of European Social Investment Forum (Eurosif) Wolfsberg Group Commitment against Terrorism Employee volunteering time-off policy introduced for London employees
2002	Wolfsberg Group Statement on Fight against Financing of Terrorism and AML Principles for Correspondent Banking Launch of Group-wide Diversity initiative Founding signatory of CDP (originally known as Carbon Disclosure Project) Commencement of joint Wealth Management and Investment Bank Community Affairs in Chicago Expansion of in-house environmental program to Corporate Services outside Switzerland
2003	First financial services firm to formally register interest as an academy sponsor in the UK (leads to the opening of the The Bridge Academy, Hackney, in 2007) Institution of NGO communications and analysis function
2004	Establishment of SRI Equity Research in the Investment Bank

Setting up of UBS Tsuman Relief Fund UBS commences social reporting in Annual Report (section on employees)  Introduction of climate strategy Adoption of UBS Statement on Human Rights Woldsberg Group releases Investment and Human Rights Woldsberg Group releases Investment and Human Rights Woldsberg Group releases Investment Banking FAQs, Guidance for Mutual Funds and Pooled Vehicles, Correspondent Banking FAQs and Guidance on the Risk-Based Approach  2007  Establishment of SRI Research in Global WMBB Woldsberg Group Statement on Transparency in International Payments First company-wide voluntering at Wealth Management UB.  2008  Introduction of group-wide Responsible Supply Chain Guideline Woldsberg Group Period Responsible Supply Chain Guideline Woldsberg Group Revised PEP FAQs  2009  UBS applies Global Reporting Initiative (GRI) framework to its 2008 non-financial disclosure UBS's Sustainability Disclosure 2008 meets the requirements of level A+ of the GRI (continued in subsequent years) UBS Asset Management becomes a signatory to the Principles for Responsible Investment (PRI) Launch of UBS's new Cool of UBsiness Conduct and Ethics Publication of UBS Position on Controversial Activities  2010  Launch of UBS's and Cool of Business Conduct and Ethics Establishment of UBS Environmental & Social Risk Committee Awarded with UK Rig Society Award (established by the UK Prime Minister)  2012  2013  UBS celebrates its 150th anniversary Setting up of the UBs International Center of Economics in Society at the University of Zurich Global forlo-out of the Investment Bank's environmental, social and governance (ESG) Analyzer Thun Group of Singer Policy (replacing and expanding upon UBS Environmental and Human Rights Policy Launch of UBS and Society, UBS's unstainability organization Publication of UBS in Society (replacing and expanding upon UBS Environmental and Human Rights Policy)  UBS under of UBS and Society Policy (replacing and expanding upon UBS Environmental and Human Rights Policy)  UBS unsupplied to the Invest		
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Wolfsberg Group Statement against Corruption and Wolfsberg Group Statement on Transparency in International Payments First company-wide volunteering at Wealth Management US Introduction of group-wide Responsible Supply Chain Guideline Wolfsberg Group Revised PEP FAQs  UBS applies Global Reporting Initiative (GRI) framework to its 2008 non-financial disclosure UBS Asset Management becomes a signatory to the Principles for Responsible Investment (PRI)  Launch of UBS's new Code of Business Conduct and Ethics Publication of UBS Position on Controversial Activities  Convener of Thun Group of Banks on banking and human rights Establishment of UBS Environmental & Social Risk Committee Awarded with UK Big Society Award (established by the UK Prime Minister)  UBS celebrates its 150th anniversary Setting up of the UBS International Center of Economics in Society at the University of Zurich Global roll-out of the Investment Bank's environmental, social and governance (ESG) Analyzer  Thun Group launches discussion paper on banking and human rights Renewal of climate strategy Introduction of UBS Environmental and Human Rights Policy Launch of UBS es Sustainability organization Publication of UBS environmental and Human Rights Policy Launch of UBS and Society, UBS's sustainability organization Publication of UBS and Society (IBS) industry group leadership maintained Introduction of UBS and Society Policy (replacing and expanding upon UBS Environmental and Human Rights Policy)  DISI industry group leadership maintained Introduction of UBS and Society Policy (replacing and expanding upon UBS Environmental and Human Rights Policy)  UBS and Society constitutional document (replaces UBS and Society policy)  UBS and Society constitutional document (replaces UBS and Society policy)  UBS and Society constitutional document (replaces UBS and Society policy)  UBS and Society remained into UBS in Society  DISI industry group leadership maintained for third year running  WS and Society remained into UBS in Society  DISI industry group l	2006	Adoption of UBS Statement on Human Rights Wolfsberg Group releases Investment Banking FAQs, Guidance for Mutual Funds and Pooled Vehicles, Correspondent Banking FAQs and
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<sup>→</sup> Refer to www.ubs.com/history for information on the history of UBS

### Assurance and certification

#### Independent assurance report by EY



Ernst & Young Ltd Aeschengraben 9 P.O. Box CH-4002 Basel Phone +41 58 286 86 86 Fax +41 58 286 86 00 www.ey.com/ch

To the Management of UBS Group AG, Zurich

Basel, 27 February 2020

#### Independent assurance report

We have undertaken a limited assurance engagement on the information disclosed as part of the sustainability reporting of UBS Group AG on the basis of the Global Reporting Initiative (GRI) for the period 1 January to 31 December 2019 (hereafter the "report"):

▶ Information in the "Sustainability Report 2019" (online at www.ubs.com/annualreporting as of 5 March 2020)

#### Limitations of the engagement

Our engagement was limited to the information listed above. We have not assessed the following information disclosed in the report:

- ► The financial information in scope of the statutory audit of the financial statements has not been additionally reviewed to obtain limited assurance. Our engagement was limited to the presentation of the information in line with the GRI requirements.
- ► Forward-looking statements

#### Responsibility of UBS Group AG's management

The management of UBS Group AG is responsible for the preparation of the report and the information contained therein in accordance with the applicable criteria. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation of the report that is free from material misstatement, whether due to fraud or error.

#### Applicable criteria

We assessed the information in the sustainability reporting against the following criteria (hereafter "criteria"):

► GRI Sustainability Reporting Standards, Comprehensive Option

A summary of the standards is presented on the GRI homepage (online at https://www.globalreporting.org/standards/gri-standards-download-center). We believe that these criteria are a suitable basis for our review.

#### Independence and quality control

We have complied with the independence and other ethical requirements of the *International Code of Ethics for Professional Accountants* issued by the International Ethics Standards Board for Accountants, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

The firm applies International Standard on Quality Control 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.



#### Our responsibility

Our responsibility is to express a limited assurance conclusion on the information disclosed in the sustainability report based on the procedures we have performed and the evidence we have obtained. We conducted our limited assurance engagement in accordance with International Standard on Assurance Engagements (ISAE) 3000 "Assurance Engagements Other than Audits or Reviews of Historical Financial Information", issued by the International Auditing and Assurance Standards Board. This standard requires that we plan and perform the engagement to obtain limited assurance about whether the report is free from material misstatement

In accordance with the engagement agreement, our duty of care for this engagement only extends to the management of UBS Group AG.

Based on risk and materiality consideration we have undertaken procedures to obtain sufficient appropriate evidence. The procedures selected depend on the auditor's judgment. This includes the assessment of the risks of material misstatements in the report with regard to the applicable criteria. The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in scope than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement.

#### Summary of work performed

Our limited assurance procedures included, amongst others, the following work:

- ▶ Interviews with representatives of senior management and employees regarding the sustainability strategy and the materiality matrix
- Review of material topics against key issues raised in stakeholder dialogues, areas of performance covered
- in external media reports and sustainability reports of UBS' peers Interviews with employees responsible for preparing the GRI-based sustainability reporting to assess the process of preparing the report, the reporting system, the data capture and compilation methods as well as internal controls to the extent relevant for a review of the report
- Interviews of employees in specialist departments responsible for the topics included in the "Sustainability Report 2019"
- Review of the documentation of the systems and processes for compiling, analyzing, and aggregating sustainability data and testing such documentation on a sample basis
- ► Analytical considerations, interviews and review of documents on a sample basis with respect to the compilation and reporting of quantitative data included in the report
- Review of the application of the GRI Sustainability Reporting Standards in accordance with the Comprehensive
- ► Evaluation of the overall view of sustainability information provided in the report

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### Our conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that the report has not been prepared, in all material respects, in accordance with the applicable criteria.

Ernst & Young Ltd

Marie-Laure Delarue

Partner

Roger Müller

#### ISO 14001 and 50001 certificates

UBS is globally certified according to ISO 14001, the international environmental management system standard. In 1999, UBS was the first bank to obtain ISO 14001 certification for its worldwide environmental management system. The management system covers the entire scope of UBS's products, services and in-house operations that may give rise to an environmental impact. Additionally, we have further developed our environmental and energy management system in our European locations in order to be compliant with ISO 50001. We

received the first ISO 50001 certification (energy management system standard) in 2017. The integrated management system is externally audited annually and re-certified every three years.

These comprehensive audits verify that appropriate policies and processes are in place to manage environmental and energy-related topics and that they are executed in day-to-day practice.

In 2019, UBS successfully passed the ISO 14001 and ISO 50001 surveillance audit on its environmental and energy management system.



### **Certificate**



#### Certificate number: 2017-015

Certified by EY CertifyPoint since September 1, 2017

Based on certification examination in conformity with defined requirements in ISO/IEC 17021-1:2015, the Environmental Management System as defined and implemented by



located in Zurich, Switzerland is compliant with the requirements as stated in the standard:

#### ISO 14001:2015

Original issue date of certificate: September 1, 2017 Re-issue date of certificate: March 8, 2018 Expiration date of certificate: June 29, 2020

EY CertifyPoint will, according to the certification agreement dated June 13, 2017, perform surveillance audits and acknowledge the certificate until the expiration date noted above.

\*The certification is applicable for the assets, services and locations as described in the scoping section on the back of this certificate.



Leufa).

J. Sehgal | Director, EY CertifyPoint

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### **UBS Group AG**

#### Scope for certificate 2017-015

The scope of this ISO 14001:2015 certification is as follows:

The EMS includes banking business activities, UBS employees, products and services of the following business divisions (Corporate Center, Wealth Management, Wealth Management Americas, Personal and Corporate Banking, Asset Management and the Investment Bank) with environmental aspects governed under the UBS and Society policy (available at <a href="https://www.ubs.com/ubsandsociety">www.ubs.com/ubsandsociety</a>). The EMS applies to all in-house operations and all major locations and data centers in the following geographical locations (as per the UBS Scope Register v.1.0).

The Environmental Management System is centrally managed out of Zurich, Switzerland. The scope mentioned above applies to the following locations:

Argentina	Ireland	Puerto Rico
Australia	Israel	Qatar
Austria	Italy	Russia
Bahamas	Japan	Saudi Arabia
Bahrain	Jersey	Singapore
Brazil	Kazakhstan	South Africa
Canada	Korea, Republic of	Spain
Cayman Islands	Lebanon	Sweden
Chile	Luxembourg	Switzerland
China	Malaysia	Taiwan
Colombia	Mexico	Thailand
Denmark	Monaco	Turkey
Egypt	Netherlands	United Arab Emirates
France	New Zealand	United Kingdom
Germany	Nigeria	United States
Hong Kong	Panama	Uruguay
India	Philippines	
Indonesia	Poland	

The Environmental Management System mentioned in the above scope is restricted as defined in "Manual for UBS's environmental and energy management systems" version 9, dated July 14, 2017.

This scope (edition: March 8, 2018) is only valid in connection with certificate 2017-015.

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### Certificate



Certificate number: 2017-017 Certified by EY CertifyPoint since: September 1, 2017

Based on certification examination in conformity with defined requirements in ISO/IEC 17021-1:2015, the Energy Management System as defined and implemented by

### UBS Group AG\*

located in Zurich, Switzerland is compliant with the requirements as stated in the standard:

ISO 50001:2011

Issue date of certificate: September 1, 2017 Expiration date of certificate: June 29, 2020

EY CertifyPoint will, according to the certification agreement dated June 23, 2017, perform surveillance audits and acknowledge the certificate until the expiration date noted above.

\*The certification is applicable for the assets, services and locations as described in the scoping section on the back of this certificate.

Drs. J. Sehgal RE | Director, EY CertifyPoint

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### **UBS** Group AG

Scope for certificate 2017-017

The scope of this ISO 50001:2011 certification is as follows:

The EnMS includes all in-house operations conducted at 38 locations, consisting of offices and datacenters in selected European countries and cities as per the UBS Scope Register v.1.0 (January 26, 2017).

The Energy Management System is centrally managed out of Zurich, Switzerland. The scope mentioned above applies to the locations in following cities:

France, Bordeaux	Italy, Brescia	Poland, Warszawa
France, Lyon	Italy, Firenze	Poland, Wroclaw
France, Nantes	Italy, Milano	Poland, Zabierzów
France, Paris	Italy, Modena	Spain, Barcelona
France, Strasbourg	Italy, Napoli	Spain, La Coruña
Germany, Berlin	Italy, Padova	Spain, Madrid
Germany, Düsseldorf	Italy, Roma	Spain, Seville
Germany, Frankfurt	Italy, Torino	Spain, Valencia
Germany, Hamburg	Italy, Treviso	Spain, Zaragoza
Germany, München	Italy, Varese	United Kingdom, London
Germany, Stuttgart	Luxembourg, Luxembourg	Switzerland, Zurich
Italy, Bologna	Poland, Kraków	
V - V		

The Energy Management System mentioned in the above scope is restricted as defined in "Manual for UBS's environmental and energy management systems" version 9, dated July 14, 2017.

This scope (edition: July 14, 2017) is only valid in connection with certificate 2017-017.

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# **UBS Group AG**

Bahnhofstrasse 45, CH-8001 Zurich, Switzerland

has been assessed and certified as meeting the requirements of the standard

ISO 37001: 2016

for the Anti-Bribery Management System in relation to its activities of global financing services.



#### **CERTIFICATE n° 3741191003A**

Date of issuance March 18th 2019 valid until March 17th 2022

Subject to satisfactory surveillance visits <u>List of entities under scope</u>

<u>euroCompliance</u> - 76 rue de la Pompe - 75116 Paris, France

Philippe Lesoing, General Manager





www.eurocompliance.com

### Charter of the Corporate Culture and Responsibility Committee

Excerpt from *The Organization Regulations of UBS Group AG* (Annex C – Charter for the Committees of the Board of Directors of UBS Group AG)

Corporate Culture and Responsibility Committee					
7.1	The CCRC supports the Board in its duties to safeguard and advance the Group's reputation for responsible and sustainable conduct. Its function is forward-looking in that it monitors and reviews societal trends and transformational developments and assesses their potential relevance for the Group. In undertaking this assessment, it reviews stakeholder concerns and expectations pertaining to the societal performance of UBS and to the development of its corporate culture. The CCRC's function also encompasses the monitoring of the current state and implementation of the programs and initiatives within the Group pertaining to corporate culture and corporate responsibility.	In general			
7.2	The CCRC's responsibilities and authorities are to:  (i) General:  (a) monitor and advise the Board on current and emerging societal trends and developments of potential relevance for the Group;  (b) review and assess the current state and implementation of the corporate culture and corporate responsibility programs and initiatives within the Group; and  (c) monitor the consistent application of the behaviors of integrity, challenge and collaboration within UBS;  (ii) Policies and regulations:  (a) monitor and advise the Board on evolving external corporate culture and corporate responsibility regulations, standards and practices;  (b) conduct the annual review process for the Code of Conduct and Ethics of UBS and make proposals for amendments to the Board; and  (c) review and oversee that policies and guidelines of UBS pertaining to corporate culture and corporate responsibility are relevant and up to date;  (ii) Strategy:  (a) monitor the effectiveness of actions taken by UBS relating to the corporate culture and responsibility regulations and policies as well as objectives of UBS;  (b) support the GEB, if required, in the adjustment of processes pertaining to corporate culture and responsibility;  (c) approve UBS in society's overall strategy and annual objectives and  (d) support a strong and responsible corporate culture firmly founded in a spirit of long-term thinking;  (iv) Programs and initiatives:  (a) UBS in society;  (b) sustainable and impact investing;  (c) client philanthropy;  (d) environmental management;  (e) climate strategy;  (i) in-house environmental management;  (e) community affais;  (i) diversity and inclusion;  (i) talent management;  (v) Community affais;  (v) working environment; and  (v) communications:  (a) advise the Board on the reporting of the Group's corporate culture and responsibility strategy and activities, review the relevant sections of the Group's annual report, and provide oversight of the annual UBS sustainability disclosure assurance audit process; and  (b) monitor an	Responsibilities and authorities			

### Our Code of Conduct and Ethics

In this Code, the Board of Directors and the Group Executive Board set out the principles and practices that define our ethical standards and the way we do business.

By following it, we will foster an ethical culture where responsible behavior is second nature. We will protect our most important asset – our reputation. And, ultimately, we will create lasting value for our shareholders. The Code sets the standards that help us to make that happen.

It is based on three Principles: client focus, which is about building relationships that create long-term value, focusing on investment returns and anticipating and managing conflicts of interest; excellence in everything from our products and services to how we collaborate across the firm to deliver the best of what UBS has to offer; and sustainable performance, which is about working continuously to strengthen our reputation as a rock-solid firm and provide consistent returns for shareholders.

It is essential that we all follow these Principles. In short, if we do business in the right way, we will be a better business, and an even more successful one.

#### The Code applies to everything and everyone

The Code covers our dealings with stakeholders, clients, counterparties, shareholders, regulators and business partners – and each other. And it is the basis for all our policies, guidelines and procedures.

#### Ignorance of the Code is no excuse

As part of our training, everyone hears about the standards in the Code and learns how to apply them. But we also strongly encourage you to read the Code and get to know it. Not knowing the Code is no excuse for violating it.

### Our Boards are fully behind the Code – and needs the whole bank to be behind it, too

The Code has the full backing of the Board of Directors and Group Executive Board. And every one of us needs to make sure our day-to-day actions and decisions follow the standards set out here. Above all, we must put the interests of UBS, our clients and our shareholders above our own.

Of course, the Code cannot describe every possible situation. If you find yourself dealing with something unexpected, apply these ethical standards in your judgment and get guidance or help.

Thank you for your support.

Axel A. Weber Chairman of the Board of Directors

Sergio P. Ermotti Group Chief Executive Officer

#### Laws, rules and regulations

#### Obeying the law

We obey the laws, rules and regulations where we live, work and do business – as well as our own governance documents.

And we cooperate with our regulators, being open and transparent in our dealings with them.

#### Cross-border business

When we are working across borders, we obey all pertinent laws, rules and regulations – both at home and abroad.

If we are selling to, buying from, visiting or dealing with clients from outside our home country, it is our job to understand what rules, laws or policies apply – and follow them.

#### Fair dealing and fair competition

We succeed by outperforming our competitors fairly and honestly, not by resorting to unfair or underhand tactics.

We don't stretch, distort or try to hide the facts or the truth. Nor do we use information we are not meant to have to gain an unfair advantage over competitors.

We act fairly, honestly and in good faith with everyone we deal with: our clients, business partners, competitors, suppliers, the public and each other.

And we act in the interest of fair and effective competition and respect all the laws, rules and regulations that are designed to create a level playing field for all – including antitrust and competition laws.

#### Fighting crime

We have a duty to contribute to the integrity of the financial system, as well as our own business.

So we do whatever we can to combat money laundering, corruption and terrorist financing – including imposing global sanctions in line with our policy.

#### Money laundering

We have rigorous systems in place to detect, report and stop any suspected money laundering.

#### Corruption

We have zero tolerance for corruption or any kind of bribery, including so-called "facilitation payments." We don't offer or accept improper gifts or payments in the course of our business.

#### Criminal activity

We carry out due diligence and keep a constant lookout for any suspicious activities, reporting them to senior management as soon as we discover them. And we follow strict Know-Your-Customer regulations.

#### Tax matters

We follow all the laws, rules, regulations and treaties around tax that apply to us, all over the world – not just to the letter, but in their true spirit. We pay and report all taxes due. We report information relating to our own tax position and that of our clients and employees as required.

We will not help our clients or any other party avoid paying the tax that they owe or reporting their income and gains, nor will we support any transactions where we know or shall presume that the tax outcome is dependent on unrealistic assumptions or the hiding of facts.

We will also not contract with third parties that provide services for or on our behalf, where those acts help others to evade taxes owed.

#### Behaving responsibly and ethically

#### Values and ethics

We don't just follow the laws, rules and regulations in everything we do. We do what is right. We don't just ask ourselves whether what we're doing is legal, but whether it fits with our three UBS Behaviors: Integrity, Collaboration and Challenge.

#### Client relationships

We look after our clients for the long term, winning their loyalty by earning their trust.

We try to anticipate what our clients are going to need before they ask. We go out of our way to give them an exceptional service. We make sure our products and services are adequate for our clients and are sold in a way that is not detrimental to their interests.

And we treat them fairly, and with the same courtesy and respect, however large or small they may be.

#### Conflicts of interest

We put our clients' best interests before our own – and UBS's interests before our personal interests. And we never let UBS's or our personal interests influence our advice to a client, or our dealings with them.

We have systems to identify and manage potential conflicts of interest. And as soon as we do identify any such conflicts, we raise them immediately with our line manager or with Legal or Compliance & Operational Risk Control.

#### Sharing, using and storing information

#### Reporting and information sharing

When we share or report anything, especially financial information – to either the public or our regulators – we take great care to make sure it is accurate, up to date and as easy to understand as it can be (and in line with any legal or regulatory requirements and best practice).

We maintain an internal control framework that is designed to support the preparation and fair representation of consolidated financial statements in accordance with International Financial Reporting Standards (IFRS) and that are free from material misstatement.

Based on their audit work, our independent external auditors express an opinion on our internal controls over financial reporting as well as on the financial statements themselves. Our internal audit function often provides support to our external auditors in discharging their responsibilities, and also assesses the adherence to our strategy and the effectiveness of our governance, risk management and control processes.

#### Inside information

We never use inside information (material information that is not public) to do anything other than what it was given to us for in the first place.

Having made every effort to ascertain whether information is inside information, we only ever share such information on a need-to-know basis. That applies to people inside and outside UBS, in line with our internal procedures, as well as any relevant laws, rules and regulations.

#### Client confidentiality

Our clients trust us to keep the information they've shared with us safe and secure and only use it in the ways we've agreed with them

We follow the highest standards of information security to keep our client information confidential and to protect legitimate client privacy rights. We have strict data security standards and procedures designed to prevent data being tampered with, seen or used by the wrong people, stolen, lost or destroyed.

We never share our clients' details with anyone, unless we have their express permission to do so – or where we have a legal duty to share it with the relevant authorities. And even within UBS, we will only share client details with those colleagues who genuinely need to see it to serve our clients' best interests.

#### Creating the right culture

#### Diversity and equal opportunity

We believe that people from different backgrounds, with different thoughts and opinions, make us a stronger business. They bring us valuable new ideas, approaches and experiences.

Regardless of their status, everyone has the same chance to get ahead at UBS – whatever their ethnicity, gender, national origin, age, ability, sexual orientation or religion. And we work to create a culture where everyone feels they are welcome, respected and that they are a valuable part of our team – whatever part of UBS they work in.

We do not tolerate any kind of discrimination, bullying or harassment. And we encourage each other to speak up and report it through clear channels, without fear of reprisals.

#### Performance and professionalism

Our professionalism, integrity and pursuit of excellence are how we create value for our clients and shareholders. So our compensation system is designed to reward long-term value creation by balancing performance and prudent risk-taking with a focus on conduct and sound risk management practices.

We know that our business is only as strong as our people. So we work hard to create a working environment where talent can thrive and reach its full potential.

#### Protecting our assets

We keep UBS's assets safe and secure – from sensitive, confidential information about our business, plans and people to our intellectual property, systems and equipment, as well as documents, information and other materials belonging to others that are entrusted or made available to us. That means making sure that these assets are handled properly and used in line with relevant laws and regulations and doing what we can to prevent them from being lost, stolen, damaged or misused. We retain data to fulfill regulatory retention and legal hold obligations.

We will not use such assets for non-UBS business or for our own personal advantage.

#### Health and safety

We never do anything that might put people in danger or harm them in any way – whether they're colleagues, clients, partners, competitors, visitors or anyone else.

We keep our workplaces safe by following health and safety rules. Doing this makes sure we have safe and healthy working conditions in which our dignity is respected.

#### **Society and the environment**

#### Integrating financial and societal performance

We integrate financial and societal performance for the mutual benefit of our clients and our firm.

So we're constantly looking for better ways to do business in an environmentally sound and socially responsible manner.

That includes monitoring, managing and reducing any negative impact we might have on the environment and on human rights. It means managing social and environmental risks that our own and our clients' assets are exposed to. And it means looking for sustainable investment opportunities, for ourselves and our clients.

#### Investing in our communities

We constantly look for ways to contribute to the well-being of our local communities – by supporting charitable activities financially and non-financially, including through our volunteering efforts.

#### **Violating the Code**

#### Disciplinary procedures

Anyone who breaks the rules (whether it is our Code, UBS policies or outside laws, rules and regulations) will face consequences – from reprimands and warnings to dismissals.

This includes not only the person who broke the rules, but also their line manager and anyone who knew about it but did not report it.

And where a violation amounts to criminal behavior, we will not hesitate to bring it to the attention of the relevant authorities.

#### **Upholding the Code**

From our Board of Directors down, we live up to this Code at all times, with no exceptions.

UBS will not accept any justification or excuse for breaking it, whatever the reason – whether for profit, convenience or competitive advantage or because a client or someone else asked for it.

#### Changes to the Code

The Code defines the way we do business. It is reviewed regularly to make sure it reflects our principles and standards and is consistent with the law. Whenever there's a change, an announcement goes to every employee.

#### Affirmation process

Each of us declares that we have read and affirmed our awareness of the Code, as part of our annual affirmation process.

#### Speak Up

We immediately report any potential violations [of the Code] to our line manager or local investigations officer. We can also report them confidentially or anonymously using the whistleblowing procedures published on the intranet site goto/speakup.

UBS regards any form of retaliation against whistleblowers to be unacceptable.

And UBS expects its line managers to escalate and report any violations of laws, rules, regulations, policies, professional standards and the principles of the Code.

#### Questions about the Code

Any questions about any part of this Code, or what it means in practice, should go to the Group General Counsel or the Head of Group Compliance, Regulatory & Governance.

### UBS in society constitutional document

#### **Our Commitment**

UBS's goal is to be the financial provider of choice for clients wishing to mobilize capital towards the achievement of the United Nations Sustainable Development Goals (SDGs) and the orderly transition to a low-carbon economy (the Paris Agreement). We work towards this goal by integrating sustainability into our mainstream offerings, through new and innovative financial products with a positive effect on the environment and society, and by advising clients on their philanthropy. And it is through the management of environmental and social risks, the management of our environmental footprint and our sustainability disclosure that we continue to set standards in the industry.

Our cross divisional organization, *UBS in society*, focuses our firm on this direction. *UBS in society* is committed to making UBS a force for driving positive change in society and the environment for future generations. It will do so by focusing our firm on creating long-term positive impact for clients, employees, investors and society. Our ambition is to be:

- A leader in sustainable finance across all client segments
- A recognized innovator and thought leader in philanthropy<sup>1</sup>
- An industry leader for sustainable business practices
- An employer of choice

*UBS in society* covers all the activities and capabilities related to sustainable finance (including sustainable investing), philanthropy, environmental, climate and human rights policies governing client and supplier relationships, our environmental footprint, human resources as well as community investment. It is through this cross divisional organization that UBS leverages its expertise across all of these areas to drive sustainable performance.

We intend to make sustainable performance the standard across our firm and part of every client conversation. This means that we will focus on the long term and work to provide appropriate returns to all of our stakeholders in a responsible manner. In addition, we are transparent about our targets and progress wherever possible to demonstrate our commitment.

#### Scope

The document defines the principles, governance and controls for implementing this commitment. It outlines how UBS is becoming a force for driving positive change – in finance, in philanthropy, in communities and in our business. Our banking activities, in-house operations, supply chain management and community interactions are subject to, and must be conducted in compliance with, this commitment.

#### **Principles**

The following principles outline how *UBS* in society promotes the implementation of its commitment to make UBS a force for driving positive change in society and the environment for future generations, across four areas: in finance, in philanthropy, in communities and in our business.

#### In finance

We're reshaping the landscape of sustainable finance by using thought leadership, innovation and partnerships to support clients in their sustainability efforts. For:

- Private investors: We're helping clients invest in companies that use their resources wisely and deliver reliable, long-term results. It's important to us that our clients can invest in what they care about, make the difference they desire and still get the returns they are looking for.
- Institutional investors: We're transforming the business of asset management and taking a long-term perspective by establishing sustainable and impact investing as core components across our offering and solutions.
- Corporate organizations: We're offering in-depth research, innovative products and expert advice to organizations who would like to consider environmental, societal and governance criteria in their financing and investing decisions.
- Swiss businesses: We're creating programs to help Swiss companies prepare for the new, low-carbon economy.

#### In philanthropy

We're partnering with clients and others for good, by offering expert advice, carefully selected programs from UBS Optimus Foundation, and innovative social financing mechanisms, so that our clients can make meaningful and measureable impact:

- UBS Optimus Foundation: We're making a measureable improvement in the lives of world's most vulnerable children. From getting more girls into school, to using solar power to improve maternal health we're bringing our clients, partners and extensive network together to support SDG-focused initiatives with the potential to be transformative, scalable and sustainable. We do this through evidence-based grant making and innovative social finance, finding the most effective ways to use capital to drive social change.
- Philanthropy advisors: We're dedicated to making the philanthropic vision of our clients come to life. From helping them understand where they can begin, to how they can give in the most effective way, our advice is supported by in-depth research. We offer access to a global philanthropist network and insight experiences through our Philanthropy Forums and visits to the foundation's programs.

#### In communities

We recognize that UBS's long-term success depends on the health and prosperity of the communities of which we are part.

Our Community Affairs programs represent the firm's investment in communities. Our programs seek to overcome disadvantage through long-term investment in education and entrepreneurship. We provide UBS resources (both financial and employee volunteering) to drive change and create a positive impact. Our approach is to build sustainable and successful partnerships with non-profit organizations and social enterprises to ensure that our contributions have a lasting impact.

Our Community Affairs framework is global in scope and delivers both community and business impact in each of the regions in which we operate. Regional execution of the global strategy ensures we are effectively aligning our programs to address local community issues and support business priorities.

#### In our business

We're leading by example in that we challenge ourselves and our peers to raise the bar and be open about the impact our actions have on society and the environment. Our focus is on:

- Environmental and social risk: We apply an environmental and social risk (ESR) framework to identify and manage potential adverse impacts to the environment, the climate and to human rights as well as the associated environmental and social risks our clients' and our own assets are exposed to. UBS's comprehensive ESR standards are aligned with UBS in society, govern client and supplier relationships, and are enforced firm-wide and applied to all activities.
- Environmental footprint: We set quantitative targets to reduce group-wide greenhouse gas emissions and the environmental impact of our operations. Environmental programs include investments in sustainable real estate and efficient information technology, energy and water efficiency, paper and waste reduction and recycling, the use of environmentally friendly products (such as renewable energy or recycled paper), business travel and employee commuting. UBS aims to reduce negative environmental and social impacts of goods and services it purchases and engages with suppliers to promote responsible practices.
- Human resources: Our employees are crucial to our business success. We seek to attract, develop and retain talented people at all levels with diverse background and skills to effectively advise our clients, deliver innovative solutions, manage risk, navigate evolving regulatory requirements, and drive change. We also focus on increasing awareness of UBS in society amongst our employees by integrating sustainability topics in our employee lifecycle activities.

- Corporate responsibility: We report openly and transparently about our firm's environmental, social, governance (ESG) performance, including UBS in society, and seek to maintain open dialogue and active communications with our stakeholders.

#### **Responsibilities and Structure**

The Corporate Culture and Responsibility Committee (CCRC)<sup>2</sup> supports the UBS Board of Directors in its duties to safeguard and advance the Group's reputation for responsible and sustainable conduct. It approves and monitors *UBS in society*'s overall strategy and annual objectives, reviews that the UBS in society constitutional document is relevant and up to date, and oversees the program's annual management review.

The Group CEO<sup>3</sup> supervises the execution of the UBS in society strategy and annual objectives. The Group CEO also informs the Group Executive Board (GEB) and Corporate Culture and Responsibility Committee (CCRC) about UBS in society updates as appropriate.

The Head *UBS in society* is UBS's senior level representative for environmental and sustainability issues. He or she is nominated by the Group CEO, chairs the UBS in society Steering Committee, is a member of the Global Environmental Social Risk Committee, and is a permanent guest to the CCRC. He or she develops the *UBS in society* strategy, leads in its execution, and submits annual objectives to the Group CEO. On behalf of the Group CEO, he or she proposes the UBS in society strategy and annual objectives to the CCRC for approval. He or she is supported by the UBS in society Executive Committee (EC)4 in this effort.

The UBS in society Steering Committee (SC)<sup>5</sup> ensures firmwide execution of the UBS in society strategy across business divisions, functions and regions. The Committee is chaired by the Head *UBS in society* and is composed of divisional, regional, and Group COO EC members as well as UBS in society EC members. SC members are nominated by their respective GEB member and/or the Head *UBS in society*, and are responsible to define and implement the sustainability strategy of their BA / Function (and to allocate resources accordingly) in line with the UBS in society strategy. SC members ensure their objectives and plans are signed off by their GEB member / ECs.

The Global Environmental & Social Risk Committee<sup>6</sup> defines an ESR framework and independent controls that align UBS's environmental and social risk appetite with that of UBS in society. It is chaired by the Group Chief Risk Officer, who is responsible for the development and implementation of principles and appropriate independent control frameworks for environmental and social risks within UBS.

<sup>2</sup> Responsibilities and authority of the CCRC are defined in Annex C of the Organization Regulations of UBS Group AG

<sup>3</sup> As set out in the Business Regulations Corporate Center 4 As set out in the UBS in society Executive Committee Terms of Reference

<sup>5</sup> As set out in the UBS in society Steering Committee Terms of Reference

<sup>6</sup> As set out in the Global Environmental and Social Risk Committee Terms of Reference

The Business Divisions are responsible for developing, providing resources to, and executing the *UBS in society* annual objectives in their respective division as they relate to client relationships, product development, investment management, distribution and risk management, predominantly in the areas of sustainable finance and client philanthropy.

The Regions are responsible for providing resources to, and executing Community Affairs objectives in their region through their respective regional Community Affairs teams. The Community Affairs objectives are aligned with the global framework of *UBS in society*.

The Corporate Center functions are responsible for developing, providing resources to, and executing *UBS in society* annual objectives as they relate to risk control, sustainability regulation, employee training and development, in-house environmental and supply chain management, and communications.

#### **Reporting and Controls**

Our commitment is implemented through a firm-wide management system steered by defined measurable objectives. Their achievement is reviewed on a semi-annual basis by the Head of *UBS in society*, and on an annual basis by the Corporate Culture and Responsibility Committee.

Progress made in implementing *UBS* in society's strategy, commitment, and objectives is reported as part of UBS's annual reporting. This reporting is reviewed and assured externally according to the requirements of the Global Reporting Initiative's (GRI) sustainability reporting guideline. We also regularly report on the implementation of our climate strategy and follow the recommendations provided by the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) and externally verify our greenhouse gas reporting according to ISO 14064.

UBS is certified according to ISO 14001 and ISO 50001 international environmental and energy management standards. These certificates attest that UBS's environmental management system is an appropriate tool for evaluating compliance with the relevant environmental regulations, achieving self-defined environmental objectives, and maintaining continual improvement of environmental performance.

The implementation of our commitment and principles, as laid out in this document, is a process of continual improvement.

#### **Standard Information**

#### The Sustainable Development Goals (SDGs)

In September 2015, with the support of 193 nations, the United Nations launched the 2030 Agenda for Sustainable Development to end poverty, combat climate change, and fight injustice. Seventeen Sustainable Development Goals (SDGs) went into effect in January 2016 to address global socioeconomic imbalances threatening the lives of people living in developing economies and the future of generations to come.

#### The Paris Agreement

The Paris Agreement is an agreement within the United Nations Framework Convention on Climate Change (UNFCCC) signed in 2016. As of March 2019, 195 countries had signed committing to keep the long-term global average temperature increase to well below 2 °C above pre-industrial levels; and to pursue efforts to limit the increase to 1.5 °C above pre-industrial levels, recognizing that this would substantially reduce the risks and impacts of climate change. It also aims to increase the ability of parties to adapt to the adverse impacts of climate change, and make finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

#### Climate strategy

UBS considers an orderly transition to a low-carbon economy as vital. Orderly means that emissions are reduced in a measured way to meet climate goals, starting now. We support this transition through our comprehensive climate strategy. We are determined to protect our clients, and our own assets from climate-related risks in the context of uncertain policy and technology developments, mobilize private and institutional capital to finance the transition and reduce our own direct climate impact.

#### Environmental and social risk (ESR)

Environmental and social risks are broadly defined as the risk that UBS supports clients, or sources from suppliers, who cause or contribute to severe environmental damage or human rights infringements. Environmental and social risks can also arise if UBS's operational activities and its employees (or contractors working on behalf of UBS) fail to operate within relevant environmental and human rights regulations. Environmental and social risks (including human rights and climate-related risks) may result in adverse financial and reputational impacts for UBS.

#### Sustainable investments (SI)

Sustainable investing is an approach that seeks to incorporate environmental, social and governance (ESG) considerations into investment decisions. SI strategies seek to 1) achieve a positive environmental or social impact, and/or 2) align investments with an investor's values regarding ESG topics, while aiming to improve the portfolio risk and return characteristics.

#### Sustainable finance

Sustainable finance refers to any form of financial service that integrates environmental, social and governance (ESG) criteria into the business or investment decisions for the lasting benefit of both clients and society at large.

### Environmental and social risk policy framework

### Comprehensive, highest industry standards, deeply rooted in our culture

Our comprehensive environmental and social risk framework is deeply rooted in our culture, and

- governs client and supplier relationships and applies firm-wide to all activities
- meets the highest industry standards as recognized by environmental, social, governance ratings
- is integrated in management practices and control principles and overseen at the most senior level of our firm.

This framework is aligned with our *UBS in society* organization that covers all the activities and capabilities related to sustainable finance (including sustainable investing), philanthropy, environmental, climate and human rights policies governing client and supplier relationships, our environmental footprint, human resources as well as community investment.

#### Introduction

We live in a world that is more interconnected, more interdependent and more interactive than ever before. Rapid technological advances in particular continue to have a profound effect on the economic, political, cultural, environmental and social landscape. These advances have changed the way we think and act. They have altered the way we do business. They have transformed the products and services we consume, and reshaped the perceptions of the world around us. While this has brought with it significant benefits and opportunities, it has also created far greater awareness of the challenges we all face.

As a global company, and the largest truly global wealth manager to high net worth and ultra high net worth clients, UBS is in a unique position to help address these challenges, both together with our clients and through our own efforts.

Our principles and standards clearly define how we want to do things at UBS. They apply to all aspects of our business and the ways in which we engage with our stakeholders. Our Code of Conduct and Ethics documents our corporate responsibility. Our work in key societal areas such as protecting the environment and respecting human rights are part of this. Living up to our societal responsibilities contributes to the wider goal of sustainable development. As a global firm we take responsibility to lead the debate on important societal topics, contribute to the setting of standards and collaborate in and beyond our industry.

Managing environmental and social risks is a key component of our corporate responsibility. We apply an environmental and social risk policy framework to all our activities. This helps us identify and manage potential adverse impacts to the environment and to human rights, as well as the associated risks affecting our clients and us. We have set standards in product development, investments, financing and for supply chain management decisions. We have identified certain controversial activities we will not engage in, or will only engage in under stringent criteria. As part of this process, we engage with clients and suppliers to better understand their processes and policies and to explore how any environmental and social risks may be mitigated.

The foundation of UBS's environmental and social risk policy framework is established in the Code of Conduct and Ethics of UBS and the *UBS in society* constitutional document.

#### Our focus

Our industry is playing an active role in addressing global issues such as human rights and the protection of our environment. Climate change impacts ecosystems, societies, and economies worldwide, and we support clients achieving their goals in support of the transition to a low-carbon economy. Growing environmental and human rights concerns have resulted in a fast-changing regulatory and competitive landscape which is affecting our firm, our suppliers and our clients. In response to these emerging risks and opportunities, we are shaping appropriate solutions and commitments.

Over twenty-five years ago, UBS was one of the first financial institutions to sign the United Nations (UN) Environment Programme's "Statement by Financial Institutions on the Environment and Sustainable Development." We were also among the first companies to endorse the UN Global Compact, we were an original signatory of the CDP, and our Asset Management (AM) business is an Investment Manager signatory to the Principles for Responsible Investment.

In 2019, we became a founding signatory of the UN Principles for Responsible Banking. The Principles constitute a comprehensive framework for the integration of sustainability across banks. They define accountabilities and require each bank to set, publish and work toward ambitious targets.

In 2000, our firm was a founding member of the Wolfsberg Group of banks, which was originally set up to promote good practice in combatting money laundering. In 2011, the firm was a driving force behind the establishment of the Thun Group of Banks, which has in the meantime published two discussion papers that seek to establish a framework to facilitate the identification of the key challenges and best practice examples for the banking sector's implementation of the UN Guiding Principles on Business and Human Rights (UNGPs). We are a member of the Roundtable on Sustainable Palm Oil (RSPO). In 2014, we endorsed the Banking Environment Initiative's and Consumer Goods Forum's "Soft Commodities" Compact, which reconfirms our commitment to developing and implementing responsible business standards.

Progress made in implementing *UBS in society* is reported as part of UBS's annual reporting. This reporting is reviewed and assured externally according to the requirements of the Global Reporting Initiative's (GRI) Sustainability Reporting Guideline. UBS is certified according to ISO 14001, the international environmental management standard.

→ Refer to the "Driving change in business" section of this document for an overview of external commitments and memberships

#### Climate change

Climate change is one of the most significant challenges of our time. The world's key environmental and social challenges – such as population growth, energy security, loss of biodiversity and access to drinking water and food – are all closely intertwined with climate change. This makes the transition to a low-carbon economy vital. We support this transition through our comprehensive climate strategy, focusing on four pillars:

- Protecting our own assets: We have reduced carbon-related assets on our balance sheet to 0.8% or USD 1.9 billion as of 31 December 2019, down from 1.6% at the end of 2018 and 2.8% at the end of 2017. In 2019 we also revised our standards in the energy and utilities sector and further embedded climate-related risk into our standard risk management framework.
- Protecting our clients' assets: We support our clients' efforts
  to assess, manage and protect them from climate-related
  risks by offering innovative products and services in
  investment, financing and research. We also actively engage
  on climate topics with companies that we invest in.
- Mobilizing private and institutional capital: We mobilize private and institutional capital towards investments facilitating climate change mitigation and adaptation and in supporting the transition to a low-carbon economy as corporate advisor, and/or with our lending capacity.
- Reducing our direct climate impact: We have committed to using 100% renewable electricity by mid-2020. This will reduce our firm's GHG footprint by 75% compared with 2004 levels.

We publicly support international, collaborative action against climate change. Our Chairman is a signatory to the European Financial Services Round Table's statement in support of a strong, ambitious response to climate change. Our Group CEO is a member of the Alliance of CEO Climate Leaders, an informal network of CEOs convened by the World Economic Forum and committed to climate action. Our Head Sustainable Equity Team within AM is a member of the Task Force on Climate-related Financial Disclosures (TCFD).

→ Refer to the "Our governance and principles" section of this document for the full climate strategy

#### Forests and biodiversity

Deforestation and forest degradation can cause biodiversity to decline. As approximately 80% of the world's documented species are found in tropical rainforests, deforestation will impact global biodiversity. Deforestation is, in fact, second only to the energy sector as a source of global greenhouse gas emissions and accounts for up to 20% of emissions, more than the entire global transport sector.

It is further estimated that more than 50% of tropical deforestation is due to the production of soy, palm oil, timber and beef. In human terms, millions of people rely directly on forests (small-scale agriculture, hunting and gathering, and harvesting forest products such as rubber). Yet, deforestation continues to cause severe societal problems, sometimes leading to violent conflict.

Recognizing these risks, we:

- became member of the RSPO in 2012.
- endorsed the Banking Environment Initiative's and Consumer Goods Forum's "Soft Commodities" Compact. In doing so, we aim to support the transformation of soft commodity supply chains by expecting producers to be committed to achieving full certification according to applicable sustainability certification schemes, such as the RSPO. We acknowledge that land acquired without adequate consultation, compensation, and consideration of customary land rights (commonly referred to as land grabbing), can significantly impact local communities: often smallholders who primarily rely on subsistence farming to sustain their livelihood.
- have identified and will not engage in certain activities that contribute to deforestation and its related impacts (sections Controversial Activities – Where UBS will not do business and Areas of Concern – Where UBS will only do business under stringent criteria).

#### Human rights

UBS is committed to respecting and promoting human rights in all our business activities. We believe this is a responsible approach underlining our desire to reduce as far as possible potentially negative impacts on society. Our commitment in this important area is long standing. In July 2000, UBS was one of 43 companies that pledged to adhere to the Global Compact.

The principles of the Global Compact, today the largest corporate responsibility initiative globally, stem from the Universal Declaration of Human Rights, the International Labor Organization's Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development and the UN Convention Against Corruption. The United Nations took a significant step in 2011 by endorsing the UNGPs. At this point, UBS together with other banks formed the Thun Group of Banks to jointly consider these developments and conclusions and to share experiences and ideas regarding the implementation of the UNGPs. To this end, the Thun Group of Banks has published two discussion papers that seek to establish a framework to facilitate the identification of the key challenges and best practice examples for the banking sector's implementation of the UNGPs. Both discussion papers were also intended to inform other pertinent initiatives, in the specific case of the second the OECD's proactive agenda on Responsible Business Conduct, which released in 2019 its guidance on due diligence for Responsible Business Conduct in General Corporate Lending and Securities Underwriting. UBS is a member of the Advisory Group to the OECD's project.

Recognizing these risks, we:

- established a UBS Position on human rights in 2006. In 2013, we revised the firm's Environmental and Social Risk Framework to formalize accountability for human rights issues.
- stipulated that we will not engage in commercial activities that make use of child labor and forced labor, or that infringe the rights of indigenous peoples (see section Controversial Activities – Where UBS will not do business).
- will continue our work internally, and externally with the Thun Group of Banks and the OECD, to understand how best to implement the UNGPs across our operations.

#### Our standards

UBS has set standards in product development, investments, financing and supply chain management decisions, which include the stipulation of controversial activities and other areas of concern UBS will not engage in, or will only engage in under stringent criteria.

#### Controversial Activities – Where UBS will not do business

UBS will not knowingly provide financial or advisory services to clients whose primary business activity, or where the proposed transaction, is associated with severe environmental or social damage to or through use of:

- World heritage sites as classified by UNESCO;
- Wetlands on the Ramsar list;
- Endangered species of wild flora and fauna listed in Appendix 1 of the Convention on International Trade in Endangered Species;
- High conservation value forests as defined by the six categories of the Forestry Stewardship Council (FSC);
- Illegal fire: uncontrolled and/or illegal use of fire for land clearance;
- Illegal logging including purchase of illegal harvested timber (logs or roundwood);
- Child labor according to ILO-conventions 138 (minimum age) and 182 (worst forms);
- Forced labor according to ILO-convention 29; and
- Indigenous peoples' rights in accordance with IFC Performance Standard 7.

The same standards apply when UBS purchases goods or services from suppliers.

In addition, UBS does not directly or indirectly finance the development, production or purchase of controversial weapons of such companies determined to fall within the "Swiss Federal Act on War Materials."

On the topic of cluster munitions and anti-personnel mines: UBS does not provide credit facilities to, nor conduct capital market transactions for, companies that are involved in the development, production or purchase of cluster munitions and anti-personnel mines. UBS does not include securities of affected companies in its actively managed retail and institutional funds and in discretionary mandates. UBS draws upon external expertise to decide whether a company is subject to the restrictions imposed by Swiss law.

## Areas of Concern – Where UBS will only do business under stringent criteria

Specific guidelines and assessment criteria apply to transactions with corporate clients engaged in the areas of concern listed below. The guidelines and assessment criteria apply to loans, trade finance, direct investments in real estate and infrastructure, securities and loan underwriting transactions, and investment banking advisory assignments.

Transactions in the areas listed below trigger an enhanced due diligence and approval process. In addition to the assessment of regulatory compliance, adherence to UBS's controversial activities standards, past and present environmental and human rights performance, as well as concerns of stakeholder groups, these transactions require an assessment of the following criteria:

#### Soft commodities

- Palm oil: Companies must be a member of the RSPO and not subject to any unresolved public criticism from the RSPO.
   Companies must further have some level of mill or plantation certification and be publicly committed to achieving full certification (evidence must be available). Company must also be committed to "No Deforestation, No Peat and No Exploitation" (NDPE).
- Soy: Companies producing soy in markets at high risk of tropical deforestation must be a member of the Roundtable on Responsible Soy (RTRS) and not subject to any unresolved public criticism from the RTRS. Companies must further be publicly committed to achieving full certification (evidence must be available).
- Timber: Companies producing timber in markets at high risk of tropical deforestation must seek to achieve full certification of their production according to the Forest Stewardship Council (FSC) or a national scheme endorsed against the 2010 Programme for the Endorsement of Forest Certification (PEFC) meta standard for timber products. Company must also have fire prevention, monitoring and suppression measures in place.
- Fish and seafood: Companies producing, processing or trading fish and seafood must provide credible evidence of no illegal, unreported and unregulated fishing in their own production and supply chain.

#### Power Generation

- Coal-fired power plants (CFPP): We do not provide project-level finance for new coal-fired power plants globally and only support financing transactions of existing coal-fired operators (>30% coal reliance) who have a transition strategy in place that aligns with a pathway under the Paris Agreement, or the transaction is related to renewable energy.
- Large dams: Transactions directly related to large dams include an assessment against the recommendations made by the World Commission on Dams (WCD) and the International Hydropower Association Sustainability Assessment Protocol.
- Nuclear power: Transactions directly related to the construction of new, or the upgrading of existing nuclear power plants include an assessment on whether the country of domicile of the client / operation has ratified the Treaty on the Non-Proliferation of Nuclear Weapons.

#### Extractives

- Arctic oil and oil sands: We do not provide financing where
  the stated use of proceeds is for new offshore oil projects in
  the Arctic or greenfield¹ oil sands projects, and only provide
  financing to companies, which have significant reserves or
  production in arctic oil and/or oil sands (>30% of reserves or
  production), where the stated use of proceeds is related to
  renewable energy or conventional oil & gas assets.
- Coal mining: We do not provide financing where the stated use of proceeds is for greenfield<sup>1</sup> thermal coal mines and do – not provide financing to coal mining companies engaged in mountain top removal operations. We continue to severely restrict lending and capital raising to the coal mining sector.
- Liquefied Natural Gas (LNG): Transactions directly related to LNG infrastructure assets are subject to enhanced ESR due diligence considering relevant factors such as management of methane leaks, and the company's past and present environmental and social performance.
- Ultra-deepwater drilling: Transactions directly related to ultradeepwater drilling assets are subject to enhanced ESR due diligence considering relevant factors such as environmental impact analysis, spill prevention and response plans, and the – company's past and present environmental and social performance
- Hydraulic fracturing: Transactions with companies that practice hydraulic fracturing in environmentally and socially sensitive areas are assessed against their commitment to and certification of voluntary standards, such as the American Petroleum Institute's documents and standards for hydraulic fracturing.
- Precious metals: Transactions directly related to precious metals assets that have a controversial environmental and social risk track record are assessed against the client's commitment to and certification of voluntary standards, such as the International Council on Mining & Metals' (ICMM) International Cyanide Management Code (ICMC).
- Diamonds: Transactions with companies that mine and trade rough diamonds are assessed on the client's commitment to and certification of voluntary standards, such as the ICMC, and rough diamonds must be certified under the Kimberley Process.

#### Our processes and governance

UBS applies an environmental and social risk framework to all transactions, products, services and activities such as lending, capital raising, advisory services or investments that involve a party associated with environmentally or socially sensitive activities. The framework seeks to identify and manage potential adverse impacts to the environment and to human rights, as well as the financial and reputation risks of being associated with them.

#### Integration in risk, compliance and operations processes

Procedures and tools for the identification, assessment and monitoring of environmental and social risks are applied and integrated into standard risk, compliance and operations processes.

- Client onboarding: Potential clients are assessed for environmental and social risks associated with their business activities as part of UBS's Know Your Client compliance processes.
- Transaction due diligence: Environmental and social risks are identified and assessed as part of standard transaction due diligence and decision-making processes in all business divisions and relevant product lines.
- Product development and investment decision processes: New financial products and services are reviewed before their launch in order to assess their compatibility and consistency with UBS's environmental and human rights standards. Environmental and social risks are also considered in investment decision processes and when exercising ownership rights like proxy voting and engagement with the management of investee entities.
- Own operations: Our operational activities and employees, or contractors working on UBS premises, are assessed for compliance with relevant environmental, health and safety, and labor rights regulations.
- Supply chain management: Environmental and social risks are assessed when selecting and dealing with suppliers. UBS also evaluates goods and services that pose potential environmental, labor and human rights risks during lifecycle (production, usage, and disposal) as part of its purchasing processes.
- Portfolio review: At portfolio level, we regularly review sensitive sectors and activities prone to bearing environmental and social risks. We assess client exposure and revenue in such sectors and attempt to benchmark the portfolio quality against regional and/or sector averages. Such portfolio reviews give us an accurate aggregated exposure profile and an enhanced insight into our transaction and client onboarding processes. Based on the outcome of these reviews, we can explore ways to improve the future portfolio profile along a range of risk parameters.

Clients, transactions or suppliers potentially in breach of UBS's position, or otherwise subject to significant environmental and human rights controversies, are identified as part of UBS's standard risk and compliance processes. Advanced data analytics on companies associated with such risks is integrated into the web-based compliance tool used by our staff before they enter into a client or supplier relationship, or a transaction. The systematic nature of this tool significantly enhances our ability to identify potential risk. In 2019, 1,889 referrals were assessed by our environmental and social risk unit, of which 82 were rejected or not pursued, 299 were approved with qualifications and 32 were pending.

<sup>1</sup> Greenfield means a new mine / well or an expansion of an existing mine / well which results in a material increase in existing production capacity.

#### Environmental and social risk assessments

#### **Environmental and social risk assessments**

	For the year ended		% change from	
	31.12.19	31.12.18	31.12.17	31.12.18
Cases referred for assessment <sup>1</sup>	1,889	2,114	2,170	(11)
by region				
Americas	248	288	305	(14)
Asia Pacific	479	718	604	(33)
Europe, Middle East and Africa (excluding Switzerland)	282	293	253	(4)
Switzerland	880	815	1,008	8
by business division				
Global Wealth Management <sup>2</sup>	199	426	507	(53)
Personal & Corporate Banking	801	684	795	17
Asset Management	4	7	7	(43)
Investment Bank	849	980	852	(13)
Corporate Center <sup>3</sup>	36	17	9	112
by sector				
Agribusiness <sup>4</sup>	197	277	291	(29)
Chemicals	61	91	87	(33)
Financial <sup>5</sup>	722	589	617	23
Infrastructure	82	109	53	(25)
Metals and mining	200	249	233	(20)
Oil and gas	150	187	207	(20)
Technology <sup>6</sup>	105	164	140	(36)
Transport	40	51	53	(22)
Utilities	108	176	191	(39)
Other <sup>7</sup>	224	221	298	1
by outcome <sup>8</sup>				
approved <sup>9</sup>	1,476	1,648	1,679	(10)
approved with qualifications <sup>10</sup>	299	358	397	(16)
rejected or not further pursued <sup>11</sup>	82	108	94	(24)
pending <sup>12</sup>	32	0	0	

<sup>1</sup> Transactions and client onboarding requests referred to the environmental and social risk (ESR) function. 2 Wealth Management and Wealth Management Americas reported as Global Wealth Management from 2018. Therefore, 2017 numbers were restated. 3 Relates to procurement / sourcing of products and services. 4 Includes, e.g., companies producing or processing fish and seafood, forestry products, biofuels, food and beverage. 5 Includes, e.g., banks, commodity traders, investments and equity firms. 6 Includes technology and telecom companies. 7 Includes, e.g., aerospace and defense, general industrials, retail and wholesale (from 2017). 8 "By outcome" 2019 data is from 22.1.2020 9 Client / transaction / supplier subject to an ESR assessment and approved with qualifications. Qualifications may include ring-fencing of certain assets, conditions towards client / supplier or internal recommendations.

11 Client / transaction / supplier subject to an ESR assessment and rejected or not further pursued. 12 Decision pending. Pending cases 2018 have been closed and reallocated to the other outcome categories.

#### Escalation and approval processes

Where business or control functions responsible for identifying and assessing environmental and social risks as part of due diligence processes determine the existence of potential material risks, they refer the client, supplier or transaction to a specialized environmental and social risk unit for enhanced due diligence. If identified risks are believed to pose potentially significant environmental or social risks, they are rejected by the risk unit or are escalated according to the firm's reputation risk escalation process.

#### **Environmental and social risk escalation process**



#### Governance and oversight

In view of the many environmental and social challenges globally, these topics will continue to increase in relevance for banks. These developments therefore require regular and critical assessment of our policies and practices, based on an accurate monitoring and analysis of societal topics of potential relevance to UBS.

This process is the responsibility of a committee at Group Executive Board-level, the Global Environmental and Social Risk Committee, which sets the overall risk appetite for the firm and resolves and policy matters relating to environmental and social risks and their associated reputation risks.

It is chaired by the Group Chief Risk Officer, who is responsible for the development and implementation of principles and appropriate independent control frameworks for environmental and social risks within UBS.

All corporate responsibility and sustainability developments at UBS are monitored and reviewed by the UBS Corporate Culture and Responsibility Committee, a Board of Directors' committee of UBS Group AG. The Committee supports the Board in its duties to safeguard and advance UBS's reputation for responsible corporate conduct. In this capacity it reviews and monitors the implementation of UBS's ESR framework.

### Health and safety statement

UBS is committed to ensuring that all staff have a working environment that protects their health, safety and wellbeing.

Our Code of Conduct and Ethics includes a commitment to follow health and safety rules and implement best practices to ensure as safe a workplace as possible.

We have health and safety guidelines that stress the importance of having a physical infrastructure and working environment that support our staff in performing up to their potential. As work patterns and employee expectations have changed, UBS has taken a proactive approach to ensure that our work spaces continue to meet the needs of our businesses, our staff, our clients and our business partners, while also meeting our legal obligations.

UBS complies with all health and safety standards and restrictions imposed by applicable laws in all the countries in which we operate. We also apply internal policies and guidelines – both globally and regionally – which may go beyond the legal health and safety requirements.

An environment without incidents or accidents is in everyone's interests. In addition to applying our own health and safety measures, we ask third parties conducting business with us or operating on our premises to consider health and safety matters too, and all vendors and contractors are required to comply with our health and safety guidelines when dealing with us.

All of our staff are expected to conduct themselves in a way that helps to ensure their own health and safety and that of their colleagues.

#### Health and Safety Principles

- We aim to maintain a working environment that supports the general health and well-being of all staff.
- We build and maintain innovative work places that allow employees to work efficiently and collaboratively.
- Our agile working arrangements (and our leave and benefit arrangements) are designed to support employees' work and personal lives.

- We actively promote an open and respectful work environment.
- We strive to ensure that our working environment is as safe as possible, including addressing issues such as protection of non-smokers, radiation exposure risk assessments, etc.
- We have measures in place to mitigate potential emergencies in the workplace and while travelling on business.
- Travel and security experts, crisis management committees, first aid providers, health specialists, social counselors and other specialists are available to employees.
- UBS has a range of services and programs (for example, our Employee Assistance Programs, Social Counseling and online support materials) to help employees navigate through various personal issues, including health, family care, addiction and dependency problems.
- Workplace issues can also impact employee wellbeing. We have appropriate routes for employees to raise any concerns, including documented grievance, complaint and whistleblowing processes.

#### Measures Taken to Ensure Health and Safety

- UBS provides information to employees on topical issues and initiatives.
- Our line managers help to maintain a safe and healthy work environment and UBS gives them the information and support that is relevant to their role.
- We regularly review our health and safety activities to ensure issues are effectively managed and improvements are made where necessary. Our reviews also include employee consultation (where appropriate).

#### Health and Safety Governance

Responsibility for the governance and review of health and safety sits with the Group Chief Operating Officer and the Group Head Human Resources.

Day-to-day responsibility for health and safety matters is shared between Group Corporate Services and HR Reward.

The Corporate Culture and Responsibility Committee has oversight of health and safety matters.

## UBS in society management indicators

#### **UBS** in society management indicators

	For	For the year ended		
	31.12.19	31.12.18	31.12.17	31.12.18
Personnel in specialized units / functions (full time equivalents) <sup>1</sup>	145	135	108	7
Awareness raising <sup>2,4</sup>				
Training participation (headcounts)	85,589	43,722	68,955	114
Specialized training <sup>3,4</sup>				
Training participation (headcounts)	13,979	11,821	9,460	18
External audits <sup>5</sup>				
Audit participation (headcounts)	109	135	203	(19)
Auditing time (calendar days on site)	15	25	35	(40)
Internal audits <sup>6</sup>				
Audit participation (headcounts)	287	437	537	(34)
Auditing time (person days)	772	572	875	35

<sup>1</sup> Employees that are part of the UBS in society organization and/or have specialized knowledge relevant for the UBS in society management system.

2 Increase due to high participation rate regarding environmental and social risk awareness training and mandatory Code of Conduct and Culture training in Q4 3 Specialized training is provided to employees in front-office and support functions who are dealing directly with UBS in society aspects in everyday business processes.

4 Possible double counts, i.e., one employee may complete more than one training in a year 5 ISO 14001, ISO 50001, ISO 14064 and Global Reporting Initiative (GRI).

6 Audits / reviews conducted by specialized internal units. The implementation of environmental and social risk policies is also audited by Group Internal Audit.

## Information for management approaches for material topics

#### Information relevant to all material topics

#### Governance

See "Board of Directors and sustainability" in the "Our governance and principles" section in this document. Resources for material topics are allocated in accordance with corporate budgeting processes

#### Grievance mechanisms

We have a global whistleblowing policy and procedures (plus an internal website with guidance and links to an online form, hotlines and other resources), as referenced in our Code of Conduct and Ethics, and we ask all employees to promptly speak up about any conduct that might breach policies, laws or regulations. We also provide mandatory training for all employees to ensure everyone understands our commitment, procedures and responsibilities.

Additionally, we also have various feedback channels for external stakeholders. Our Corporate Responsibility team can be contacted for all sustainability inquiries and issues via the *UBS in society* website. Client feedback (including that which is collected through our Quality Feedback management system or through the Report Misconduct of UBS Staff online form) enables the firm to act and continuously improve products and client service standards in order to provide the best client experience.

#### Evaluation of management approaches

We assess the effectiveness of the approaches as listed in the management approach section (GRI 103-2) of each material GRI topic in the GRI content index through a number of measures, most visibly through:

- Performance against targets
- Internal and external audits (e.g., ISO 14001 certification)
- External ratings (e.g., environmental, social and governance (ESG) ratings), employer awards / honors
- Stakeholder feedback (e.g., employee and client surveys)
- Reputation measurement (through UBS-internal approaches)
- Measurement systems (e.g., UBS-internal reporting, management reviews, impact measurements)
- Assessment and testing of controls

Results from such evaluations may lead to potential adjustments to our approaches. In the reporting period, significant adjustments were made to the Group strategy and our climate strategy (see references in 103-3 for GRI topic "Economic Performance" in the GRI Content Index).

#### Information relevant to specific material topics

#### Indirect economic impacts

This topic is partly covered by UBS's Community Affairs activities. However, there is a much larger component that includes the financing of companies by the Investment Bank worldwide as well as the specific (economic) role UBS holds as the largest bank in Switzerland. In Switzerland, UBS's indirect economic impact is determined for instance through its business relations to more than 120,000 companies (including over 90% of the largest 250). More than 80% of the 250 banks in Switzerland, as well as a majority of medium and large pension funds, are UBS clients and benefit from a wide range of services. 2.5 million private clients and almost half of all Swiss companies are served by UBS. Further indirect economic impact is realized through its employees throughout the country (more than 20,000).

#### Digital innovation

Digitalization continues to transform the banking industry. Our investments in technology play a critical role in maintaining our position as the largest global wealth manager. They are designed to enhance and differentiate the client experience and product excellence our firm offers, while accelerating effectiveness and efficiency. Digital innovation is a focus across the firm, both within the business divisions (e.g., product development) and Corporate Center (notably within the Chief Operating Officer area).

In 2019, we spent around USD 3.5 billion on technology. We gear our investments toward technologies to enable business growth through innovation and superior client experience, and to continue to increase efficiency across the organization.

Advanced technologies are used in our business divisions and Corporate Center to enhance the client experience by increasing front-to-back digitalization, improving product excellence and distribution, driving efficiency gains and maintaining platform security.

#### **Employee topics**

This section covers the management approach for the following topics: employment, training and education, diversity and equal opportunity, non-discrimination, and working culture and environment. This information is provided in addition to the "Employees" section, where we describe these topics and how we manage them. The purpose of our management approach is to engage and enable our employees to meet clients' needs while positively impacting our employees.

Group policies are global and apply to all employees. Additionally, there are local policies to address specific local requirements, where applicable. Refer to the "Key policies and guidelines" section for further information.

Our objectives are provided in the "Employees" and the "UBS sustainability objectives and achievements 2019 and sustainability objectives 2020" sections of this document.

The firm's Board of Directors (BoD), Group Executive Board, Group COO and Head Group Human Resources specifically have responsibility for defining and executing an human resources strategy aligned to UBS's objectives and positioning the firm as an employer of choice. This includes providing advisory, human resources services to employees as well as strategic advice to managers and executives to support them in attracting, engaging, developing and retaining talent.

The BoD's CCRC regularly and critically reviews developments in key human resources areas, notably employee health and wellbeing as well as corporate culture. The CCRC's responsibility to oversee our firm's corporate culture and corporate responsibility programs and initiatives has been included in the Organization Regulations of UBS Group AG.

With regard to evaluating our management approach, and in addition to the measures outlined above, we undertake focused initiatives and take action in areas where we could do better. Each initiative has associated analysis, communication and accountability elements to ensure that we can continue to build on strengths but especially so we can improve on areas of relative weakness or concern.

## Impact of material GRI topics

This table lists those GRI topics that we have identified as material and additional topics identified as material in the UBS GRI-based materiality assessment (see above). The table shows the level of involvement we believe our firm has with the economic, social or environmental impacts (positive or negative)

that may occur in relation to the respective material topic. For every topic, the table shows our assessment of whether UBS's involvement with the impacts of such topic upon the economy, society or environment is direct, indirect or limited.

#### Impact of material GRI topics

direct

indirect

limited

Material GRI topic	Where the impact occurs		
	01.1.2.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1	000	(\$ \text{\ti}\text{\texi{\text{\texi{\text{\ti}}}\tint{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\ti}}\tint{\text{\text{\text{\text{\texi}\tint{\ti}}\tint{\text{\ti}\ti}\text{\text{\text{\text{\text{\text{\text{\text{\tin}\}\tit
	Economy	Society	Environment
GRI 201: Economic Performance	•	•	•
GRI 203: Indirect Economic Impacts	•	•	
GRI 205: Anti-Corruption	•	•	
GRI 206: Anti-competitive Behavior	•		
GRI 302: Energy			•
GRI 305: Emissions			•
GRI 308: Supplier Environmental Assessment			•
GRI 401: Employment	•	•	•
GRI 404: Training and Education	•	•	
GRI 405: Diversity and Equal Opportunities	•	•	
GRI 406: Non-Discrimination	•	•	
GRI 414: Supplier Social Assessment		•	
GRI 417: Marketing and Labeling	•	•	
GRI 418: Customer Privacy	•	•	
GRI 419: Socioeconomic Compliance	•	•	
GRI G4 Financial Services Sector Disclosures: Product Portfolio	•	•	•
GRI G4 Financial Services Sector Disclosures: Audit			
GRI G4 Financial Services Sector Disclosures: Active Ownership	•	•	•
Client experience	•	•	
Digital innovation	•	•	
Operational efficiency and effectiveness	•	•	•
Working culture and environment	•	•	

## Calculating and reporting on climate change-related financing and advisory activities

The following text explains how the numbers for climate change-related financing and advisory activities featured in the "Our climate strategy" section of this Sustainability Report have been calculated.

In 2019, the Investment Bank provided equity or debt capital market services for a total deal value of USD 52.7 billion, or acted as financial advisor for a total deal value of USD 34.5 billion, to clients that contribute to climate change mitigation and adaptation.

The methodology behind these numbers consists first in identifying clients who, through the products and services they offer, work to mitigate the effects of global climate change and help to adapt to changing climate impacts. We use internal expertise, deal specific information such as green bond issuance

or a high MSCI ranking of clients to identify these clients and deals. Clients' activities span all industry sectors, including renewable energy generation and clean tech but also energy efficiency, waste management, transport, infrastructure renewal and development or water management. They range from small-cap and pure-play startups to large international and diversified companies.

We aggregate total USD deal value of all global capital market deals in which UBS acted as lead manager or bookrunner for these companies and aggregate total USD value of deals where UBS acted as financial advisor. The data represents all our transactions with these clients and not only transactions that can be classified as directly climate-related.

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# Direct economic value generated and distributed by UBS Group AG consolidated in 2019

of which: Personnel expenses	16,08-
of which: Community investments	43
2018 dividends paid on UBS shares	2,544
Tax expenses, excluding deferred taxes	791
Economic value retained	2,242

## Financial literacy

The topic is mainly relevant in Switzerland, the only country where we offer comprehensive financial products and services to retail and small / medium enterprise (SME) clients. Many of our products and services that contribute to the enhancement of financial literacy are therefore limited to our Swiss clients. Examples include:

- Financial check-up for young people and students
- Saving tips for young people and students
- Budget calculator for young people and students
- Mortgage calculator
- Download center for SMEs offering a collection of our broad range of publications, documents and resources, such as succession planning checklists

Services not limited to Swiss clients include:

- UBS Key Invest provides know-how about structured products
- UBS Dictionary of Banking
- Chief Investment Office Wealth Management Research
- UBS Financial Education Program (for US clients only)

Additionally, UBS runs various community programs globally that enhance financial literacy. Many of our skills-based volunteering activities across the key themes of education and entrepreneurship also contribute to the enhancement of financial literacy. Examples include:

- UBS Social Investment Toolkit
- UBS Elevating Entrepreneurs

## UBS sustainability objectives and achievements 2019 and sustainability objectives 2020

#### **Objectives and achievements 2019**

#### **UBS** in society

For our reporting against the UBS in society mid-term targets, please refer to page 48 of this Sustainability Report.

Material GRI topics	Objectives 2019	Achievements 2019	Status
FS Product Portfolio; FS Active Ownership	<ul> <li>Sustainable investments / finance:         <ul> <li>Make progress towards our mid-term goal to direct USD 5 billion of client assets into new Sustainable Development Goal (SDG)-related impact investments to help mainstream the asset class and its contribution to the SDGs (by 2021)</li> </ul> </li> <li>Global Wealth Management (GWM) to launch at least two private markets impact investing products</li> <li>Asset Management (AM) and GWM to further support the sustainable and impact investing cause (e.g., internal / external communication, events, research and whitepapers)</li> <li>Investment Bank (IB) to maintain leadership position in Environmental / Social / Governance (ESG) Integration / Sustainable Investing (SI) research through the collaborative delivery of differentiated content and client events</li> </ul>	<ul> <li>USD 2 billion of client assets directed into SDG-related impact investments in 2019, reaching USD 3.9 billion (i.e., 78% of our 2021 goal)</li> <li>Launch by GWM of two Sustainable Investing Private Equity Impact Funds in 2019: Bridge Workforce and Affordable Housing and RXR Opportunity Zone Fund.</li> <li>Publication of UBS whitepaper at the World Economic Forum 2019 annual meeting; offering policymakers, investors and the financial sector recommendations for meeting the SDGs. Publication by AM of research papers, including one on climate, climate engagement, stewardship, climate change and central banks, and global institutional survey on ESG.</li> <li>168 research activities (reports / calls / events / videos), supporting our aim to deliver differentiated ESG and Sustainable Investing (SI) content to institutional investors. Launch by IB of ESG icon to highlight, where relevant, substantive ESG content in "mainstream" research. Publication of 32 such reports. Inaugural UBS ESG and Sustainability Symposium, with over 300 clients, corporate attendees, UBS staff, industry leaders and global experts, including over 40 speakers. Symposium done with Global Research Alliance for Sustainable Finance and Investment (GRASFI) which receives sponsorship from UBS. Key client conferences and events integrated ESG content, including UBS Greater China Conference, UBS's flagship client conference held annually in Shanghai – and UBS OneASEAN Conference in Bangkok.</li> </ul>	On Track / Achieved
	<ul> <li>Further strengthen the collaboration to establish AM as SI leader in the industry</li> <li>AM to launch SI products and solutions both in the active and passive space</li> <li>AM to strengthen the company engagement approach focusing on climate action and impact categories in order to improve the sustainability performance of our investments</li> </ul>	<ul> <li>See Achievements reported above on supporting the sustainable and impact investing, as well as Achievements reported below regarding engagement. AM sponsor of PRI (Principles for Responsible Investment), Responsible Investor Europe, Americas, and Japan events.</li> <li>Launch by AM of 13 funds. AM reached USD 38.6 billion of Assets under Management (AuM) for SI focused and Impact products (i.e progress of USD 21 billion for the year)</li> </ul>	

Material GRI topics	Objectives 2019	Achievements 2019	Status
GRI 203: Indirect Economic Impacts	Pioneer two to three new ways to finance international aid in partnership with bilateral or multilateral agencies, foundations and/or the private sector.  Raise at least CHF 30 million through these new partnerships or philanthropic products.	UBS Optimus Foundation (Optimus) on track with development of innovative ways to finance international aid, including designing a social impact bond (SIB) with the Hong Kong Government, and a client-funded East Africa Education facility (an outcomes based investment fund). Optimus raised more than CHF 35 million from strategic partnerships and social finance .	On track
FS Product Portfolio; FS Active Ownership	Launch of a consolidated global UHNW community to meet the different needs / passions of UHNW clients and their successors.  Note: Target changed as of H1 2019 due to a change of IT platform and a review of the existing UHNW communities concept. Original target: Continue to build the Global Philanthropists Community (GPC) to grow beyond 500 members and create value by facilitating 50 connections amongst community members.	Launch of new platform as UBS Global Connections for existing members. Platform will be open for new members in Q1 2020.	On track
GRI 203: Indirect Economic Impacts	Make progress towards our mid-term goal to achieve a volunteering rate of 40% of employees by the end of 2020, with 40% of volunteers' time directed at skills-based programs.	38% of employee volunteering. 48% of all volunteer hours skills-based	On track
FS Product Portfolio; GRI 203: Indirect Economic Impacts	Achieve 2,000 client touch points with Global Visionaries program.	Over 7,000 client touch points through the Global Visionaries program.	Achieved
GRI 201: Economic Performance; GRI 302: Energy; GRI 305: Emissions; FS Product Portfolio	Climate strategy:              Further aligning UBS's risk appetite with reduction path under Paris Agreement and refine climate risk methodologies	<ul> <li>Further integrated climate-related risk into UBS's risk management framework: climate risk is now embedded into the firm's risk taxonomy and operational risk appetite statement. In addition, UBS further limited its risk appetite for carbon-related assets: the firm reduced exposure to carbon-related assets (0.8%) and strengthened UBS standards in the energy and utilities sectors. We further developed forward-looking scenario-based climate risk methodologies: Participation in the Paris Agreement Capital Transition Assessment (PACTA) pilot for corporate lending portfolios; as well as in phase II of UN Environment Programme Finance Initiative (UNEP FI) pertaining to Task Force on Climate-related Disclosures (TCFD).</li> </ul>	Achieved
	Execute on 2020 greenhouse gas / energy reduction target and RE100 implementation plan:  Reduce Greenhouse gas (GHG) emissions by 75% below 2004 level  Reduce energy by 5% below 2016 level  Increase share of renewable electricity to 100% by June 30, 2020	On track to achieve 2020 targets for GHG / energy reduction and RE100 implementation plan:  GHG reduction: -71% compared to 2004  Energy reduction: -15% compared to 2016  Share of renewable energy: 72% up from 59% in 2018	On Track
	Execute on 2020 operational environmental targets for water, paper and waste:  Reduce water consumption by 5% below 2016 level  Reduce paper consumption per FTE by 5% below 2016 level  Increase share of sustainable (FSC / recycled) to 90%  Reduce waste per FTE by 5% below 2016 level  Increase waste recycling ratio to 60%	On track to achieve 2020 operational environmental targets for water, paper and waste:  Water reduction: -17% compared to 2016  Paper consumption per FTE: -31% compared to 2016  Share of sustainable paper: 83% up from 80% in 2018  Waste per FTE: -24% compared to 2016  Waste recycling ratio: 51.2% up from 50.8% in 2018	On Track

Material GRI topics	Objectives 2019	Achievements 2019	Status
FS Audit	Strengthen UBS's long-term value creation (LTVC) case for investors by supporting the integration of LTVC report into Annual Report.	LTVC case advanced by changes made to Book 1 of the Annual Report. LTVC fold-out integrated at the very beginning of Annual Report and Book 1 re-structured and content adapted to reflect integrated approach.	Achieved
All	Increase ESG engagement with UBS investors by participating in at least two ESG investor events / roadshows.	ESG is increasingly integrated into mainstream investor engagements (with one dedicated ESG investor roadshow conducted).	Partly Achieved
FS Audit	Execute firm-wide ISO 14001 surveillance audit and ensure continued certification by addressing audit findings.	ISO 14001 2019 surveillance audit passed with no major non-conformities. All minor non-conformities from last audit closed.	Achieved
FS Product Portfolio; FS Active Ownership		Simplified ESR operational controls in onboarding and periodic Know your Client (KYC) reviews to increase their efficiency and effectiveness; 100% of target group (front staff in GWM and Personal & Corporate Banking [P&C], and risk officers) trained on revised controls as part of mandatory Antimoney Laundering (AML) training. Additional specialist trainings rolled out in various locations (e.g. Singapore, Switzerland).	Achieved
GRI 308: Supplier Environmental Assessment; GRI 414: Supplier Social Assessment	Further improve approach to assess vendors and enhance UBS Responsible Supply Chain Standard (RSCM).	RSCM guideline and Factbase, an internal database, updated.	Achieved

<sup>1</sup> Reporting period 2019 (1 July 2018 – 30 June 2019)

#### Other areas

Material GRI topics	Objectives 2019	Achievements 2019	Status
GRI 201: Economic Performance; Operational efficiency and effectiveness	<ul> <li>Reported return on CET1 capital of ~15% for 2019, with an ambition to improve to ~17% by 2021</li> <li>Adjusted cost / income ratio of ~ 77% for 2019, with an ambition to improve to ~ 72% by 2021</li> </ul>	<ul> <li>Return on common equity tier 1 capital of 12.4% in 2019</li> <li>Adjusted cost / income ratio of 80.8% in 2019</li> </ul>	New targets / guidance for 2020- 2022
GRI 205: Anti- Corruption	Review UBS's financial crime framework to ensure that emerging risks are reflected.	Review of UBS's Financial Crime framework conducted, to ensure that emerging risks are reflected.	Achieved
GRI 401: Employment; Working culture and environment	Build engagement and strengthen our corporate culture  Reinforce culture programs across the organization  Promote a feedback culture and measure, foster and recognize the UBS behaviors of integrity, collaboration and challenge  Remain an employer of choice for employees at all career stages  Attract the right external talent and maintain a highly motivated workforce  Continue to foster internal mobility and provide long-term career prospects	We are widely recognized as an employer of choice and received various top-employer honors in 2019. Of particular note are our achievements in Global Universum ranking of Top 50 World's Most Attractive Employers, our peer-leading position in human resources elements of Dow Jones Sustainability Index, employee survey scores above financial services norm in employee engagement (78%) and work environment (81%) and our recognition by Bloomberg Gender Equality Index.  Internal mobility remained a key priority in 2019, as it builds cross-firm connections, increases engagement and enables employees to leverage existing skills as well as developing new ones. Along with line manager effectiveness, having a wide range of learning and career development opportunities, as well as tools to facilitate professional growth, are key drivers of employee engagement. In this respect, our new Career Navigator tool, which debuted in June 2019, has been instrumental. This online platform enables employees to explore career paths and search for open roles that match their interests while allowing our recruiters to find internal talent more easily. The tool also identifies skill gaps with regards to new roles and interests and directly links to learning opportunities to help fill these gaps. In 2019, 1,125 employees changed business divisions; 499 changed regions.	On track
GRI 404 Training and Education	Effectively develop, manage and retain our talent  Curate and modernize the UBS University learning offering to continue to enhance learner experience  Prepare current and future leaders for enhanced responsibilities in an ever-evolving banking and working environment	In 2019, our in-house UBS University further updated its curriculum to emphasize future-skills development and personal growth for all employees. These updates included a new digital skills curriculum that builds knowledge about topics such as blockchain, cloud computing, robotics and artificial intelligence. A new mobile learning app launched in mid-2019 enabled employees to learn whenever and wherever they want.  We also completely revamped our leadership development offering in 2019 to ensure that our leaders have the skills they need to grow their businesses and their people, and to lead effectively in an age of digital transformation.  In 2019, our permanent employees completed more than 1,100,000 learning activities, including mandatory training on compliance, business and other topics. This averaged to 16.2 sessions, or more than 2 training days, per employee.	On track

Material GRI topics	Objectives 2019	Achievements 2019	Status
GRI 405: Diversity and Equal Opportunity; GRI 406: Non- Discrimination	Strengthen our diverse and inclusive workplace  Aspiration to increase the ratio of women in management roles to one-third  Expansion of understanding and skill base around Inclusive Leadership	Our diverse workforce and inclusive culture are critical to our long-term success. Already diverse in many ways, we are committed to further increasing our diversity and to ensuring equal opportunities for all employees. We are especially focused on hiring, retaining and promoting more women across the firm with a focus on senior ranks. We continue to make progress toward our stated aspiration to increase the representation of women in management roles to one-third. In 2019, 25.2% of all employees in roles at Director level and above were women, up from 24.7% in 2018  Our award-winning UBS Career Comeback program, already established in the UK, US, Switzerland and India, was extended to include all other UBS locations in 2019. In addition to our strategic initiatives, every year we sponsor numerous activities to promote greater diversity and inclusiveness, including events and communications around International Women's Day and Pride Month. In 2019, we sponsored 43 employee networks globally, including networks focused on culture, gender, ethnicity, family, mental health, disability, Pride / LGBTQ and veterans topics.	On track
Client experience	<ul> <li>Implement new tool to handle client complaints as well as requests in connection with FADP (Swiss Federal Act on Data Protection) / EU GDPR (General Data Protection Regulation)</li> <li>Finalize alignment of complaint process with FIDLEG (Swiss Financial Services Act)</li> <li>Define rules / processes for handling data requests under FIDLEG</li> </ul>	<ul> <li>The workflow-tool for processing FADP client requests was deployed in October 2019</li> <li>Alignment was completed with policy update and communication to Client Advisors</li> <li>Process is being finalized: ongoing discussions with stakeholder to define responsibilities</li> </ul>	On track Achieved On track
GRI 417: Marketing and Labeling	Suitability:  Implement the new Swiss FIDLEG law applicable to financial service delivery in Switzerland  Implement the 2018 ESMA Guidelines on certain aspects of MIFID II suitability requirements for MIFID-affected clients	<ul> <li>Implementation of Swiss FIDLEG under way (FIDLEG entered into force on 1 Jan 2020)</li> <li>All MIFID requirements have been implemented and compliance gaps closed.</li> </ul>	On track Achieved
GRI 206: Anti- competitive Behavior; GRI 418: Customer Privacy; GRI 419: Socioeconomic Compliance	Maintain an effectively designed and operating conduct risk framework with standards consistently applied across all businesses, functions and regions	Conduct risk framework is operating effectively across all businesses, functions and regions. Closure of various conduct risk framework-related issues and remediation throughout 2019.	Achieved
Digital innovation	Technology spending to be maintained at current levels (~3.5 bn CHF) with a focus on advanced technology to enable business growth and innovation and create further efficiencies.	<ul> <li>Maintained ~USD 3.5 billion tech spend</li> <li>Innovative client solutions delivered across business division and corporate centers</li> <li>Continuation of cloud journey incl. public cloud and O365 adoption with 10K users onboarded</li> <li>Al governance underway; 100 +PoC (Proof of Concepts) and experiments and 30+ applications in production of implementation across the company</li> <li>Digital factories and labs opened in Singapore, Zurich and the US</li> </ul>	Achieved

#### **Objectives 2020**

#### **UBS** in society

*UBS in society* is committed to making UBS a force for driving positive change in society and the environment for future generations. It will do so by focusing our firm on creating long-term positive impact for clients, employees, investors and society. We intend to make sustainable performance the standard across our firm and part of every client conversation. To implement our strategy, we have defined firm-wide goals that we plan to achieve by the end of 2025.

Please refer to page 48 of this Sustainability Report for an overview of these mid-term goals. The following 2020 UBS in society objectives are aligned to these mid-term goals.

Material GRI topics	Objectives 2020
FS Product Portfolio; FS Active Ownership	Sustainable investments / finance:  • Make progress towards our mid-term goal to direct USD 5 billion of client assets into new SDG-related impact investments to help mainstream the asset class and its contribution to the SDGs (by the end of 2021)  • GWM to continue to add funds and exchange-traded funds (ETFs) with SI focus or stronger SI integration to the fund shelf  • P&C to increase sustainable solutions and facilitate further increase by benefit-oriented client advice, and by leveraging digital technologies  • P&C to be the preferred strategic partner for advisory and financing transactions related to Switzerland's energy strategy 2050  • IB to encourage corporate disclosure and drive client dialogue around relevant Environment, Social and Governance (ESG) matters; as well as increase the number of green and sustainable bond (or similar) mandates  • AM to continue marketing sustainable investing to institutional clients.
GRI 201: Economic Performance; GRI 302: Energy; GRI 305: Emissions; FS Product Portfolio; FS Active Ownership	Climate strategy:  AM to continue expanding climate solutions and engagement programs, as well as collaboration with Climate Action 100+.  Climate risk objectives (following the 5-year TCFD implementation path by 2022):  Further align UBS's risk appetite with the Paris Agreement and conduct portfolio reviews on climate-sensitive sectors  Further develop climate risk methodologies in-house and through participation in industry-wide working groups (UNEP FI TCFD Phase II; PACTA pilot by Two Degrees Investing Initiative and Institute of International Finance (IIF))  Address emerging regulatory expectations regarding the identification and management of climate risks.  Execute on 2020 greenhouse gas / energy reduction target and RE100 implementation plan:  Reduce energy consumption by 5% below 2016 level  Increase share of renewable electricity to 100% by mid-2020.  Execute on 2020 operational environmental targets for water, paper and waste:  Reduce paper consumption by 5% below 2016 level  Reduce paper consumption per full-time employee (FTE) by 5% below 2016 level  Increase share of sustainable (FSC / recycled) to 90%  Reduce waste per FTE by 5% below 2016 level  Increase waste recycling ratio to 60%.

Material GRI topics	Objectives 2020
FS Product Portfolio; GRI 203: Indirect Economic Impacts	Pioneer new ways to finance international aid in partnership with bilateral or multilateral agencies, foundations and/or the private sector
FS Product Portfolio; FS Active Ownership	<ul> <li>All business divisions to further support the development of sustainable finance (e.g., internal / external communication, events, research and whitepapers)</li> <li>IB to maintain leadership position in ESG Integration / Sustainable Investing research through the collaborative delivery of differentiated content and client events.</li> </ul>
GRI 203: Indirect Economic Impacts	<ul> <li>Achieve a volunteering rate of 40% of employees by the end of 2020, with 40% of volunteers' time directed at skills-based programs</li> <li>Community Affairs to maintain the 2019 percentage of beneficiaries reporting significant improvement in skills or transformation in quality of life resulting from UBS's investment.</li> </ul>
GRI 308: Supplier Environmental Assessment; GRI 414: Supplier Social Assessment	Responsible Supply Chain Management — review product catalogue and increase the number of sustainable products.
FS Audit; GRI 201: Economic Performance; FS Product Portfolio; FS Active Ownership	<ul> <li>Strengthen Environmental Social and Governance (ESG) disclosures in the UBS Annual Report 2019 by including a "focus on ESG" section</li> <li>Execute firm-wide ISO 14001 surveillance audit and ensure continued certification by addressing audit findings</li> <li>Start the preparation work for the implementation of the UNEP FI Principles for Responsible Banking (PRB).</li> </ul>

#### Other areas

Material GRI topics	Objectives 2020
GRI 201: Economic Performance; Operational efficiency and effectiveness	Targets, capital and resource guidelines 2020-2022 (on a reported basis):  Group returns: 12–15% return on CET1 capital (RoCET1)  Cost efficiency: Positive operating leverage and 75–78% cost / income ratio  Growth 10–15% profit before tax growth in Global Wealth Management  Capital allocation: Up to <sup>1</sup> / <sub>3</sub> of Group RWA and LRD in the Investment Bank  Capital guidance: ~13% CET1 capital ratio; ~3.7% CET1 leverage ratio
GRI 205: Anti-Corruption	Review UBS's financial crime framework to ensure that emerging risks are reflected.
GRI 401: Employment; Working culture and environment	Build engagement and strengthen our corporate culture Reinforce culture programs across the organization Promote a feedback culture and measure, foster and recognize the UBS behaviors of integrity, collaboration and challenge Remain an employer of choice for employees at all career stages Attract the right external talent and maintain a highly motivated workforce Continue to foster internal mobility and provide long-term career prospects
GRI 404 Training and Education	Effectively develop, manage and retain our talent  Emphasize future-skills development and personal growth for all employees  Ensure that our leaders have the skills they need to grow their businesses and their people in an age of digital transformation
GRI 405: Diversity and Equal Opportunity; GRI 406: Non-Discrimination	Strengthen our diverse and inclusive workplace  Aspiration to increase the ratio of women in management roles to one-third  Expansion of understanding and skill base around Inclusive Leadership  Implement supporting initiatives to hire, promote and retain more women at all levels of the organization
Client experience	<ul> <li>Rollout of a new client feedback tool to handle client complaints in Booking Center CH</li> <li>Rollout of a web-based training for dealing with client complaints</li> </ul>
GRI 417: Marketing and Labeling	Suitability:  Implement the new Swiss FIDLEG law applicable to financial service delivery in Switzerland  Assess and implement changes made to the EU regulations pursuant to sustainable investments and other ESG – Environmental, Social and Governance criteria
GRI 206: Anti-competitive Behavior; GRI 418: Customer Privacy; GRI 419: Socioeconomic Compliance	Promote and maintain an effectively designed and operating conduct risk framework as the conduct risk discipline continues to mature and regulators converge on requirements and expectations.
Digital innovation	Technology spending to be maintained at current levels (~3.5 bn USD) with a continued focus on modularization and modernization of our estate, leveraging innovation and ecosystem to enable business growth and create further efficiencies.

## Global Reporting Initiative Content Index 2019

This content index refers to the Global Reporting Initiative (GRI) Standards issued by the Global Sustainability Standards Board and the Financial Services Sector Supplements, which form together a voluntary reporting framework that provides guidance on how organizations can disclose their sustainability performance.

UBS's reporting has been reviewed by Ernst & Young Ltd (EY) against the GRI Standards. The content has been prepared in accordance with the comprehensive option as evidenced in the EY assurance report. The limited assurance by EY covered all items of the GRI Content Index.

#### This report has been prepared in accordance with the GRI Standards: Comprehensive option.

#### Guidance

Disclosure Number and title of disclosure

Reference Referenced text which covers the GRI Standard

Page Page reference in the UBS Annual Report 2019 (UBS AR 2019) or UBS Sustainability Report 2019 (UBS SR 2019)

#### Note

Topics in the index that do not feature a management approach are not material, but are reported on a voluntary basis (selected indicators only).

All references to the Annual Report 2019 are referring to the combined UBS Group AG and UBS AG Annual Report 2019 available on www.ubs.com/investors.

GRI Standard	Disclosure	Reference	Page
GRI 102 General	102–1 Name of organization	Corporate information	UBS AR 2019 / 7
Disclosures (2016)	102–2 Activities, brands, products, and	Our strategy	UBS SR 2019 / 7-8
	services	Global Wealth Management	UBS SR 2019 / 11-13
		Personal & Corporate Banking	UBS SR 2019 / 14-15
		Asset Management	UBS SR 2019 / 16–17
		Investment Bank	UBS SR 2019 / 18–19
		Corporate Center	UBS SR 2019 / 20
	102–3 Location of headquarters	Corporate information	UBS AR 2019 / 7
	102–4 Location of operations	Global Wealth Management	UBS SR 2019 / 11–13
		Personal & Corporate Banking	UBS SR 2019 / 14–15
		Asset Management	UBS SR 2019 / 16–17
		Investment Bank	UBS SR 2019 / 18–19
		Further information reg. locations, incl. list of all UBS	
		Branches worldwide can be found under	
		https://www.ubs.com/global/en/ about_ubs/about_us/locations.html	
	102–5 Ownership and legal form	Corporate information	UBS AR 2019 / 7
	,	Group structure and shareholders	UBS AR 2019 / 204–205
		Share capital structure	UBS AR 2019 / 206–210
	102–6 Markets served	Our strategy	UBS SR 2019 / 7–8
		Global Wealth Management	UBS SR 2019 / 11-13
		Personal & Corporate Banking	UBS SR 2019 / 14-15
		Asset Management	UBS SR 2019 / 16-17
		Investment Bank	UBS SR 2019 / 18-19
	102–7 Scale of the organization	Our key figures	UBS AR 2019 / 8
		Note 2a Segment reporting	UBS AR 2019 / 353-356
		Note 2b Segment reporting by geographic location	UBS AR 2019 / 357
	102–8 Information on employees and	Employees (additional information)	UBS SR 2019 / 38-45
	other workers	Employees	UBS SR 2019 / 35-37
	102–9 Supply chain	Vendors	UBS SR 2019 / 50
		Responsible supply chain management	UBS SR 2019 / 93
	102–10 Significant changes to the	Our evolution	UBS AR 2019 / 14–15
	organization and its supply chain	Note 1b Changes in accounting policies, comparability and other adjustments	UBS AR 2019 / 349–351
		Note 32 Changes in organization and acquisitions and disposals of subsidiaries and businesses	UBS AR 2019 / 470–471
	102–11 Precautionary Principle or	Risk management and control	UBS AR 2019 / 105–155
	approach	Key policies and guidelines	UBS SR 2019 / 51-52
	102–12 External initiatives	External commitments and memberships	UBS SR 2019 / 97
		Advancing sustainability in the financial sector	UBS SR 2019 / 76-77
	102–13 Membership of associations	See 102–12	UBS SR 2019 / 97
			UBS SR 2019 / 76-77
	102–14 Statement from senior decision-maker	Chairman's statement	UBS SR 2019 / 3-4

GRI Standard	Disclosure	Reference	Page
GRI 102 General Disclosures (2016)	102–15 Key impacts, risks, and opportunities	Sustainability at UBS Our strategy, business model and environment Risk management and control Risk evaluation Objectives and achievements 2019 Objectives 2020	UBS SR 2019 / 5–6 UBS SR 2019 / 7–50 UBS AR 2019 / 105–155 UBS SR 2019 / 165 UBS SR 2019 / 135–139 UBS SR 2019 / 140–142
		Sustainability governance	UBS SR 2019 / 51–53
	102–16 Values, principles, standards, and norms of behavior	Our Code of Conduct and Ethics Key policies and guidelines The keys to a strong corporate culture Pillars, Principles and Behaviors (foldout pages)	UBS SR 2019 / 113–116 UBS SR 2019 / 51–52 UBS SR 2019 / 35 UBS AR 2019 / 0
	102–17 Mechanisms for advice and concerns about ethics	Our Code of Conduct and Ethics Key policies and guidelines Quality feedback management system Grievance mechanisms	UBS SR 2019 / 113–116 UBS SR 2019 / 51–52 UBS SR 2019 / 29 UBS SR 2019 / 129
	102–18 Governance structure	Board of Directors Group Executive Board Charter of the Corporate Culture and Responsibility Committee Sustainability governance	UBS AR 2019 / 213–228 UBS AR 2019 / 229–236 UBS SR 2019 / 112 UBS SR 2019 / 51–53
	102–19 Delegating authority	Charter of the Corporate Culture and Responsibility Committee	UBS SR 2019 / 112
		Sustainability governance	UBS SR 2019 / 51–53
	102–20 Executive-level responsibility for economic, environmental, and social topics	Sustainability governance Charter of the Corporate Culture and Responsibility Committee	UBS SR 2019 / 51–53 UBS SR 2019 / 112
	102–21 Consulting stakeholders on economic, environmental, and social topics	Chairman's statement How we create value for our stakeholders Shareholders' participation rights Corporate calendar UBS Group AG	UBS SR 2019 / 3–4 UBS SR 2019 / 25–50 UBS AR 2019 / 211–212 UBS AR 2019 / 7
	102–22 Composition of highest governance body	Board of Directors Group Executive Board Sustainability governance	UBS AR 2019 / 213–228 UBS AR 2019 / 229–236 UBS SR 2019 / 51–53
	102–23 Chair of the highest governance body	Not relevant to UBS (two-tiered board structure) Board of Directors	UBS AR 2019 / 213–228
	102–24 Nominating and selecting the highest governance body	Sustainable performance and compensation Board of Directors Elections and terms of office Organizational principles and structure Governance and Nominating Committee Skills, expertise and training of the Board of Directors Succession planning	UBS SR 2019 / 64–65 UBS AR 2019 / 213–228
	102–25 Conflicts of interest	Key policies and guidelines (Code of Conduct and Ethics) Important business connections of independent members of the Board of Directors	UBS SR 2019 / 51–52 UBS AR 2019/ 226
	102–26 Role of highest governance body in setting purpose, values, and strategy	Sustainability governance Charter of the Corporate Culture and Responsibility Committee	UBS SR 2019 / 51–53 UBS SR 2019 / 112
	102–27 Collective knowledge of highest governance body	Chairman's statement  Skills, expertise and training of the Board of Directors	UBS SR 2019 / 3-4 UBS AR 2019 / 227

GRI Standard	Disclosure	Reference	Page
GRI 102 General	102–28 Evaluating the highest	Performance assessment	UBS AR 2019 / 222
Disclosures (2016)	governance body's performance	Sustainable performance and compensation	UBS SR 2019 / 64-65
	102–29 Identifying and managing	Sustainability governance	UBS SR 2019 / 51–53
	economic, environmental, and social impacts	Charter of the Corporate Culture and Responsibility Committee	UBS SR 2019 / 112
		Chairman's statement	UBS SR 2019 / 3-4
		How we create value for our stakeholders	UBS SR 2019 / 25-50
		Materiality under GRI Standards	UBS SR 2019 / 66-69
	102–30 Effectiveness of risk management processes	Charter of the Corporate Culture and Responsibility Committee	UBS SR 2019 / 112
	102–31 Review of economic, environmental, and social topics	Board of Directors – Corporate Culture and Responsibility Committee	UBS AR 2019 / 224
	102–32 Highest governance body's role in sustainability reporting	Charter of the Corporate Culture and Responsibility Committee	UBS SR 2019 / 112
	102–33 Communicating critical	Sustainability governance	UBS SR 2019 / 51–53
	concerns	Charter of the Corporate Culture and Responsibility Committee	UBS SR 2019 / 112
		Chairman's statement	UBS SR 2019 / 3-4
		Grievances and whistleblowing protection, policies and procedures	UBS SR 2019 / 52
	102–34 Nature and total number of	Materiality under GRI Standards	UBS SR 2019 / 66–69
	critical concerns	How we create value for our stakeholders	UBS SR 2019 / 25–50
		Note: Due to the diverse nature and sources of critical concerns it is not possible to report their total number.	
	102–35 Remuneration policies	Compensation Report 2019	UBS AR 2019 / 242–288
		Sustainable performance and compensation	UBS SR 2019 / 64-65
	102–36 Process for determining remuneration	Compensation Report 2019	UBS AR 2019 / 242–288
	102–37 Stakeholders' involvement in	How we create value for our stakeholders	UBS SR 2019 / 25–50
	remuneration	Shareholders' participation rights	UBS AR 2019 / 211–212
		Corporate calendar UBS Group AG	UBS AR 2019 / 7
		Compensation report – Overview of the performance assessment measures	UBS AR 2019 / 268
		Shareholder engagement and say on pay	UBS AR 2019 / 246–249
		Note: Voting results of AGMs are published on www.ubs.com/agm	
	102–38 Annual total compensation ratio	Reason for omission: Not disclosed due to confidentiality	
		Compensation for the CEO, the highest paid GEB member, total compensation for GEB members, compensation for the BoD members, including the Chairman, and compensation for employees other than GEB members are disclosed in the Compensation Report 2019.	UBS AR 2019 / 242–288
	102–39 Percentage increase in annual total compensation ratio	Reason for omission: Not disclosed due to confidentiality	
		Compensation increase for the CEO, the highest paid GEB member, total compensation for GEB members, compensation for the BoD members, including the Chairman, and general employee compensation for employees other than GEB members are disclosed in the Compensation Report 2019.	UBS AR 2019 / 242–288

GRI Standard	Disclosure	Reference	Page
GRI 102 General Disclosures (2016)	102–40 List of stakeholder groups	How we create value for our stakeholders	UBS SR 2019 / 25–50
Disclosures (2010)		Materiality under GRI Standards	UBS SR 2019 / 66–69
	102–41 Collective bargaining agreements	Employee representation	UBS SR 2019 / 38
	102–42 Identifying and selecting	See 102–40	UBS SR 2019 / 25–50
	stakeholders		UBS SR 2019 / 66-69
	102–43 Approach to stakeholder	See 102–40	UBS SR 2019 / 25–50
	engagement		UBS SR 2019 / 66-69
	102–44 Key topics and concerns raised	See 102–40	UBS SR 2019 / 25–50 UBS SR 2019 / 66–69
	102–45 Entities included in the consolidated financial statements	Our external reporting approach	UBS AR 2019 (at the very beginning of the report)
		Our evolution	UBS AR 2019 / 14–15
		Note 1 Summary of significant accounting policies	UBS AR 2019 / 317-352
		Note 31 Interests in subsidiaries and other entities	UBS AR 2019 / 464–469
		Note: Except where clearly identified, all of UBS's sustainability information referenced in this GRI index is presented on a consolidated basis under IFRS requirements for financial reporting for the UBS Group AG.	
	102–46 Defining report content and	Information policy	UBS AR 2019 / 240–241
	topic boundaries	How we create value for our stakeholders	UBS SR 2019 / 25-50
		Materiality under GRI Standards	UBS SR 2019 / 66-69
		Impact of material GRI topics	UBS SR 2019 / 131
	102–47 List of material topics	Material GRI topics 2019	UBS SR 2019 / 67-69
	102–48 Restatements of information	None	
	102–49 Changes in reporting	No significant changes	
	102–50 Reporting period	1.1.2019–31.12.2019	
	102–51 Date of most recent report	15.3.2019	
	102–52 Reporting cycle	Financial reporting: quarterly Sustainability reporting: annually	
	102–53 Contact point for questions regarding the report	Questions related to Annual Report: Contacts	UBS AR 2019 / 7
		Questions related to Sustainability Report: Contacts	UBS SR 2019 / 2
	102–54 Claims of reporting in accordance with the GRI standards	GRI content index Independent assurance report by EY	UBS SR 2019 / 143 UBS SR 2019 / 105–106
	102–55 GRI content index		
	102–56 External assurance	Auditors	UBS AR 2019 / 238–239
		Management's report on internal control over financial reporting	UBS AR 2019 / 292–305
		Independent assurance report by EY	UBS SR 2019 / 105-106
		About this Sustainability Report	UBS SR 2019 / 2

GRI Standard	Disclosure	Reference	Page
Economic Performa	ance (Material topics: Operational effic	ciency and effectiveness; Climate action)	
GRI 103	103–1 Explanation of the material topic	Materiality under GRI Standards	UBS SR 2019 / 66-69
Management	and its boundary	Impact of material GRI topics	UBS SR 2019 / 131
Approach (2016)		Our approach to long-term value creation	UBS SR 2019 (at the very beginning of the report)
	103–2 The management approach and	Our strategy	UBS SR 2019 / 7–8
	its components	Performance targets and measurement	UBS SR 2019 / 9
		Our key figures	UBS AR 2019 / 8
		Group Internal Audit	UBS AR 2019 / 239
		Organizational principles and structure	UBS AR 2019 / 221
		Our climate strategy	UBS SR 2019 / 54-63
		Charter of the Corporate Culture and Responsibility Committee	UBS SR 2019 / 112
		Sustainability governance	UBS SR 2019 / 51-53
		Objectives 2020	UBS SR 2019 / 140-142
		Objectives and achievements 2019	UBS SR 2019 / 135–139
		Information relevant to all material topics	UBS SR 2019 / 129
	103–3 Evaluation of the management	Evaluation of management approaches	UBS SR 2019 / 129
	approach	Our strategy	UBS SR 2019 / 7-8
		Performance targets and measurement	UBS SR 2019 / 9
		Our climate strategy	UBS SR 2019 / 54–63
GRI 201 Economic Performance (2016)		Direct economic value generated and distributed by UBS Group AG consolidated in 2019	UBS SR 2019 / 133
		Income statement	UBS AR 2019 / 306
		Statement of cash flows	UBS AR 2019 / 315-316
		Note 6 Personnel expenses	UBS AR 2019 / 360
		Note 7 General and administrative expenses	UBS AR 2019 / 360
		Note 8 Income taxes	UBS AR 2019 / 361-364
		Driving change in communities	UBS SR 2019 / 98-102
		Vendors (total purchase amount)	UBS SR 2019 / 50
	201–2 Financial implications and other risks and opportunities for the	Our climate strategy	UBS SR 2019 / 54–63
	organization's activities due to climate change	Refer to <i>Submission</i> to the CDP climate change questionnaire for further information	
	201–3 Defined benefit plan obligations and other retirement plans	Note 29 Pension and other post-employment benefit plans	UBS AR 2019 / 442–455
	201–4 Financial assistance received from government	UBS did not receive any significant monetary support from governments in 2019	
Indirect Economic	Impacts (Community investment)		
GRI 103	103–1 Explanation of the material topic	Materiality under GRI Standards	UBS SR 2019 / 66–69
Management	and its boundary	Impact of material GRI topics	UBS SR 2019 / 131
Approach (2016)		Our approach to long-term value creation	UBS SR 2019 (at the very beginning of the report)
	103–2 The management approach and	Sustainability governance	UBS SR 2019 / 51–53
	its components	Society	UBS SR 2019 / 46-48
		Indirect economic impacts	UBS SR 2019 / 129
		Objectives 2020	UBS SR 2019 / 140–142
		Objectives and achievements 2019	UBS SR 2019 / 135–139
		Information relevant to all material topics	UBS SR 2019 / 129
	103–3 Evaluation of the management approach	Evaluation of management approaches	UBS SR 2019 / 129

GRI Standard	Disclosure	Reference	Page
GRI 203 Indirect Economic Impacts	203–1 Infrastructure investments and services supported	Driving change in communities	UBS SR 2019 / 98–102
(2016)	203–2 Significant indirect economic	Indirect economic impacts	UBS SR 2019 / 129
	impacts	Recovery and resolution	UBS AR 2019 / 51-53
		Personal & Corporate Banking	UBS SR 2019 / 14-15
		Society	UBS SR 2019 / 46-48
		Sustainability at UBS	UBS SR 2019 / 5–6
		For further information see also Switzerland and UBS – Strong partners	https://www.ubs.com/ch/en/ microsites/switzerland-facts- figures-and-stories/switzerland- and-ubs.html
Anti–corruption (I	Regulatory compliance)		
GRI 103	103–1 Explanation of the material topic	Materiality under GRI Standards	UBS SR 2019 / 66-69
Management	and its boundary	Impact of material GRI topics	UBS SR 2019 / 131
Approach (2016)		Our approach to long-term value creation	UBS SR 2019 (at the very beginning of the report)
	103–2 The management approach and	Sustainability governance	UBS SR 2019 / 51–53
	its components	Policies to combat financial crime	UBS SR 2019 / 52
		Combating financial crime	UBS SR 2019 / 94
		Objectives 2020	UBS SR 2019 / 140–142
		Objectives and achievements 2019	UBS SR 2019 / 135–139
		Information relevant to all material topics	UBS SR 2019 / 129
	103–3 Evaluation of the management approach	Evaluation of management approaches	UBS SR 2019 / 129
GRI 205 Anti– corruption (2016)	205–1 Operations assessed for risks related to corruption	Combating financial crime	UBS SR 2019 / 94
	205–2 Communication and training	Sustainability-related training and raising awareness	UBS SR 2019 / 64
	about anti–corruption policies and procedures	Responsible supply chain management – Committing our vendors to our standards	
	205–3 Confirmed incidents of	Reason for omission:	UBS AR 2019 / 387–394
	corruption and actions taken	Confidentiality constraints: UBS treats this data as confidential company information. Significant cases would be discussed in Note 21 b) "Litigation, regulatory and similar matters" of the UBS Annual Report.	
Anti-competitive	Behavior (Regulatory compliance)		
GRI 103	103–1 Explanation of the material topic	Materiality under GRI Standards	UBS SR 2019 / 66-69
Management	and its boundary	Impact of material GRI topics	UBS SR 2019 / 131
Approach (2016)		Our approach to long-term value creation	UBS SR 2019 (at the very beginning of the report)
	103–2 The management approach and	Risk appetite framework	UBS AR 2019 / 111–114
	its components	Operational risk	UBS AR 2019 / 153–155
		Our Code of Conduct and Ethics	UBS SR 2019 / 113-116
		Objectives 2020	UBS SR 2019 / 140-142
		Objectives and achievements 2019	UBS SR 2019 / 135-139
		Information relevant to all material topics	UBS SR 2019 / 129
	103–3 Evaluation of the management approach	Evaluation of management approaches	UBS SR 2019 / 129
GRI 206 Anti- competitive Behavior (2016)	206–1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	See GRI 419–1	

GRI Standard	Disclosure	Reference	Page
Materials			
GRI 301 Materials (2016)	301–1 Materials used by weight or volume.	Paper is the only relevant material for this indicator	
		In-house environmental management – Paper	UBS SR 2019 / 88
	301–2 Recycled input materials used	Paper is the only relevant material for this indicator	
		In-house environmental management – Paper	UBS SR 2019 / 88
Energy (Climate a	ction)		
GRI 103	103–1 Explanation of the material topic	Materiality under GRI Standards	UBS SR 2019 / 66–69
Management	and its boundary	Impact of material GRI topics	UBS SR 2019 / 131
Approach (2016)		Our approach to long-term value creation	UBS SR 2019 (at the very beginning of the report)
	103–2 The management approach and its components	Sustainability governance	UBS SR 2019 / 51–53
		Sustainability-related training and raising awareness	UBS SR 2019 / 64
		UBS in society management indicators	UBS SR 2019 / 128
		Our climate strategy	UBS SR 2019 / 54-63
		Environmental targets and performance in our operations	UBS SR 2019 / 82
		UBS in society constitutional document	UBS SR 2019 / 117-119
		Objectives 2020	UBS SR 2019 / 140-142
		Objectives and achievements 2019	UBS SR 2019 / 135–139
		Information relevant to all material topics	UBS SR 2019 / 129
		Refer to <i>Submission</i> to the CDP climate change questionnaire for further information	
	103–3 Evaluation of the management	Evaluation of management approaches	UBS SR 2019 / 129
	approach	ISO 14001 and 50001 certificates	UBS SR 2019 / 107-110

GRI Standard	Disclosure	Reference	Page
GRI 302 Energy (2016)	302–1 Energy consumption within the	GHG emissions	UBS SR 2019 / 83
	organization	Energy consumption	UBS SR 2019 / 85
		Environmental indicators	UBS SR 2019 / 91
		Reporting standards and methodologies	UBS SR 2019 / 89-90
	302–2 Energy consumption outside of the organization	Not relevant	
	302–3 Energy intensity	Environmental indicators per full time employee	UBS SR 2019 / 92
	3,	Reporting standards and methodologies	UBS SR 2019 / 89–90
	302–4 Reduction of energy	GHG emissions	UBS SR 2019 / 83
	consumption	Energy consumption	UBS SR 2019 / 85
		Environmental targets and performance in our operations	UBS SR 2019 / 82
		Reporting standards and methodologies	UBS SR 2019 / 89–90
	302–5 Reductions in energy requirements of products and services	Not relevant for financial institutions, see FS8	
Emissions (Climat	e action)		
GRI 103	103–1 Explanation of the material topic		UBS SR 2019 / 66–69
Management	and its boundary	Impact of material GRI topics	UBS SR 2019 / 131
Approach (2016)		Our approach to long-term value creation	UBS SR 2019 (at the very beginning of the report)
	103–2 The management approach and	Sustainability governance	UBS SR 2019 / 51–53
	its components	Sustainability-related training and raising awareness	UBS SR 2019 / 64
		UBS in society management indicators	UBS SR 2019 / 128
		Our climate strategy	UBS SR 2019 / 54-63
		Environmental targets and performance in our operations	UBS SR 2019 / 82
		UBS in society constitutional document	UBS SR 2019 / 117–119
		Objectives 2020	UBS SR 2019 / 140-142
		Objectives and achievements 2019	UBS SR 2019 / 135-139
		Information relevant to all material topics	UBS SR 2019 / 129
		Refer to <i>Submission</i> to the CDP climate change questionnaire for further information	
	103–3 Evaluation of the management	Evaluation of management approaches	UBS SR 2019 / 129
	approach	ISO 14001 and 50001 certificates	UBS SR 2019 / 107-110
GRI 305 Emissions	305–1 Direct (Scope 1) GHG emissions	Environmental indicators	UBS SR 2019 / 91
2016)		GHG emissions	UBS SR 2019 / 83
		Reporting standards and methodologies	UBS SR 2019 / 89–90
	305–2 Energy indirect (Scope 2) GHG	Environmental indicators	UBS SR 2019 / 91
	emissions	GHG emissions	UBS SR 2019 / 83
		Reporting standards and methodologies	UBS SR 2019 / 89–90
	305–3 Other indirect (Scope 3) GHG	Environmental indicators	UBS SR 2019 / 91
	emissions	GHG emissions	UBS SR 2019 / 83
		Reporting standards and methodologies	UBS SR 2019 / 89–90
	305–4 GHG emissions intensity	Environmental indicators per full time employee	UBS SR 2019 / 92
		Reporting standards and methodologies	UBS SR 2019 / 89–90
	305–5 Reduction of GHG emissions	see 302–4	
	305–6 Emissions of ozone-depleting substances (ODS)	Not relevant	
	305–7 Nitrogen oxides ( $NO_X$ ), sulfur oxides ( $SO_X$ ), and other significant air emissions	Not relevant	

GRI Standard	Disclosure	Reference	Page
Effluents and Was	te		
GRI 306 Effluents and Waste (2016)	306–2 Waste by type and disposal method	Environmental indicators Waste and recycling	UBS SR 2019 / 91 UBS SR 2019 / 89
Supplier Environm	ental Assessment (Environmental and	social risk management)	
GRI 103 Management Approach (2016)	103–1 Explanation of the material topic and its boundary	Materiality under GRI Standards Impact of material GRI topics Our approach to long-term value creation	UBS SR 2019 / 66–69 UBS SR 2019 / 131 UBS SR 2019 (at the very beginning of the report)
	103–2 The management approach and its components	Sustainability governance Objectives 2020 Objectives and achievements 2019 UBS in society constitutional document Responsible supply chain management Information relevant to all material topics	UBS SR 2019 / 51–53 UBS SR 2019 / 140–142 UBS SR 2019 / 135–139 UBS SR 2019 / 117–119 UBS SR 2019 / 93 UBS SR 2019 / 129
	103–3 Evaluation of the management approach	Evaluation of management approaches ISO 14001 and 50001 certificates	UBS SR 2019 / 129 UBS SR 2019 / 107–110
GRI 308 Supplier Environmental	308–1 New suppliers that were screened using environmental criteria	Responsible supply chain management	UBS SR 2019 / 93
Assessment (2016)	308–2 Negative environmental impacts in the supply chain and actions taken	Responsible supply chain management	UBS SR 2019 / 93
Employment (Com	pensation)		
GRI 103 Management Approach (2016)	103–1 Explanation of the material topic and its boundary	Materiality under GRI Standards Impact of material GRI topics Our approach to long-term value creation	UBS SR 2019 / 66–69 UBS SR 2019 / 131 UBS SR 2019 (at the very beginning of the report)
	103–2 The management approach and its components	Compensation Committee Employees Compensation Key policies and guidelines Sustainable performance and compensation Objectives 2020 Objectives and achievements 2019 Information relevant to specific material topics – Employee topics Information relevant to all material topics	UBS AR 2019 / 224  UBS SR 2019 / 35–39  UBS AR 2019 / 242–288  UBS SR 2019 / 51–52  UBS SR 2019 / 64–65  UBS SR 2019 / 140–142  UBS SR 2019 / 135–139  UBS SR 2019 / 129–130  UBS SR 2019 / 129
	103–3 Evaluation of the management approach	Evaluation of management approaches	UBS SR 2019 / 129
GRI 401 Employment (2016)	401–1 New employee hires and employee turnover	Hiring, developing and retaining talent Our workforce by the numbers	UBS SR 2019 / 36 UBS SR 2019 / 40–45
	401–2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	Managing our global workforce	UBS SR 2019 / 39
	401–3 Parental leave	Managing our global workforce UBS employees: parental leave taken	UBS SR 2019 / 39 UBS SR 2019 / 45
		Reason for omission: Information unavailable for GRI 401–3 c), d) and e). Data aggregation is subject to limitations such as the disparate definitions and permutations of parental leave across the firm and the various leave and absence tools used in the more than 50 countries in which we operate.	

GRI Standard	Disclosure	Reference	Page
Training and Edu	cation (Talent management)		
GRI 103	103–1 Explanation of the material topic	Materiality under GRI Standards	UBS SR 2019 / 66–69
Management	and its boundary	Impact of material GRI topics	UBS SR 2019 / 131
Approach (2016)		Our approach to long-term value creation	UBS SR 2019 (at the very beginning of the report)
	103–2 The management approach and	Employees	UBS SR 2019 / 35–39
	its components	Key policies and guidelines	UBS SR 2019 / 51-52
		Sustainable performance and compensation	UBS SR 2019 / 64-65
		Objectives 2020	UBS SR 2019 / 140-142
		Objectives and achievements 2019	UBS SR 2019 / 135-139
		Information relevant to specific material topics – Employee topics	UBS SR 2019 / 129–130
		Information relevant to all material topics	UBS SR 2019 / 129
	103–3 Evaluation of the management approach	Evaluation of management approaches	UBS SR 2019 / 129
GRI 404 Training and Education (2016)	404–1 Average hours of training per year per employee	UBS reports in training days instead of training hours. One training day equals eight training hours.	
		Hiring, developing and retaining talent	UBS SR 2019 / 36
		Our workforce by the numbers	UBS SR 2019 / 40-45
	404–2 Programs for upgrading employee skills and transition assistance programs	Hiring, developing and retaining talent	UBS SR 2019 / 36
		The importance of diversity and inclusion	UBS SR 2019 / 37
		Managing our global workforce	UBS SR 2019 / 39
	404–3 Percentage of employees	Sustainable performance and compensation	UBS SR 2019 / 64–65
	receiving regular performance and career development reviews	Hiring, developing and retaining talent	UBS SR 2019 / 36
		As the performance review percentage covers 99,9% of all our eligible employees, there is no added value for further breakdown by gender or employment category.	
Diversity and Equ	al Opportunity (Diversity and inclusion	)	
GRI 103	103–1 Explanation of the material topic	Materiality under GRI Standards	UBS SR 2019 / 66–69
Management	and its boundary	Impact of material GRI topics	UBS SR 2019 / 131
Approach (2016)		Our approach to long-term value creation	UBS SR 2019 (at the very beginning of the report)
	103–2 The management approach and	Employees	UBS SR 2019 / 35–39
	its components	Key policies and guidelines	UBS SR 2019 / 51-52
		Sustainable performance and compensation	UBS SR 2019 / 64-65
		Objectives 2020	UBS SR 2019 / 140-142
		Objectives and achievements 2019	UBS SR 2019 / 135-139
		Information relevant to specific material topics – Employee topics	UBS SR 2019 / 129–130
		Information relevant to all material topics	UBS SR 2019 / 129
	103–3 Evaluation of the management approach	Evaluation of management approaches	UBS SR 2019 / 129

GRI Standard	Disclosure	Reference	Page
GRI 405 Diversity and Equal	405–1 Diversity of governance bodies and employees	The importance of diversity and inclusion Our workforce by the numbers	UBS SR 2019 / 37 UBS SR 2019 / 40–45
Opportunity (2016)		Members of the Board of Directors	UBS AR 2019 / 223-220
		Skills, expertise and training of the Board of Directors	UBS AR 2019 / 227
		Members of the Group Executive Board	UBS AR 2019 / 229–236
	405–2 Ratio of basic salary and	Hiring, developing and retaining talent	UBS SR 2019 / 36
	remuneration of women to men	Our commitment to pay fairness	UBS AR 2019 / 250
		Sustainable performance and compensation	UBS SR 2019 / 64–65
		Total Reward Principles	UBS AR 2019 / 250
Non-discriminatio	n (Diversity and inclusion)		
GRI 103	103–1 Explanation of the material topic		UBS SR 2019 / 66-69
Management Approach (2016)	and its boundary	Impact of material GRI topics	UBS SR 2019 / 131
Approacti (2010)		Our approach to long-term value creation	UBS SR 2019 (at the very beginning of the report)
	103–2 The management approach and	Employees	UBS SR 2019 / 35–39
	its components	Key policies and guidelines	UBS SR 2019 / 51-52
		Sustainable performance and compensation	UBS SR 2019 / 64-65
		Objectives 2020	UBS SR 2019 / 140-142
		Objectives and achievements 2019	UBS SR 2019 / 135-139
		Information relevant to specific material topics – Employee topics	UBS SR 2019 / 129–130
		Information relevant to all material topics	UBS SR 2019 / 129
	103–3 Evaluation of the management approach	Evaluation of management approaches	UBS SR 2019 / 129
GRI 406 Non-	406–1 Incidents of discrimination and corrective actions taken	Reason for omission:	UBS AR 2019 / 387–394
discrimination (2016)		Confidentiality constraints: UBS treats this data as confidential company information. Significant cases would be discussed in Note 21 b) "Litigation, regulatory and similar matters" of the UBS Annual Report.	
Supplier Social Ass	sessment (Environmental and social ris	sk management)	
GRI 103	103–1 Explanation of the material topic and its boundary	Materiality under GRI Standards	UBS SR 2019 / 66–69
Management		Impact of material GRI topics	UBS SR 2019 / 131
Approach (2016)		Our approach to long-term value creation	UBS SR 2019 (at the very beginning of the report)
	103–2 The management approach and	Sustainability governance	UBS SR 2019 / 51–53
	its components	Objectives 2020	UBS SR 2019 / 140-142
		Objectives and achievements 2019	UBS SR 2019 / 135-139
		UBS in society constitutional document	UBS SR 2019 / 117-119
		Responsible supply chain management	UBS SR 2019 / 93
		Information relevant to all material topics	UBS SR 2019 / 129
	103–3 Evaluation of the management	Evaluation of management approaches	UBS SR 2019 / 129
	approach	ISO 14001 and 50001 certificates	UBS SR 2019 / 107–110
GRI 414 Supplier Social Assessment	414–1 New suppliers that were screened using social criteria	Responsible supply chain management	UBS SR 2019 / 93
(2016)	414–2 Negative social impacts in the supply chain and actions taken	Responsible supply chain management	UBS SR 2019 / 93
Local Communities	S		
GRI G4 Financial Services Sector	FS 14 Initiatives to improve access to financial services for disadvantaged	Accessibility	UBS SR 2019 / 30

GRI Standard	Disclosure	Reference	Page
Public Policy			
GRI 415 Public Policy (2016)	415–1 Political contributions	Politicians and political parties	UBS SR 2019 / 49
Marketing and Lab	elling (Regulatory compliance)		
GRI 103 Management Approach (2016) GRI G4 Financial	103–1 Explanation of the material topic and its boundary	Materiality under GRI Standards Impact of material GRI topics Our approach to long-term value creation	UBS SR 2019 / 66–69 UBS SR 2019 / 131 UBS SR 2019 (at the very beginning of the report)
Services Sector Disclosures	103–2 The management approach and its components	Regulation and supervision Our Code of Conduct and Ethics Suitability Key policies and guidelines Quality feedback management system Financial literacy Objectives 2020	UBS AR 2019 / 49–50 UBS SR 2019 / 113–116 UBS SR 2019 / 29–30 UBS SR 2019 / 51–52 UBS SR 2019 / 29 UBS SR 2019 / 134 UBS SR 2019 / 140–142
		Objectives and achievements 2019 Information relevant to all material topics	UBS SR 2019 / 135–139 UBS SR 2019 / 129
	103–3 Evaluation of the management approach	Evaluation of management approaches	UBS SR 2019 / 129
GRI 417 Marketing and Labelling (2016)	417–1 Requirements for product and service information and labelling	Not relevant for financial services company	
		See former FS15 which has been included in 103 for Marketing and Labelling (i.e., Suitability)	
	417–2 Incidents of non-compliance concerning product and service information and labelling	Reason for omission: Confidentiality constraints: UBS treats this data as confidential company information. Significant cases would be discussed in Note 21 b) "Litigation, regulatory and similar matters" of the UBS Annual Report.	UBS AR 2019 / 387–394
	417–3 Incidents of non-compliance concerning marketing communications	Reason for omission:  Confidentiality constraints: UBS treats this data as confidential company information. Significant cases would be discussed in Note 21 b) "Litigation, regulatory and similar matters" of the UBS Annual Report.	UBS AR 2019 / 387–394
Customer Privacy (	Regulatory compliance)		
GRI 103 Management Approach (2016)	103–1 Explanation of the material topic and its boundary	Materiality under GRI Standards Impact of material GRI topics Our approach to long-term value creation	UBS SR 2019 / 66–69 UBS SR 2019 / 131 UBS SR 2019 (at the very beginning of the report)
	103–2 The management approach and its components	Regulation and supervision Our Code of Conduct and Ethics Information relevant to all material topics Objectives 2020 Objectives and achievements 2019	UBS AR 2019 / 49–50 UBS SR 2019 / 113–116 UBS SR 2019 / 129 UBS SR 2019 / 140–142 UBS SR 2019 / 135–139
	103–3 Evaluation of the management approach	Evaluation of management approaches	UBS SR 2019 / 129
GRI 418 Customer Privacy (2016)	418–1 Substantiated complaints concerning breaches of customer privacy and losses of customer data	Reason for omission:  Confidentiality constraints: UBS treats this data as confidential company information. Significant cases would be discussed in Note 21 b) "Litigation, regulatory and similar matters" of the UBS Annual Report.	UBS AR 2019 / 387–394

GRI Standard	Disclosure	Reference	Page
Socioeconomic Co	mpliance (Regulatory compliance; Dive	ersity and inclusion)	
GRI 103 Management Approach (2016)	103–1 Explanation of the material topic and its boundary	Materiality under GRI Standards	UBS SR 2019 / 66–69
		Impact of material GRI topics	UBS SR 2019 / 131
		Our approach to long-term value creation	UBS SR 2019 (at the very beginning of the report)
	103–2 The management approach and its components	Our Code of Conduct and Ethics	UBS SR 2019 / 113–116
		Operational risk	UBS AR 2019 / 153-155
		Information relevant to all material topics	UBS SR 2019 / 129
		Objectives 2020	UBS SR 2019 / 140-142
		Objectives and achievements 2019	UBS SR 2019 / 135-139
	103–3 Evaluation of the management approach	Evaluation of management approaches	UBS SR 2019 / 129
GRI 419 Socioeconomic Compliance (2016)	419–1 Non-compliance with laws and regulations in the social and economic area	Reason for omission:	UBS AR 2019 / 387–394
		Confidentiality constraints: UBS treats this data as confidential company information. Significant cases would be discussed in Note 21 b) "Litigation, regulatory and similar matters" of the UBS Annual Report.	
Product Portfolio (	Climate action; Environmental and so	cial risk management; Sustainable investing)	
GRI 103 Management Approach (2016)	103–1 Explanation of the material topic and its boundary	Materiality under GRI Standards	UBS SR 2019 / 66–69
		Impact of material GRI topics	UBS SR 2019 / 131
		Our approach to long-term value creation	UBS SR 2019 (at the very beginning of the report)
	103–2 The management approach and its components	Sustainability governance	UBS SR 2019 / 51–53
		Our focus on ESG	UBS SR 2019 / 31-33
	its components	Our rocas on Eso	003 3N 2019 / 31-33
	its components	Society	UBS SR 2019 / 46–48
	its components		
	its components	Society	UBS SR 2019 / 46-48
	its components	Society Key policies and guidelines	UBS SR 2019 / 46–48 UBS SR 2019 / 51–52
	its components	Society Key policies and guidelines Our Code of Conduct and Ethics	UBS SR 2019 / 46–48 UBS SR 2019 / 51–52 UBS SR 2019 / 113–116
	its components	Society Key policies and guidelines Our Code of Conduct and Ethics UBS in society constitutional document	UBS SR 2019 / 46–48 UBS SR 2019 / 51–52 UBS SR 2019 / 113–116 UBS SR 2019 / 117–119
	its components	Society Key policies and guidelines Our Code of Conduct and Ethics UBS in society constitutional document Our climate strategy	UBS SR 2019 / 46–48 UBS SR 2019 / 51–52 UBS SR 2019 / 113–116 UBS SR 2019 / 117–119 UBS SR 2019 / 54–63
	its components	Society Key policies and guidelines Our Code of Conduct and Ethics UBS in society constitutional document Our climate strategy Objectives 2020	UBS SR 2019 / 46–48 UBS SR 2019 / 51–52 UBS SR 2019 / 113–116 UBS SR 2019 / 117–119 UBS SR 2019 / 54–63 UBS SR 2019 / 140–142
	its components	Society Key policies and guidelines Our Code of Conduct and Ethics UBS in society constitutional document Our climate strategy Objectives 2020 Objectives and achievements 2019	UBS SR 2019 / 46–48  UBS SR 2019 / 51–52  UBS SR 2019 / 113–116  UBS SR 2019 / 117–119  UBS SR 2019 / 54–63  UBS SR 2019 / 140–142  UBS SR 2019 / 135–139
	its components	Society Key policies and guidelines Our Code of Conduct and Ethics UBS in society constitutional document Our climate strategy Objectives 2020 Objectives and achievements 2019 Environmental and social risk policy framework	UBS SR 2019 / 46–48  UBS SR 2019 / 51–52  UBS SR 2019 / 113–116  UBS SR 2019 / 117–119  UBS SR 2019 / 54–63  UBS SR 2019 / 140–142  UBS SR 2019 / 135–139  UBS SR 2019 / 120–126
	its components	Society Key policies and guidelines Our Code of Conduct and Ethics UBS in society constitutional document Our climate strategy Objectives 2020 Objectives and achievements 2019 Environmental and social risk policy framework Driving change in finance	UBS SR 2019 / 46–48  UBS SR 2019 / 51–52  UBS SR 2019 / 113–116  UBS SR 2019 / 117–119  UBS SR 2019 / 54–63  UBS SR 2019 / 140–142  UBS SR 2019 / 135–139  UBS SR 2019 / 120–126  UBS SR 2019 / 70–74
	its components	Society Key policies and guidelines Our Code of Conduct and Ethics UBS in society constitutional document Our climate strategy Objectives 2020 Objectives and achievements 2019 Environmental and social risk policy framework Driving change in finance Driving change in philanthropy	UBS SR 2019 / 46–48  UBS SR 2019 / 51–52  UBS SR 2019 / 113–116  UBS SR 2019 / 117–119  UBS SR 2019 / 54–63  UBS SR 2019 / 140–142  UBS SR 2019 / 135–139  UBS SR 2019 / 120–126  UBS SR 2019 / 70–74  UBS SR 2019 / 75
	its components	Society Key policies and guidelines Our Code of Conduct and Ethics UBS in society constitutional document Our climate strategy Objectives 2020 Objectives and achievements 2019 Environmental and social risk policy framework Driving change in finance Driving change in philanthropy Sustainability-related training and raising awareness	UBS SR 2019 / 46–48  UBS SR 2019 / 51–52  UBS SR 2019 / 113–116  UBS SR 2019 / 117–119  UBS SR 2019 / 54–63  UBS SR 2019 / 140–142  UBS SR 2019 / 135–139  UBS SR 2019 / 120–126  UBS SR 2019 / 70–74  UBS SR 2019 / 75  UBS SR 2019 / 64
	103–3 Evaluation of the management	Society Key policies and guidelines Our Code of Conduct and Ethics UBS in society constitutional document Our climate strategy Objectives 2020 Objectives and achievements 2019 Environmental and social risk policy framework Driving change in finance Driving change in philanthropy Sustainability-related training and raising awareness UBS in society management indicators	UBS SR 2019 / 46–48  UBS SR 2019 / 51–52  UBS SR 2019 / 113–116  UBS SR 2019 / 117–119  UBS SR 2019 / 54–63  UBS SR 2019 / 140–142  UBS SR 2019 / 135–139  UBS SR 2019 / 120–126  UBS SR 2019 / 70–74  UBS SR 2019 / 75  UBS SR 2019 / 64  UBS SR 2019 / 128

<b>GRI Standard</b>	Disclosure	Reference	Page
GRI G4 Financial		Global Wealth Management	UBS SR 2019 / 11–13
Services Sector Disclosures		Global Wealth Management	UBS AR 2019 / 85-87
		Personal & Corporate Banking	UBS SR 2019 / 14–15
		Personal & Corporate Banking	UBS AR 2019 / 88-92
		Asset Management	UBS SR 2019 / 16-17
		Asset Management	UBS AR 2019 / 93-96
		Investment Bank	UBS SR 2019 / 18–19
		Investment Bank	UBS AR 2019 / 97-100
		Market risk	UBS AR 2019 / 138-147
		Country risk	UBS AR 2019 / 148-152
		Credit risk	UBS AR 2019 / 119-137
		Basel III Pillar 3 UBS Group AG 2019 report	https://www.ubs.com/global/en/ investor-relations/financial- information/pillar-3- disclosures.html
	FS7 Monetary value of products and services designed to deliver a specific social benefit for each business line broken down by purpose	Driving change in philanthropy	UBS SR 2019 / 75
	FS8 Monetary value of products and	Our climate strategy	UBS SR 2019 / 54–63
	services designed to deliver a specific environmental benefit for each business line broken down by purpose	Calculating and reporting on climate change-related financing and advisory activities	UBS SR 2019 / 132
Audit (Environme	ental and social risk management)		
GRI 103	103–1 Explanation of the material topic	Materiality under GRI Standards	UBS SR 2019 / 66–69
Management	and its boundary	Impact of material GRI topics	UBS SR 2019 / 131
Approach (2016)		Our approach to long-term value creation	UBS SR 2019 (at the very beginning of the report)
	103–2 The management approach and	UBS in society constitutional document	UBS SR 2019 / 117–119
	its components	UBS in society management indicators	UBS SR 2019 / 128
		Objectives 2020	UBS SR 2019 / 140-142
		Objectives and achievements 2019	UBS SR 2019 / 135-139
	103–3 Evaluation of the management	Evaluation of management approaches	UBS SR 2019 / 129
	approach	ISO 14001 and 50001 certificate	UBS SR 2019 / 107-110

GRI Standard	Disclosure	Reference	Page
Active Ownership	(Sustainable investing)		
GRI 103	103–1 Explanation of the material topic	Materiality under GRI Standards	UBS SR 2019 / 66–69
Management Approach (2016)	and its boundary	Impact of material GRI topics	UBS SR 2019 / 131
		Our approach to long-term value creation	UBS SR 2019 (at the very beginning of the report)
	103–2 The management approach and	Society	UBS SR 2019 / 46–48
	its components	Sustainability governance	UBS SR 2019 / 51-53
		UBS in society constitutional document	UBS SR 2019 / 117-119
		Our focus on ESG	UBS SR 2019 / 31-33
		Driving change in finance	UBS SR 2019 / 70-74
		Environmental and social risk policy framework	UBS SR 2019 / 120-126
		Objectives 2020	UBS SR 2019 / 140-142
		Objectives and achievements 2019	UBS SR 2019 / 135-139
		Information relevant to all material topics	UBS SR 2019 / 129
	103–3 Evaluation of the management	Evaluation of management approaches	UBS SR 2019 / 129
	approach	ISO 14001 and 50001 certificate	UBS SR 2019 / 107-110
GRI G4 Financial Services Sector Disclosures	FS10 Percentage and number of companies held in the institution's portfolio with which the reporting organization has interacted on environmental or social issues	Reason for omission: Our interactions with companies take a comprehensive ESG approach. Selective quantitative data provision on environmental and social issues only is therefore not practical.	
		Stewardship / voting rights	UBS SR 2019 / 71
		Climate strategy	UBS SR 2019 / 50-51
	FS11 Percentage of assets subject to	Our focus on ESG	UBS SR 2019 / 31–33
	positive and negative environmental or social screening	Driving change in finance	UBS SR 2019 / 70–74

Topics not covered by the topic-specific standards

GRI Standard	Disclosure	Reference	Page
Digital Innovation	n		
GRI 103	103–1 Explanation of the material topic	Materiality under GRI Standards	UBS SR 2019 / 66-69
Management Approach (2016)	and its boundary	Impact of material GRI topics	UBS SR 2019 / 131
		Our approach to long-term value creation	UBS SR 2019 (at the very beginning of the report)
	103–2 The management approach and its components	Enhancing the client experience through innovation and digitalization	UBS SR 2019 / 27–28
		Digital innovation	UBS SR 2019 / 129
		Information relevant to all material topics	UBS SR 2019 / 129
		Objectives 2020	UBS SR 2019 / 140-142
		Objectives and achievements 2019	UBS SR 2019 / 135-139
	103–3 Evaluation of the management approach	Evaluation of management approaches	UBS SR 2019 / 129
	KPI: USD billion spent on technology	Digital innovation	UBS SR 2019 / 129
Operational Effic	iency and Effectiveness		
GRI 103	103–1 Explanation of the material topic	Materiality under GRI Standards	UBS SR 2019 / 66–69
Management	and its boundary	Impact of material GRI topics	UBS SR 2019 / 131
Approach (2016)		Our approach to long-term value creation	UBS SR 2019 (at the very
			beginning of the report)
	103–2 The management approach and	Corporate Center	UBS SR 2019 / 20
	its components	Our strategy	UBS SR 2019 / 7-8
		Objectives 2020	UBS SR 2019 / 140-142
		Objectives and achievements 2019	UBS SR 2019 / 135-139
		Information relevant to all material topics	UBS SR 2019 / 129
	103–3 Evaluation of the management approach	Evaluation of management approaches	UBS SR 2019 / 129
	KPI: Cost / income ration	Our Key Figures	UBS AR 2019 / 8
Client Experience	·		
GRI 103	103–1 Explanation of the material topic	Materiality under GRI Standards	UBS SR 2019 / 66–69
Management	and its boundary	Impact of material GRI topics	UBS SR 2019 / 131
Approach (2016)		Our approach to long-term value creation	UBS SR 2019 (at the very
			beginning of the report)
	103–2 The management approach and	Our Code of Conduct and Ethics	UBS SR 2019 / 113–116
	its components	Quality feedback management system	UBS SR 2019 / 29
		Clients	UBS SR 2019 / 26-33
		Current market climate and industry trends	UBS SR 2019 / 21-24
		Our strategy	UBS SR 2019 / 7-8
		Objectives 2020	UBS SR 2019 / 140-142
		Objectives and achievements 2019	UBS SR 2019 / 135-139
		Information relevant to all material topics	UBS SR 2019 / 129
	103–3 Evaluation of the management approach	Evaluation of management approaches	UBS SR 2019 / 129
	KPI: Net new money growth (%) for Global Wealth Management	Global Wealth Management Net new money growth	UBS AR 2019 / 85

<b>GRI Standard</b>	Disclosure	Reference	Page
Working Culture	and Environment		
GRI 103	103–1 Explanation of the material topic	Materiality under GRI Standards	UBS SR 2019 / 66-69
Management	and its boundary	Impact of material GRI topics	UBS SR 2019 / 131
Approach (2016)		Our approach to long-term value creation	UBS SR 2019 (at the very beginning of the report)
	103–2 The management approach and	Compensation Committee	UBS AR 2019 / 224
	its components	Employees	UBS SR 2019 / 35-39
		Society	UBS SR 2019 / 46-48
		Key policies and guidelines	UBS SR 2019 / 51-52
		Sustainable performance and compensation	UBS SR 2019 / 64-65
		Objectives 2020	UBS SR 2019 / 140-142
		Objectives and achievements 2019	UBS SR 2019 / 135-139
		Information relevant to specific material topics – Employee topics	UBS SR 2019 / 129–130
		Health and safety statement	UBS SR 2019 / 127
		Our Code of Conduct and Ethics	UBS SR 2019 / 113-116
		Information relevant to all material topics	UBS SR 2019 / 129
	103–3 Evaluation of the management approach	Evaluation of management approaches	UBS SR 2019 / 129
	KPI: Employer of choice	Society – Aims and progress	UBS SR 2019 / 48

# Sustainability Accounting Standards Board Index 2019

Reporting under the Sustainability Accounting Standards Board (SASB) standards for the first time, we have focused on the three sector standards most relevant to our firm: Asset Management & Custody Activities, Investment Banking & Brokerage and Commercial Banks. Except where clearly identified, all of UBS's information included in this index is presented for UBS Group AG and all its subsidiaries. While we do not disclose all information and metrics included in the SASB standards in our 2019 reporting, we are endeavoring to develop our disclosure over time and to close relevant gaps.

#### Note

All references to the Annual Report 2019 are referring to the combined UBS Group AG and UBS AG Annual Report 2019 available on www.ubs.com/investors.

SASB Code	Accounting Metric	Reference	Page
Disclosures Inclu	ided in Multiple Sectors' Standards		
FN-AC-330a.1 FN-IB-330a.1	Percentage of gender and racial / ethnic group representation for (1) executive management, (2) non-executive management, (3) professionals, and (4) all other employees	Employees Our Code of Conduct and Ethics Skills, expertise and training of the Board of Directors Gender-related aspects in compensation	UBS SR 2019 / 35–45 UBS SR 2019 / 113–116 UBS AR 2019 / 227 UBS AR 2019 / 244
FN-IB-510a.1 FN-CB-510a.1 FN-AC-510a.1	Total amount of monetary losses as a result of legal proceedings associated with fraud, insider trading, anti-trust, anti-competitive behavior, market manipulation, malpractice, or other related financial industry laws or regulations	Note 21 Provisions and contingent liabilities	UBS AR 2019 / 387–394
FN-AC-510a.2 FN-IB-510a.2 FN-CB-510a.2	Description of whistleblower policies and procedures	Grievances and whistleblowing protection, policies and procedures Upholding the Code Grievance mechanism Risk principles and risk culture	UBS SR 2019 / 52  UBS SR 2019 / 116  UBS SR 2019 / 129  UBS AR 2019 / 112
FN-IB-550a.1 FN-CB-550a.1	Global Systemically Important Bank (G-SIB) score, by category	G-SIB information is included in our Pillar III Disclosure (see https://www.ubs.com/global/en/investor-relations/financial-information/pillar-3-disclosures.html)	Pillar III Disclosure
		Regulation and supervision	UBS AR 2019 / 49–53
FN-IB-550a.2 FN-CB-550a.2	Description of approach to incorporation of results of mandatory and voluntary stress tests into capital adequacy planning, long-term corporate strategy, and other business activities	Our climate strategy Stress testing Further key aspects of credit risk models Regulation and supervision	UBS SR 2019 / 54–63 UBS AR 2019 / 116–117 UBS AR 2019 / 133–135 UBS AR 2019 / 49–53
Asset Managem	ent & Custody Activities		
FN-AC-270a.2	Total amount of monetary losses as a result of legal proceedings associated with marketing and communication of financial product-related information to new and returning customers	Note 21 Provisions and contingent liabilities	UBS AR 2019 / 387–394
FN-AC-270a.3	Description of approach to informing customers about products and services	Suitability Operational risk	UBS SR 2019 / 29–30 UBS AR 2019 / 153–155
FN-AC-410a.1	Amount of assets under management, by asset class, that employ (1) integration of environmental, social and governance (ESG) issues, (2) sustainability-themed investing, and (3) screening	Our focus on ESG Driving change in finance	UBS SR 2019 / 31–33 UBS SR 2019 / 70–74
FN-AC-410a.2	Description of approach to incorporation of environmental, social and governance (ESG) factors in investment and/or wealth management processes and strategies	Global Wealth Management Society Our climate strategy Our focus on ESG Driving change in finance UBS in society constitutional document	UBS SR 2019 / 11–13 UBS SR 2019 / 46–48 UBS SR 2019 / 54–63 UBS SR 2019 / 31–33 UBS SR 2019 / 70–74 UBS SR 2019 / 117–119

SASB Code	Accounting Metric	Reference	Page
FN-AC-410a.3	Description of proxy voting and investee	Protecting our clients' assets	UBS SR 2019 / 58–59
	engagement policies and procedures	Stewardship / voting rights	UBS SR 2019 / 71
		Key sustainability investing products and services	UBS SR 2019 / 74
FN-AC-550a.2	Description of approach to incorporation of liquidity risk management programs into portfolio strategy and redemption risk management	UBS AM defines Liquidity risk as the risk that a fund cannot meet client redemption requests at current prices while fulfilling ongoing obligations to remaining investors in line with the fund's stated investment objective, strategy and policies.	
		UBS AM operates a Liquidity Risk Framework in line with our fiduciary duty towards investors, which:  Considers liquidity risk management at product design / fund setup;  Requires ongoing liquidity monitoring; and  Includes escalation protocols and governance for management of liquidity risk events	
FN-AC-550a.3	Total exposure to securities financing	Traded products	UBS AR 2019 / 125–126
	transactions	Leverage ratio denominator	UBS AR 2019 / 188-189
N-AC-550a.4	Net exposure to written credit derivatives	Note 11 Derivative instruments	UBS AR 2019 / 371–376
FN-AC-000.A	(1) Total registered and	Note 36 Invested assets and net new money	UBS AR 2019 / 475
	(2) total unregistered assets under	Global Wealth Management	UBS AR 2019 / 85–87
	management (AUM)	Asset Management	UBS AR 2019 / 93–96
FN-AC-000.B	Total assets under custody and	Note 36 Invested assets and net new money	UBS AR 2019 / 475
11716 000.5	supervision	Global Wealth Management	UBS AR 2019 / 85–87
		Asset Management	UBS AR 2019 / 93–96
Investment Ran	king & Brokerage	<u>`</u>	
FN-IB-410a.1		Our focus on ESG	LIDS CD 2010 / 21 22
FIN-IB-4 I Ua. I			UBS SR 2019 / 31–33
		Driving change in finance Environmental and social risk policy framework	UBS SR 2019 / 70–74 UBS SR 2019 / 120–126
		(Note: "UBS applies an environmental and social risk framework to ALL transactions, products, services and activities such as lending, capital raising, advisory services or investments that involve a party associated with environmentally or socially sensitive activities.")	OBS 3N 20197 120-120
FN-IB-410a.2		Our focus on ESG	UBS SR 2019 / 31–33
	investments and loans incorporating	Driving change in finance	UBS SR 2019 / 70-74
	integration of environmental, social, and governance (ESG) factors, by industry	Environmental and social risk policy framework (Note: "UBS applies an environmental and social risk framework to ALL transactions, products, services and activities such as lending, capital raising, advisory services or investments that involve a party associated with environmentally or socially sensitive activities.")	UBS SR 2019 / 120–126
-N-IB-410a.3	Description of approach to	Society	UBS SR 2019 / 46-48
-N-IB-410a.3	incorporation of environmental, social,		UBS SR 2019 / 46–48 UBS SR 2019 / 54–63
-N-IB-410a.3	incorporation of environmental, social, and governance (ESG) factors in	Society	
-N-IB-410a.3	incorporation of environmental, social, and governance (ESG) factors in investment banking and brokerage	Society Our climate strategy Our focus on ESG	UBS SR 2019 / 54–63
-N-IB-410a.3	incorporation of environmental, social, and governance (ESG) factors in	Society Our climate strategy Our focus on ESG Driving change in finance	UBS SR 2019 / 54–63 UBS SR 2019 / 31–33 UBS SR 2019 / 70–74
FN-IB-410a.3	incorporation of environmental, social, and governance (ESG) factors in investment banking and brokerage	Society Our climate strategy Our focus on ESG	UBS SR 2019 / 54–63 UBS SR 2019 / 31–33

SASB Code	Accounting Metric	Reference	Page
FN-IB-510b.4	Description of approach to ensuring professional integrity, including duty of care	Employees	UBS SR 2019 / 35–37
		Key policies and guidelines	UBS SR 2019 / 51–52
		Sustainable performance and compensation	UBS SR 2019 / 64-65
		Sustainability-related training and raising awareness	UBS SR 2019 / 64
		Our Code of Conduct and Ethics	UBS SR 2019 / 113-116
		Charter of the Corporate Culture and Responsibility Committee	UBS SR 2019 / 112
		Risk categories	UBS AR 2019 / 107
		Risk principles and risk culture	UBS AR 2019 / 112
		Operational risk	UBS AR 2019 / 153-155
		Compensation framework for employees other than GEB members	UBS AR 2019 / 257
FN-IB-550b.1	Percentage of total remuneration that is	Sustainable performance and compensation	UBS SR 2019 / 64–65
	variable for Material Risk Takers (MRTs)	Compensation	UBS AR 2019 / 242–288
FN-IB-550b.2	Percentage of variable remuneration of	Regulated staff	UBS AR 2019 / 277–278
	Material Risk Takers (MRTs) to which malus or clawback provisions were applied	2019 performance award pool and expenses	UBS AR 2019 / 279–280
FN-IB-550b.3	Discussion of policies around	Note 24 Fair value measurement	UBS AR 2019 / 410–429
	supervision, control and validation of	Regulated staff	UBS AR 2019 / 277–278
	traders' pricing of Level 3 assets and liabilities		
FN-IB-000.A	(1) Number and (2) value of (a) underwriting, (b) advisory, and (c)	Investment Bank	UBS AR 2019 / 97–100
	securitization transactions		
Commercial ban	ks		
FN-CB-230a.2	Description of approach to identifying and addressing data security risks	Our clients and what matters most to them	UBS SR 2019 / 26–27
		Operational risks affect our business	UBS AR 2019 / 67–68
		Top and emerging risks	UBS AR 2019 / 108
		Operational risk	UBS AR 2019 / 153–155
		Operational risk	003 AN 20137 133-133
FN-CR-240a 1	(1) Number and (2) amount of loans	<u>'</u>	
FN-CB-240a.1	(1) Number and (2) amount of loans	Personal & Corporate Banking	UBS AR 2019 / 88–92
FN-CB-240a.1	outstanding qualified to programs	Personal & Corporate Banking Personal & Corporate Banking	UBS AR 2019 / 88–92 UBS AR 2019 / 122
FN-CB-240a.1		Personal & Corporate Banking	UBS AR 2019 / 88–92
	outstanding qualified to programs designed to promote small business and	Personal & Corporate Banking Personal & Corporate Banking	UBS AR 2019 / 88–92 UBS AR 2019 / 122
	outstanding qualified to programs designed to promote small business and community development  Number of participants in financial	Personal & Corporate Banking Personal & Corporate Banking Driving change in communities Financial literacy	UBS AR 2019 / 88–92 UBS AR 2019 / 122 UBS SR 2019 / 98–102
FN-CB-240a.4	outstanding qualified to programs designed to promote small business and community development  Number of participants in financial literacy initiatives for unbanked, underbanked, or underserved customers  Commercial and industrial credit	Personal & Corporate Banking Personal & Corporate Banking Driving change in communities Financial literacy	UBS AR 2019 / 88–92 UBS AR 2019 / 122 UBS SR 2019 / 98–102
FN-CB-240a.4	outstanding qualified to programs designed to promote small business and community development Number of participants in financial literacy initiatives for unbanked, underbanked, or underserved customers	Personal & Corporate Banking Personal & Corporate Banking Driving change in communities  Financial literacy	UBS AR 2019 / 88–92 UBS AR 2019 / 122 UBS SR 2019 / 98–102 UBS SR 2019 / 134
FN-CB-240a.4	outstanding qualified to programs designed to promote small business and community development  Number of participants in financial literacy initiatives for unbanked, underbanked, or underserved customers  Commercial and industrial credit	Personal & Corporate Banking Personal & Corporate Banking Driving change in communities  Financial literacy  Credit risk	UBS AR 2019 / 88–92 UBS AR 2019 / 122 UBS SR 2019 / 98–102 UBS SR 2019 / 134 UBS AR 2019 / 119–137
FN-CB-240a.4	outstanding qualified to programs designed to promote small business and community development  Number of participants in financial literacy initiatives for unbanked, underbanked, or underserved customers  Commercial and industrial credit	Personal & Corporate Banking Personal & Corporate Banking Driving change in communities  Financial literacy  Credit risk Loans and advances to banks and customers by industry Climate strategy	UBS AR 2019 / 88–92 UBS AR 2019 / 122 UBS SR 2019 / 98–102 UBS SR 2019 / 134 UBS AR 2019 / 119–137 UBS AR 2019 / 733–734 UBS SR 2019 / 54–63
FN-CB-240a.4	outstanding qualified to programs designed to promote small business and community development  Number of participants in financial literacy initiatives for unbanked, underbanked, or underserved customers  Commercial and industrial credit	Personal & Corporate Banking Personal & Corporate Banking Driving change in communities  Financial literacy  Credit risk Loans and advances to banks and customers by industry Climate strategy  Also see Pillar III Disclosure at	UBS AR 2019 / 88–92 UBS AR 2019 / 122 UBS SR 2019 / 98–102 UBS SR 2019 / 134 UBS AR 2019 / 119–137 UBS AR 2019 / 733–734
FN-CB-240a.4	outstanding qualified to programs designed to promote small business and community development  Number of participants in financial literacy initiatives for unbanked, underbanked, or underserved customers  Commercial and industrial credit	Personal & Corporate Banking Personal & Corporate Banking Driving change in communities  Financial literacy  Credit risk Loans and advances to banks and customers by industry Climate strategy	UBS AR 2019 / 88–92 UBS AR 2019 / 122 UBS SR 2019 / 98–102 UBS SR 2019 / 134 UBS AR 2019 / 119–137 UBS AR 2019 / 733–734 UBS SR 2019 / 54–63
FN-CB-240a.4 FN-CB-410a.1	outstanding qualified to programs designed to promote small business and community development  Number of participants in financial literacy initiatives for unbanked, underbanked, or underserved customers  Commercial and industrial credit exposure, by industry	Personal & Corporate Banking Personal & Corporate Banking Driving change in communities  Financial literacy  Credit risk Loans and advances to banks and customers by industry Climate strategy  Also see Pillar III Disclosure at https://www.ubs.com/global/en/investor- relations/financial-information/pillar-3-disclosures.html	UBS AR 2019 / 88–92 UBS AR 2019 / 122 UBS SR 2019 / 98–102 UBS SR 2019 / 134 UBS AR 2019 / 119–137 UBS AR 2019 / 733–734 UBS SR 2019 / 54–63
FN-CB-240a.4 FN-CB-410a.1	outstanding qualified to programs designed to promote small business and community development  Number of participants in financial literacy initiatives for unbanked, underbanked, or underserved customers  Commercial and industrial credit	Personal & Corporate Banking Personal & Corporate Banking Driving change in communities  Financial literacy  Credit risk Loans and advances to banks and customers by industry Climate strategy  Also see Pillar III Disclosure at https://www.ubs.com/global/en/investor- relations/financial-information/pillar-3-disclosures.html  Our climate strategy	UBS AR 2019 / 88–92 UBS AR 2019 / 122 UBS SR 2019 / 98–102  UBS SR 2019 / 134  UBS AR 2019 / 119–137 UBS AR 2019 / 733–734 UBS SR 2019 / 54–63  Pillar III Report  UBS SR 2019 / 54–63
FN-CB-240a.4 FN-CB-410a.1	outstanding qualified to programs designed to promote small business and community development  Number of participants in financial literacy initiatives for unbanked, underbanked, or underserved customers  Commercial and industrial credit exposure, by industry  Description of approach to	Personal & Corporate Banking Personal & Corporate Banking Driving change in communities  Financial literacy  Credit risk Loans and advances to banks and customers by industry Climate strategy  Also see Pillar III Disclosure at https://www.ubs.com/global/en/investor- relations/financial-information/pillar-3-disclosures.html	UBS AR 2019 / 88–92 UBS AR 2019 / 122 UBS SR 2019 / 98–102  UBS SR 2019 / 134  UBS AR 2019 / 119–137 UBS AR 2019 / 733–734 UBS SR 2019 / 54–63  Pillar III Report
FN-CB-240a.4 FN-CB-410a.1 FN-CB-410a.2	outstanding qualified to programs designed to promote small business and community development  Number of participants in financial literacy initiatives for unbanked, underbanked, or underserved customers  Commercial and industrial credit exposure, by industry  Description of approach to incorporation of environmental, social, and governance (ESG) factors in credit	Personal & Corporate Banking Personal & Corporate Banking Driving change in communities  Financial literacy  Credit risk Loans and advances to banks and customers by industry Climate strategy  Also see Pillar III Disclosure at https://www.ubs.com/global/en/investor- relations/financial-information/pillar-3-disclosures.html  Our climate strategy Environmental and social risk policy framework	UBS AR 2019 / 88–92 UBS AR 2019 / 122 UBS SR 2019 / 98–102  UBS SR 2019 / 134  UBS AR 2019 / 119–137 UBS AR 2019 / 733–734 UBS SR 2019 / 54–63  Pillar III Report  UBS SR 2019 / 54–63
FN-CB-240a.1  FN-CB-240a.4  FN-CB-410a.1  FN-CB-410a.2	outstanding qualified to programs designed to promote small business and community development  Number of participants in financial literacy initiatives for unbanked, underbanked, or underserved customers  Commercial and industrial credit exposure, by industry  Description of approach to incorporation of environmental, social, and governance (ESG) factors in credit analysis	Personal & Corporate Banking Personal & Corporate Banking Driving change in communities  Financial literacy  Credit risk Loans and advances to banks and customers by industry Climate strategy  Also see Pillar III Disclosure at https://www.ubs.com/global/en/investor- relations/financial-information/pillar-3-disclosures.html  Our climate strategy	UBS AR 2019 / 88–92 UBS AR 2019 / 122 UBS SR 2019 / 98–102  UBS SR 2019 / 134  UBS AR 2019 / 119–137 UBS AR 2019 / 733–734 UBS SR 2019 / 54–63  Pillar III Report  UBS SR 2019 / 54–63 UBS SR 2019 / 120–126
FN-CB-240a.4 FN-CB-410a.1 FN-CB-410a.2	outstanding qualified to programs designed to promote small business and community development  Number of participants in financial literacy initiatives for unbanked, underbanked, or underserved customers  Commercial and industrial credit exposure, by industry  Description of approach to incorporation of environmental, social, and governance (ESG) factors in credit analysis  (1) Number and (2) value of checking and savings accounts by segment: (a)	Personal & Corporate Banking Personal & Corporate Banking Driving change in communities  Financial literacy  Credit risk Loans and advances to banks and customers by industry Climate strategy  Also see Pillar III Disclosure at https://www.ubs.com/global/en/investor- relations/financial-information/pillar-3-disclosures.html  Our climate strategy Environmental and social risk policy framework  Personal & Corporate Banking Personal & Corporate Banking	UBS AR 2019 / 88–92 UBS AR 2019 / 122 UBS SR 2019 / 98–102  UBS SR 2019 / 134  UBS AR 2019 / 119–137 UBS AR 2019 / 733–734 UBS SR 2019 / 54–63  Pillar III Report  UBS SR 2019 / 54–63  UBS SR 2019 / 120–126  UBS AR 2019 / 120–126
FN-CB-410a.1 FN-CB-410a.2 FN-CB-000.A	outstanding qualified to programs designed to promote small business and community development  Number of participants in financial literacy initiatives for unbanked, underbanked, or underserved customers  Commercial and industrial credit exposure, by industry  Description of approach to incorporation of environmental, social, and governance (ESG) factors in credit analysis  (1) Number and (2) value of checking and savings accounts by segment: (a) personal and (b) small business	Personal & Corporate Banking Personal & Corporate Banking Driving change in communities  Financial literacy  Credit risk Loans and advances to banks and customers by industry Climate strategy  Also see Pillar III Disclosure at https://www.ubs.com/global/en/investor- relations/financial-information/pillar-3-disclosures.html  Our climate strategy Environmental and social risk policy framework  Personal & Corporate Banking	UBS AR 2019 / 88–92 UBS AR 2019 / 122 UBS SR 2019 / 98–102  UBS SR 2019 / 134  UBS AR 2019 / 119–137 UBS AR 2019 / 733–734 UBS SR 2019 / 54–63  Pillar III Report  UBS SR 2019 / 54–63 UBS AR 2019 / 120–126  UBS AR 2019 / 88–92

# Risk evaluation

In pursuance of the requirements of the German law implementing the EU directive 2014/95 (on non-financial disclosures, CSR-Richtlinie-Umsetzungsgesetz / CSR-RUG) this section includes an evaluation of the risks that have a high probability of potential negative impacts upon the "aspects" covered by said law.

Combating money laundering and terrorist financing has been a major focus of government policies relating to financial institutions in recent years. The US Bank Secrecy Act and other laws and regulations require the maintenance of effective policies, procedures and controls to detect, prevent and report money laundering and terrorist financing, and to verify the identity of our clients. Failure to maintain and implement adequate programs to prevent money laundering and terrorist financing could result in significant legal and reputation risk. In addition, we are subject to laws and regulations, in jurisdictions in which we operate, prohibiting corrupt or illegal payments to government officials and others, including the US Foreign Corrupt Practices Act and the UK Bribery Act. We maintain policies, procedures and internal controls intended to comply with those regulations.

The financial services industry is characterized by intense competition, continuous innovation, restrictive, detailed, and sometimes fragmented regulation and ongoing consolidation,

and we may be unable to retain and attract qualified employees. The amount and structure of our employee compensation is affected not only by our business results but also by competitive factors and regulatory considerations. In recent years, in response to the demands of various stakeholders, including regulatory authorities and shareholders, and in order to better align the interests of our staff with other stakeholders, we have increased average deferral periods for stock awards, expanded forfeiture provisions and, to a more limited extent, introduced clawback provisions for certain awards linked to business performance. We have also introduced individual caps on the proportion of fixed to variable pay for the Group Executive Board (GEB) members, as well as certain other employees. Constraints on the amount or structure of employee compensation, higher levels of deferral, performance conditions and other circumstances triggering the forfeiture of unvested awards may adversely affect our ability to retain and attract key employees. The loss of key staff and the inability to attract qualified replacements could seriously compromise our ability to execute our strategy and to successfully improve our operating and control environment, and could affect our business performance.

→ Refer to the "Risk factors" and "Regulation and supervision" sections of UBS's Annual Report 2019 for more information

# Non-financial disclosures in accordance with German law implementing the EU directive 2014/95

This GRI Document also includes our firm's disclosures of non-financial information required by German law implementing the EU directive 2014/95 (CSR-Richtlinie-Umsetzungsgesetz / CSR-RUG). These disclosures can be found in the sections and the pages indicated below. Due to the differing materiality requirements of the GRI Standards and of CSR-RUG the material topics listed in the CSR-RUG index are therefore limited to the matters ("Belange") addressed by CSR-RUG.

	Section in Sustainability Report 2019	Page(s)
About this report (including framework)	About this Sustainability Report	2
Description of the business model	Our strategy, business model and environment	7–50
Material risks	Risk evaluation	165

Non financial aspects	Section in Sustainability Report 2019	Page(s)
Broad thematic issues affecting all nonfinancial aspects	Our focus on ESG Our governance and principles Sustainable performance and compensation Sustainable investments Sustainability-related training and raising awareness UBS sustainability objectives and achievements 2019 and sustainability objectives 2020	31–33 51–53 64–65 70–71 64 135–142
Environmental and human rights matters  (Material topics: Climate action; Environmental and social risk management; Sustainable investing)	Society Stakeholder relations (additional information): Vendors Environment and human rights Our climate strategy – taking action towards a low-carbon future Management of environmental and social risks Responsible supply chain management In-house environmental management	46–48 50 78 54–63 79 93 82–92
Social and employee matters  (Working culture and environment; Talent management; Compensation; Diversity and inclusion; Community investing)	Society Employees Sustainable performance and compensation Driving change in communities	46–48 35–45 64–65 98–102
Anti-corruption and bribery matters  (Combating financial crime as sub-topic of Regulatory compliance)	Combating financial crime	94

UBS Group AG P.O. Box CH-8098 Zurich

www.ubs.com



# Santa Clara Valley Water District

Response to Request for Proposals for:

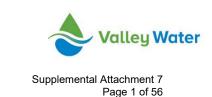
Revolving Line of Credit – SUPPLEMENTAL INFORMATION

June 15, 2020

Bank of America, N.A. 555 California St., Suite 1160 San Francisco, CA 94104

333 S. Hope St., Suite 3820 Los Angeles, CA 90071







June 15, 2020

Ms. Charlene Sun Treasury and Debt Officer Office of the Chief Executive Officer Santa Clara Valley Water District csun@valleywater.org

Dear Ms. Sun:

Bank of America, N.A. ("BANA" or "Bank") appreciates the opportunity to respond to the Santa Clara Valley Water District's (the "District" or "Valley Water") request for additional information related to our RFP response dated May 22, 2020. Bank of America is strongly committed to fundamental human rights. Our policies and practices promote and protect human rights, and we strive to conduct our business in a manner consistent with guiding principles. We are submitting the attached information to convey our effort.

Thank you, again, for your consideration of BANA. Please feel free to contact either of us with any questions.

Sincerely,

Greg Bailey Holly Vocal Senior Vice President Director

Bank of America, N.A. BofA Securities / Bank of America, N.A.

213.621.7131 415.913.2327

greg.s.bailey@bofa.com holly.vocal@bofa.com

cc: Ed Soong, Public Resources Advisory Group, <a href="mailto:esoong@pragadvisors.com">esoong@pragadvisors.com</a>
Jeff Bower, BofA Securities, <a href="mailto:jeffrey.bower@bofa.com">jeffrey.bower@bofa.com</a>
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# **Table of Contents**

Section	s Page
1.	Supplemental Information: Responses for Additional Information
Append	lix
A.	Bank of America's Human Rights Statement
В.	Bank of America's Environmental and Social Risk Policy ("ESRP") Framework
C.	Bank of America's ESG Performance Data Summary

## **Confidential Notice to Recipient**

"Bank of America" is the marketing name for the global banking and global markets businesses of Bank of America Corporation. Lending, derivatives, and other commercial banking activities are performed globally by banking affiliates of Bank of America Corporation, including Bank of America, N.A., Member FDIC. Securities, strategic advisory, and other investment banking activities are performed globally by investment banking affiliates of Bank of America Corporation ("Investment Banking Affiliates"), including, in the United States, BofA Securities, Inc. ("BofAS"), Merrill Lynch, Pierce, Fenner & Smith Incorporated ("Merrill"), and Merrill Lynch Professional Clearing Corp., ("MLPFC") all of which are registered broker-dealers and Members of SIPC, and, in other jurisdictions, by locally registered entities. References to BofA herein refer to the institutional business of Merrill prior to May 13, 2019, and as of that date to BofAS. BofAS, Merrill, and MLPFC are registered as futures commission merchants with the CFTC and are members of the NFA.

# Investment products offered by Investment Banking Affiliates: Are Not FDIC Insured \* May Lose Value \* Are Not Bank Guaranteed.

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Bank of America Corporation and its affiliates (collectively, the "BAC Group") comprise a full service securities firm and commercial bank engaged in securities, commodities and derivatives trading, foreign exchange and other brokerage activities, and principal investing as well as providing investment, corporate and private banking, asset and investment management, financing and strategic advisory services and other commercial services and products to a wide range of corporations, governments and individuals, domestically and offshore, from which conflicting interests or duties, or a perception thereof, may arise. In the ordinary course of these activities, parts of the BAC Group at any time may invest on a principal basis or manage funds that invest, make or hold long or short positions, finance positions or trade or otherwise effect transactions, for their own accounts or the accounts of customers, in debt, equity or other securities or financial instruments (including derivatives, bank loans or other obligations) of the Company, potential counterparties or any other company that may be involved in a transaction. Products and services that may be referenced in the accompanying materials may be provided through one or more affiliates of Bank of America Corporation. We have adopted policies and guidelines designed to preserve the independence of our research analysts. The BAC Group prohibits employees from, directly or indirectly, offering a favorable research rating or specific price target, or offering to change a rating or price target to a subject company as consideration or inducement for the receipt of business or for compensation and the BAC Group prohibits research analysts from being directly compensated for involvement in investment banking transactions. The views expressed herein are the views solely of Global Corporate and Investment Banking, and no inference should be made that the views expressed represent the view of the firm's research department. We are required to obtain, verify and record certain information that identifies the Company, which information includes the name and address of the Company and other information that will allow us to identify the Company in accordance, as applicable, with the USA Patriot Act (Title III of Pub. L. 107-56 (signed into law October 26, 2001)) and such other laws, rules and regulations as applicable within and outside the United States.

We do not provide legal, compliance, tax or accounting advice. Accordingly, any statements contained herein as to tax matters were neither written nor intended by us to be used and cannot be used by any taxpayer for the purpose of avoiding tax penalties that may be imposed on such taxpayer. If any person uses or refers to any such tax statement in promoting, marketing or recommending a partnership or other entity, investment plan or arrangement to any taxpayer, then the statement expressed herein is being delivered to support the promotion or marketing of the transaction or matter addressed and the recipient should seek advice based on its particular circumstances from an independent tax advisor. Notwithstanding anything that may appear herein or in other materials to the contrary, the Company shall be permitted to disclose the tax treatment and tax structure of a transaction (including any materials, opinions or analyses relating to such tax treatment or tax structure, but without disclosure of identifying information or any nonpublic commercial or financial information (except to the extent any such information relates to the tax structure or tax treatment)) on and after the earliest to occur of the date of (i) public announcement of discussions relating to such transaction, (ii) public announcement of such transaction or (iii) execution of a definitive agreement (with or without conditions) to enter into such transaction; provided, however, that if such transaction is not consummated for any reason, the provisions of this sentence shall cease to apply.

#### SUPPLEMENTAL INFORMATION

1. What is the Bank's response to Banktrak's rankings (attached)? Have you or do you plan on implementing any changes to address the issues raised by Banktrak?

Commitment to Human Rights. BankTrack's rankings provides scores in four main categories (policies, due diligence, reporting and remedy) and several sub-categories. Bank of America Coporation's (the "Firm" or "Bank of America") scores reflect "no information" in many of the sub-categories. However, we would like to convey to Valley Water and its Board that our Firm is strongly committed to fundamental human rights. Our policies and practices promote and protect human rights, and we strive to conduct our business in a manner consistent with the United Nations Universal Declaration of Human Rights, the United Nations Guiding Principles on Business and Human Rights and the International Labor Organization's Fundamental Conventions. Bank of America's Human Rights Statement can be found in Appendix A.

With respect to the policies, due diligence and remedies, the Firm's Board of Directors (the Board") oversees the Firm's domestic and international human rights policies and standards, including the management of related risks. As part of the environmental, social and related governance ("ESG") and risk oversight structures to oversee domestic and international developments in human rights and the risks those developments present for the Firm, the Board Governance Committee has chartered a Global ESG Committee. The Global ESG Committee is led by the Firm's Vice Chairman, Anne Finucane, and comprises senior leaders from each business line and control functions across the Firm and is accountable to the Firm's Chief Executive Officer. The Global ESG Committee's work is reflected in part in the Firm's Environmental and Social Risk Policy ("ESRP") Framework, which includes provisions that address human rights. A copy of the Firm's ESRP Framework is provided in Appendix B.

The Global ESG Committee reviews and approves the ESRP Framework at least every two years or more frequently as material issues develop. Furthermore, the Global ESG Committee convenes six times a year and reports regularly to the Board Governance Committee. The Firm also provides regional oversight through committees in Asia Pacific (APAC), Europe, Middle East and Africa (EMEA), and Latin America (LatAm) that focus on region-specific issues and are chaired by in-region leaders.

As it relates to reporting, we are committed to managing environmental and social risk, as well as providing industry-leading disclosures on our progress. The Firm provides annual reports of our ESG and ESRP Framework items. A copy of latest **ESG Performance Data Summary** report is provided in **Appendix C**. The report aligns to G4 guidelines under the Global Reporting Initiative standards.

2. What is the Bank's response to Bloomberg's rankings (attached)? Have you or do you plan on implementing any changes to address the issues raised by Bloomberg?

Commitment to ESG Principles. Based on the Bloomberg report, Bank of America's scores are above the median scores for RobescoSAM and ISS. We believe that these high scores reflect the Firm's ESG approach, which is fully-integrated into all our lines of business and ensures that we are taking ESG factors into account as we make the decisions that drive our business. At Bank of America, we drive our business by focusing on responsible growth and ESG leadership. We are proud of Bank of America's ESG-related achievements and various awards and recognitions, as noted below.

#### **Recent ESG Accomplishments:**

In 2019, we announced the completion of our Environmental Business Commitment to deploy \$125 billion by 2025 to support to support low-carbon, sustainable business activities through lending, investing, capital raising and advisory services. This goal was completed six years early. We also announced an expanded Environmental Business Initiative of \$300 billion by 2030.



- First company to issue a benchmark-sized corporate green bond and co-authored the original version of the Green Bond Principles.
- Since 2013, we issued nearly \$8 billion in green and social bonds, and helped more than 150 clients support their sustainable business needs by raising in excess of \$200 billion through more than 300 ESG-themed bond offerings.
- In 2020, to accelerate our progress, identify new opportunities, and build upon our work in sustainable finance in particular, we announced the establishment of a Sustainable Markets Committee
- We also are making our operations more sustainable including achieving carbon neutrality and procuring 100% renewable electricity in 2019, a year ahead of schedule. We offer programs and benefits that help employees become better environmental stewards.
- Advanced economic mobility in local communities around the world by deploying more than \$200 million in philanthropic capital from the Bank of America Charitable Foundation.
- In 2018, we committed to hiring 10,000 individuals from low- and moderate-income neighborhoods in our Consumer and Small Business division, through our Pathways program, over the next five years.

### **Recent ESG-Related Recognitions:**

- Ranked No. 1 financial services company and No. 3 overall on Fortune Magazine's annual Change the World list in 2018.
- Named one of America's most JUST Companies by Just Capital and Forbes in 2018.
- Recipient of the 2018 Momentum for Change award presented by the United Nations Climate Change Secretariat. Recognized for the bank's leadership in the Catalytic Finance Initiative.
- Named Asia's Best Environmental, Social and Governance (ESG) Bank in 2019 by The Asset magazine for four consecutive years.
- Euromoney Awards for Excellence 2019: Asia's Best Bank for Corporate Social Responsibility.
- 3. Are there any other ESG information the bank wishes to provide? For example, how many branches/employees does the bank have in Santa Clara County and the 9 Bay area counties? Does the Bank have any social responsibility (corporate policies) policies that can be shared with the Board?

Efforts to Assist with COVID-19 Relief and Promote Racial and Economic Equality. The Firm has made the following commitments in recent months to help address challenges faced by communities in light of the COVID-19 pandemic and social unrest stemming from racial and economic inequality.

- June 2020 Committed \$1 billion over four years to help local communities address economic and racial inequality accelerated by a global pandemic. The programs will be focused on assisting people and communities of color that have experienced a greater impact from the health crisis.
- June 2020 Committed \$25 million to support the Smithsonian's launch of its new "Race, Community and Our Shared Future" initiative, which will explore how Americans currently understand, experience and confront race, its impact on communities and how that impact is shaping the nation's future.
- May 2020 Issued \$1 billion corporate social bond to support the fight against the COVID-19 pandemic, the first such offering by a U.S. commercial bank.
- May 2020 Bank of America contributed \$5 million to the Brave of Heart Fund, established to provide financial and emotional support to the surviving family members of frontline health care workers and volunteers who lose their lives in the COVID-19 fight.

**Diversity and Inclusion.** In addition to our focus on ESG, diversity and inclusion are central to the Firm's core values. Bank of America is honored to be recognized by various organizations and media around the world for our employment practices.

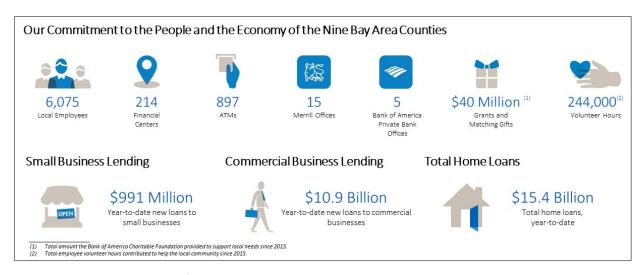
- Named one of Fortune Magazine's Best Workplaces for Diversity List in 2019.
- Named Euromoney's World's Best Bank for Diversity & Inclusion in 2019.



- 2019 Global Employer of the Year by Disability:IN for leading the way in policies, practices and programs that are inclusive of people with disabilities.
- Ranked No. 24 on PEOPLE's 2019 Companies that Care list, which spotlights 50 U.S. companies that
  have succeeded in business while also demonstrating respect, compassion and concern for their
  communities, their employees, and the environment.
- Bank of America recognized among top corporations for inclusion by the National LGBT Chamber of Commerce and National Business Consortium.
- Recognized as a leader for the fourth consecutive year on Bloomberg's annual Gender-Equality Index.
- Named to the Working Mother Magazine's "2019 Best Companies for Multicultural Women" list in 2019.
- Received the 2019 Catalyst Award recognizing our exceptional efforts to accelerate progress for women in business.

**Local Presence and Commitment.** Bank of America has a strong presence within the Bay Area. In all of the nine Bay Area Counties, BofA has 221 branches with 1,943 branch associates, and in Santa Clara County alone, there are 57 branches with 536 branch associates. Overall, we have 6,075 total employees working in the 234 total locations in the nine Bay Area Counties.

Furthermore, we pride ourselves on not just being a leader in financial services, but also a leader in our communities. In the nine Bay Area Counties, the Bank of America Charitable Foundation has provided \$40 million in grants and matching gifts, and we have volunteered 244,000 employee hours since 2015. In Silicon Valley, we've worked Sacred Heart Community Services and Charities Housing to advance community sustainability by equipping the organization and their leaders with tools and resources to do more.



**Policies.** As noted above, we've provided our Human Rights Statement and ERSP Framework Policies in the Appendix.

4. Will the bank consider offering Valley Water credit up to \$180million, and, act as a lead bank to offer an additional \$20 million syndicated loan to small and local banks/credit unions? The syndication agreement would be between the lead bank and the local banks. The pricing for the local banks is subject to discussion, and may be higher than pricing for the lead bank given the District board's desire to incentivize small local banks participation. If not, does the bank have other ideas/mechanisms to involve small local banks participation in the line of credit business?

**Lead Arranger.** Bank of America, N.A. appreciates the opportunity to respond to Valley Water's Request for Proposals for Line of Credit. BANA is a leading provider of both traditional bank facilities and direct



purchase products such as lines of credit. The Bank remains willing to offer up to \$75 million of capacity and may act as lead arranger with other financing partners (collectively, the "Lenders" or the "Banks") to meet Valley Water's total request of \$200 million. The Lenders will provide their respective commitments on the basis of several, but not joint liability, with each Lender liable for its pro rata share of the Facility and each draw thereunder. Valley Water would be required to accept parity pricing, covenants, events of defaults and remedies amongst the Lenders. Such Lead Arrangement role would necessitate a fee approximating 0.05% of the total arranged commitment amount and estimated legal fees of \$75,000 plus \$10,000 per additional bank (assuming common bank counsel).

5. Will the bank consider revising the fee proposal after reviewing the 6/9 Staff Report summarizing the results of the RFP? If so, please submit your revised fee proposals along with the information requested here by 10 am on June 15, 2020.

**Fee Proposal.** Subject to adjustments in the above response, BANA's fee proposal remains as presented in our RFP response dated May 22, 2020.

## No Advisory or Fiduciary Role

The Issuer acknowledges and agrees that: (i) the transaction contemplated by this Proposal Response is an arm's length, commercial transaction between the Issuer and the Bank in which the Bank is acting solely as a principal and for its own interest; (ii) the Bank is not acting as a municipal advisor or financial advisor to the Issuer; (iii) the Bank has no fiduciary duty pursuant to Section 15B of the Securities Exchange Act of 1934 to the Issuer with respect to the transaction contemplated hereby and the discussions, undertakings and procedures leading thereto (irrespective of whether the Bank has provided other services or is currently providing other services to the Issuer on other matters); (iv) the only obligations the Bank has to the Issuer with respect to the transaction contemplated hereby expressly are set forth in this Proposal Response; and (v) the Bank is not recommending that the Issuer take an action with respect to the transaction contemplated by this Proposal Response, and before taking any action with respect to the contemplated transaction, the Issuer should discuss the information contained herein with its own legal, accounting, tax, financial and other advisors, as it deems appropriate. If the Issuer would like a municipal advisor in this transaction that has legal fiduciary duties to Issuer, the Issuer is free to engage a municipal advisor to serve in that capacity. This Proposal Response is provided to the Issuer pursuant to and in reliance upon the "RFP exemption" and the "Bank exemption" under the municipal advisor rules (the "Rules") of the Securities and Exchange Commission (Rule 15Ba1-1 et seq.).



# APPENDIX A: HUMAN RIGHTS STATEMENT





# Bank of America Human Rights Statement

# Bank of America supports fundamental human rights and demonstrates leadership in responsible workplace practices across our enterprise and in all regions where we conduct business.

While national government's bear the primary responsibility for upholding human rights, our company policies and practices promote and protect human rights, and we strive to conduct our business in a manner consistent with the United Nations Universal Declaration of Human Rights, the United Nations Guiding Principles on Business and Human Rights and the International Labor Organization's Fundamental Conventions. Our commitment to fair, ethical and responsible business practices, as we engage with our employees, clients, vendors and communities around the world, is embodied in our values and Code of Conduct.

# **Employees**

Our success as a company is driven by the people supporting our customers and clients each day. Bank of America is committed to treating every employee with respect and dignity and protecting their human rights. We offer equal employment opportunity to all, do not tolerate discrimination or harassment, and are proud to be a leader in supporting diversity and inclusion. We abide by labor laws and regulations in the regions where we conduct business including those that address child labor, forced labor, equal pay and nondiscrimination in our workforce. We strive to provide a safe and healthy work environment for all employees. We also acknowledge and support the rights of each employee and value an open dialogue with our employees so we may continue to improve their work environment as well as the service we provide customers and clients around the world.

#### **Customers, Clients and Vendors**

Bank of America has policies to prevent the illegal use of our products and services, including abuse that may result in human rights violations. These policies include a rigorous Customer Due Diligence process, compliance with U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act and the Modern Slavery Act as well as anti-money laundering controls. All employees are required to complete annual training on many of these subjects, as well as acknowledge our Code of Conduct.

We have endorsed a number of international charters, principles and initiatives that address social and environmental issues, including the United Nations Principles for Responsible Investment, the Equator Principles, Carbon Principles, United Nations Global Compact and CERES Principles. Our Environmental and Social Risk Policy Framework (ESRPF) articulates how we approach environmental and social risks across our business, as well as outlining the environmental and social issues most relevant to us. The policies referenced in the ESRPF are reviewed as a part of our internal audit process, which evaluates our adherence to all policies in place within each of our lines of business.

Bank of America strives to work with vendors whose policies and practices regarding human rights are consistent with our own.

We have set out clear expectations for our vendors in their management of human rights and other key areas in the bank's Vendor Code of Conduct

## **Communities**

At Bank of America, our purpose is to make financial lives better. This purpose informs our company's values and reinforces our mission to help local economies grow and prosper. We believe by working with key partners to address critical human rights issues, such as economic empowerment, hunger, jobs, improved health, and access to sustainable energy and water, we can help improve the economic and social health of the communities we serve.

# APPENDIX B: ENVIRONMENTAL AND SOCIAL RISK POLICY ("ESRP") FRAMEWORK



# Bank of America Corporation Environmental and Social Risk Policy Framework

October 2019

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# Introduction

At Bank of America, we drive our business by focusing on responsible growth and Environmental, Social and Governance (ESG) leadership. Responsible growth means we have to grow and win in the marketplace by developing a deep relationship with each client, and by serving the client well. And we must do this in a way that manages risk carefully and ensures our growth is sustainable, enabling us to continue to invest in our people, capabilities and communities.

ESG principles help define how Bank of America delivers responsible growth and contributes to the global economy. Our ESG leadership enables us to pursue growing business opportunities and manage risks associated with addressing the world's biggest environmental and social challenges. It defines how we deploy our capital and resources, informs our business practices and helps determine how and when we use our voice in support of our values. Integrated across our eight lines of business, our ESG focus reflects how we hold ourselves accountable and allows us to create shared success with our clients and communities.

# Our approach

## **Risk management**

As a financial institution, risk is inherent in all of our business activities. At Bank of America, the principles of sound risk management are embodied in our values, operating principles and Code of Conduct, which all employees are expected to follow. Our Risk Framework describes our risk management approach and provides for the clear ownership of and accountability for managing risk well across the company. Key to this philosophy is that all employees are accountable for identifying, escalating and debating risks facing the company.

We have established this Environmental and Social Risk Policy (ESRP) Framework to provide additional clarity and transparency around how we approach environmental and social risks, which touch almost every aspect of our business. Like all risks, environmental and social risks require coordinated governance, clearly defined roles and responsibilities, and well-developed processes to ensure they are identified, measured, monitored and managed appropriately and in a timely manner.

This ESRP Framework is aligned with our Enterprise Risk Framework, which outlines Bank of America's approach to risk management and each employee's responsibilities for risk management. As articulated in our Enterprise Risk Framework, there are seven key risk types that we face as an organization: strategic, credit, market, liquidity, operational, compliance and reputational. Increasingly, environmental and social issues impact many of these risk areas, but most often result in potential reputational risk at this point in time.

#### **Materiality**

Bank of America takes a proactive approach to identifying and managing risks, which includes an ongoing and rigorous process for identifying the issues that are most material to our company. This process includes formal and informal engagement with both internal and external stakeholders, including clients, shareholders, socially responsible investment firms, and experts from civil rights, consumer, community development and environmental organizations. We weigh up the importance of risk issues in relation to our stakeholders and to our business success.

Our initial lens has been and continues to be our seven key risk types, but our materiality assessments<sup>2</sup> help us to better understand that enterprise risk also includes risks that threaten the safety, human dignity and equal treatment of our employees, clients and the communities where we do business. These broader risks include issues such as climate change and human rights. Due to the extensive and complex role we play in the local and global economy, these issues can and will impact our future business performance, making our management of them a business imperative.

<sup>&</sup>lt;sup>1</sup> https://about.bankofamerica.com/en-us/what-guides-us/materiality.html

<sup>&</sup>lt;sup>2</sup> We have completed a detailed Environmental, Social and Governance (ESG) materiality assessment in line with the Global Reporting Initiative's <u>G4</u> Sustainability Reporting Guidelines, and published the results in both our 2015 Business Standards Report and Environmental, Social and Governance Addendum (<u>ESG Report</u>). We update and review this materiality assessment with our Global Environmental, Social & Governance Committee (ESG Committee, see discussion below) on a regular basis.

Our ESRP Framework guides our approach to managing material issues. In developing this ESRP Framework, we have benchmarked all of our existing environmental and social policies and positions against industry best practices.

#### Governance

To strengthen our oversight of environmental, social and governance issues, we established our Global Environmental, Social & Governance Committee (ESG Committee), a management-level committee comprised of senior leaders across every major line of business and support function. The ESG Committee reports to the Corporate Governance Committee of the Board of Directors on environmental and social activities and practices, and also updates the Enterprise Risk Committee of the Board of Directors. The Corporate Governance Committee has overall responsibility for reviewing the company's activities and practices relating to ESG matters.

The ESG Committee also engages other management committees as necessary. On matters of environmental and social risk, the ESG Committee reports to the Management Risk Committee, which in turn reports to the Enterprise Risk Committee of the Board of Directors.

The ESRP Framework is reviewed by the ESG Group at least every two years. If at that time, or any other time in the interim, changes need to be made to the ESRP Framework, they will be reviewed and approved by the ESG and Management Risk Committees and will be reflected, as appropriate, in internal policies and procedures.

# Our relationship with individual clients

We serve individual consumers and small businesses with a full range of banking products and services, including retail financial centers and digital banking options. We focus on helping individuals navigate every stage of their financial lives and we work to provide education and support to meet our clients' needs.

We also support communities in becoming more financially resilient by delivering access to products, resources and capital at scale. Serving clients and partners in low- and moderate-income (LMI) communities is part of our broader business strategy, and our continued investment in a tailored community-centered approach means that we can make a meaningful impact by advancing economic mobility for our clients and making neighborhoods stronger.

This approach includes connecting communities to local financial centers, offering safe and transparent products, enabling digital banking, and providing resources that build financial literacy among clients. We are providing capital to help drive small business and community development through loans and grants to community development financial institutions (CDFIs). We have also established relationships with more than 260 CDFI partners to extend credit to those individuals and organizations who may not qualify for traditional lending.

#### Wealth management

Our wealth management clients are increasingly interested in the role that ESG criteria can play in evaluating portfolio risks and long-term investment opportunities. They are also interested in the positive societal impact their investments may have.

Our wealth management business has developed — and continues to expand — an offering that provides our clients access to strategies across multiple asset classes that integrate ESG criteria into their investment approach. We are committed to continuously providing education and thought leadership to advisors, portfolio managers and clients on the benefits of incorporating ESG criteria into investment strategies and portfolios.

# Our relationship with business clients

A key aspect of our strategy is active and extensive engagement with our clients. This engagement allows us to deepen our collective understanding of issues, learn and share perspectives, and, often, create connections between stakeholders with differing views. While this engagement can be conducted in conjunction with due diligence related to a specific transaction, it is ongoing and in addition to the due diligence and risk review processes highlighted below.

As part of our Know Your Customer (KYC) Policy, due diligence, and other onboarding processes, front line units and risk teams will determine if a proposed transaction or relationship presents any potential environmental or social risks. This determination is driven by a number of factors, including cross-referencing our prohibition list and any areas of heightened sensitivity, which are both part of this ESRP Framework; understanding our clients' business, industry, management and reputation; application of our policies; adherence to regulation; and consultation with subject matter experts (SMEs) and teams focused on client screening and onboarding.

# Due diligence, heightened risk review and the prohibited list

# Standard due diligence

Standard due diligence is conducted when environmental and social risks are well understood or expected to be relatively low for the client, business activity, industry or geography. Due diligence begins with the front line unit, and this process may include, but is not limited to, client engagement, media searches and other screening tools. This standard review may result in a client relationship or transaction being approved, conditionally approved subject to specific mitigating actions, or declined in line with the line of business approval process. If, during this due diligence process, the client, business activity, industry or geography is identified as posing heightened risk, then enhanced due diligence will be conducted.

# **Enhanced due diligence**

A client relationship or transaction may require enhanced due diligence related to environmental and social issues due to a policy or standard, because a front line unit or risk manager made a referral after standard due diligence; or if the client, business activity, industry or geography is deemed sufficiently sensitive. In these instances, enhanced due diligence is conducted before the relationship or transaction can proceed toward approval.

Enhanced due diligence includes a deeper analysis of issues related to client transactions and associated stakeholders. While each client opportunity is unique and therefore requires a customized due diligence process, there are common elements to enhanced due diligence as it relates to the environmental and social areas identified in this ESRP Framework. Enhanced due diligence is conducted by individuals with subject matter expertise and an understanding of a range of stakeholder perspectives. We recognize that environmental and social issues can be interrelated and both need to be considered. Evaluation of environmental matters may include land and water use impacts, a remediation/reclamation track record (if applicable), climate risk reporting, community and stakeholder engagement and overall transparency. Evaluation of social issues may include a review of the client's relationship with relevant civil society organizations, and a particular focus on stakeholder engagement with local communities including Indigenous Peoples and First Nations relations.

The enhanced due diligence process is tailored to provide a deep analysis of risk issues for specific transactions, thus each analysis varies. These analyses may include, but are not limited to, direct client discussion on related environmental and social risks, review of client disclosures, a comparison of the client's practices to industry peers, and consultation with and assessment by additional SMEs. Reviewed material may include regulatory filings, environmental and social impact reports and assessments, Task Force on Climate-related Financial Disclosure (TCFD) reporting, ESG and Corporate Social Responsibility (CSR) reports, and a media search that is focused on environmental and social reputation risk.

Issues that have additional enhanced due diligence specific to this topic are detailed in the section below titled *Managing environmental and social areas of heightened sensitivity*.

## Committee review of reputational risk

If due diligence reveals that a business activity presents significant environmental and social risk, that activity – including client relationships, transactions, new products or other corporate activities – may be escalated to the appropriate committee responsible for reputational risk management for further evaluation. These committees are comprised of the business heads and senior executives from our Global Risk, Compliance, Legal and ESG groups, and can approve, conditionally approve or decline a business activity. If the committee does not approve a business activity, the business head may appeal the matter to the executive management team.

#### **Prohibited list**

Bank of America will not knowingly engage in illegal activities including:

- Bribery including giving, offering, receiving or requesting bribes
- Child labor, forced labor or human trafficking including engaging with companies or transactions in which a client is directly involved in child labor, forced labor or human trafficking
- Illegal logging or uncontrolled fire including transactions in which a client engages in illegal logging or uncontrolled use of fire for clearing forest lands
- Transactions for illegal purposes including transactions involving internet gaming in certain jurisdictions.

In addition, we will not knowingly engage in the following types of activities that, while not illegal, are contrary to our values, operating principles and Code of Conduct:

- Payday lending services directly to our consumer clients or by providing credit to business clients with significant payday lending activities
- Financing the manufacture of military-style firearms for non-law enforcement, non-military use
- Natural resource extraction in UNESCO World Heritage sites engaging in transactions focused on natural resource
  extraction within UNESCO World Heritage sites, unless there is prior consensus between UNESCO and the host country's
  governmental authorities that activities will not adversely affect the natural or cultural value of the site
- Transactions designed to manipulate financial results including transactions or activities designed to artificially or unfairly manipulate or change the reported value of a client, instrument or transaction or inappropriately reduce tax liabilities.

#### **General purpose financing**

As part of our ongoing client engagement process, we regularly monitor our client relationships. We recognize that some clients use general purpose financing to support the development of specific projects and that environmental and social risk can be elevated in a specific project. In some cases, it can even be elevated in an entire sector or industry. We actively engage with clients and prospective clients with significant exposure to highly associated environmental and social risks and, in some circumstances, conduct enhanced due diligence as part of our normal KYC practices.

#### Subject matter expertise (SME)

Bank of America employs a variety of internal SMEs who participate in the environmental and social risk management process. These SMEs include employees from our front line units, as well as our ESG Group and our Global Risk Management and Public Policy teams. Risk assessments may be conducted by consultants along with internal or external experts, and they range from simple questionnaires to complex evaluations that may include geological, engineering and other analyses.

# Positions on key issues

## Climate change and energy

As evidenced by the United Nations Intergovernmental Panel on Climate Change's Fifth Assessment Report and the United States government's Fourth National Climate Assessment, urgent action is needed to address climate change and prevent its increasingly devastating impacts from accelerating further. At Bank of America, we recognize that climate change poses a significant risk to our business, our clients and the communities where we live and work.

As one of the world's largest financial institutions, Bank of America has a responsibility and an important role to play in helping to mitigate and build resilience to climate change by using our expertise and resources, as well as our scale, to accelerate the transition from a high-carbon to a low-carbon society. In alignment with more than 190 countries, we support the <u>Paris Agreement</u> on climate change, its commitment to take action to keep global temperature rise this century to below 2°C above pre-industrial levels, and its efforts to limit the temperature increase to no more than 1.5°C. Doing so will require changes in all sectors of our economy, particularly the transformation of critical areas like energy, power, transportation and real estate.

In helping to address climate change, Bank of America is focused on supporting key sectors in the transition from a high-carbon to a low-carbon society, including:

- Energy efficient design and retrofitting of buildings; in particular, deep retrofits required to meet climate goals
- Decarbonization of the power sector, including the enhancement and expansion of renewable energy, advanced nuclear and carbon capture, and storage/use technologies
- Electrification and low-carbon fuels for industry, transport and building heating
- Sustainable agriculture and reforestation
- New technologies, products and services as they evolve.

As part of our strategy to address climate change, we have partnered closely with clients to finance the adoption of low-carbon solutions that are now in widespread commercial use; for instance, Leadership in Energy and Environmental Design (LEED)- and Energy Star-certified building construction, solar and wind power generation, electric vehicles and charging infrastructure, resource efficient agriculture, and canopy protection and reforestation. Other technologies are still in development or have not achieved commercialization, and are therefore more challenging for a highly regulated consumer and commercial bank to finance. For those areas, we have dedicated significant intellectual and philanthropic capital to support their advancement, most notably through our current \$125 billion environmental business initiative and the new \$300 billion initiative we will launch in 2020.

It is important to note that nearly all comprehensive roadmaps to meeting the Paris Agreement include significant increases in nuclear power generation and carbon capture, and the storage or use of emissions from fossil fuel power generation. These technologies are important options to provide on-demand power and support power-intensive industry. We recognize many stakeholders have strong views about these areas. At Bank of America, we believe advancing these elements is necessary to address the significant urgency of climate change, and form part of a pragmatic, risk-informed strategy for supporting the transition to a low-carbon economy.

A critical part of our strategy is strong engagement and partnership with clients across energy, power and other sectors, including those that are currently fossil fuel intensive. Through this active client engagement, we are able to effectively share our expertise and perspectives, create positive and constructive dialogues with key stakeholders, and encourage and influence clients to consider their role in the transition to a low-carbon economy. A key element of this engagement is helping clients to access the capital they need to affect this transition within their companies.

Transitioning entire sectors of the economy will take time. Like many companies, we continue to balance the need to support traditional energy sources in the near term with the recognition that their emissions contribute to climate change and exacerbate risk to our business and communities in the longer term. At Bank of America, our energy and power strategy is reflective of this challenge.

We maintain our strong focus on driving capital to critical areas like energy efficiency, renewable energy, electric vehicles and other low-carbon technology adoption while working to progress areas like advanced nuclear and carbon capture, and storage or use. We also understand that access to reliable, low-cost energy can play a significant role in economic growth, reducing poverty and improving health outcomes, particularly in developing countries. As a result, we are partnering closely with our power utility clients – most of which generate power from a range of high- and low-carbon energy sources – to help them accelerate their low-carbon transition in a way that is economical and in line with meeting clients' needs.

We have dramatically reduced exposure to companies focused on coal extraction, will not finance construction of new coal-fired power plants in developed countries without technologies to address their carbon emissions, and will only finance construction in developing countries in certain circumstances (see below). Natural gas has been a key contributor in reducing carbon emissions in the U.S. and other developed countries. We will continue to support natural gas extraction and delivery while encouraging efforts to improve their environmental performance. As is often the case for these higher risk sectors, we will engage in further client and transactional review and due diligence to evaluate their associated risks, as articulated in greater detail throughout the ESRP Framework.

#### **Carbon markets**

We are supportive of policies that will help accelerate the transition to a low-carbon economy and have continuously stated our support for a price on carbon. Bank of America believes that voluntary action alone will not be enough to address the climate challenge, and we continue to support public policy focused on solutions. Carbon pricing regimes, including carbon taxes, are seen by many policymakers and business leaders as a critical step in promoting a shift to a low-carbon economy. Bank of America supports approaches to reducing carbon emissions that are economy-wide and market-based. We will continue to monitor developments in carbon pricing and the potential implications for our company and our clients.

#### **Human rights**

In our operations around the world, we strive to conduct our business in a manner consistent with the <u>United Nations Universal Declaration of Human Rights</u>, the <u>United Nations Guiding Principles on Business and Human Rights</u>, and the <u>International Labour Organization's (ILO) Fundamental Conventions</u>. We have set clear expectations for our vendors in their management of human rights and other key areas in our <u>Vendor Code of Conduct</u>, including expecting vendors and their subcontractors to abide by labor laws and regulations in the regions where they conduct business. They must also adhere to laws addressing child labor, forced labor, slavery, human trafficking, equal pay and non-discrimination in their workforce, and not engage in any practice that could reasonably be considered as employing or encouraging child labor, forced labor, slavery or human trafficking.

To learn more, please see our Bank of America Human Rights Statement.

### **External standards**

We are participants in or signatories to the following principles (listed alphabetically) and use these principles to help guide our approach to lending, investing and other financing decisions relating to critical environmental and social issues.

#### **Equator Principles**

The <u>Equator Principles</u> provide a framework, adopted by financial institutions, for determining, assessing and managing environmental and social risk in projects. They are primarily intended to establish a minimum standard for due diligence in project-related lending and finance. By following and supporting the Equator Principles, we help to ensure financing for projects in a manner that is socially responsible and reflective of sound environmental management practices. Bank of America continues to support these principles as an industry best standard.

#### **Green, Social and Sustainability Bond Principles**

In June 2013, Bank of America co-authored a white paper called "A Framework for Green Bonds." We then co-led a consortium of banks to publish the <u>Green Bond Principles</u>, using the Framework document as a blueprint. The document was subsequently passed to the International Capital Market Association (ICMA), the newly named Secretariat. As an inaugural member of ICMA's Green Bond Principles Executive Committee, Bank of America also contributed to the release of <u>ICMA Social Bond Principles</u> and <u>Sustainability</u> Bond Guidelines.

#### **Principles for Responsible Investing**

Bank of America's Global Wealth and Investment Management business was one of the first major wealth management firms to become a signatory to the United Nations-supported Principles for Responsible Investment (PRI). Since its launch in 2006, the PRI has been instrumental in raising awareness about <u>responsible investment</u> among the global investment community and fostering collaboration among companies and policymakers on environmental and social issues.

#### Task Force for Climate-related Financial Disclosures (TCFD)

In 2017, the TCFD released its recommended voluntary, consistent financial disclosures designed to be used by investors, lenders and insurance underwriters in understanding material climate-related risks. Bank of America has signed on to support the TCFD recommendations alongside more than 600 other companies, including many peers and clients. Bank of America is in the early stages of evaluating and incorporating the recommendations of the TCFD. By building on our experience, and carrying out our annual CDP reporting, we are assessing ways to enhance our management of transition and physical risks and opportunities that climate change poses to our business and clients.

#### **UN Guiding Principles on Business and Human Rights**

The United Nations Guiding Principles on Business and Human Rights (UNGP) provide guidance on a corporation's responsibility to respect human rights. Bank of America uses the UNGP and other external frameworks to help inform our policies and practices in this area, as articulated in our Human Rights Statement.

## Managing environmental and social areas of heightened sensitivity

This section contains a summary (in alphabetical order) of environmental and social topics that Bank of America recognizes as being of heightened sensitivity and importance to us and our stakeholders, along with our approach to each area. While we expect our clients to comply with environmental laws and regulations, we also take additional measures to identify, evaluate and mitigate environmental and social risks for certain clients, business activities, industries and geographies.

Issues that need additional enhanced due diligence are detailed in the sections below.

#### **Arms and munitions**

Our Arms and Munitions Policy establishes an enhanced due diligence standard for clients and transactions involved in arms and munitions trade finance, with a primary focus on managing reputational risk concerns. The maintenance and implementation of this policy is conducted by SMEs with specialized industry knowledge and follow a clear process with senior executive checkpoints, escalation routines and risk management.

We recognize that many of the communities where we operate, and where our clients and employees live, have been affected directly and indirectly by mass shootings using military-style firearms. In an effort to reduce risk to our communities, we will not finance the manufacture of military-style firearms for non-law enforcement, non-military use.

#### **Biodiversity and ecosystems**

There are many areas of the planet with rich biodiversity and sensitive ecosystems that are particularly vulnerable to the negative impacts of irresponsible development and unsustainable practices. Recent reports show that the world's natural systems are in decline. Oceans, in particular, are impacted by climate change, overfishing and pollution. The growing deterioration of the ocean and marine life can present a range of challenges in the future, from the collapse of fish stocks to increasing ocean temperatures that contribute to stronger storm systems. We continue to monitor these issues as they evolve and relate to our clients and our business.

We recognize the importance of biodiversity and its environmental, cultural, religious and health contributions to societies. When issues of concern are identified by the front line unit or a control function, they are escalated for further review.

#### Agricultural commodity trading

We recognize the risks associated with trading in agricultural commodities, where certain types of financial trading or speculation have the potential to increase the cost of food and/or food poverty, especially in developing economies. Our Commodities Trading Group periodically reviews these aspects and has determined that we do not take significant market risk. However, we continue to monitor for exposure in this regard.

#### **Forestry**

The world's forests play a vital role in the carbon cycle and can significantly help mitigate global climate change. We developed our Forests Practices Policy, including our <u>position on Forest Certification</u> and <u>Paper Procurement Policy</u>, in consultation with our clients who have expertise in the sector, and with environmental partners focused on developing best practices, including forestry certification. Our <u>Forests Practices Policy</u> places additional value on forestry certification by using it as a due diligence tool. The Forests Practices Policy also includes an explicit prohibition of illegal logging and practices involving uncontrolled fire.

#### Palm oil

The increased use of palm oil has raised serious concerns regarding the impacts on forests and land use in sensitive tropical environments. We require clients whose business is focused on ownership and management of palm oil plantations and operations, including growers and mills, to have their operations certified, or have in place an outlined action plan and schedule for certification. We use the Roundtable on Sustainable Palm Oil (RSPO) certification or equivalent certification standards as a minimum requirement for clients, and closely monitor developments relating to the sustainable sourcing of palm oil.

#### **Energy and extractives**

We have a comprehensive, pragmatic strategy for supporting the transition of our energy and power systems. At the same time, we recognize that activities involving natural resource extraction elevate the risk of disturbing sensitive environments which can lead to impacts on both biodiversity and the human communities that depend on them. In addition, certain energy generation can result in increased environmental risk, including climate change. Accordingly, Bank of America has developed client and transaction standards and guidance, informed by international standards and best practices, to govern particularly sensitive situations where energy and extractive activity occurs.

#### **Arctic drilling**

Bank of America recognizes that the Arctic is a unique region with specific considerations to take into account including those of marine and wildlife, a fragile ecosystem and the rights of Indigenous Peoples. Considering these sensitivities, we conduct enhanced due diligence for any transactions where the majority use of proceeds is identified as supporting petroleum exploration or production activities in the Arctic. We define the Arctic as any lands subject to permafrost and extensive seasonal ice cover (generally above the Arctic Circle) and major sections of the Arctic Ocean and its component water bodies that are also subject to extensive or permanent ice cover.

#### **Coal extraction**

Energy companies and their subsidiaries focused on coal face significant challenges. These include greater regulatory scrutiny related to both extraction and combustion, changes in economic conditions and increased pricing pressure from the proliferation of natural gas and new energy technologies. Bank of America's Coal Policy outlines our approach to the financing of coal and other energy sources while balancing the risks and opportunities to our shareholders and the communities we serve. Since 2011, we have significantly reduced our exposure to coal extraction companies. Going forward, we will maintain our significantly reduced credit exposure to these companies. This commitment applies globally to companies focused on coal extraction and to divisions of diversified mining companies that are focused on coal. In keeping with our commitment to reduce credit exposure to extraction companies focused on coal mining, Bank of America has also reduced exposure to coal mining companies that utilize mountain top removal mining practices in Appalachia.

Other ongoing transactions involving companies focused on coal mining are subject to enhanced due diligence that incorporates evolving market dynamics, as well as specific risks and regulations related to coal mining.

#### **Coal-fired power generation**

Bank of America seeks to reduce the negative impacts of coal-fired electric generation through the following measures.

We will not directly finance the construction of new coal-fired power plants in developed countries, unless those facilities employ technology that is focused on complete or near elimination of atmospheric carbon emissions, such as carbon capture technology.

We will only provide financial products and services that are directly related to the construction of new coal-fired power generation in emerging markets after senior review and approval. These circumstances will be rare and based on a review of criteria including:

- Energy access and affordability in the region
- Technological efficiency and emission controls
- Client commitment to measure, report and reduce carbon emissions reductions
- Alignment with host country's commitments to international climate accords.

Although not a regular part of our business, in certain circumstances Bank of America will provide direct financing or support for the retrofitting of existing coal-fired power assets that enhance efficiency or pollution abatement when there is a clear human health and environmental benefit.

#### **Energy transport**

Bank of America supports the responsible and safe delivery of energy that powers our society. We recognize the environmental and safety issues connected to transporting natural gas and oil by pipeline, rail, truck or tanker. We also recognize that some of these fuels, such as natural gas, are helping society transition away from more carbon-intensive forms of energy. And while expanded infrastructure is needed for projects such as new pipelines, it often has an impact on local communities. Rather than pivoting away from these issues, we are engaging more deeply to understand our clients' challenges in the energy transport space and to support our clients' efforts to increase safety, reduce impacts and improve community and stakeholder engagement.

#### Large dams

Bank of America recognizes that the construction of dams to control water flow can bring much needed economic opportunity and development to certain regions of the world. Dams can also affect the ecological systems in which they are located and to which they are connected, as well as causing potential social impacts to the surrounding communities. Any transactions in which the majority use of proceeds is identified as supporting large scale dam construction for hydroelectric generation or lands involved in such construction, are subject to enhanced due diligence. This scrutiny includes adherence to the Equator Principles, which we have adopted, and the <a href="https://example.com/hydroelectric-needed-noise-nee

#### **Nuclear energy**

Nuclear power delivers an important part of many nations' energy portfolios and is an alternative to carbon-intensive fuels. Bank of America understands the particular sensitivities regarding the use of nuclear energy, including the safety and handling of nuclear fuel and waste. Transactions in which the majority use of proceeds is identified as or clearly intended for the development of nuclear projects are subject to enhanced due diligence, which includes a requirement that clients adhere to regional, national, international and industry best practices, as well as a review of the client's track record on environmental compliance, safety and training.

#### Oil sands

We recognize the concerns raised over the extraction of bitumen from oil sands, particularly in sensitive ecosystems such as those found in Northern Canada. Accordingly, Bank of America conducts enhanced due diligence on all relationships with companies that are focused on oil sands extraction. Site visits to client operations are conducted periodically. These due diligence trips may include meetings with impacted Indigenous Peoples and First Nations communities. These actions are in addition to meeting requirements of the Equator Principles, if applicable.

#### Renewable energy

We have increased our focus on renewable energy sources as part of our efforts to finance the transition to a low-carbon, sustainable economy through our \$125 billion environmental business commitment. We recognize that some renewable energy projects present other environmental and social challenges, such as the impact on wildlife and land use changes, and we include a review of these issues in our due diligence processes. When environmental or social issues of concern are identified, they undergo enhanced due diligence as appropriate.

#### **World Heritage Sites**

We respect the designation of United Nations Educational, Scientific and Cultural Organization (<u>UNESCO</u>) World Heritage Sites, including areas of cultural and natural value that are deemed to be of national or international significance. Bank of America will not knowingly engage in transactions focused on natural resource extraction within UNESCO World Heritage Sites unless there is prior consensus between UNESCO and the host country's governmental authorities such that the activities will not adversely affect the natural or cultural value of the site.

If client activity is known or anticipated to directly impact a World Heritage Site, relationship managers are directed to notify SMEs within Bank of America's ESG Group for further guidance. Review of these situations involves client engagement, a deep review of the client activity, and internal escalation and discussion among senior risk committees.

#### **Financial products and services**

Our product review and business review committees — together with external input that we solicit from clients, consumer advocates and other stakeholders — ensure that our products and services are responsible, in line with Bank of America's values, and are clear and easily understood.

#### **Consumer debt sales**

Bank of America does not sell our clients' consumer debt. In addition, we will not knowingly provide credit to buyers of consumer debt who employ predatory practices. For advisory or capital markets transactions in which a client is involved in consumer debt sales or purchases, we conduct enhanced due diligence.

#### **Consumer protection**

Bank of America offers a suite of <u>simple</u>, <u>safe and transparent banking products</u> to help clients manage their financial affairs and goals. All of our consumer banking products and services are subjected to a rigorous review process and are designed to address client needs at a fair and equitable cost, with terms our clients understand. We constantly solicit external feedback to help ensure that our products, solutions and services meet the needs of our clients.

We are committed to fairly and consistently meeting the credit needs of our clients and to complying fully with our Fair Lending Policy, and any other applicable consumer laws and regulations. This includes fair and non-discriminatory access to credit products, terms and conditions, and services throughout the entire credit life cycle. Our commitment to fair lending is the cornerstone of our culture and is clearly articulated in our Fair Lending Policy. All Bank of America employees must comply with the policy, and failure to do so may result in disciplinary action up to and including termination. Our employees participate in mandatory Fair Lending training.

#### **Overdrafts**

Our overdraft policies are informed by our company's strategy of responsible growth, and we continue to evolve our overdraft policies and procedures to help our clients prevent unnecessary and unanticipated fees. For example, over the last ten years, we have eliminated the ability for a client to overdraft for non-recurring debit card purchases if the client does not have sufficient

funds; implemented the Low Dollar Threshold to protect clients from incurring overdraft fees for a very small amount; eliminated the extended overdraft balance charge; and introduced the Advantage SafeBalance Banking account, a low-cost alternative to a traditional checking account that eliminates all insufficient funds fees and overdraft fees.

#### **Payday lending**

A payday loan is a short-term loan, generally for \$500 or less, that is typically due on the borrower's next payday and requires the borrower to give lenders access to his or her checking account, or to write a post-dated check for the full loan balance that a lender may deposit when the loan is due. At Bank of America, we do not offer payday lending services directly to our clients. We also do not provide credit to business clients for which providing payday lending services to consumers is a significant part of their business. We conduct enhanced due diligence for advisory and capital markets transactions involving businesses significantly engaged in payday lending.

#### **Subprime lending**

Bank of America is committed to providing responsible lending products to clients who have the ability to repay their obligations. There has been significant public focus on financial products with unaffordable, unfair or predatory terms provided to consumers with certain higher risk characteristics, such as low credit scores, previous bankruptcies or foreclosures, recent loan delinquencies or legal judgment. Bank of America does not offer subprime products to clients. For credit, advisory, and capital markets transactions with business clients involving a pool of assets, a significant portion of which is from consumers with higher risk characteristics such as described above, we conduct enhanced due diligence.

#### **Gaming**

To reflect the regulatory determination that gaming establishments are vulnerable to manipulation by money laundering and other financial risks, Bank of America has long maintained an industry-focused approach to the gaming sector. Gaming activities include legal businesses providing gambling activities and operations designed to attract wagering (e.g., gaming devices like slot machines, table games, etc.). Bank of America conducts enhanced due diligence on this sector and requires that all credit requests be underwritten and approved in designated specialty units within Bank of America.

#### **Human rights**

In addition to our larger approach to human rights, as noted above in *Position on key issues*, Bank of America has an enhanced due diligence process for transactions that may raise questions related to human rights.

In addition to the enhanced due diligence outlined above, other specific enhanced due diligence elements for these transactions may include the identification of company practices and comparison of these to acceptable standards including industry best practices, in-country laws, standards and norms, and developed country standards; consideration of mitigation steps taken by the client; client policies related to or addressing the issue; level of company transparency; a review against <a href="Bank of America's Code of Conduct">Bank of America's Code of Conduct</a>; and consistency with the principles of the <a href="United Nations Universal Declaration of Human Rights">Universal Declaration of Human Rights</a>, the <a href="ILO's Fundamental Conventions">ILO's Fundamental Conventions</a>, and the <a href="United Nations Guiding Principles on Business and Human Rights">Universal Declaration of Human Rights</a>.

#### **Indigenous peoples**

Bank of America recognizes that Indigenous Peoples, Native, and First Nations Communities have cultural beliefs, values and lands that are often under threat. We conduct enhanced due diligence for transactions in which the majority use of proceeds is attributed to identified activities that may negatively impact an area used by or traditionally claimed by an indigenous community. For these transactions, we expect our clients to demonstrate alignment with the objectives and requirements of the <a href="International Finance Corporation">International Finance Corporation (IFC) Performance Standard 7</a>, which addresses impacts to Indigenous Peoples including free, prior and informed consent.

#### **Private prisons and detention centers**

The U.S. federal and many state governments currently contract with a small number of private companies to manage certain prisons and detention centers. The growth in this sector has been driven by public and governmental policy that many, including Bank of America, agree require reform. We have evaluated these issues as a company, and we understand they pose many challenging questions, as well as risk to our company. Going forward, Bank of America will be exiting business relationships with companies that provide prisoner and immigrant detention services for U.S. federal and state governments.

#### **Tobacco**

We recognize the focus on health impacts associated with tobacco products. Particularly challenging is the rapid increase in usage of and potential addiction to tobacco products by minors through use of next generation products such as vaping. There are many differing views on the benefits of next generation products for smoking cessation for adults, as is evidenced by the current debates in the U.S. and around the globe. We are working to examine these issues and manage our related risk.

To ensure we are engaging our clients on best-in-class practices in this sector, we conduct enhanced due diligence on clients that manufacture and focus on distribution of tobacco-related products. Enhanced due diligence includes reviewing product design, packaging, marketing and sales practices. Our evaluations include understanding client safeguards to prevent the sale of their products to minors, and whether clients employ the same overall practices in developed and developing countries, where consumer protection laws may be less robust.

### Our operations and vendors

#### **Operations management**

Bank of America recognizes that a focus on environmental and social issues must begin with addressing impacts from our own operations. We are therefore committed to tracking and managing our progress toward our ambitious targets to reduce greenhouse gas (GHG) emissions, paper and water consumption, and waste sent to landfill, as well as increasing the percentage of our occupied space that is LEED certified. In 2016, we announced a <u>set of operational goals</u> that we are working to achieve by 2020, including a commitment to carbon neutrality and purchasing 100% renewable electricity. For full details on our operational efforts, please see our latest ESG Report.

#### **Environmental management system (EMS)**

We employ an EMS that relies on a comprehensive compliance database to help the Global Real Estate Services Environmental Risk team identify, manage and mitigate risk, and improve performance across our corporate real estate portfolio. Our EMS encourages:

- Stringent compliance with applicable environmental laws and regulations
- Pollution prevention and environmentally sustainable practices
- Continuous improvement in all areas of environmental management.

Our EMS includes roles and responsibilities, training, inspections, inventory procedures, formal targets, documentation, measurement, complaint response, and emergency procedures. One component of our EMS – Integrated Data for Environmental Applications – is an online tool that enables our employees and partners to understand and manage environmental compliance across our global real estate footprint. Bank of America's strong record of compliance across our real estate portfolio is a direct result of the successful implementation of our EMS.

#### Greenhouse gas emissions reductions

In 2016, we set a goal to achieve by 2020: to become carbon neutral and to reduce our location-based GHG emissions by 50%. This builds on a strong track record of setting and achieving previous GHG emissions reduction goals. More detail on our GHG emissions reduction progress and our suite of operational goals can be found in our <u>ESG Report</u> and our <u>submission to CDP</u>.

#### Scope 3 emissions

We maintain an active dialogue with our global peers in the banking sector, as well as other stakeholders, relating to indirect GHG emissions attributed to the financial products and services we provide clients in support of their activities. These discussions build on the lessons we have learned from the historical tracking and reporting of GHG emissions attributed to our U.S. power utility loan portfolio, which we continue to include in our annual reporting. More detail on our utility portfolio emissions can be found in our latest <a href="ESG Report">ESG Report</a>.

#### **Our vendors**

We strive to work with vendors whose policies and practices are consistent with our own – from having diverse leadership, to paying an economically viable wage, to working to reduce their environmental footprints. Our <u>Vendor Code of Conduct</u> sets forth Bank of America's expectations for human rights, labor and environmental standards throughout our vendor value chain. The principles contained within the code are consistent with the <u>United Nations Universal Declaration of Human Rights</u>, the <u>United Nations Guiding Principles on Business and Human Rights</u>, and the <u>ILO's Fundamental Conventions</u>. Additionally, our <u>Modern Slavery Act Statement</u> sets forth the steps we take to guard against modern slavery and human trafficking in our supply chain. Lastly, our vendors are expected to publish a code of conduct for their employees and to deploy a formal process for reporting and investigating unethical behavior.

#### Vendor engagement

Since 2009, we have invited suppliers to respond to the CDP supply chain questionnaire, which helps us track GHG emissions and associated risks that impact our global supply chain. In 2016, we set our first-ever public goals to address GHG emissions in our supply chain with two vendor engagement goals: to maintain a response rate to CDP supply chain information requests of at least 90%, and for 90% of CDP supply chain responding vendors to disclose GHG emissions.

#### **Vendor diversity**

We are committed to supporting diverse-owned vendors because we believe this strengthens communities as well as our supply chain by driving innovation and competition. Annually, we spend more than \$2 billion with certified diverse-owned companies and award scholarships for executive education and entrepreneurial programs to help diverse business owners take their companies to the next level. We also encourage participation in our Supplier Diversity and Development Mentoring Program — a high-touch mentor program which is customized for each participating diverse supplier to drive optimum developmental impact. These initiatives are helping drive impact while building resiliency throughout our supply chain.

## Reporting and disclosure

Bank of America annually publishes our <u>ESG Report</u> covering areas relevant to this ESRP Framework, including the development of products and services to address the needs and concerns of low- and moderate-income communities, our financing in support of environmental and social goals, our progress toward public goals, as well as specific transactions that are escalated due to heightened environmental and social risks. This reporting provides transparency to stakeholders on the nature of the transactions and issues that are escalated and demonstrates robust risk management routines and governance. As part of this, we report and disclose:

- Details of transactions subject to the Equator Principles
- The number and nature of transactions reviewed by the committees responsible for reputational risk review
- · Case studies of specific transactions that were reviewed and issues identified, with client information removed.

### Our workforce and employment practices

Our employees are central to everything we do and critical to our long-term success as a company. Accordingly, we are committed to ensuring Bank of America is a great place to work for our employees. We deliver on this commitment by being an inclusive workplace for all of our employees, creating opportunities for growth and development, recognizing and rewarding performance, and supporting our employees' physical, emotional and financial wellness.

#### **Diversity and inclusion**

Being a diverse and inclusive company is core to our ability to serve the needs of our clients. We are strengthened by the diverse backgrounds, experiences and perspectives of our employees, and we strive to ensure our workforce represents the communities we serve — in thought, style, experience, culture, race, ethnicity, gender identity, and sexual orientation.

We have a long history of being recognized as a leader in maintaining a diverse and inclusive workplace free of discrimination. Our company's ethos is to support in both policy and practice equal opportunities for employment, advancement and professional development, and prohibit discrimination or harassment of any kind on the basis of race, color, religious creed, religion, sex (including pregnancy, childbirth or related medical condition), genetic information, gender, gender identity, gender expression, sexual orientation, national origin, citizenship status, age, ancestry, marital status, medical condition, physical or mental disability status, military and veteran status, or any other factor that is irrelevant to employment and advancement or prohibited by law. An example of the tools and processes we have in place to ensure that every employee is treated with dignity and respect is our <a href="Code of Conduct">Code of Conduct</a>.

#### Fair wages and benefits

Paying fair and competitive wages and supporting all aspects of our employees' wellness are critical components of being a great place to work. We pay our employees competitively based on market rates for their roles and how they perform, and we regularly benchmark against other companies both within and outside our industry to ensure our pay is competitive in the market for comparable roles. Our company is committed to compensating all of our employees fairly and equitably based on performance, with equal pay for equal work, regardless of race or gender.

Core to this is our support for a competitive minimum rate of pay. We have been an industry leader in establishing an internal minimum rate of pay for our U.S. hourly employees and have made regular increases over many years. In 2019, we raised our minimum wage to \$17 per hour, and we will continue to increase our minimum wage until it reaches \$20 per hour in 2021.

# **Training on the ESRP Framework**

Bank of America employees across the enterprise receive high-level awareness on our ESRP Framework as part of our annual enterprise risk training. As necessary, we also conduct specialized training on the ESRP Framework and related policies for relevant employees who regularly deal with specific environmental and social issues.

### **Conclusion**

Environmental and social issues affect all companies operating in today's global economy. Properly managing these risks is a critical component of business success. Equally important is communicating the process by which those risks are managed to stakeholders. This ESRP Framework outlines Bank of America's approach to environmental and social issues, and how that aligns with our fundamental business strategy of responsible growth. Moving forward, we will continually review this framework in light of feedback from stakeholders, future materiality assessments, market developments, evolving best practices and regulatory developments.

# APPENDIX C: ESG PERFORMANCE DATA SUMMARY



BANK OF AMERICA CORPORATION

# 2018 Environmental, Social & Governance Performance Data Summary

# ESG Goals & Progress

Target OUR PEOPLE	Target year	Progress	Status
Hire 10,000 veterans, guard and reservists over the next several years	N/A	We employ thousands of veterans and their spouses. In addition, since 2014 we have hired over 8,600 service members moving towards our goal of hiring 10,000 veterans, guard, and reservists over the next several years.	On track
DRIVING ECONOMIC & SOCIA	L PROGRESS		
\$2 billion in philanthropic investments globally	2018	In 2018, Bank of America provided \$210 million in global philanthropic investments, including cash giving and in-kind donations. To date we've delivered \$2.1 billion toward our ten year \$2 billion goal (2009-2018).	Achieved
2 million hours of volunteer service annually and engage our employees to be more active citizens	N/A	Our employee volunteers contributed approximately 2 million hours in 2018 addressing a range of community needs, including advancing better money habits and building affordable housing.	Achieved
\$1.5 trillion for community development lending and investments in the U.S.	2018	Since 2009, we've extended nearly \$960 billion in community development lending and investments in the U.S., including nearly \$48 billion in 2018.  This totals – on average – approximately \$190.2 million in support of community development every business day throughout 2018.	64% complete
ENVIRONMENTAL SUSTAINAE	BILITY		
Business			
\$125 billion Environmental Business Initiative	2025	Since we launched this goal in 2013, we've provided nearly \$105 billion in financing for low carbon and other sustainable business.  In 2018 alone, we delivered \$21.5 billion toward this goal.	On track
Greenhouse gases and energy			
Achieve carbon neutrality for Scope 1 and 2 emissions	2020	We have reduced market-based emissions 89% since 2010 across our portfolio primarily by consolidating space, implementing energy-efficiency projects and purchasing renewable power.	On track
Purchase 100 percent of electricity from renewable sources	2020	In 2018, Bank of America purchased 1.8 million MWh of renewable electricity, which amounts to 91% of our global energy use.	On track

Target	Target year	Progress	Status
Greenhouse gases and energy			
Reduce energy use by 40 percent	2020	We have reduced energy use 40% since 2010 across our portfolio primarily by consolidating space and implementing energy efficiency projects.	On track
Reduce location-based GHG emissions by 50 percent	2020	We have reduced location-based emissions 52% since 2010 across our portfolio primarily as a result of the energy reductions achieved.	On track
Green building			
Maintain LEED® certification in 20 percent of the company's owned and leased space	2020	We have more than 19 million square feet of LEED certified workspace, representing 25% of our total workspace globally. At year's end, 206 of our financial centers had achieved LEED certification.	On track
Water			
Reduce water use by 45 percent	2020	As of 2018, we have reduced our annual global water usage by nearly 1.5 billion gallons since 2010 – a 42% reduction – primarily by consolidating space and implementing water conservation projects.	Slower than expected progress
Waste			
Reduce waste to landfill by 35 percent (baseline 2011)	2020	Since 2011, we have reduced the amount of waste sent to landfill by 30%. We focus our waste efforts on increasing availability of recycling services for office waste and construction waste, employee education and reducing waste generated.	Slower than expected progress
Dispose 100 percent of e-waste using certified responsible vendors	2020	In 2018, we disposed of 99% of our e-waste using certified responsible vendors. 100% of e-waste in the U.S. was disposed of using certified responsible vendors. In countries where certified vendors do not exist, items are disposed of responsibly.	Slower than expected progress
Paper			
Maintain paper reduction of 30 percent	2020	Since 2010, we have reduced our paper use by 36% through our focus on transitioning customers to online banking, reducing employee printing, and increasing the digital delivery of key documents.	On track
Maintain an average of 10 percent recycled content in paper purchased	2020	In 2018, we purchased paper with an average of 15% recycled content globally, which is almost double the average recycled content in 2010.	On track
Purchase 100 percent of paper from certified sources	2020	We increased the amount of paper purchased from certified sources from 95% in 2011 to 99% in 2018.	Slower than expected progress
Vendor engagement			
Maintain a 90 percent response rate to our CDP supply chain information requests	2020	In 2018, we requested disclosures from 202 vendors and achieved a best-in-class response rate of 90%.	On track
Increase the number of our CDP supply chain responding vendors who report GHG emissions to 90 percent	2020	In 2018, 80% of our responding vendors reported GHG emissions.	Slower than expected progress

# ESG Performance Data

Disclosure	Metrics	Year
OUR PEOPLE		
Global workforce by gender		
% total	Men: 101,688 (50%) Women: 102,801 (50%)	2018
% global management*	Men: 54% Women: 46%	2018
% board of directors	Men: 69% Women: 31%	2018
U.S. workforce by gender		
% total	Men: 46% Women: 54%	2018
% officials & managers**	Men: 53% Women: 47%	2018
% workforce excluding officials & managers***	Men: 45% Women: 55%	2018
Diverse races/ethnic backgrounds		
% U.S. workforce	46%	2018
% U.S. officials & managers**	33%	2018
% U.S. workforce excluding officials & managers***	48%	2018
Employee engagement		
% employee engagement score	82%	2018
401(k) plan participation		
% of employees who made contributions to their 401(k) account	90%	2018
Training hours		
# diversity, inclusion and aspects of human rights total training hours	93,968	2018

<sup>\*</sup>Includes CEO's direct reports.

<sup>\*\*\*</sup>Includes EEO codes 2-9.

U.S. EMPLOYEE DIVERSITY IN 2018										
Job Category	Gender	White	Black/ African American	Hispanic/ Latino	Asian	American Indian/ Alaskan Native	Native Hawaiian/ Other Pacific Islander	Two or more races	Total by gender	Total
Executive/ senior level officials and	Male	2,215	88	99	244	7	0	20	2,673	4,012
managers	Female	1,085	82	57	102	6	0	7	1,339	4,012
First/ mid-level	Male	7,689	823	1,325	1,676	32	35	154	11,734	23,117
officials & managers	Female	7,205	1,348	1,599	1,024	36	27	144	11,383	23,117
Dur Construe le*	Male	26,334	2,093	2,558	6,141	111	91	570	37,898	50.505
Professionals*	Female	13,277	2,148	1,689	4,068	74	70	313	21,639	59,537
All other	Male	11,523	4,148	6,929	2,992	85	111	752	26,540	83,042
All other	Female	23,053	11,395	14,962	5,274	244	240	1,334	56,502	03,042
Totals	Male	47,761	7,152	10,911	11,053	235	237	1,496	78,845	169,708
101015	Female	44,620	14,973	18,307	10,468	360	337	1,798	90,863	103,700

<sup>\*</sup>As defined by the Equal Employment Opportunity Commission: "Professionals" refers to job categories that require bachelor and graduate degrees, and/or professional certification. In some instances, comparable experience may establish a person's qualifications.

<sup>\*\*</sup>Includes EEO codes 1.1 and 1.2.

Disclosure DRIVING ECONOMIC & SOCIAL PROGRESS	Metrics	Year
Women's economic empowerment		
\$ loaned to women business owners through Tory Burch Foundation Capital Program	\$46 million	2014-2018
Access to capital		
\$ community development banking	\$4.7 billion	2018
# affordable housing units created through community development banking	15,000	2018
\$ CDFI investments	\$1.57 billion	2018
# of CDFIs with whom we invest	255	2018
Community development lending & investments: \$ affordable housing	\$23.56 billion \$26.68 billion \$32.42 billion \$37.62 billion \$37.84 billion	2018 2017 2016 2015 2014
Community development lending & investments: \$ small business lending	\$15.14 billion \$15.54 billion \$15.99 billion \$14.41 billion \$15.38 billion	2018 2017 2016 2015 2014
Community development lending & investments: \$ consumer lending	\$3.53 billion \$4.63 billion \$4.11 billion \$3.88 billion \$3.24 billion	2018 2017 2016 2015 2014
Community development lending & investments: \$ economic development	\$5.50 billion \$6.80 billion \$6.58 billion \$6.42 billion \$4.06 billion	2018 2017 2016 2015 2014
Philanthropic investments to advance economic mobility		
Workforce development and education grants	\$48.6 million \$45.8 million \$48.5 million \$49.1 million	2018 2017 2016 2015
Community development grants	\$40.1 million \$41.8 million \$35.2 million \$32.3 million	2018 2017 2016 2015
Basic needs grants	\$33.0 million \$33.4 million \$36.1 million \$33.0 million	2018 2017 2016 2015
OUR BUSINESS PRACTICES		
\$ diverse supplier spend trend	\$1.87 billion \$2.19 billion \$2.24 billion \$2.1 billion \$2.5 billion \$2.3 billion \$2.3 billion	2018 2017 2016 2015 2014 2013 2012
# customers/prospects for customer and client satisfaction surveys	11.7 million 4.9 million 4.5 million 3 million	2018 2017 2016 Supplemental Attachinent 7 Page 44 of 56

Disclosure	Metrics	Year
ENABLING FINANCIAL HEALTH		
# total SafeBalance accounts at the end of 2018	592,517	2018
# mobile banking users added during 2018	2.2 million	2018
# total mobile banking users at the end of 2018	26.4 million	2018
Client balances with a clearly defined ESG approach	\$17.9 billion \$15.2 billion \$11.3 billion \$9.9 billion	2018 2017 2016 2015
Homeownership		
Homeowner assistance: modifications and foreclosure alternatives (cumulative)	2,166,869 2,154,495 2,137,072 2,101,546 2,039,520 1,945,459 1,711,078 1,281,906 940,692	2018 2017 2016 2015 2014 2013 2012 2011
Home finance metrics: \$ value of first mortgages extended to U.S. homeowners	\$41.7 billion \$49.5 billion \$61.0 billion \$54.7 billion	2018 2017 2016 2015
Home finance metrics: \$ value of first mortgages to low- and moderate-income customers	\$4.9 billion \$5.5 billion \$7.1 billion \$8.3 billion	2018 2017 2016 2015
Home finance metrics: # total first mortgage customers	89,460 111,031 159,025 169,175	2018 2017 2016 2015
Home finance metrics: # low- and moderate-income first mortgage customers	21,100 26,004 38,840 49,294	2018 2017 2016 2015
Home finance metrics: % of total first mortgage customers who are low- and moderate-income	23.6% 23.4% 24.4% 29.1%	2018 2017 2016 2015
Home finance metrics: \$ value of home equity lines of credit extended to low- and moderate-income customers	\$2.76 billion \$3.01 billion \$2.48 billion \$2.01 billion	2018 2017 2016 2015
Small businesses		
Total credit to small business owners (new and renewal)	34.7 billion	2018
\$ new credit to small business owners	\$8.6 billion \$11.2 billion \$11.6 billion \$10.7 billion	2018 2017 2016 2015
\$ extended to smaller businesses with less than \$1 million in revenue or less than \$5 million in revenue in LMI communities	\$15.14 billion \$15.53 billion \$16.0 billion \$14.4 billion	2018 2017 2016 2015
# small business specialists serving clients	2,300 Su	2018 upplemental Attachment 7

Disclosure	Metrics	Year
ENVIRONMENTAL SUSTAINABILITY		
Environmental business by line of business		
Investment Banking and Markets	\$8.1 billion	2018
Public Finance	\$8 billion	2018
Leasing	\$3.2 billion	2018
Commercial Real Estate and Community Development Banking	\$1.6 billion	2018
Consumer Vehicle Lending	\$587 million	2018
Commercial Banking	\$71 million	2018
CDFI Lending	\$12 million	2018
Environmental business by sector		
Energy efficiency	\$24.1 billion	2007-2018
Sustainable transportation	\$21.0 billion	2007-2018
Mixed	\$15.4 billion	2007-2018
Wind	\$14.5 billion	2007-2018
Water	\$13.6 billion	2007-2018
Mixed renewables	\$9.6 billion	2007-2018
Solar	\$8.9 billion	2007-2018
Nuclear	\$8.8 billion	2007-2018
Other	\$7.1 billion	2007-2018
Biomass/bioFuel	\$1.3 billion	2007-2018
Hydro	\$1.3 billion	2007-2018
Geothermal	\$600 million	2007-2018
Fuel cells	\$28 million	2007-2018
Environmental and Economic Benefits of Environmental Business Initia	tive	
MWh saved from energy conservation projects	79,000	2018
MWh produced from alternative energy projects	16,545,000	2018
Total sqft of LEED certified buildings funded	2,906,000	2018
Total sqft of ENERGY STAR certified buildings funded	860,000	2018
Total sqft of Other Certified Green buildings funded	285,000	2018
Ridership supported by sustainable transportation projects	2,400,000,000	2018
People impacted by water treatment projects	107,000,000	2018
Global Warming Metric Tons (MT) CO2e avoided	10,000,000	2018
Water Use avoided (thousands of gallons)	200,000,000	2018
Waste avoided Metric Tons (MT)	1,000,000	2018
Amount of Water Treated (thousands of gallons)	109,000,000	2018
Average annual # of jobs supported	159,998	2018
Contribution to GDP	\$15.8 billion	2018
Economic Output Contribution	\$30.4 billion	2018
Labor Income Contribution	\$10.2 billion	2018

Disclosure	Metrics	Year
Environmental impact of investment	S	
Utility portfolio emission intensity <sup>1</sup>	Short tons CO <sub>2</sub> per MWh - restated/reported from newly available data 0.4749 0.5016 0.5314 0.5678 0.5700 0.5645 0.621 0.6093  Short tons CO <sub>2</sub> p - previously repo from available data NA NA NA NA 0.5678 NA 0.5700 NA 0.5645 0.621 0.631 0.634 0.581 0.634 0.638 0.658 0.733	orted ata 2018 2017 2016 2015 2014 2013 2012 2011 <sup>2</sup> 2010 was
Environmental philanthropy	\$19,336,877 million	2018
Environmental and social risk		
# transactions subject to the Equator Principles  # of unique employees and contractors	1 Category B transaction in the petrochemicals sector (United States) 2 Category B transactions in the oil & gas sector (United States) 2 Category B transactions in the power generation sector (United States) 0 1 Risk framework training is mandatory for all employees. Available through	
trained on Environmental and Social Risk Policy Framework	training is additional awareness material on the ESRPF. In 2018 approxin 250,000 colleagues in control functions and front line units across the erprise underwent enterprise risk framework training.	
	1. Bank of America was invited to provide capital markets services to a complete that develops Non-transgenic crops for large scale agriculture. While the condevelops products that are considered non genetically modified organisms (in most countries, use of bio-engineering is considered controversial by som We conducted enhanced due diligence on the firm, evaluating their process a policies, and transparency. We further considered the companies positioning global climate change and using their products to help address related challed Balancing these elements, we decided to move forward with the opportunity	mpany (GMOs) ne. and g on enges. y.
Examples of deals requiring additional review	2. We were presented with an opportunity to on-board a client in the mining the firm is moving towards commercialization of marine mining for metals. Vengaged in enhanced due diligence with the company, learning about their active processes of minimizing marine impacts through their operations. We evaluate approach on addressing biodiversity impacts and social issues attributed to the mining. The company had a compelling approach on the ESG dynamics attributed to the mining sector, but we ultimately decided to pass on the opportunity give early stage of development of standards and best practices within marine mining mining.	We dvanced ated their 2018 errestrial buted iven the ining.
	3. We evaluated an opportunity to provide financial products and services in of a large utility-scale wind power project in the US. While the location of the wind farm provided great potential for power generation, it is also identified area of particularly heightened sensitivity for certain species of birds that we be impacted by the wind turbines. After enhanced due diligence that focuse permitting and evaluation of avian (bird) wildlife, and mitigation steps to mir wildlife impacts, we decided to move forward in supporting the power comp development of the project.	ne l as an ould ed on nimize

<sup>&</sup>lt;sup>1</sup>Our consideration of value chain emissions includes tracking and reporting on the greenhouse gas emissions intensity of our U.S. power utility corporate loan portfolio, and we remain the only financial institution to do so since 2004. This portfolio includes electric generators with whom the bank has significant credit relationships. <sup>2</sup>Using newly expanded emissions data, we have recalculated our utility portfolio emissions intensity for 2011.

# Environmental and Social Risk Policy Framework Reporting

Environmental and Social Risk Policy Framework (ESRPF) related items, relationships and transactions discussed by the responsible risk committees in 2018.



In 2018, we continued our process of tracking ESRPF related items, relationships and transactions discussed by the responsible risk committees. Our front line units have primary responsibility for evaluating and managing all risks, including the environmental and social risks inherent within their businesses. Through this process of due diligence, many issues are resolved and do not need to be escalated to risk review committee. The chart above represents only those items, relationships or transactions related to environmental or social risk that were discussed by the responsible risk committees. For more information about our governance structure or risk framework, see the Business Standards report or the ESRPF.

<sup>&</sup>lt;sup>1</sup>Other is made up of small numbers of items from all other industries that BAC conducts business with, including but not limited to Manufacturing, Pharmaceuticals etc. <sup>2</sup>Global includes US based GBAM items.

<sup>&</sup>lt;sup>3</sup>US refers to items from lines of business that only have a US footprint.

# About Our 2018 Environmental Operations Data

We continue to track and manage the environmental impacts of our operations and refine our methodology in order to most accurately collect and report on these data. Our 2018 environmental activities are reported here using the Global Reporting Initiative Standards, as well as its Financial Services Sector Disclosure.

GREENHOUSE GAS EMISSIONS	UNITS	2010	2016	2017	2018
Scope 1 and location-based Scope 2 emissions					
Scope 1 direct emissions	Metric tons CO <sub>2</sub> e	140,489	84,399	82,271	85,145
Location-based Scope 2 indirect emissions	Metric tons CO <sub>2</sub> e	1,678,547	973,306	839,986	791,166
Total Scope 1 and location-based Scope 2 emissions	Metric tons CO <sub>2</sub> e	1,819,036	1,057,706	922,257	876,311
Reduction in total Scope 1 and location-based Scope 2 emissions	Percent decrease from base year	N/A	42%	49%	52%
Scope 1 and market-based Scope 2 emissions					
Scope 1 direct emissions	Metric tons CO <sub>2</sub> e	140,489	84,399	82,271	85,145
Market-based Scope 2 indirect emissions	Metric tons CO <sub>2</sub> e	1,673,002	373,229	178,593	108,614
Total Scope 1 and location-based Scope 2 emissions	Metric tons CO <sub>2</sub> e	1,813,490	457,629	260,864	193,759
Reduction in total Scope 1 and market-based Scope 2 emissions	Percent decrease from base year	N/A	75%	86%	89%

GREENHOUSE GAS EMISSIONS	UNITS	2010	2016	2017	2018
Scope 3 indirect emission					
Category 1 - purchased goods and services	Metric tons CO <sub>2</sub> e	Not available	2,315,069	2,423,747	2,004,292
Category 2 - capital goods	Metric tons CO <sub>2</sub> e	Not available	237,286	386,195	397,794
Category 3 - fuel- and energy-related activities	Metric tons CO <sub>2</sub> e	339,211	224,042	177,790	169,233
Category 4 - upstream transportation and distribution	Not Available	255,685	178,634	210,979	200,813
Category 5 - waste (traditional disposal)	Metric tons CO <sub>2</sub> e	Not available	24,373	23,510	23,091
Category 6 - business travel	Metric tons CO <sub>2</sub> e	191,687	155,342	151,186	154,501
Category 7 - employee commuting	Metric tons CO <sub>2</sub> e	675,193	363,910	350,814	345,389
Category 8 - upstream leased assets	Metric tons CO <sub>2</sub> e	Not relevant	Not relevant	Not relevant	Not relevant
Category 9 - downstream transportation and distribution	Metric tons CO <sub>2</sub> e	Not available	2,000,000	1,500,000	1,500,000
Category 10 - processing of sold products	Metric tons CO <sub>2</sub> e	Not relevant	Not relevant	Not relevant	Not relevant
Category 11 - use of sold products	Metric tons CO <sub>2</sub> e	Not available	5,000	4,000	4,000
Category 12 - end of life treatment of sold products	Metric tons CO <sub>2</sub> e	Not available	20,000	21,000	20,000
Category 13 - downstream leased assets	Metric tons CO <sub>2</sub> e	Not relevant	Not relevant	Not relevant	Not relevant
Category 14 - franchises	Metric tons CO <sub>2</sub> e	Not relevant	Not relevant	Not relevant	Not relevant
Category 15 - investments	Metric tons CO <sub>2</sub> e	Relevant, not yet calculated	Relevant, not yet calculated	Relevant, not yet calculated	Relevant, not yet calculated

We follow the WRI and WBCSD GHG Protocol Corporate Accounting and Reporting Standard to calculate Scope 1, 2 and 3 emissions. We use an operational control approach to define our boundary. The base year for emissions reductions is 2010; the rationale for choosing 2010 as the base year is that 2010 is the earliest year with complete, high quality data. Emissions are recalculated back to the base year when a change to a prior inventory would result in a change in emissions of 0.5% or greater. Scope 1 and 2 calculations are based on site-specific data for fuel consumed and utilities purchased, applying published emissions factors and global warming potentials (GWPs). Scope 3 calculations are based on data for the relevant activity, applying published emissions factors and GWPs. Where actual data are not available, estimates are made based on actual data collected in prior years. The gases included in the calculation of Scope 1, 2 and 3 emissions are CO2, CH4, N2O, HFCs and PFCs. Our market-based GHG emissions include the impact of renewable energy certificates (RECs) purchased in the U.S., Renewable Energy Guarantees of Origin (REGOs) purchased in the U.K., and Guarantees of Origin (GOs) purchased in Spain and Ireland. All U.S. RECs purchased by Bank of America are Green-e certified. Emissions reflect supplier-specific emission rates where available, all of which comply with Scope 2 Guidance criteria. Emissions reflect residual mix factors for European facilities. Residual mix factors are not currently available for facilities outside of Europe. Location-based emission factors are used to quantify electricity-related Scope 3 emissions.

CDEENHOLICE		2018 LOCA <sup>-</sup>	TION-BASED	EMISSIONS	2018 MAF	RKET-BASED	EMISSIONS
GREENHOUSE GAS EMISSIONS BY REGION	UNITS	SCOPE 1 DIRECT EMISSIONS	SCOPE 2 INDIRECT EMISSIONS	TOTAL SCOPE 1 AND SCOPE 2 EMISSIONS	SCOPE 1 DIRECT EMISSIONS	SCOPE 2 INDIRECT EMISSIONS	TOTAL SCOPE 1 AND SCOPE 2 EMISSIONS
U.S. & Canada	Metric tons CO <sub>2</sub> e	78,149	691,194	769,344	78,149	29,387	107,536
Asia Pacific	Metric tons CO <sub>2</sub> e	1,649	69,457	71,106	1,649	69,457	71,106
EMEA	Metric tons CO <sub>2</sub> e	5,232	29,215	34,447	5,232	8,471	13,703
Latin America	Metric tons CO <sub>2</sub> e	115	1,299	1,414	115	1,299	1,414
		2018 LOCA	TION-BASED	EMISSIONS	2018 MARKET-BASED EMISSIONS		
GREENHOUSE GAS EMISSIONS BY COUNTRY	UNITS	SCOPE 1 DIRECT EMISSIONS	SCOPE 2 INDIRECT EMISSIONS	TOTAL SCOPE 1 AND SCOPE 2 EMISSIONS	SCOPE 1 DIRECT EMISSIONS	SCOPE 2 INDIRECT EMISSIONS	TOTAL SCOPE 1 AND SCOPE 2 EMISSIONS
United States	Metric tons CO <sub>2</sub> e	77,967	691,009	768,976	77,967	29,201	107,168
India	Metric tons CO <sub>2</sub> e	1,109	46,166	47,275	1,109	46,166	47,275
United Kingdom	Metric tons CO <sub>2</sub> e	3,372	25,524	28,896	3,372	4,287	7,659
China	Metric tons CO <sub>2</sub> e	324	10,584	10,908	324	10,584	10,908
Southeast Asia - Singapore, Malaysia, Philippines, Thailand, and Indonesia	Metric tons CO <sub>2</sub> e	62	4,984	5,046	62	4,984	5,046
Japan	Metric tons CO <sub>2</sub> e	82	4,893	4,975	82	4,893	4,975
Ireland	Metric tons CO <sub>2</sub> e	623	1,000	1,623	623	940	1,563
Australia	Metric tons CO <sub>2</sub> e	7	1,195	1,202	7	1,195	1,202
Italy	Metric tons CO <sub>2</sub> e	42	733	775	42	1,027	1,069
Mexico	Metric tons CO <sub>2</sub> e	61	446	507	61	446	507
Germany	Metric tons CO <sub>2</sub> e	93	391	484	93	633	726
South Africa	Metric tons CO <sub>2</sub> e	22	437	459	22	437	459
Canada	Metric tons CO <sub>2</sub> e	182	186	368	182	186	368

GREENHOUSE		2018 LOCA <sup>-</sup>	TION-BASED	EMISSIONS	2018 MARKET-BASED EMISSIONS		
GREENHOUSE GAS EMISSIONS BY COUNTRY	UNITS	SCOPE 1 DIRECT EMISSIONS	SCOPE 2 INDIRECT EMISSIONS	TOTAL SCOPE 1 AND SCOPE 2 EMISSIONS	SCOPE 1 DIRECT EMISSION:	SCOPE 2 INDIRECT 5 EMISSIONS	TOTAL SCOPE 1 AND SCOPE 2 EMISSIONS
Russia	Metric tons CO <sub>2</sub> e	93	264	357	93	264	357
Brazil	Metric tons CO <sub>2</sub> e	28	231	259	28	231	259
France	Metric tons CO <sub>2</sub> e	112	136	248	112	119	231
Saudi Arabia	Metric tons CO <sub>2</sub> e	5	68	73	5	68	73
Rest of world	Metric tons CO <sub>2</sub> e	961	2,919	3,880	961	2,953	3,914
NO <sub>x</sub> , SO <sub>x</sub> , AND OTHER SIGNIFICANT AIR EMISSIC FROM DIRECT COMBUSTI		UNITS	2010	2010	6 .	2017	2018
SO <sub>x</sub>		Metric tons	17	1		1	1
NO <sub>x</sub>		Metric tons	45	20		20	20
СО		Metric tons	56	32		31	32
VOC		Metric tons	7	2		2	2
PM		Metric tons	4	3		3	3
Ozone depleting substances		Metric tons CFC -11e	14	14		12	12

Data are sourced from the Scope 1 and 2 inventory and records kept through our compliance program. Significant air emissions are calculated based on site-specific data and published emission factors. We use the same boundary in calculating these air emissions as in our GHG emissions calculations.

DIRECT AND INDIRECT ENERGY CONSUMPTION	UNITS	2010	2016	2017	2018
Electricity	Gigajoules	11,889,018	7,686,379	7,394,551	7,120,998
Other indirect (purchased steam and cooling)	Gigajoules	200,907	161,972	147,310	143,370
Natural gas	Gigajoules	1,488,556	872,071	845,645	886,465
Other direct (fuel oil, jet fuel, gasoline, diesel fuel, propane)	Gigajoules	348,755	163,217	152,063	162,950
Total energy	Gigajoules	13,927,236	8,883,639	8,539,569	8,313,783
Reduction in total energy	Percent decrease from base year	N/A	36%	39%	40%

Data are sourced from utility bills where possible. Where utility bills are not available (such as in a leased property), we estimate based on internal estimation intensities by building type. These estimation intensities are calculated annually based on actual data. We use the same boundary in calculating energy consumption as in our GHG emissions calculations.

ELECTRICITY FROM RENEWABLE SOURCES	UNITS	2010	2016	2017	2018
Electricity consumption	MWh	3,302,505	2,135,105	2,054,042	1,978,055
Total renewable electricity procured	MWh	39,598	1,356,721	1,702,470	1,798,110
% of electricity from renewable sources	% of electricity	1%	64%	83%	91%

Bank of America adheres to certification, geography, technology, and project age standards when purchasing Renewable Energy Certificates (RECs), Renewable Energy Guarantees of Origin (REGOs), and Guarantees of Origin (GOs).

REDUCTIONS IN GREENHOUSE GAS EMISSIONS AND ENERGY CONSUMPTION	UNITS	2010	2016	2017	2018
Projected annual emissions savings from reduction initiatives	Metric tons CO <sub>2</sub> e	Not available	11,248	12,114	19,166
Projected annual savings from energy efficiency measures	Gigajoules	Not available	83,710	107,785	179,090

Data are sourced from records kept by Real Estate Services, which document each project undertaken and relevant details, including project annual electricity or fuel savings and projected annual monetary savings. Energy savings are estimated based on projections of project performance.

INDIRECT ENERGY CONSUMPTION BY FUEL MIX	2010	2016	2017	2018
Coal	35%	38%	23%	22%
Petroleum	3%	1%	1%	1%
Natural gas	30%	30%	40%	41%
Nuclear	23%	19%	23%	23%
Renewable	9%	11%	13%	13%

These data represent the mix of primary energy consumed to produce the intermediate energy (electricity, steam, chilled water) used. They represent primarily the mix of grid electricity sources provided by electricity suppliers, and thus are distinct from the above tracking of electricity from renewable sources, which represent the bank's proactive purchase and implementation of renewable electricity.

INDIRECT ENERGY CONSUMPTION BY PRIMARY FUEL SOURCE	UNITS	2010	2016	2017	2018
Coal	Gigajoules	13,024,897	9,192,521	5,264,485	4,788,550
Petroleum	Gigajoules	791,057	230,107	466,551	431,070
Natural gas	Gigajoules	8,357,102	5,317,796	6,913,998	6,828,144

These data represent total primary energy consumed to produce the intermediate energy (electricity, steam, chilled water) used.

RENEWABLE MATERIAL USAGE - PAPER	UNITS	2010	2016	2017	2018
	Total usage (Metric tons)	65,501	45,941	45,050	42,157
Denous	Percent decrease from base year	N/A	30%	31%	36%
Paper	Recycled input materials by weight	8%	14%	15%	15%
	Certified input materials by weight	Not available	99%	99%	99%

Paper is purchased from external suppliers. Data are sourced from direct measurements based on invoices from our paper vendors.

WATER	UNITS	2010	2016	2017	2018
Total water withdrawals	Billion US gallons	3.52	2.17	2.11	2.04
	Million cubic meters	13.33	8.23	7.99	7.72
Reduction in total water withdrawals	Percent decrease from base year	N/A	38%	40%	42%
Water withdrawals by source – municipal	Billion US gallons	3.52	2.13	2.10	2.03
Water withdrawals by source – rainwater	Thousand US gallons	Not available	41,200	12,860	13,490
Estimated annual savings from water reduction projects	Thousand US gallons	Not available	0	12,582	11,466

Data for water withdrawals are sourced from utility bills where possible. Where utility bills are not available (such as in a leased property), we estimate based on internal estimation intensities by building type. These estimation intensities are calculated annually based on actual data. We use the same boundary in calculating water consumption as in our GHG emissions calculations. Water is withdrawn from municipal sources (except for a small amount of rainwater) and discharged to municipal sewer systems. Data for water reused or recycled are sourced from meter readings of the rainwater systems in place.

WASTE	UNITS	DISPOSAL METHOD	2011	2016	2017	2018
Non-hazardous waste	Metric tons	Landfill & incineration	60,420	40,875	45,690	42,424
(office, confidential, construction and demolition, electronic, and other)	Metric tons	Recycling, compost & remarketing	68,252	69,390	53,914	51,987
	Diversion rate		53%	63%	54%	55%
Hazardous waste	Metric tons	Landfill & incineration	3	1	2	1
	Metric tons	Recycling, reuse & salvage	334	642	1,051	670
	Diversion rate		99%	100%	100%	100%
	Metric tons	Landfill & incineration	60,422	40,875	45,692	42,424
	Metric tons	Recycling & other diversion	68,586	70,033	54,965	52,657
Total waste	Metric tons	Total waste	129,008	110,908	100,657	95,081
	Waste to landfill percent decrease from base year <sup>1</sup>		N/A	32%	24%	30%
	Diversion rate		53%	63%	55%	55%
E-waste disposed through certified vendors	Percent certified		68%	99%	97%	99%

The base year for waste data is 2011. Data are sourced from vendors that provide waste removal services where possible. Where invoices are not available (such as in a leased property), we estimate based on internal intensities by building type which were developed using actual data. We use the same boundary in calculating waste as in our GHG emissions calculations. The waste disposal method was determined from data provided by the waste vendors. Note: Numbers may not sum exactly due to rounding.

<sup>\*\*</sup>Improvements in data quality and completeness to the data collection process for construction and demolition project waste changed in 2018. As a result, intensities were updated and waste data has been rebaselined back to the base year to incorporate these improvements.

FACILITIES	UNITS	2010	2016	2017	2018
LEED certifications	Net square feet	12,537,553	18,414,298	19,485,608	19,453,541
	Percent of total workplace	10%	23%	25%	25%
	Metric tons purchased	530	975	909	1,098
Carpet	Recycled input materials by weight	39%	34%	31%	30%

<sup>\*</sup>Regulated waste is reported on a 1-year lag. E.g. the 2018 data presented in this report are for 2017.

TRANSPORTATION	UNITS	2010	2016	2017	2018
Electric vehicle charging stations	Total charging stations installed at Bank of America sites	Not available	Not available	Not available	129
	New participants	669	357	452	916
Low-carbon vehicle reimbursement program	Metric tons of CO <sub>2</sub> e avoided by new participants	771	818	1,094	1,617

Total charging stations installed at Bank of America sites includes the cumulative number of global charging stations active in 2018. Data not available prior to 2018.

COMPLIANCE	UNITS	2010	2016	2017	2018
Non-compliance with environmental regulations	Value of monetary fines	\$23,854	\$3,345	\$17,567	\$1,814
	Non-monetary violations	9	2	2	2
D	Number	2	1	2	3
Reportable spills	Volume - US gallons	3	200	Not available	29

Data are sourced from our compliance management system, in which we record all instances of non-compliance with environmental regulations and spills.

ENVIRONMENTAL SPEND	UNITS	2010	2016	2017	2018
Compliance management spend	Value of spend	Not available	\$8,300,000	\$8,900,000	\$10,500,000
Environmental assessment and remediation spend	Value of spend	Not available	\$4,300,000	\$5,900,000	\$8,000,000
Waste management spend	Value of spend	Not available	\$200,000	\$200,000	\$100,000
Total environmental protection spend	Value of spend	Not available	\$12,700,000	\$15,000,000	\$18,600,000

Data are sourced from our compliance management system, in which we record spend with select third-party vendors on environmental protection and compliance.

VENDOR ENGAGEMENT	UNITS	2010	2016	2017	2018
Number of vendors invited to CDP supply chain	Number of vendors	89	195	195	202
Response rate to our CDP supply chain information requests	Response rate	84%	90%	88%	90%
CDP supply chain responding vendors who report GHG emissions	Response rate	Not available	79%	78%	80%

### Santa Clara Valley Water District



File No.: 20-0516 Agenda Date: 7/28/2020

**Item No.:** 3.1.

#### **BOARD AGENDA MEMORANDUM**

#### SUBJECT:

Adopt Plans and Specifications and Authorize Advertisement for Bids for the Santa Teresa Water Treatment Plant Air Wash Pipeline Replacement Project, Project No. 93764004, Contract No. C0662 (San Jose, District 7).

#### RECOMMENDATION:

- A. Adopt Plans and Specifications and Authorize Advertisement for Bids for the Santa Teresa Water Treatment Plant Air Wash Pipeline Replacement Project per the Notice to Bidders; and
- B. Authorize the Designated Engineer to issue addenda, as necessary, during the bidding process.

#### SUMMARY:

The Santa Teresa Water Treatment Plant (STWTP) is the largest of Santa Clara Valley Water District's (Valley Water) three potable water treatment plants, delivering up to 100 million gallons of water per day to retailers, businesses and residents within Valley Water's service area. The plant supplies most of South San Jose, including Almaden Valley, Blossom Valley and Santa Teresa. It also has ability to supplement the demands of Penitencia Water Treatment Plant when needed.

The objective of the STWTP Air Wash Pipeline Replacement Project (Project) is to extend the useful life and increase the reliability of the plant's water filtration system. The air wash system agitates debris on the filter media allowing the filters to be systematically cleaned in an efficient manner.

The Project scope consists of the rehabilitation, removal and replacement of the existing air wash pipelines. This includes replacement of approximately 900 LF of above-ground 12-inch stainless steel pipe, and relining of approximately 670 LF of underground 12-inch stainless steel pipe at the east and west filter basins and galleries. Staggering of this work will be necessary to maintain water production.

#### Relevant Prior Board Actions:

On May 28, 2019, the Board adopted Resolution 19-50 setting the time and date for a public hearing on the Engineer's Report for the subject Project.

On June 11, 2019, the Board held a public hearing and adopted Resolution 19-51 approving the Engineer's Report, and approved the Project.

File No.: 20-0516 Agenda Date: 7/28/2020

Item No.: 3.1.

#### **Permits**

No permits are required for this Project.

#### Next Steps:

If the Board approves the recommendations, staff will proceed to advertise for bids for Project construction. Staff anticipates recommending the Board award a construction contract on October 13, 2020.

#### FINANCIAL IMPACT:

The estimated construction cost of the Project is between \$1.2 and \$1.4 million. This Project is included in the five-year FY 2021-25 CIP and there are adequate funds to pay for the construction contract in the FY2020-21 Board-approved budget for the Water Treatment Small Capital Project, project number 93764004. The Project will be funded by the Water Enterprise Fund with 100% of the costs allocated to Zone W-2 (North County).

#### CEQA:

The proposed Project qualifies for a Categorical Exemption under CEQA Guidelines Section 15301; Existing Facilities [Class 1 - operation, repair, maintenance, minor alteration of existing structures and facilities]. A Notice of Exemption has been prepared and filed with the County of Santa Clara Office of the Clerk/Recorder.

#### ATTACHMENTS:

Attachment 1: Notice to Bidders

Attachment 2: Project Delivery Process Chart

Attachment 3: Location Map

Attachment 4: Plans and Specifications

#### **UNCLASSIFIED MANAGER:**

Heath McMahon, 408-630-3126



# SANTA TERESA WATER TREATMENT PLANT AIR WASH PIPELINE REPLACEMENT PROJECT

Project No. 93764004 Contract No. C0662

1. Notice. Due to the County of Santa Clara Public Health Officer's Order, the Santa Clara Valley Water District offices remain closed to the public until further notice.

Notice is hereby given that sealed Bids will be received by the Construction Program of the Santa Clara Valley Water District (District), delivered only by third party carrier such as FED EX, UPS, DHL, Overnight, Golden State Overnight, etc., at the District's Winfield Warehouse Building located at: 5905 Winfield Boulevard, San Jose, California, 95123-2428 up to 2:00 p.m. on **Wednesday, September 9, 2020** for furnishing all material and performing all work necessary for construction of the Santa Teresa Water Treatment Plant Air Wash Pipeline Replacement Project, San Jose, California.

#### NO BIDS WILL BE ACCEPTED VIA IN PERSON DELIVERY OR USPS (US MAIL).

Additional information and Instructions to Bidders are posted on the District's Construction Administration webpage: https://www.valleywater.org/construction

2. California State Department of Industrial Relations Contractor and Subcontractor Registration Requirements.

California Labor Code Section 1771.1 requires:

A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, unless currently registered and qualified to perform public work pursuant to Section 1725.5 of the California Labor Code.

An inadvertent error in listing a subcontractor who is not registered pursuant to Section 1725.5 in a bid proposal shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive, provided that any of the following apply:

- A. The subcontractor is registered prior to the bid opening.
- B. Within 24 hours after the bid opening, the subcontractor is registered and has paid the penalty registration fee.
- C. The subcontractor is replaced by another registered subcontractor pursuant to Section 4107 of the Public Contract Code.

ATTACHMENT 1 SANTA TERESA WATER TREATMENT PLANT AIR WASH PIPELINE REPLACEMENT PROJECT



#### 3. Summary of Work

(Rev. 07/10/2020)

- **A. Project Description**. The Project scope includes the following:
  - 1. Demolish, remove, and dispose of approximately 900 LF of existing 12-inch stainless steel air wash pipe.
  - 2. Furnish, install, and test all materials needed for the installation of new 12- inch stainless steel air wash pipe and associated appurtenances.
  - 3. Clean, reline, video inspect, and disinfect approximately 670 LF of existing 12-inch stainless steel air wash pipe.
  - 4. Restore all impacted work sites to a condition equal to or better than that existing prior to construction.
- B. Sole Source Products. None.
- **4. Contract Time**. Time limit for the completion of the Work is **504** calendar days. See Contract Documents, Special Provisions, Article 12.03. Contract Time(s) for Milestone and Contract Times.
- **5. Liquidated Damages.** See Standard Provisions, Liquidated Damages, Article 5.07 and Special Provisions, Liquidated Damages, Article 12.05 of the Contract Documents for requirements regarding Liquidated Damages.
- **6. Estimated Cost**. The estimated cost of the Project is between \$1.2 and \$1.4 million. This estimate is intended to serve merely as an indication of the magnitude of the Work. Neither the Bidder(s) nor the Contractor will be entitled to pursue a claim or be compensated due to variance in the stated estimated cost range.
  - A. Additive/Deductive Bid Items. [NOT USED].
  - B. Supplemental Bid Items. [NOT USED].
- 7. Contractor's License Requirement. The Bidder must possess a current Class A Contractor's license issued by the California Department of Consumer Affairs, Contractor's State License Board when the Bid is submitted. Regardless of whether a subcontractor must be identified at the time of Bid, each subcontractor must also be properly licensed to perform its scope of Work.



8. Pre-Bid Conference and Site Visit. A Pre-Bid conference/site visit will be conducted by the District on Tuesday, August 11, 2020. The conference will convene at 10:00 a.m. (by District time), at the Santa Teresa Water Treatment Plant, 7011 Graystone Lane, San Jose, CA 95120. Anyone not in attendance at the meeting by 10:05 a.m. will be considered late and as having not attended this MANDATORY Pre-Bid conference/site visit. A Bid submitted by any Bidder not represented at the entire mandatory Pre-Bid conference/site visit will not be considered and its Bid will be returned unopened. Attendance at the Pre-Bid conference/site visit by subcontractors is not required.

Attendance by the Bidder at the Pre-Bid conference/site visit is:		
	Mandatory	
	Optional	

The objective of the Pre-Bid conference/site visit is to familiarize prospective Bidders with the site; no additional site visits will be allowed. Please confirm your intent to attend the Pre-Bid conference/site visit 24 hours in advance by sending an e-mail to <a href="mailto:scvwdplanroom@valleywater.org">scvwdplanroom@valleywater.org</a>. Additional information regarding the Pre-Bid conference/site visit will be sent to all prospective Bidders who confirm their intention to attend. Every attendee will be required to show a government-issued photo ID (Driver's License, Photo ID, or passport).

In response to the COVID-19 pandemic, the District will require that all participants adhere to the orders of Social Distancing. All persons attending the Pre- Bid conference/site visit are required to adhere to the orders of Social Distancing and are also required to bring and wear the appropriate Personal Protection Equipment (PPE), i.e. protective face covering, in order to be allowed entrance onto the site and to remain on the site.

Reasonable efforts will be made to accommodate persons with disabilities wishing to attend the Pre-Bid conference/site visit. Please request accommodations when confirming attendance.

9. Availability of Bid Documents.

Due to the County of Santa Clara Public Health Officer's Order, District offices will remain closed to the public until further notice. The Contract Documents are therefore not available for in-person purchase and are only available in electronic (PDF) format. The electronic version is free and will be transferred via file transfer appliance (FTA) site.

To request electronic Contract Documents:

Request Form and Information available online.

Website: https://www.valleywater.org/construction

Email: scvwdplanroom@valleywater.org

Phone District Plan Room - Kristy McMurtrie: (408) 630-3088 for questions

ATTACHMENT 1 SANTA TERESA WATER TREATMENT PLANT AIR WASH PIPELINE REPLACEMENT PROJECT



10. Inquiries. The Bidder must submit all requests for clarification, or interpretation of the Bid Documents in accordance with the requirements stated in Instructions to Bidders, paragraph #7. Questions During Bidding. Written questions must be directed to the Contracts Administrator at <a href="mailto:scvwdplanroom@valleywater.org">scvwdplanroom@valleywater.org</a> and submitted at least nine (9) calendar days before the deadline for receipt of Bids.

District may issue written Addenda as appropriate for clarification or other purposes during the bidding period. Addendum notification(s) will be sent to each planholder at the email address provided by the contractor for the planholders list and addenda will be posted on District's website at: <a href="https://www.valleywater.org/construction">https://www.valleywater.org/construction</a>

- **A. Project Manager**. District's Project Manager for this Project is Emmanuel Aryee.
- **B.** Process Questions. For questions regarding the bid process, please contact the District Plan Room at <a href="mailto:scvwdplanroom@valleywater.org">scvwdplanroom@valleywater.org</a> or call Kristy McMurtrie (408) 630-3088.

#### 11. Prevailing Wage Requirements.

- A. Workers employed on this Project must be paid at rates at least equal to the prevailing wage rates as determined by the State of California Department of Industrial Relations pursuant to Section 1770 *et seq.* of the Labor Code. Said wage rates are incorporated herein by reference and are available on the State of California Department of Industrial Relations website at: http://www.dir.ca.gov/. See Standard Provisions, Prevailing Wages Article 4.04. through Apprentices Article 4.06. for related requirements.
  - Due to the County of Santa Clara Public Health Officer's Order, District offices will remain closed to the public until further notice. The wage rates are therefore not currently available for review at District offices.
- B. This Project is subject to compliance monitoring and enforcement by the State of California Department of Industrial Relations. The Contractor and subcontractors must furnish the records specified in Section 1776 directly to the Labor Commissioner, in the following manner: monthly, in a format prescribed by the Labor Commissioner.
- 12. Bid Proposal Submittal. All Bids must be submitted in sealed envelopes addressed to the Santa Clara Valley Water District. Attention: Construction Programs and state the Project name and Project number on the outside of the sealed envelope. Each Bid must be submitted on the prescribed Bid Forms. All information on Bid Forms must be completed in ink.
  - **A. Bid Submittal Delivery**. Bidders are only allowed to submit a Proposal by third party carrier such as: FEDEX, UPS, DHL, CA Overnight, Golden State Overnight,



etc., and must address the submittal in accordance with instructions stated in this paragraph 12. Any Proposal received after 2 p.m. will not be considered. Late Bids will be returned unopened.

# NO BIDS WILL BE ACCEPTED VIA IN PERSON DELIVERY OR USPS (US MAIL).

Address the outside delivery envelope as follows:

Santa Clara Valley Water District Attention: Construction Program **Project Name and #** 5905 Winfield Boulevard San Jose, CA 95123-2428

Note: USPS (US Mail) does not deliver to 5905 Winfield Boulevard.

- **13. Bid Opening**. For the duration of the COVID-19 pandemic, to ensure the safety of the public and District employees and requisite social distancing requirements by Order of the County of Santa Clara Public Health Officer, the opening of bids shall be made available to the public only by video teleconference, live-stream, on the date stated in this Notice to Bidders, paragraph 1. Notice, above, at **2:30 p.m.** The results will be posted on the District's website at <a href="https://www.valleywater.org/construction">https://www.valleywater.org/construction</a> no later than the following day.
  - **A. Join Zoom Meeting.** Any person interested in attending the live-stream bid opening, may do so by accessing the link below, or join via phone by calling the toll-free number listed below:

Join Zoom Meeting:

https://valleywater.zoom.us/j/97962665136?pwd=c3oyRHVhakhSQm1HdCtOTm 5WL0JNUT09

Meeting ID: 979 6266 5136

Password: 093306

One tap mobile +16699009128, 97962665136#, 1#, 093306# US (San Jose)

Find your local number: https://valleywater.zoom.us/u/ajmlaIDCP

- **14. Errors or Discrepancies in the Bids**. District's Board of Directors reserves the right to reject any and all Bid Proposals and to waive minor defects or irregularities in any submitted Bid Form(s).
- **15. Bidder's Security**. Each Proposal must be accompanied by cash, a certified check, cashier's check, or an original Bidder's bond in the sum of not less than 10 percent of the total aggregate of the Proposal including all additive Bid items. Said checks or bond must be made payable to the Santa Clara Valley Water District.

#### **Notice to Bidders**



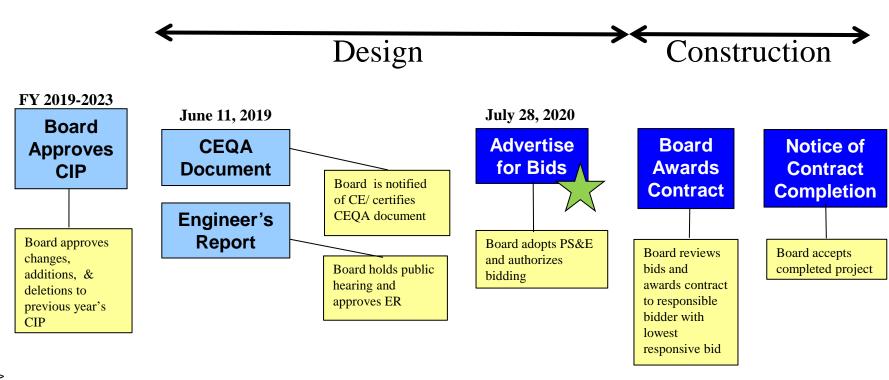


16.	Contract Retention.	
		The Contract Retention for this Project is established at five (5) percent of the Contract Price.
		The Contract Retention for this Project is established at ten (10) percent of the Contract Price. The Board of Directors has made a finding that the Project is substantially complex and therefore requires retention higher than five percent.
17.	expen	itution of Securities. The Contractor may, at the Contractor's request and se substitute securities equivalent to the amount withheld by the District to ensure rformance of the contract, in accordance with Public Contract Code Section .
18.	Small Business Preference. [NOT USED].	
19.	Distric adhere	<b>Opportunity</b> . The District is an equal opportunity employer and all Contractors of t's projects are to have and follow a policy of equal opportunity including ence to all state and federal laws and regulations, including the Federal Equal tunity Clause.
	er of th / 28, 20	e Board of Directors of the Santa Clara Valley Water District, San Jose, California, 220.
ATTES	ST: MIC	HELE L. KING, CMC
Clerk/E	Board o	f Directors

# **Project Delivery Process**

# **Small Capital Project**

Santa Teresa Water Treatment Plant Air Wash Pipeline Replacement, Project No. 93764004

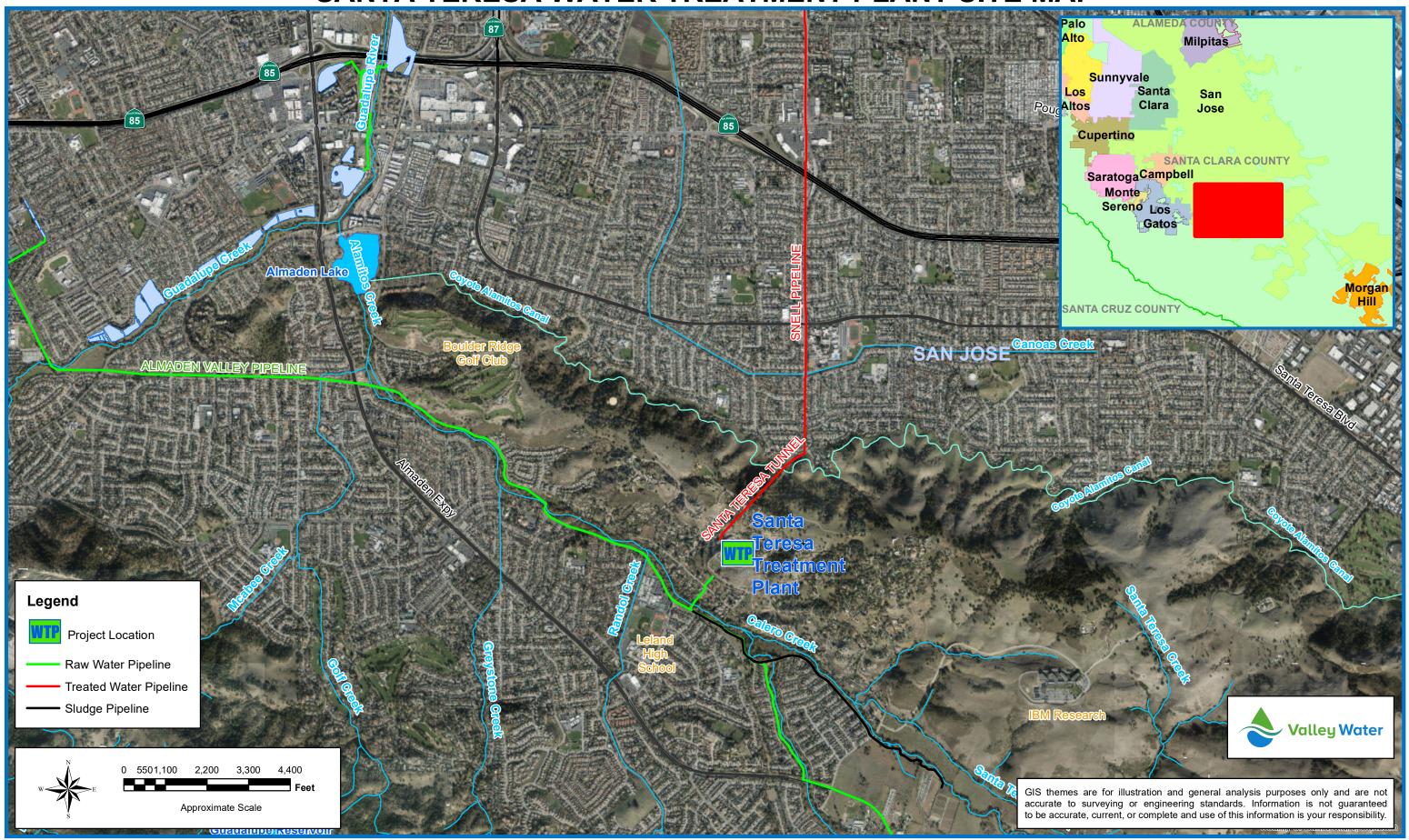


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**Proposed Board Action(s) requested by this Item** 

# SANTA TERESA WATER TREATMENT PLANT SITE MAP



# SPECIFICATIONS AND CONTRACT DOCUMENTS

# FOR THE CONSTRUCTION OF

# SANTA TERESA WATER TREATMENT PLANT AIR WASH PIPELINE REPLACEMENT PROJECT

Project No. 93764004

Contract No. C0662

**JULY 2020** 



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#### SPECIFICATIONS AND CONTRACT DOCUMENTS

#### FOR THE

#### **CONSTRUCTION OF**

#### SANTA TERESA WATER TREATMENT PLANT AIR WASH PIPELINE REPLACEMENT PROJECT

PROJECT NO. 93764004

CONTRACT NO. C0662

#### SANTA CLARA VALLEY WATER DISTRICT

Approved by:  Emmanuel Aryee, P.E. Capital Engineering Unit Manager Water Utility Capital Division	6/1/2020  Date
Accepted by:  Heath McMahon, P.E.  Deputy Operating Officer Water Utility Capital Division	6/1/2020 Date
Bhavani Yerrapotu, P.E. Deputy Operating Officer Treated Water Operations & Maintenance Division	6/1/2020 Date
Aaron Baker, P.E. Deputy Operating Officer Raw Water Operations Division	6/1/2020 Date
JULY 2020	
DISTRICT BOARD OF DIF	RECTORS

John L. Varela	District 1	Nai Hsueh, Chair	District 5
Barbara F. Keegan	District 2	Tony Estremera, Vice Chair	District 6
Richard P. Santos	District 3	Gary Kremen	District 7
Linda J. LeZotte	District 4	•	
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#### APPENDIX A

Agreement
Payment Bond
Performance Bond
Escrow Agreement for Security Deposit in Lieu of Retention

#### APPENDIX B

Guidelines for Contractor's As-Built Mark-Ups of Engineers Record Drawings

#### APPENDIX C

Migratory Bird Permit Memorandum Solid Materials Management Report

#### APPENDIX D

Plan Set for the Construction of Santa Teresa Water Treatment Plant Air Wash Pipeline Replacement Project

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## **STANDARD PROVISIONS**

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#### STANDARD PROVISIONS

#### **SECTION 1. DEFINITIONS**

Whenever in these Specifications and other Contract Documents the following abbreviations and terms or pronouns in place of them are used, the intent and meaning shall be interpreted as follows:

#### **ABBREVIATIONS**

AASHTO American Association of State Highway and Transportation Officials

ACI American Concrete Institute
AISI American Iron and Steel Institute

AIEE American Institute of Electrical Engineers
AISC American Institute of Steel Construction
ANSI American National Standards Institute

API American Petroleum Institute

AREA American Railway Engineering Association

ASCE American Society of Civil Engineers

ASHRAE American Society of Heating, Refrigerating and Air Conditioning Engineers

ASME American Society of Mechanical Engineers
ASTM American Society of Testing and Materials

AWG American Wire Gage

AWPA American Wood Preservers' Association

AWS American Welding Society

AWWA American Water Works Association

BAAQMD Bay Area Air Quality Management District CAEPA California Environmental Protection Agency

CCR California Code of Regulations
CFR Code of Federal Regulations
CIH Certified Industrial Hygienist
CWA Federal Clean Water Act

DHS California Department of Health Services

HSC California Health and Safety Code

IEEE Institute of Electrical and Electronics Engineers

MSDS Material Safety Data Sheet NEC National Electric Code

NEMA National Electrical Manufacturers Association

NFPA National Fire Protection Association

NPDES National Pollution Discharge Elimination System RWQCB California Regional Water Quality Control Board

SAE Society of Automotive Engineers
SWPPP Storm Water Pollution Prevention Plan

SWRCB California State Water Resources Control Board

UBC Uniform Building Code
UL Underwriters Laboratories

USEPA United States Environmental Protection Agency

WCLB West Coast Lumber Inspection Bureau WWPA Western Wood Products Association

#### **DEFINITIONS**

**Acceptance:** The formal, written acceptance of the Contract by the District's Board of Directors, as documented in a recorded Notice of Completion of Contract and Acceptance of Work. Acceptance indicates that all Work has been completed in all respects in accordance with the Drawings and Specifications and with any modifications thereof previously approved.

Activity Hazard Analysis (AHA)/Job Hazard Analysis (JHA): A form used to identify the task and break it down into steps, identify the hazards associated with each step, and identify the control measures used for each step to protect the worker, environment, or public. This form is also commonly referred to as a Job Safety Analysis (JSA).

**Addendum:** Written or graphic instruments issued prior to the opening of Proposals that make changes, additions, or deletions to the Bid Documents, or Contract Documents.

**Agreement:** The written document executed by the parties formalizing the Contract.

**Approved, Directed, Ordered, or Required:** Whenever these words or their derivatives are used, it is the intent, unless otherwise clearly stated, that approval or direction by the Engineer is indicated.

**Article:** A numbered portion of a title Section of the Specifications.

**Bid:** The completed Proposal and all associated Bid Forms, including Bidder's Bond or other Bidder's security. Bids not accompanied by the required documents are considered incomplete bids and are nonresponsive.

**Bid Documents**: All documents to be considered when preparing a Bid. The Notice to Bidders, Instructions to Bidders, Proposal and all accompanying Bid Forms, Bidder's Bond or other Bidder's security, and Contract Documents.

**Bidder:** Any individual, firm, partnership, corporation, or combination thereof, submitting a proposal for the Work contemplated, acting directly or through a duly authorized representative.

Board, Board of Directors: The Board of Directors of the District.

**Certified Industrial Hygienist:** A professional who is certified by the American Board of Industrial Hygienists as trained to evaluate safety and health hazards and to determine safety measures necessary for personnel working under hazardous conditions.

Code: The terms Government Code, Labor Code, etc. refer to codes of the State of California.

**Competent Person:** A person capable of identifying existing and predictable hazards in the surroundings or working conditions that are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt, corrective measures to eliminate those conditions.

**Construction Equipment:** Equipment used for the performance of work but not incorporated into the Project.

**Contract:** The written Agreement between the Contractor and the District comprised of the Contract Documents.

**Contract Documents:** Refer to Article 2.01. Contract Documents and Precedence.

**Contract Time(s):** The time (Days) allowed for completion of the entire Work or portion thereof as defined by specified Milestones that meets the requirements of the Contract Documents and is accepted by the Engineer. See also Project Completion and Milestone Completion.

**Contract Price(s):** The price (dollars) for completion of the entire Work set forth in the Contract Documents.

**Contractor:** The entity or person with whom the District has executed the Contract and has identified as such therein and referred to throughout the Contract Documents as singular in number and neuter in gender. The term "Contractor" means Contractor or its authorized representative.

**Controlling Item of Work:** Any feature or combination of features of the Work considered at the time by the Engineer, which if delayed, will delay the completion of Work associated with a specified Contract Time(s).

Days: Calendar days, unless otherwise designated.

**Delay:** An increase in the duration or length of time for performing the Work that is caused by any event, action, inaction, or factor. The five types of delay are defined in Article 3.08. Change in Contract Time(s).

**Definable Feature of Work:** A task that is separate and distinct from other tasks and that has separate control requirements.

**District:** The Santa Clara Valley Water District.

**Drawings:** The official Drawings, working Drawings, detail Drawings, and supplemental Drawings, or reproductions thereof, that show the location, character, dimension, and details of the Work to be done and that are to be considered as part of the Contract.

**Engineer:** The designated Engineer as defined in Article 3.02. Engineer of the Standard Provisions who, acting either directly or through a properly designated representative, assumes all duties and responsibilities, and has all rights and authority in accordance with the Contract Documents.

**Equipment:** Equipment incorporated or to be incorporated into the Project.

**First Chargeable Day:** The first day of Contract Time allowed for completion of the entire Work. The First Chargeable Day will be specified in the Notice to Proceed.

**Fixed Costs:** Any necessary labor, Material, and Equipment costs directly expended on the item or items under consideration that remain constant regardless of the quantity of Work done.

Hazardous Material: (A) Any substance, product, waste, or other material of any nature whatsoever that is or that becomes listed, regulated, or addressed pursuant to any Federal, State, or Local Statute, Law, Ordinance, Resolution, Code, Rule, Regulation, Order, or Decree regulating, relating to, or imposing liability (including, but not limited to, response, removal, and Remediation costs) or standards of conduct or performance concerning any hazardous, toxic, explosive, corrosive, flammable, infectious, radioactive, carcinogenic, mutagenic, or as otherwise dangerous waste, substance, or material; (B) any substance, product, waste, or other material of any nature whatsoever whose presence in and of itself may give rise to liability under any of the above Statutes or under any statutory or common law theory based on negligence, trespass, intentional tort, nuisance, strict, or absolute liability or under any reported decisions of a State or Federal court; (C) any substance without limitation that contains petroleum or crude oil, including, but not limited to, petroleum and petroleum products.

**Hazardous Waste:** Any substance or material as defined in the California Hazardous Waste Control Act Health and Safety Code, Chapter 6.5, Sections 25100 - 25257.1, or in the Resource Conservation and Recovery Act, 42 U.S.C. 6901 et seq.

**Liquidated Damages:** The amount stated in the Specifications, as provided for in Government Code Section 53069.85, to be paid to the District or to be deducted from any payments due or to become due the Contractor for each Day of Inexcusable Delay in completing the whole or any specified portion of the Work beyond the specified Contract Time(s) or any other amount specifically stated as a Liquidated Damage in the Contract.

**Material:** Material incorporated or to be incorporated into the Project.

**Milestone:** A specified portion of the Work identified in the Contract as a Milestone that is to be completed under the Contract.

**Milestone Completion:** The date determined by the District when the Milestone is to be complete. Milestone Completion does not constitute acceptance but does establish the completion date of the Milestone for the purpose of assessing Liquidated Damages, if any, associated with the Milestone.

**Personnel Protection**: Equipment and procedures that minimize human exposure to Regulated Material, Hazardous Material, Hazardous Waste, or unsafe situations.

Plans, Construction Plans: See Drawings.

**Project:** The erection, construction, alteration, repair, or improvement to be accomplished under the Contract. Refer to Work.

**Project Completion:** The stage at which the whole Work is complete per the Contract Documents, and the Engineer has performed the final inspection and issued a Project Completion letter.

**Proposal:** The Proposal states the price for which the Bidder proposes and agrees to perform the Work. See Proposal and Bid Items, Bid Form No. 1.

**Qualified Biologist:** A biologist who has the experience, education and training necessary to perform specific tasks related to the biological subject discipline, and in an unbiased fashion. The term 'qualified biologist' is used generically to mean a biologist who is trained to perform the given task; specifically, a fisheries biologist, wildlife biologist, or botanist. Training must be in the field to which the task is related. (Refer to the appendices for specific fields of study).

**Reasonable Accuracy:** Within the tolerances as shown on the Drawings or as indicated in the Specifications.

**Regulated Material:** Any substance or combination of substances for which Federal, State, or Local regulations require special management, storage, disposal, or handling practices. This includes, but is not limited to, material defined as Hazardous Material and Waste; designated waste (California Water Code Section 13173); and special waste (California Code of Regulations, Title 22, Div. 4.5 [Environmental Health Standards for the Management of Hazardous Waste]).

**Remediation:** Restoration of contaminated soil, groundwater, or other materials to its precontaminated level or to a level acceptable to the District and Local, State, and Federal agencies.

**Responsible Bidder:** Responsible Bidder as defined in California Public Contract Code Section 1103.

**Specifications:** The directions, provisions, and requirements contained in the Standard Provisions, Special Provisions, and Technical Provisions.

**Subcontractor:** An entity or person contracting with the Contractor or with another Subcontractor to perform any portion of the Work. The term "Subcontractor" is referred to throughout the Contract Documents as singular in number and neuter in gender and means a Subcontractor or its authorized representative.

**Supplier:** An entity or person contracted with the District, the Contractor or its Subcontractors to provide materials and/or equipment for any portion of the Work. The term "Supplier" is referred to throughout the Contract Documents as singular in number and neuter in gender and means a Supplier or its authorized representative.

**Total Bid Price**: The sum stated in the Bid for which the Bidder offers to perform the Work described in the Bid Documents. The Total Bid Price shall include the entire cost of all Work necessary for a complete and fully operational structure or facility in accordance with the requirements of the Contract Documents.

**Work:** Refer to Article 3.01. Work to be Done, paragraph A. References in the Contract Documents to "Work" may be to specific items of Work.

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#### **SECTION 2. CONTRACT DOCUMENTS**

#### 2.01. Contract Documents and Precedence

- A. The Contract Documents comprise the entire Agreement between the District and the Contractor concerning the Work. The Contractor shall properly perform all requirements of the Contract Documents.
- B. The Contract Documents include the District's Contract form and any exhibits attached thereto, including the Notice to Bidders, Instructions to Bidders, Proposal Form, Proposal, Standard Provisions, Special Provisions, Technical Provisions, Drawings, Specifications, Addenda, Appendices, approved Change Orders, and Directed Change Orders (DCO) as defined in Section 3, if any.
- C. The Contract Documents are intended to be complementary and include all items necessary for the Contractor's proper execution and completion of the Work. Anything mentioned in the Specifications and not shown on the Drawings, or shown on the Drawings and not mentioned in the Specifications, shall be as if shown or mentioned in both. Any part of the Work not shown or mentioned in the Drawings or in the Specifications that is inferable or implied by either, or that is necessary or usual for proper performance of the Work, shall be provided by the Contractor at its own expense.
- D. In case of conflicts, errors, and discrepancies in any of the Contract Documents, the order of precedence (from highest to lowest priority) is as follows. Within the same order of precedence, specific requirements shall take precedence over general requirements:
  - 1. Change Orders (CO) or DCO
  - 2. Agreement
  - 3. Addenda
  - 4. Special Provisions
  - Technical Provisions
  - 6. Drawings/Plans
  - 7. Standard Provisions
  - 8. State Specifications and Plans
  - 9. Appendices
- E. With reference to the Drawings:
  - 1. Figures or numerical dimensions govern over scaled dimensions.
  - 2. Detail Drawings govern over general Drawings.

- 3. Addenda/CO or DCO Drawings govern over Contract Drawings.
- 4. Contract Drawings govern over standard Drawings.
- Notes apply only to the Drawings where the notes appear, unless classified as "typical," "general," or "universally applicable," in which case they apply to all Drawings where the conditions or circumstances noted occur.
- 6. Typical details apply to all Drawings, unless a specific, different detail is shown.

#### 2.02. State Specifications and Plans

- A. Unless otherwise stated, State Specifications and Plans referred to in these Specifications shall be the latest published edition of the State of California Department of Transportation Standard Specifications and Standard Plans and updates thereto and are by reference made a part of these Specifications the same as though set out in full, as to the provisions requiring compliance.
- B. When specifically stated to follow the State Specifications and Plans for an item, the Work set forth in these Contract Documents shall be accomplished in accordance with the appropriate provisions and details of the State Standard Specifications and Standard Plans.

#### 2.03. Clarification of Contract

- A. The following interpretative rules apply throughout the Contract Documents:
  - 1. The provisions of the Contract Documents are complementary and should be interpreted to view the Contract Documents as a whole.
  - 2. A concept phrased in the singular should be interpreted in the plural as required.
  - 3. Masculine includes feminine and feminine includes masculine.
  - 4. The words "shall," "will," and "must" in any of their tenses indicate mandatory requirements. The word "may" indicates "may apply" or "may not apply."
  - 5. The use of examples (e.g., "such as" or "including") does not limit or exclude examples not specifically mentioned.
  - 6. The words "provide," "furnish," "perform," "construct," and "install" mean that the Contractor shall provide, perform, construct, and install and shall include all services necessary to provide, perform, construct, and install unless preceded by the word "only."

- B. The Contract Documents are not complete in every detail but show the purpose and intent only. The Contractor shall comply with their true intent and meaning, taken as a whole, and shall not avail itself of any manifest error, omission, discrepancy, or ambiguity that appears in the Contract Documents, instructions, or work performed by others.
- C. All corrections of readily apparent errors or omissions in the Contract may be made by the Engineer when such corrections are necessary for the proper fulfillment of their intention as construed by the Engineer. The misplacement, addition, or omission of any word, letter, figure, or punctuation mark that has no substantive legal effect will in no way change the due spirit, intent, or meaning of these Specifications.
- D. Any part of the Work not shown on the Drawings or described in these Specifications, but that is reasonably or ordinarily implied by either, shall be furnished and installed by the Contractor as if fully described in these Specifications and shown upon the Drawings.
- E. Contract Document Clarifications (CDC): A document initiated by the District consisting of supplementary details, instructions, or information issued by the District that clarifies or supplements the Contract Documents. Contract Document Clarifications do not constitute a change in Contract Work, Contract Price(s), or an extension in Contract Time(s) unless requested by the Contractor and approved by the District in accordance with the Contract Documents.
- F. Payment for items of Work that are called for in the Specifications or that are shown on the Drawings but that are not separately identified in the Proposal Form, shall be compensated as part of the Bid price of one or more of the items that are listed; no additional payment shall be made.

#### 2.04. Requests for Information

- A. Request for Information (RFI): A document prepared by the Contractor requesting information from the District regarding the Project or Contract Documents.
- B. Contractor shall be responsible for its costs and the costs of its Subcontractors to review Contract Documents and field conditions and to implement and administer an RFI system throughout the Contract Time(s) in accordance with the requirements of the Contract. The Contractor shall be responsible for costs incurred by the District for the work of the District's consultants and District administrative efforts in answering Contractor RFIs where the answer could reasonably be found by reviewing the Contract Documents.
- C. The Contractor shall carefully review the appropriate portions of the Contract Documents a minimum of 30 Days in advance of the Work to be executed for the express purposes of checking for manifest errors, omissions, discrepancies, or ambiguities. The Contractor shall not be entitled to any compensation for

- Delays, disruptions, inefficiencies, or additional administrative effort caused by the Contractor's untimely review of the Contract Documents.
- D. Should it appear that the Work to be done or any of the matters relative thereto are not sufficiently detailed or explained in the Specifications or on the Drawings, or if the Contractor discovers any discrepancies between the Contract Drawings and conditions in the field, or any errors or omissions in the Contract, or in the layout given by stakes, points, or instructions, the Contractor shall submit a written RFI to the Engineer. If the Contractor proceeds with any such Work without receiving such clarification or RFI reply, it shall be responsible for correcting all resulting damage and any nonconforming Work.
- E. The Engineer will issue written clarification or interpretation of Contract Document requirements in response to the Contractor's requests and other sources of information. The Engineer's decision thereon shall be final; the Contractor shall conform to it as part of the Contract.

#### 2.05. Examination of Drawings, Specifications, and Site of Work

- A. As noted in the Notice to Bidders, the Contractor's submission of a Proposal is conclusive evidence that the Contractor investigated and is fully aware of the conditions and difficulties to be encountered of the character, quality, and quantities of work to be performed, the Material to be furnished, and the requirements of the Proposal, Drawings, Specifications, and other Contract Documents.
- B. Where investigation of subsurface conditions has been made by the District in respect to foundation, characterization of soils, groundwater, or other design, Bidders may inspect the records of the District as to such investigation, including examination of samples and drill cores, if any. When logs of test boring showing a record of the data obtained by the District's investigation of subsurface conditions are made available, these logs represent only the opinion of the District as to the character of material encountered by it in its test borings and are made available only for the convenience of Bidders.
- C. Note that the District's investigation of subsurface conditions is made for the purpose of design. The District assumes no responsibility whatsoever in respect to the sufficiency of test borings, or to accuracy of the log of test borings, or to other preliminary investigations, or of the interpretation thereof. There is no guarantee, expressed or implied, that the conditions indicated are representative of those existing throughout the Work, or to any part of it, or that unforeseen developments may not occur.
- D. Making such information available to the Contractor is not to be construed in any way as a waiver of the provisions of this Article; Bidders must satisfy themselves through their own investigations, analyses, and interpretations as to conditions to be encountered.

E. No information derived from such inspection of records or from preliminary investigations made by the District, or from the Engineer, or from assistants, or from the maps, Specifications, profiles, or Drawings will in any way relieve the Contractor from any risk or from properly fulfilling all the terms of the Contract.

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# **SECTION 3. SCOPE OF WORK**

### 3.01. Work to be Done

- A. The performance by the Contractor of all of its responsibilities and obligations set forth in the Contract Documents. Work includes, but is not limited to, providing labor, Materials, Equipment, testing, services, and documentation required by the Contract Documents. References in the Contract Documents to "Work" may be to specific items of Work. All Work performed is to be in compliance with the Contract Documents.
- B. During construction, the Contractor shall keep the worksite, areas adjacent to the worksite or otherwise impacted by the Contractor's operations and access roads in an orderly condition, free and clear of debris and discarded materials.

### 3.02. Engineer

- A. The Engineer of the District shall be the District's representative who assumes all duties and responsibility and has all rights and authority as assigned in the Contract Documents.
- B. The Engineer of the District is the Deputy Operating Officer or Assistant Operating Officer of the Water Utility Capital or Watershed Capital or Water Utility Technical Support Division or Office of Watersheds as applicable. Administrative hearings, if required, will be conducted by an Operating Officer of a different Division or Office.
- C. Authority of Engineer: The Engineer shall decide all questions that may arise as to the quality or acceptability of Material furnished, Work performed, and rate of progress of the Work; all questions that may arise as to the interpretation of the Drawings and Specifications; and all questions as to the acceptable fulfillment of the Contract on the part of the Contractor. The Engineer's decisions shall be final. The Engineer has the authority to enforce these decisions and provide direction to the Contractor, which the Contractor shall carry out promptly.

### 3.03. Contractor Staffing

- A. A project manager and superintendent shall be provided as specified below:
  - 1. The Contractor shall submit for approval in writing before starting the Work the name of the project manager and superintendent who shall have complete authority to represent and act for the Contractor. This submittal shall also include a list of reference projects with the following information: (i) the individual's name; (ii) the project name that serves as the basis of qualification; (iii) the project site location; (iv) a brief project description; and (v) the name and mailing address of the project owner.
  - 2. The project manager shall have at a minimum seven (7) years' experience as a contractor's project manager on public works with not less than four (4) years' experience as a project manager on projects with

complexity and configuration similar to the Work described in the Contract Documents.

- 3. The superintendent shall have at a minimum seven (7) years' experience as a contractor's general superintendent on public works with not less than four (4) years' experience as a superintendent on projects with complexity and configuration similar to the Work described in the Contract Documents.
- 4. The superintendent of the Contractor shall normally be present at the site of the Work at all times while Work is actually in progress on the Contract. During any period when Work is suspended, arrangements acceptable to the Engineer shall be made for any emergency Work that may be required to be done by the Contractor.
- 5. Whenever the Contractor or an authorized representative is not present on any part of the Work where it may be desired to give direction, orders will be given by the Engineer, which shall be received and obeyed by the superintendent who may have charge of the particular Work in reference to which the orders are given. Any order given by the Engineer not otherwise required by the Specifications to be in writing will, on the request of the Contractor, be given or be confirmed by the Engineer in writing.
- 6. If the project manager or superintendent is not deemed qualified or if the project manager's or superintendent's performance on the Work is determined to be unsatisfactory by the Engineer, the project manager or superintendent shall be immediately removed from the Project. The Contractor shall submit for approval the same information described in this article for a proposed substitute project manager or superintendent.
- 7. The Contractor shall designate, in writing, the names and telephone numbers of at least three (3) representatives who can be contacted at any time in the event that an emergency occurs.
- B. A Professional Scheduler shall be provided unless removed in the Special Provisions. The Professional Scheduler shall meet the requirements specified in Article 5.04. Professional Scheduler. If Professional Scheduler is not required, the Contractor is responsible for providing adequate resources required to develop and to maintain schedules.
- C. A Site Safety and Health Supervisor shall be provided unless removed in the Special Provisions. The Site Safety and Health Supervisor shall meet the requirements specified in Article 8.11. Site Safety and Health Supervisor.
- D. A Field Quality Control Manager shall be provided if required in the Special Provisions. The Field Quality Control Manager shall meet the requirements specified in the Special Provisions Article 20.04.02. Contractor's Quality Staffing Requirements.

### 3.04. Character of Workers

A. Any Subcontractor or person employed by the Contractor or Subcontractor who fails or refuses to carry out the directions of the Engineer, or who appears to the Engineer to be incompetent, or who acts in a disorderly or improper manner shall be removed from the Work immediately on the written request of the Engineer; such person shall not again be employed on the Work.

### 3.05. Layout of Work and Surveys

### 3.05.01 Responsibility of District

- A. The District shall establish survey control points and reference points as shown on the Drawings for required field layout by the Contractor.
- B. The District shall provide only the minimum survey crew services essential for orderly performance of the Work; District survey crews will not be available at all times for the Work under these Specifications.
- C. The District shall provide to the Contractor the station(s) and offset distance(s) to all reference points and benchmarks that were provided by the District in paragraph A.
- D. The District shall establish required stakes only once. Survey stakes destroyed or removed will be replaced by the District at the Contractor's expense.

### 3.05.02. Responsibility of Contractor

- A. When the Contractor requires stakes or marks as provided for in paragraph A, it shall clear and grub the area to be staked and then notify the Engineer of such requirements in a reasonable length of time in advance of starting operations that require such stakes or marks. In no event shall a notice of less than seven (7) Days be considered a reasonable length of time.
- B. Where construction operations require removal of the District's stakes or other survey marks, the Contractor shall reference such points in an approved manner. Survey stakes or marks established by the District shall be preserved by the Contractor until their removal is authorized. In case of their unauthorized destruction or removal by the Contractor's forces, they will be replaced at the Contractor's expense. Any cost to the District of replacing survey stakes or marks will be deducted from payments due the Contractor. Such cost will include a reasonable charge for use of District supplies, labor, and Equipment, plus overhead.
- C. The Contractor is solely responsible for the measurements and layout of the Project from the given survey control points and reference points provided by the District. Any questions with regard to interpretation of Project layout shall be resolved by the Engineer.

D. The Contractor shall not remove or disturb survey monuments and permanent markers unless otherwise approved by the Engineer and not until the District has recorded and referenced the locations. The Contractor shall be charged at a reasonable rate for the restoration or replacement of survey monuments and permanent markers by the District.

- E. No survey monuments, permanent markers for the District right of way, or District survey control points shall be removed or disturbed until the Engineer has recorded the locations thereof and a permit for such removal has been received from the agency having jurisdiction. When the construction Work has been completed, the Contractor shall replace said monuments accurately in the locations as referenced by the Engineer at no cost to the District.
- F. If any marker or monument is destroyed by the Contractor without prior written approval of the Engineer, the Contractor shall be responsible for the accurate replacement of that marker or monument at no expense to the District by a Land Surveyor licensed by the State of California in accordance with the California Business and Professions Code Chapter 15, Land Surveyors, Section 8771.

# 3.06. Changes in the Work

- A. **Change Order**: A written document that changes the Contract and has been fully executed bilaterally by the District and Contractor that authorizes an addition, deletion, or revision in the Work; an adjustment in the Contract Price(s); and/or the Contract Time(s), including Milestone Completion dates or durations.
- B. **Directed Change Order (DCO)**: The District's written order that is a Change Order unilaterally executed by the District to order additions, deletions, or revisions in the Contract Work. If deemed necessary and/or appropriate by the Engineer, the DCO will include an adjustment in the Contract Price(s) and/or in the Contract Time(s) and/or in other terms and conditions that the District, at its sole discretion, deems reasonable for the change.
- C. **Potential Change Order (PCO)**: The District's written request to the Contractor for a proposal to perform PCO Work prior to the District's issuance of a Change Order or DCO. A PCO may also be created by the District to track disputed Work.

### 3.06.01. Potential Change Orders and Change Orders

A. The District may at any time, or from time to time and without notice to the Contractor's surety, order additions, deletions, or revisions to the Work and/or to the Contract Time(s) and may request a proposal from the Contractor for a PCO for such additions, deletions, or revisions in the Work and/or in the Contract Time(s). Pursuant to Articles 3.07. Change in Contract Price(s) and 3.08. Change in Contract Time(s), the Contractor shall submit any requests the Contractor has for adjustments in the Contract Price(s) and/or in the Contract Time(s).

B. Notwithstanding the time limits stated in Article 3.06.01. Potential Change Orders and Change Orders, upon receipt of such request, the Contractor shall furnish a detailed estimate of increase or decrease in costs and/or in time, together with cost and schedule breakdowns and other supporting data within the time specified in the request, but no later than 30 Days after receipt of such a request unless the Engineer allows additional response time. The Engineer shall review and respond in writing to the Contractor's estimate prior to proceeding with the Work.

- C. Changes in the Contract Price(s) shall be determined and paid in accordance with Article 3.07. Change in Contract Price(s). Changes in the Contract Time(s) shall be determined and adjusted in accordance with Article 3.08. Change in Contract Time(s).
- D. The District and the Contractor shall execute appropriate Change Orders covering:
  - 1. changes in the Work that are ordered by the District pursuant to paragraph "A" above;
  - 2. changes in the Contract Price(s) and/or Contract Time(s) that are agreed to by the parties; or
  - 3. any other changes agreed to by the parties.
- E. The Contractor shall not be entitled to an increase in the Contract Price(s) nor to an extension of the Contract Time(s) with respect to any Work performed that is not required by the Contract, except in the case of an emergency or in the case of uncovering Work as provided in Article 9.06.01. Inspection, paragraph H.

### 3.06.02. Change Order Request

- A. Should the District's Contract Document Clarifications (CDC) or other written directive, in the opinion of Contractor, materially exceed or change the requirements of the Contract Documents, the Contractor shall submit to the District a written Change Order Request (COR) within seven (7) Days of receipt of the CDCs or of other written directive.
- B. A COR shall reference the CDC or other written directive and the relevant Specifications and Drawings.
- C. A COR shall also include a cost proposal and/or time adjustment proposal as a good faith estimate of any additional compensation or time associated with the affected Work.
- D. Failure to submit a timely, documented COR shall constitute a waiver of any future claim for additional compensation or time relating to such Work.

### 3.06.03. Directed Change Orders

A. In situations where (i) the Contractor fails to submit a proposal for a PCO within the time specified; or (ii) when the District and the Contractor cannot agree on the terms and conditions of a PCO within a reasonable amount of time as determined by District; or (iii) if, in the judgment of the Engineer, it is impracticable because of the nature of the change or for any other reason for the parties to determine and agree on the costs and schedule impacts before the change must be performed, the District has the right to issue to the Contractor a DCO signed by the District only, with compensation based on the Engineer's estimate of cost, time, and other impacts associated with performance of changes in the Work.

- B. A DCO may be issued by the District as a result of, but not limited to, any of the following conditions:
  - Responding to differing or unforeseen physical conditions under which the Work is to be performed as provided in Article 3.09. Differing Conditions.
  - 2. Responding to any damage to improvements of property or to an emergency affecting the safety of life or property as provided in Article 4.10. Preservation of Property.
  - 3. Utility relocation as provided in Article 4.25. Coordination With Utilities.
  - 4. Emergency work as provided in Article 4.10. Preservation of Property and in the Special Provisions.
  - 5. Protested Work under Article 3.11.01. Protest.
  - 6. PCO work.
- C. Upon receipt of a DCO, the Contractor shall immediately act upon the Work ordered by the District, all in accordance with the applicable terms and conditions of the Contract Documents.
- D. The District's issuance of a DCO is for the purpose of unilaterally modifying the Contract Work, and/or Contract Price(s), and/or Contract Time(s), as deemed necessary by the Engineer. The parties may subsequently negotiate mutually acceptable terms and conditions of a Change Order to replace the DCO, as provided in this Article.
- E. The Contractor may, at any time after the District's issuance of a DCO, furnish a detailed estimate of increases or decreases in costs and/or time, cost and schedule breakdowns, and references to relevant Contract Specifications in support of its position with regard to the unilateral directive.

F. Should the Contractor disagree with the terms of the DCO, the Contractor may protest in accordance with Article 3.11.01. Protest. This action shall not delay the requirement to immediately act upon the Work as provided herein.

### 3.06.04. Allowable Quantity Variations

- A. General: Increases or decreases in the quantity of a Contract item of Work shall be determined by comparing the actual pay quantity of an item of Work with the approximate quantity in the listing of the Bid items contained in the Proposal.
  - 1. If the actual pay quantity of an item of Work varies from the approximate quantity by 25 percent or less, payment shall be made for the actual quantity of Work performed at the Contract unit price listed in the Proposal.
  - 2. If the actual pay quantity of an item of Work varies from the approximate quantity by more than 25 percent, in the absence of an executed Contract Change Order or DCO specifying the compensation to be paid, the compensation payable to the Contractor shall be determined in accordance with this Article.
    - Increases of More Than 25 Percent: If the actual pay quantity of a. an item of Work exceeds the approximate quantity by more than 25 percent, the amount of Work in excess of 125 percent of the approximate quantity may be paid for by adjusting the Contract unit price, subject to the following conditions: (i) the Contractor can demonstrate to the satisfaction of the Engineer that an adjustment in the Contract unit price is warranted; and (ii) the adjusted unit prices are reasonable and approved by the Engineer. Such adjustment of the Contract unit price shall be the positive or negative difference between the Contract unit price and the actual unit cost of the total pay quantity of the item. At the sole option of the Engineer, the actual unit cost of the Work involved in such excess shall be determined in accordance with Article 3.07.01.G.2. (by mutual acceptance of a lump sum) or with Article 3.07.02. Cost of Extra Work (based on Time and Materials); such unit costs shall include an appropriate portion of the Contractor's allowable overhead and profit.
      - (1) If the cost of an item of Work includes Fixed Costs, the Fixed Costs shall be deemed to have been recovered by the Contractor by the payments made for 125 percent of the approximate quantity at the Contract unit price for the item; in computing the actual unit cost, the Fixed Costs shall be excluded.
      - (2) When the compensation payable for the quantity of Work performed in excess of 125 percent of the approximate quantity is less than \$5,000 at the Contract unit price, no adjustment in the Contract unit price shall be made unless

requested in writing by the Contractor within 14 Days from the date the Contractor became aware, or should have reasonably become aware, of the increase in quantity.

- b. Decreases of More Than 25 Percent: If the actual pay quantity of an item of Work is less than 75 percent of the approximate quantity, an adjustment in unit price shall not be made unless the Contractor makes a request in writing within 14 Days from the date the Contractor became aware, or should have reasonably become aware, of the decrease in quantity. If the Contractor makes a request, the actual pay quantity of this item of Work performed may be paid for by adjusting the Contract unit price. subject to the following conditions: (i) the Contractor can demonstrate to the satisfaction of the Engineer that an adjustment in Contract unit price is warranted; and (ii) the adjusted unit prices are reasonable and approved by the Engineer. Such adjustment of the Contract unit price shall be the positive or negative difference between the Contract unit price and the actual unit cost of the total pay quantity of the item, including Fixed Costs. At the sole option of the Engineer, payment for the actual quantity of Work shall be made by mutual acceptance of a lump sum amount or cost of Work based on Time and Materials: such unit costs shall include an appropriate portion of the Contractor's allowable overhead and profit.
  - (1) Payment for the actual pay quantity of such item of Work shall in no case exceed the payment that would have been made for the performance of 75 percent of the approximate quantity of such item at the Contract unit price.
- B. Eliminated Items: If any Contract item of the Work is eliminated in its entirety, the Contract Sum shall be reduced by the amount bid for that Bid item, including overhead and profit. Payment shall be made to the Contractor for the actual cost incurred in connection with the eliminated Contract item if incurred prior to the date of notification in writing by the Engineer of such elimination.
  - 1. If acceptable Material is ordered by the Contractor for an eliminated Contract item prior to the date of notification of the elimination by the Engineer, and if orders for the Material cannot be canceled, payment for the Material shall be made at the actual cost to the Contractor. In this case, the Material shall become the property of the District. If the Material can be returned to the vendor and if the Engineer so directs, the Material shall be returned, and the Contractor shall be paid for the actual cost for returning the Material.
  - 2. The actual costs to be paid by the District to the Contractor in accordance with this Article will be computed in accordance with Article 3.07.02. Cost of Extra Work, which shall include an allowance for overhead and profit.
  - 3. In the event the Contractor and the District are unable to agree on the credit amount due, the District shall unilaterally determine the amount.

C. Supplemental Contract Items: Items noted as "Supplemental" in the Proposal may be deleted entirely or in part at the sole discretion of the District. The provisions of Articles associated with Allowable Quantity Variations or Eliminated Items shall not apply to Supplemental Contract Items.

# 3.07. Change in Contract Price(s)

#### 3.07.01. General

- A. The Contract Price(s) constitutes the total compensation payable to the Contractor for performing the Work. All duties, responsibilities, and obligations assigned to or undertaken by the Contractor to perform the Work shall be at the Contractor's expense without a change in the Contract Price(s).
- B. The Contract Price(s) shall only be changed by a fully executed Change Order or by a DCO. Any requests by the Contractor for an increase or decrease in the Contract Price(s) shall be based on a written Change Order Request (COR) delivered promptly by the Contractor to the Engineer by no later than seven (7) Days after the date of the occurrence of the event giving rise to the request and stating the general nature of the request, unless the time is modified in the Special Provisions.
- C. The COR by the Contractor shall be substantiated within 30 Days after submittal of the written notice with a cost proposal quantifying the costs and schedule impacts associated with the request with supporting data, unless the Engineer allows an additional period of time for the Contractor to ascertain more accurate data in support of the request, or unless the time is modified in the Special Provisions.
- D. No request by the Contractor for an adjustment in the Contract Price(s) shall be valid if not submitted timely in accordance with this Article; failure to submit a timely and fully documented request shall constitute a waiver of any future requests or Claims for additional compensation or a time extension related to such Work.
- E. Any request for an adjustment in the Contract Price(s) and/or in the Contract Time(s) shall include, but shall not be limited to:
  - 1. a written description of the event or issue or combination of events/issues that gave rise to the request, including and without limitation, the start date of the event or events and the anticipated or actual finish date;
  - 2. a written description of the legal basis of the request with specific references to the Contract provisions upon which the Contractor relies;
  - 3. an identification of the Work (e.g., activities with the current updated Detailed Progress Schedule and similar information) affected by the event(s);

4. relevant correspondence and other information related to and supporting entitlement;

- 5. written documentation pursuant to Article 3.07.02. Cost of Extra Work through 3.07.05. Compensation for Time Extension related to pricing of the requested change;
- 6. a written description of the effect of the request on the progress of the Work;
- 7. a detailed schedule analysis based on the most current Detailed Progress Schedule that identifies the critical and/or controlling portions of the Work impacted by the change and the anticipated dates of the impact;
- 8. the specific number of Days of time extension requested for any impacted Contract Time(s);
- 9. a written proposal for any additional compensation being requested that would fully compensate the Contractor for all costs of acceleration of the related Work needed to overcome the associated Delay, if any; and
- 10. a written statement from the Contractor that the proposed adjustment is the entire adjustment of the Contract Price(s) and/or of the Contract Time(s).
- F. The Engineer shall review the Contractor's COR within 14 Days after receipt of the cost proposal and supporting documents, and render its determination in writing, unless the time is modified in the Special Provisions, Work, and Contract Time. If the Engineer requires a longer period for its determination, it will provide written notice to the Contractor within the initial 14-Day period. If the Engineer does not issue a determination within the initial or extended period, the request shall be deemed rejected and the provisions of Article 3.11. Disputes shall apply.
- G. The value of any Work covered by a PCO, Change Order, DCO, or any request for an increase or decrease in the Contract Price(s) shall be determined in one of the following ways:
  - Where the Work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities of the items involved; or
  - 2. By mutual acceptance of a lump sum, which shall follow the basic pricing rules set forth under Article 3.07.02. Cost of Extra Work and include an allowance for overhead and profit in accordance with Article 3.07.02.G. Contractor's Fee; unless otherwise approved by the Engineer; or
  - On the basis of the cost of Work (determined as provided in Articles 3.07.02. Cost of Extra Work and in 3.07.04. Special Services) plus a Contractor's fee for overhead and profit (determined as provided in

Article 3.07.02. Cost of Extra Work). For this payment basis, the Engineer will direct the Contractor to proceed on a Time-and-Materials basis and may also establish a Not-to-Exceed (NTE) budget for the change.

#### 3.07.02. Cost of Extra Work

- A. The term "cost of extra Work" means the sum of all direct costs necessarily incurred and paid by the Contractor or estimated to be incurred and paid by the Contractor for labor, Materials, and Equipment in the proper performance of Work, plus a markup for overhead and profit as defined in this Article. Except as otherwise may be agreed to in writing by the District, such costs shall be in amounts no higher than those prevailing in the locality of the Project.
- B. Labor: The direct cost of labor used in performing Work by the Contractor, a Subcontractor, or by other forces will be the sum of the following:
  - 1. The actual or estimated wages paid plus any employer payments to or on behalf of workers for fringe benefits, including health and welfare, pension, vacation, and similar purposes.
  - 2. There shall be added to the actual or estimated wages as defined above a percentage set forth in the latest "Labor Surcharge and Equipment Rental Rates" in use by the California State Department of Transportation, which is in effect on the date upon which the Work is accomplished. This percentage shall constitute full compensation for all payments imposed by State and Federal laws, including, but not limited to, workers' compensation insurance and Social Security payments.
  - 3. The amount paid or estimated to be paid for subsistence and travel required by collective bargaining agreements.
  - 4. For Equipment operators, payment for the actual or estimated cost of labor and subsistence or travel allowance shall be made at the rates paid, or estimated to be paid, by the Contractor to other workers operating similar Equipment already on the Work, or in the absence of such labor, established by collective bargaining agreements for the type of workers and location of the extra Work, whether or not the operator is actually covered by such an agreement. A labor surcharge shall be added to the cost of labor described herein in accordance with the provisions in this Article, which surcharge shall constitute full compensation for payments imposed by State and Federal laws, and all other payments made to on behalf of workers other than actual or estimated wages.
- C. Materials: The direct cost of Materials used or to be used in performing Work shall be the actual or estimated cost to the purchaser, including sales tax, whether the Contractor or a Subcontractor, from the Supplier thereof, except as the following are applicable:

1. Trade discounts available to the purchaser shall be credited to the District notwithstanding that such discounts may not have been taken by the Contractor.

- For Materials secured other than by a direct purchase and direct billing to the purchaser, the cost shall be deemed to be the price paid, or estimated to be paid, to the actual Supplier as determined by the Engineer. Markup, except for actual or estimated costs incurred in the handling of such Materials, shall not be allowed.
- 3. Payment for Materials from sources owned wholly or in part by the purchaser shall not exceed the price paid, or estimated to be paid, by the purchaser for similar Materials from said sources on extra Work items or the current wholesale price for such Materials delivered to the worksite, whichever price is lower.
- 4. The Contractor is responsible for and shall not be compensated for any increases in Material costs beyond those included in its Contract Price(s), including, but not limited to, sudden market changes or unexpected Material price increases.
- 5. If, in the opinion of the Engineer, the estimated or actual cost of Materials is excessive or the Contractor does not furnish satisfactory evidence of the cost of such Material, then the cost shall be deemed to be the lowest current wholesale price for the quantity concerned delivered to the worksite, less any trade discount. The District reserves the right to furnish Material for the extra Work; no Claim shall be made by the Contractor for costs and profit on such Material.
- D. Equipment: The Contractor shall be paid for the use of Equipment at the rental rate listed for such Equipment specified in the current edition of the Department of Transportation publication entitled, *Labor Surcharge and Equipment Rental Rates*, which is in effect on the date upon which the Work is accomplished. Such rental rates shall be used to compute payments for Equipment whether the Equipment is under the Contractor's control through direct ownership, leasing, renting, or under another method of acquisition. The rental rate to be applied for use of each item of Equipment shall be the rate resulting in the least total cost to the District for the total period of use. If it is deemed necessary by the Contractor to use Equipment not listed in the foregoing publication, an equitable rental rate for the Equipment will be established by the Engineer. The Contractor shall furnish cost data, which might assist the Engineer in establishing the rental rate.
  - 1. The rental rates paid, or estimated to be paid, as above provided shall include the cost of fuel, oil, lubrication supplies, small tools, necessary attachments, repairs, and maintenance of all kinds; depreciation, storage, insurance, and all incidentals, unless the Equipment is idle due to a Delay. Operators of Equipment will be separately paid for as provided in paragraph 4 of Article 3.07.02.B. Labor.

2. All Equipment shall be in good working condition and suitable for the purpose for which the Equipment is to be used.

- 3. Before construction Equipment is used on the extra Work, the Contractor shall plainly stencil or stamp an identifying number thereon at a conspicuous location and shall furnish to the Engineer, in duplicate, a description of the Equipment and its identifying number.
- 4. Unless otherwise specified, manufacturer ratings and manufacturer-approved modifications shall be used to classify Equipment to determine applicable rental rates. Equipment that has no direct power unit shall be powered by a unit of at least the minimum rating recommended by the manufacturer.
- 5. Individual pieces of Equipment or tools having a replacement value of \$500 or less, whether or not consumed by use, shall be considered to be small tools; no payment shall be made.
- 6. Compensation for idle time of Equipment shall include the ownership costs only, not including operating costs, in accordance with the following:
  - a. The Equipment rental rate shall be based on the delay factor in the edition of the Department of Transportation's publication entitled, *Labor Surcharge and Equipment Rental Rates*, in effect on the date the Work is accomplished.
  - b. Daily number of payable hours equals the normal working hours during the delay, not to exceed eight (8) hours per Day or 40 hours per week.
  - c. Delay Days exclude nonworking Days.
  - d. Markups are not added.
- E. Owner-Operated Equipment: When owner-operated Equipment is used, or anticipated to be used, to perform Work and is to be paid for as extra Work, the Contractor shall be paid for the Equipment and for the operator as follows:
  - 1. Payment for the Equipment shall be made in accordance with the provisions in Contractor's Article 3.07.02.D. Equipment.
  - 2. Payment for the cost of labor and subsistence or travel allowance shall be made at the rates paid, or estimated to be paid, by the Contractor to other workers operating similar Equipment already on the Project, or, in the absence of such other workers, at the rates for such labor established by collective bargaining agreement for the type of worker and location of the Work, whether or not the owner-operator is actually covered by such an agreement. A labor surcharge shall be added to the cost of labor

- described herein in accordance with the provisions in paragraph 2 of Article 3.07.02.B. Labor.
- 3. Markup for Equipment rental and labor as provided in Article 3.07.02.G. Contractor's Fee shall be added to the direct cost of Equipment rental and labor, computed as provided herein.
- F. Equipment Time: The rental time to be paid, or estimated to be paid, for Equipment on the Work shall be the time the Equipment is in productive operation on the Work being performed and shall include the time required to move the Equipment to the new location and return it to the original location or to another location, requiring no more time than that required to return it to its original location. Moving time shall not be paid if the Equipment is used on Work other than the extra Work. Loading and transporting costs shall be allowed, in lieu of moving time, when the Equipment is moved by means other than by its own power. No payment shall be made for loading and transporting costs when the Equipment is used at the site of the extra Work on other than the extra Work. The following shall be used in computing the rental time of Equipment on the Work:
  - 1. When hourly rates are listed, any part of an hour less than 30 minutes of operation shall be considered to be a half hour of operation, and any part of an hour in excess of 30 minutes will be considered one (1) hour of operation.
  - 2. When daily rates are listed, operation for any part of a day less than four (4) hours shall be considered to be a half Day of operation.
  - 3. Rental time will not be allowed while Equipment is inoperative due to breakdowns or due to Contractor-caused Delays.

#### G. Contractor's Fee

- a. Work ordered on the basis of Time and Materials or forward-priced lump sum will be paid for at the estimated or actual and necessary cost as determined by the Engineer, plus allowances for overhead and profit; said allowances shall constitute the Contractor's Fee. For extra Work involving a combination of increases and decreases in the Work, the estimated or actual and necessary cost will be the arithmetic sum of the additive and deductive costs.
- b. To the total of the direct costs computed as provided above, there will be added a markup for overhead and profit as specified below. The markup shall constitute full compensation for all direct and indirect overhead costs and profit, which shall be deemed to include all items of expense not specifically listed above as direct costs. No separate allowance or itemization for overhead costs shall be allowed. The following list, though not intended to be comprehensive, indicates the types of costs that are

> included in the markup for overhead and profit for all Change Orders, including Time-and-Material Work:

- i. Field and home office personnel, including, but not limited to, principals, project managers, superintendents, supervisory foremen, estimators, project engineers, detailers, draftspersons, schedulers, consultants, watchpersons, payroll clerks, administrative assistants, and secretaries.
- ii. All field and home office expenses, including, but not limited to, field trailers, parking, storage sheds, office equipment and supplies, telephone service at the Site, long-distance telephone calls, fax machines, computers and software, Internet and e-mail services, temporary utilities, sanitary facilities and services, janitorial services, small tools and Equipment with a cost under \$500 each, portable scaffolding, blocking, shores, appliances, job vehicles, security and fencing, conformance to all regulatory requirements, including compliance with safety regulations, safety programs and meetings, cartage, warranties, record documents, and all related maintenance costs.
- Administrative functions, including, but not limited to, reviewing, iii. coordinating, distributing, processing, posting, recording, estimating, negotiating, scheduling, schedule updating and revising, expediting, surveying, engineering, drawing, detailing, revising shop Drawings, preparing record Drawings, carting, cleaning, protecting the Work, and other incidental Work related to the Change Order.
- iv. All other costs and taxes required to be paid, but not included under direct costs as defined in this Article.
- The allowance for overhead and profit shall be made in accordance with C. the following schedule:

Element of the Work	Overhead and Profit Allowance
Labor	33 percent
Materials	15 percent
Equipment	15 percent

d. Subcontractor Markup: Labor, Materials, and Equipment may be furnished by the Contractor or by a Subcontractor on behalf of the Contractor. When all or any part of the extra Work is performed by a Subcontractor, the allowance specified in the above subparagraph "c" shall only be applied to the labor, Material, and Equipment costs of the Subcontractors to which the Contractor may add no more than five (5) percent of the Subcontractor's total cost for the extra Work. In no case shall the sum of the individual markups applied to a Change Order

- exceed ten (10) percent regardless of the number of Subcontractor tiers involved in performing the Work.
- e. Bond and Insurance: Only the actual cost of bond and insurance premiums required because of the Change Order, with no markup for overhead and profit, will be allowed.

# 3.07.03. Time-and-Materials Work

- A. If an NTE budget is established by the Engineer for Time-and-Material Work, the Contractor shall notify the Engineer when the cumulative costs incurred by the Contractor for Time-and-Material Work equal 80 percent of the preestablished budget. The Contractor may not be compensated for such Work that exceeds the NTE budget if the Contractor fails to provide the required notice before exceeding 80 percent of the established budget.
- B. If Work being performed on a Time-and-Material basis is expected to take more than one (1) month, the Engineer may, in its sole discretion, issue an allowance Change Order to allow timely payment to the Contractor for undisputed Work performed. The dollar value of the Change Order shall be an allowance amount equal to or greater than the NTE. Any amount remaining after all Time-and-Materials sheets are priced shall revert to the District.
- C. Cost of Work Documentation: For Time-and-Material Work, the Contractor shall furnish the Engineer extra work reports on a daily basis covering the direct costs of labor and Materials and charges for Equipment whether furnished by the Contractor, Subcontractor, or by other forces. The District shall provide the extra daily work report forms to the Contractor. The Contractor or an authorized agent shall sign each daily extra work report. The daily extra work report shall provide names and classifications of workers and hours worked; size, type, and identification number of Equipment; and the hours operated. Copies of certified payrolls and statements of fringe benefits shall substantiate labor charges. Valid copies of vendor invoices shall substantiate Material charges.
- D. The Engineer shall make any necessary adjustments. When these reports are agreed upon and signed by both parties, they shall become the basis of payment for the undisputed Work performed but shall not preclude subsequent adjustment based on a later audit.
- E. The Contractor shall inform the Engineer when extra Work will begin so that the District inspector can concur with the daily extra work reports. Failure to conform to these requirements may impact the Contractor's ability to receive proper compensation.
- F. The Contractor shall price and submit to the Engineer in both electronic format and in hard copy a native Microsoft Excel-based cost summary of the daily extra work reports on no less than a weekly basis. This summary report shall total all costs incurred to date and compare them to the NTE amount with a percent-spent-to-date amount prominently displayed. The Contractor shall be fully

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responsible for tracking the costs and for notifying the Engineer when the costs exceed 80 percent of the NTE value. The summary report shall not be considered a substitute for the notice required in this Section.

### 3.07.04. Special Services

- A. Special services are defined as that Work characterized by extraordinary complexity, sophistication, or innovations, or a combination of the foregoing attributes that are unique to the construction industry. The following may be considered by the Engineer in reviewing or approving estimates for payment for special services:
  - 1. When the Engineer and the Contractor, by agreement, determine that a special service is required that cannot be performed by the forces of the Contractor or by those of any of its Subcontractors, the special service shall be performed by an entity especially skilled in the Work to be performed. After validation of invoices and determination of market values by the Engineer, invoices for special services based upon the current fair market value thereof may be accepted without complete itemization of labor, Materials, and Equipment rental costs if backup provided is acceptable to the Engineer.
  - 2. When the Contractor is required to perform Work necessitating special fabrication or machining process in a fabrication or a machine shop facility away from the job site, charges for that portion of the Work performed at the off-site facility may, by agreement, be accepted as a special service, and accordingly, invoices for the Work may be accepted without detailed itemization at the Engineer's discretion.
- B. All invoices for special services shall be adjusted by deducting all trade discounts offered or available, whether the discounts were taken or not. In lieu of the allowances for overhead and profit on labor, Materials, and Equipment specified herein, a single allowance of ten (10) percent will be added to invoices for special services.

### 3.07.05. Compensation for Time Extensions

A. Adjustments in compensation for adjustments in Contract Time(s) shall be allowed only for causes in Article 3.08.01. Change in Contract Time(s), General, paragraphs "E.1." through "E.5." computed in accordance with Article 3.07.02. Cost of Extra Work. No adjustments in compensation shall be allowed when District-caused Delays to a Controlling Item of Work and Contractor-caused Delays to a Controlling Item of Work occur concurrently or for causes stated in Article 3.08. Change in Contract Time(s).

### 3.08. Change in Contract Time(s)

#### 3.08.01. General

A. The Contract Time(s) for the Contract is specified in the Special Provisions. The Contract Time(s) shall only be changed or adjusted by a fully executed Change Order or by a DCO.

- B. Notice and Substantiation: Any request for a change in the Contract Time(s) shall comply with the notice and substantiation requirements shown in Article 3.07. Change in Contract Price(s). No request for an adjustment in the Contract Time(s) will be valid if not submitted in accordance with the requirements of this Article.
- C. The Contract Time(s) shall only be extended when a Delay occurs that impacts a Controlling Item of Work as shown in the most recently accepted Detailed Progress Schedule. Time extensions shall be allowed only if the cause is beyond the control and without the fault or negligence of the Contractor. Time extensions may also be allowed when District-caused delays to a Controlling Item of Work and Contractor-caused Delays to a Controlling Item of Work occur concurrently. The Contractor shall be notified if the Engineer determines that a time extension is not justified.
- D. Types of Delays are defined below:
  - 1. Compensable Delay: An Excusable Delay for which the Contractor is entitled to receive additional compensation for delay-related costs if a) the delay was caused by the District or within its control or responsibility; b) the Delay results in additional costs incurred by the Contractor; and c) the Contractor has not assumed the risk of the Delay.
  - 2. Concurrent Delay: Two or more independent causes of Delay to the Contractor's performance of Work that meet all of the following criteria: a) the Delays occur at the same time during all or a portion of the delay period being considered; b) the Delays directly prevent the Contractor from performing a Controlling Item of Work; c) each Delay would have delayed the Contractor's performance of a Controlling Item of Work even in the absence of any of the other Delays;
  - Excusable Delay: A Delay to the completion of a specified Contract Time(s) that is due to causes that are unforeseeable and beyond the control and responsibility of the Contractor for which a time extension may be granted.
  - 4. Inexcusable Delay: A Delay to the completion of a specified Contract Time(s) that was reasonably foreseeable or within the control and responsibility of the Contractor for which no compensation or time extension will be granted.

 Non-compensable Delay: An Excusable Delay for which the Contractor may be entitled to an extension of time without additional compensation for delay-related costs.

- E. The Contract Time(s) shall be extended in an amount equal to time lost due to Excusable Delays if a request is made thereof as provided in this Article. An extension in Contract Time(s) shall only be granted for Days on which the Contractor is prevented from proceeding with at least 75 percent of the normal labor and Equipment force actually engaged on the Work by occurrences or conditions resulting immediately therefrom that impact a Controlling Item of Work as determined by the Engineer. Causes of such Delays shall include:
  - 1. changes;
  - 2. failure of the District to furnish access, right of way, completed facilities of related projects, Drawings, Material, Equipment, or services for which the District is responsible;
  - 3. survey error by the District;
  - 4. suspension of Work pursuant to Article 5.06. Temporary Suspension of Work, paragraph C;
  - 5. differing site conditions;
  - 6. occurrences of a severe and unusual nature, including, but not limited to, acts of God, wars, riots, insurrections, fires, and excusable inclement weather. An "act of God" is defined as an earthquake, flood, cloudburst, cyclone, or other cataclysmic phenomena of nature beyond the power of the Contractor to foresee or to make preparation for in defense against, but does not include ordinary inclement weather; and
  - 7. act of the public enemy, act of another governmental entity, act of a public utility or other third party outside the control of the District, epidemic, quarantine restriction, freight embargo, strike, or labor dispute. A delay to a Subcontractor or Supplier due to the above circumstances will be taken into consideration for extensions to the time of completion.

#### 3.08.02. Inclement Weather

- A. Inclement weather is any weather condition, the duration of which varies in excess of the average conditions expected, that is unusual for the particular time and place where the Work is to be performed or that could not have been reasonably anticipated by the Contractor as provided for in the Special Provisions.
- B. The Contract Time(s) shall only be extended for Days in excess of the number of Days of inclement weather where the Contractor is prevented by inclement weather, or by conditions resulting immediately therefrom, from proceeding with

at least 75 percent of the normal labor and Equipment force engaged on Controlling Items of Work as shown on the current, updated, and accepted Detailed Progress Schedule.

- C. Should the Contractor prepare to begin Work at the regular starting time at the beginning of any regular work shift on any Day on which inclement weather, or the conditions resulting from the weather, prevents Work from beginning at the usual starting time and the crew is dismissed as a result thereof, the Contractor shall be entitled to a one (1)-Day extension, whether or not conditions change thereafter during that Day and the major portion of the Day could be considered suitable for such construction operations.
- D. The Contractor shall include a calendar in all of its Progress Schedules that includes nonworking Days for the number of inclement weather Days specified in the Special Provisions. This calendar shall be used for all weather-sensitive Work.
- E. No extension in the Contract Time(s) due to inclement weather shall be considered until after the number of Days of inclement weather Days specified in the Special Provisions has been reached. No reduction in Contract Time(s) shall be made if the number of Days of inclement weather is not reached.
- F. The Contractor shall not be entitled to additional compensation for Delays caused by inclement weather.

### 3.09. Differing Conditions

- A. If any Work involves digging trenches or other excavations below the surface, the Contractor shall promptly, and before the following conditions are disturbed, notify the District in writing of any:
  - Material that the Contractor believes may be a Regulated Material that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law;
  - 2. subsurface or latent physical conditions at the site differing from those indicated in this Contract (Type I Differing Site Condition); and
  - unknown physical conditions at the site of any unusual nature, different
    materially from those ordinarily encountered, and generally recognized as
    inherent in Work of the character provided for in the Contract (Type II
    Differing Site Condition).
- B. The Contractor's written notice shall inform the District as to how such conditions affect its Work and shall recommend methods to overcome such conditions.
- C. Differing Conditions shall not include:

B. It is the intention of this Article that disputes between parties arising under and by virtue of the Contract be brought to the attention of the Engineer at the earliest possible time in order that matters may be resolved, if possible, or other appropriate action promptly taken. Disputes are divided into four categories:

(i) protest, (ii) notice, (iii) potential Claim, and (iv) Claim. During the course of the Project and up to receiving the proposed final estimate, the Contractor must submit a Contract dispute in the form of a written notice, protest, potential Claim, or Claim to the Engineer.

C. Any disputes from Subcontractors or Suppliers that the Contractor passes through to the District for review and consideration shall be certified in the same manner the Contractor would certify its own disputes.

#### 3.11.01. Protest

A. If the Contractor considers any Work demanded to be outside of the requirements of the Contract, or considers any records or ruling or act or omission of the Engineer to be unfair, the Contractor shall immediately, upon such Work being demanded or such record or ruling being made, ask in writing for written instructions or decisions, whereupon the Contractor shall proceed without delay to perform the Work or to conform to the record or ruling and, within seven (7) Days after date of receipt of the written instructions or decisions, shall file a written protest with the Engineer stating clearly in detail the basis of the protest. Except for such protests as are made of record in the manner herein specified and within the time limit stated, the records, rulings, instructions, decisions, and acts or omissions of the Engineer shall be final and conclusive. Instructions and decisions of the Engineer contained in letters transmitting Drawings to the Contractor shall be considered as written instructions and decisions subject to protest as herein provided.

# 3.11.02. Notice of Potential Claims

- A. The Contractor is not entitled to additional compensation for any cause unless the Contractor submits to the District a written Notice of Potential Claim as hereinafter specified.
- B. The written Notice of Potential Claim must set forth the reasons for which the Contractor believes additional compensation and/or adjustments in the specified Contract Time(s) will or may be due, the nature of the costs and/or time involved, and, insofar as possible, the amount of the potential Claim. This notice as above required must have been submitted to the District before the Contractor performs the Work giving rise to the potential Claim for additional compensation and/or time, if based on an act or failure to act by the District, or in all other cases, within seven (7) Days after the happening of the event, thing, or occurrence giving rise to the potential Claim.
- C. The Notice of Potential Claim shall be certified as required in Article 3.12. Claims.

D. Compliance with the foregoing shall not be a prerequisite to any Claim that is based on differences in measurement or errors of computations as to Contract quantities.

#### 3.12. Claims

C.

- Α. Claims by the Contractor must be submitted to the Engineer before the date of final payment. The Claim shall relate directly to the circumstances addressed in the Notice of Potential Claim and may not raise new issues or circumstances that were not identified in the Notice of Potential Claim. Claims shall be in writing, shall specify the basis for each Claim, shall refer to the applicable provision or provisions of the Contract, and shall show the method of computation and the actual amount claimed. The Claim shall include documents necessary to substantiate the Claim and to establish liability, causation, and damages. All other factual data, including documentation of actual costs pertaining to that Claim, shall be submitted. Each issue contained in a Claim must include documentation, including background, chronology, Contractor's position, supporting documentation of merit, supporting documentation of damages, schedules (if appropriate), and productivity exhibits (if appropriate). The Claim shall clearly state that it is a Claim being submitted under this Article. Failure to submit a written Claim within the 30-Day period waives any right to recover compensation or to an extension in the Contract Time(s) due to the issues referenced in the Notice of Potential Claim. In addition to the foregoing, to substantiate any Claim, the Contractor shall provide the information required by Article 3.07. Change in Contract Price(s).
- B. Pricing of Claims shall be consistent and compliant with the requirements herein for adjustments in the Contract Price(s) and adjustments in the Contract Time(s).

Claims must be certified using the following language:

l,	, BEING THE _		_ (MUST
<b>BE AN OFFIC</b>	ER) OF	(CONTRACTOR), D	ECLARE
UNDER PENA	LTY OF PERJURY UNDER TI	HE LAWS OF THE STATE	OF
CALIFORNIA,	AND DO PERSONALLY CER	TIFY AND ATTEST THAT:	I HAVE
THOROUGHL	Y REVIEWED THE ATTACHE	D CLAIM FOR ADDITIONA	۸L
COMPENSAT	ION AND/OR EXTENSION OF	TIME FOR WORK PERFO	ORMED
BY THE CONT	FRACTOR AND/OR ANY SUB	CONTRACTOR CLAIMS T	HAT
	ASSED THROUGH TO THE D	,	
	AND SAID CLAIM IS TRUTHFU		T THE
	QUESTED ACCURATELY REF		
	Γ FOR WHICH THE DISTRICT	, ,	,
	REVIEWED AND AM FAMILIA		
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	50, ET SEQ., PERTAINING TO	•	
	INDERSTAND THAT SUBMIS		
	I MAY LEAD TO FINES, IMPR	ISONMENT, AND/OR OTH	IER
SEVERE LEG	AL CONSEQUENCES.		

D. The District, or its authorized representatives, shall have access, upon reasonable notice during normal business hours, to Contractor and Subcontractor books, documents, and accounting records, including, but not limited to, Bid worksheets, Bids, Subcontractor Bids and proposals, estimates, cost accounting data, accounting records, payroll records, time sheets, canceled checks, profit and loss statements, balance sheets. Project correspondence, including, but not limited to, all correspondence between the Contractor and its sureties and Subcontractors/vendors, Project files, scheduling information, and other records of the Contractor and all Subcontractors directly or indirectly pertinent to the Work of the Project; original as well as changed and claimed extra Work to verify and evaluate the accuracy of cost and pricing data submitted with any Claim for which additional compensation has been requested or Notice of Potential Claim has been tendered. Such access shall include the right to examine and audit such records and make excerpts, transcriptions, and photocopies at the District's cost.

- E. The parties agree that in the event the Contractor or any Subcontractor fails to comply with this Article, the Claim will not be considered by the District. The Contractor agrees to impose upon its Subcontractors by appropriate subcontract provisions the obligations of this Article of the Standard Provisions.
- F. No Claim shall be considered where there has been a failure to comply with the requirements relative to protest and Notice of Potential Claim as written elsewhere in these Specifications.
- G. The presentation of a Claim shall be an express condition precedent to the Contractor's recourse to (i) informal conference; (ii) nonbinding mediation; and (iii) judicial arbitration to resolve disputes on construction Claims of three hundred seventy-five thousand dollars (\$375,000) or less or court action upon the Contract for Claims in excess of three hundred seventy-five thousand dollars (\$375,000) in compliance with Public Contract Code Section 20104 et seq.

# 3.12.01. Claims Less Than Fifty Thousand Dollars

- A. For Claims less than fifty thousand dollars (\$50,000), the Engineer shall respond in writing to any written Claim within 45 Days of receipt of the Claim or may request in writing within 30 Days of receipt of the Claim any additional documentation supporting the Claim or relating to defenses or Claims the District may have against the Contractor.
- B. If additional information is thereafter required, it shall be requested and provided pursuant to this Article upon mutual agreement of the Engineer and of the Contractor.
- C. The Engineer's written response to the Claim, as further documented, shall be submitted to the Contractor within 15 Days after receipt of further documentation or within a period of time no greater than that taken by the Contractor in producing the additional information, whichever is greater.

# 3.12.02. Claims from Fifty Thousand Dollars to Three Hundred and Seventy-Five Thousand Dollars

A. For Claims greater than or equal to fifty thousand dollars (\$50,000) and less than or equal to three hundred seventy-five thousand dollars (\$375,000), the Engineer shall respond in writing to any written Claims within 60 Days of receipt of the Claim or may request in writing within 30 Days of receipt of the Claim any additional documentation supporting the Claim or relating to defenses or Claims the District may have against the Contractor.

- B. If additional information is thereafter required, it shall be requested and provided pursuant to this Article upon mutual agreement of the Engineer and of the Contractor.
- C. The Engineer's written response to the Claims, as further documented, shall be submitted to the Contractor within 30 Days after receipt of further documentation or within a period of time no greater than that taken by the Contractor in producing the additional information or requested documentation, whichever is greater.

#### 3.12.03. Informal Conferences

- A. If the Contractor disputes the Engineer's written response or if the Engineer fails to respond within the time prescribed, the Contractor may so notify the Engineer in writing either within 15 Days of receipt of the Engineer's response, or within 15 Days of the Engineer's failure to respond within the time prescribed respectively, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon such demand, the Engineer shall schedule a meet-and-confer conference within 30 Days for settlement of the dispute.
- B. If, following the meet-and-confer conference, the Claim or any portion remains in dispute, the Contractor may file a Claim pursuant to California Government Code, Title 1, Division 3.6, Part 3, Chapter 1 commencing with Section 900 and Chapter 2 commencing with Section 910. For purposes of those provisions, the running of the period of time within which a Claim must be filed shall be tolled from the time the Contractor submits its written Claim until the time the Claim is denied, including any period of time utilized by the meet-and-confer process conference.

### 3.12.04. Civil Actions

- A. The following procedures are established for all civil actions filed to resolve Claims:
  - 1. Within 60 Days, but no earlier than 30 Days, following the filing or responsive pleadings, the court shall submit the matter to nonbinding mediation unless waived by mutual stipulation of both parties. The mediation process shall provide for the selection within 15 Days by both

parties of a disinterested third person as mediator, shall be commenced within 30 Days of the submittal, and shall be concluded within 15 Days from the commencement of the mediation unless a time requirement is extended upon a good-cause showing to the court.

- 2. If the matter remains in dispute, the parties agree to resolve their dispute by binding judicial arbitration pursuant to the Local Civil Rules of the County of Santa Clara Superior Court; notwithstanding, anything in such Local Civil Rules, the parties agree that the Civil Discovery Act of 1986 (Code of Civil Procedure, Title 3, Part 4, Chapter 3, Article 3 commencing with Section 2016 of Chapter 3 of Title 3 of Part 4 of Code of Civil Procedure) shall apply to any proceeding brought under this subdivision.
- B. In addition to the Code of Civil Procedure, Part 3, Title 3, Chapter 2.5 commencing with Section 1141.10, (i) arbitrators shall, when possible, be experienced in construction law; and (ii) any party appealing an arbitration award who does not obtain a more favorable judgment shall, in addition to payment of costs and fees under that chapter, also pay the attorney's fees on appeal of the other party.

### 3.13. Dispute Review Board

A. When specified in the Special Provisions that a Dispute Review Board (DRB) process is required, the DRB process shall be in accordance with these Specification Provisions.

### 3.13.01. General

- A. A DRB is to assist in and facilitate the avoidance and timely, impartial resolution of disputes.
- B. All disputes referred to the DRB shall be subject to the dispute resolution process herein described as a condition precedent to initiating a subsequent dispute resolution process, such as arbitration or litigation, for that dispute.
- C. Except as explicitly otherwise provided, all disputes that are actionable under the provisions of the prime Contract between the District and the Contractor may be referred to the DRB.
- D. The DRB shall be utilized when dispute or potential Claim resolution at the Project level is unsuccessful. The DRB shall function until the Day of Acceptance of the Work by the District Board of Directors, at which time the work of the DRB will cease except for completion of unfinished dispute hearings and reports.
- E. The Contractor shall include in all subcontracts that Subcontractors and Suppliers of any tier (i) agree to submit Subcontractor Claims to the Contractor in a proper form and in sufficient time to allow processing by the Contractor in conformance with the DRB resolution specifications; (ii) agree to be bound by the

1. all that is indicated or reasonably interpreted from the Contract Documents or reference documents;

- 2. all that could be seen on the Project site;
- conditions that are materially similar to or characteristically the same as those indicated or described in the Contract Documents or reference documents; and
- 4. conditions where the location of a building component is in the proximity where indicated in or reasonably interpreted from the Contract Documents or reference documents.
- D. The District will promptly investigate the condition. If it finds that the conditions do materially so differ or do involve Regulated Material and cause a decrease or increase in the Contractor's cost of, or the time required for, performance of any part of the Work, the District may issue a Change Order or a DCO under the procedures described in this Contract. For Regulated Material, the District reserves the right to use other forces for exploratory work to identify and determine the extent of such material and for removing Regulated Material from such areas.
- E. In the event that a dispute arises between the District and the Contractor on whether the conditions materially differ or on the Contractor's cost of, or time required for, performance of any part of the Work, the Contractor shall not be excused from any scheduled completion date provided for by this Contract but shall proceed with all Work to be performed under the Contract. The Contractor shall retain any and all rights provided either by this Contract or by law that pertain to the resolution of disputes and protests between the contracting parties.
- F. The Contractor shall be responsible for the safety and protection of the affected area of the Work for the duration of the District's investigation of potential differing conditions.

### 3.10. Cost Reduction Incentive

A. The Contractor may submit to the Engineer, in writing, proposals for modifying the Drawings, Specifications, or other requirements of the Contract for the sole purpose of reducing the total cost of construction (known as value engineering change proposals) as provided for in State Specifications Section 4-1.07B wherein the words "State" and "Department" shall mean the District.

### 3.11. Disputes

A. Claim: A written demand by the Contractor for an adjustment in the Contract Price(s) or in the Contract Time(s), or both, that is submitted in accordance with the requirements of the Contract Documents. Within the context of this Contract, a Claim is associated with a dispute as described in Articles 3.11. Disputes through 3.13. Dispute Review Board.

terms of the DRB provisions to the extent applicable to Subcontractor Claims; (iii) agree that, to the extent a Subcontractor Claim is involved, completion of all steps required under these DRB Special Provisions shall be a condition precedent to pursuit by the Subcontractor of other remedies permitted by law, including without limitation of a lawsuit against the Contractor; and (iv) agree that the existence of a dispute resolution process for disputes involving Subcontractor Claims shall not be deemed to create any Claim, right, or cause of action by any Subcontractor or Supplier against the District.

- F. The DRB reports shall not be binding on the District or on the Contractor and shall be admissible in subsequent dispute resolution proceedings.
- G. Immediately after award of the Contract, the District and the Contractor shall meet and discuss and establish the qualifications upon which nominees for the DRB are to be evaluated and jointly select prospective nominees.
- H. The District, the Contractor, and the DRB shall execute an agreement similar to the Three Party Agreement form included as an appendix to these Specifications.
   If there are any conflicts between the provisions of that agreement and these Specifications, the provisions of that agreement shall take precedence.
- I. The District and the Contractor shall each bear their respective in-house costs and costs of providing those DRB-related services for which responsibility has been allocated herein. The cost of the DRB panelists shall be split evenly between the Contractor and the District in the manner as described in paragraph "J" in this Article.
- J. The Contractor shall pay the full amount of any invoice or costs incurred from the DRB members in accordance with and as set forth in the DRB agreement and in these Specifications. The Contractor shall be reimbursed for 50 percent of these services utilizing the DRB Bid item, or Contract Change Order if no Bid item is specified.

### 3.13.02. DRB Qualifications

- A. Board members shall be experienced in the interpretation of Contract Documents and the resolution of construction disputes and in the type of construction to be performed.
- B. The following definitions apply for the purpose of setting forth experience and disclosure requirements.
  - 1. Party directly involved: The District or the Contractor of this Project.
  - 2. Contractor includes all joint-venture partners individually.
  - 3. Party indirectly involved: The construction manager, designers, architects, engineers, or other professional service firms or consultants,

joint-venture partners, Subcontractors of any tier, and Suppliers on this Project.

4. Financial ties: Any ownership interest, loans, receivables, or payables.

# C. Eligibility

# 1. Direct Employment

- a. Current employees of any of the parties directly or indirectly involved are prohibited from serving as Board members.
- b. Prospective Board members who were past employees of one of the parties directly involved must obtain permission from the other party prior to appointment.
- c. Previous, direct employment by one of the parties indirectly involved must be disclosed.

### 2. Consulting Assignments

- Individuals who are employed in a consulting capacity by any of the parties directly involved are prohibited from serving as Board members.
- b. Prospective Board members who are currently employed as a consultant by one of the parties indirectly involved must obtain permission from the other party prior to appointment.
- c. Previous employment as a consultant by any party directly or indirectly involved must be disclosed.

### 3. Financial Ties

- a. Individuals with financial ties to any of the parties directly involved are prohibited from serving as Board members.
- b. Current financial ties to any of the parties indirectly involved must be disclosed.
- c. Previous financial ties with any party directly or indirectly involved must be disclosed.

### 4. Close Personal or Professional Relationships

a. Individuals with close personal or professional relationships with a key member of any party directly involved are prohibited from serving as Board members.

- b. Such current relationships with a member of any party indirectly involved in the Contract must be disclosed.
- All past personal or professional relationships with a key member of one of the parties directly or indirectly involved must be disclosed.
- All past and current service as a Board member on projects where any of the parties directly or indirectly involved in this Contract were also involved must be disclosed.
- 6. No member shall have had substantial prior involvement in the Project in the judgment of the District and the Contractor.
- 7. Ongoing Responsibilities: While serving as a Board member on the DRB, no member shall participate in any discussion contemplating the creation of an agreement or making an agreement with any party directly or indirectly involved in the Contract regarding employment, or fee-based consulting services, or any other business arrangement after the Contract is completed.

#### 3.13.03. Establishment of the DRB

- A. The District and the Contractor shall jointly participate in the evaluation and selection of prospective nominees for the DRB.
- B. The District and the Contractor shall provide to the DRB nominees a list of the construction manager, designers, architects, engineers, professional service firms, consultants, joint-venture partners, Subcontractors, and Suppliers involved or likely to be involved in the Project with a list of each party's key personnel.
- C. DRB nominees shall provide the following, pursuant to the above requirements and in addition to the nominee's full name and contact information, to both parties:
  - Résumé showing construction experience qualifying the person as a DRB member.
  - 2. Résumé showing past DRB participation, if any. List each DRB assignment separately, indicating the name and location of the Project, dates of DRB service, name of owner, name of contractor, Contract value, nominating party, if applicable, names of the other Board members, and the number of disputes heard.
  - 3. Disclosure statement describing past, present, and anticipated relationships, including indirect relationships through the nominee's full-time employer, if any, to the Project, with all parties directly and indirectly involved in the Contract. Disclose close professional or personal relationships with key members of all of these parties.

4. Disclosure is a continuing obligation of all Board members throughout the life of the Contract.

- D. The District and the Contractor shall then have three (3) weeks to solicit and receive information from prospective candidates, and another two (2) weeks to review and to jointly agree on the final selection of the three (3) members to serve on the DRB. In the event that all three (3) members were not selected from the initial pool of nominees, the process shall be repeated.
- E. If the DRB Chair has not already been appointed as part of the selection process, as soon as is practicable, the Board members shall nominate the Chair and submit the nominee's résumé and request approval by the District and by the Contractor.

## 3.13.04. DRB Meetings

- A. The DRB shall visit the Project site and meet with representatives of the parties at periodic intervals and at other times requested by the parties.
- B. Each meeting shall consist of an informal discussion and a field observation of the Work in progress. The discussion and field observation shall be attended by personnel of the District and by the Contractor.

### 3.13.05. Dispute Resolution

- A. Prior Good-Faith Negotiation
  - 1. The District and the Contractor shall enter into good-faith negotiations to settle a dispute before referring the dispute to the DRB.
  - 2. These good-faith negotiations shall be founded on the principle of full and timely disclosure of each party's position to the other party, including the exchange of pertinent supporting records, analyses, expert reports, and similar documentation, and shall proceed without delay following the inception of the dispute. Such good-faith negotiations may involve the solicitation and rendering of a DRB advisory opinion as described herein.

### B. Dispute Referral

- A dispute may be referred to the DRB by either the District or by the Contractor. The dispute referral shall be made in writing to the DRB Chair with a copy concurrently provided to the other Board members and to the other party.
- 2. If the Contract stipulates a precedent dispute resolution process prior to referral to the DRB and if one party fails to meet or adhere to the time requirements set forth under the Contract for this process, the other party may then refer the dispute to the DRB. In the event that the Contract does not specify a precedent process or specifies a precedent process

without time requirements, either party may refer the dispute to the DRB after passage of a reasonable period of time without progress toward a negotiated settlement; the DRB will determine if the dispute should be heard.

- 3. The dispute referral shall concisely define the nature and specifics of the dispute that are to be considered by the DRB and the scope of the recommendation requested.
- 4. The DRB Chair shall confer with the parties to establish a due date for delivering pre-hearing submittals, and a date, time, and location for convening the DRB hearing. Hearings shall be convened at the next periodic meeting, unless the parties agree to a shorter or longer period.

## C. Pre-hearing Submittal

- 1. The District and the Contractor shall each prepare a pre-hearing submittal and transmit it to all three (3) members of the DRB and to the other party. The pre-hearing submittal, comprised of a position paper with such backup data as is referenced in the position paper, shall be tabbed, indexed, and the pages consecutively numbered.
- 2. Both position papers shall, at a minimum, contain the following:
  - a. A joint statement of the dispute and the scope of the desired report placed in a prominent location. The language of this joint statement shall summarize in a few sentences the nature of the dispute. If the parties are unable to agree on the wording of the joint statement of dispute, each party's position paper shall contain both statements and identify the party authoring each statement.
  - b. The basis and justification for the party's position with reference to Contract language and other supporting documents for each element of the dispute. To minimize duplication and repetitiveness, the parties may identify a common set of documents that will be referred to by both parties and submit it in a separate package.
  - c. When the scope of the hearing includes quantum, the referring party shall include a schedule impact analysis and full cost details, calculated in accordance with methods set forth in the Contract. This requirement does not apply if the report is to be made for entitlement alone or for entitlement with guidelines for quantum.
- 3. The number of copies, distribution requirements, and time for submittal will be established by the DRB and communicated to the parties by the Chair.

# D. DRB Hearings

1. The District will arrange for or will provide hearing facilities at or near the site.

### 2. Attendance

- a. The District and Contractor shall both limit attendance at the hearing to personnel directly involved in the dispute and participants in the good-faith negotiations that were conducted prior to submittal to the DRB except as noted below.
- b. Prior to the date established for the hearing, each party shall provide a list of proposed attendees to the DRB and to the other party. In the event of any disagreement, the DRB shall make the final determination as to who attends the hearing.
- c. Attorneys shall not participate in the hearing. Attorneys representing the parties are permitted to attend dispute hearings provided that prior permission is obtained from the other party.
- d. At DRB hearings regarding Claims by a Subcontractor, including pass-through Claims by a lower tier Subcontractor or Supplier against the Contractor that are actionable by the Contractor against the District, the Contractor shall require and ensure that each Subcontractor involved in the dispute has presented an authorized representative with actual knowledge of the facts underlying the Subcontractor Claims.
- 3. The conduct of the hearing shall be established by the DRB according to its operating procedures and be generally consistent with the following guidelines:
  - a. The party who referred the dispute to the DRB shall present its position first, followed by the other party.
  - b. Both parties shall be allowed successive rebuttals, assuring a full and adequate opportunity to present their position, and to rebut the opposing party's position, until, in the DRB's opinion, all aspects of the dispute have been fully and fairly covered.
  - c. The DRB shall be fully prepared to, and may at any time, ask questions, request clarifications, or ask for additional data and/or for job records.
  - d. Either party may request that the DRB direct a question to or request a clarification from the other party. The DRB shall determine at what point in the proceedings such requests may be

- made and if they will be granted. In general, the DRB will not allow one party to be questioned directly by the other party.
- e. In difficult or complex cases, additional hearings may be necessary to facilitate full consideration and understanding of the dispute.
- f. The DRB, in its discretion, may allow introduction of arguments, exhibits, handouts, or documentary evidence that were not included in that party's pre-hearing position paper and that had not been previously submitted to the other party. In such cases, the other party will be granted time to review and prepare a rebuttal to the new material.
- E. Failure to Prepare a Pre-hearing Submittal or Attend a DRB Hearing
  - 1. In the event that either party fails to deliver a pre-hearing submittal by the date established by the DRB, the DRB shall, at its discretion, determine whether the hearing shall proceed as originally scheduled or whether additional time shall be provided and a new date established. On the final date and time established for the hearing, the DRB shall proceed with the hearing utilizing the information that has been submitted.
  - In the event that some or all of the representatives of either party fail to appear at the appointed time of a DRB hearing, the DRB shall proceed with the hearing. The hearing shall take place as if all party representatives were in attendance. The DRB shall consider all evidence brought before it and hear testimony from those party representatives who are present.
- F. Use of Outside Experts
  - 1. By the District or by the Contractor
    - a. A party intending to offer an outside expert's analysis at the hearing shall disclose such intention in writing to the other party and to the DRB no less than 30 Days prior to the due date for delivering the pre-hearing submittal. The expert's name and a general statement of the area of the dispute that will be covered by his/her testimony shall be included in the disclosure.
    - b. Upon receipt of the above disclosure, the other party shall have the opportunity to secure the services of an outside expert to address or respond to those issues that may be raised by the other party's outside expert. The disclosure requirements shall be the same as that specified above, except the time requirement is ten (10) Days.

c. The cost for securing outside expert services shall be borne by the party securing such services.

### 2. By the DRB

- a. Prior to arranging for outside experts, the DRB shall obtain prior approval from the District and from the Contractor by providing:
  - 1. A statement explaining why the expert assistance is needed.
  - 2. An estimate of the cost of the expert assistance.
  - 3. A disclosure statement in accordance with the requirements of Article 3.13.03. Establishment of the DRB herein using the criteria established in Article 3.13.02. DRB Qualifications.
  - 4. A confidentiality statement, consistent with the DRB's agreement, executed by the proposed expert.
  - 5. The Contractor and the District shall equally bear the cost of the services of the outside expert employed by the DRB.

### G. DRB Report

- 1. The DRB's recommendations for resolution of a dispute will be formalized in a written report with a format as determined by the DRB and signed by all Board members. The report should consist of a concise description of the dispute, short statements of each party's position, findings as to the facts of the dispute, discussion and rationale for the recommendation(s), and the recommendation(s). The report shall be submitted concurrently to the parties as soon as possible after completion of the hearing as agreed by all parties.
- 2. If the DRB cannot arrive at a unanimous report, the Board shall prepare minority findings and recommendation(s), which, together with the majority findings and recommendation(s), shall comprise the DRB report. The report shall identify the issues of disagreement along with the reasons for disagreement.

#### Clarification

Either party may request clarification of a report within ten
 (10) Days following receipt of the report. Within a reasonable period of time, the DRB shall provide written clarification to both parties.

- b. Requests for clarification shall be submitted in writing simultaneously to the DRB and to the other party.
- c. Only one request for clarification per dispute from each party shall be allowed.

#### 4. Reconsideration

- a. Either party may request reconsideration of a report within ten (10) Days following receipt of the report when new information is obtained or developed that was not known at the time of the hearing, or when, in the party's opinion, the DRB misunderstood or failed to consider pertinent facts of the dispute. Within a reasonable period of time, the DRB shall provide written reconsideration to both parties.
- b. Requests for reconsideration shall be submitted in writing simultaneously to the DRB and to the other party.
- c. The Board will not entertain requests for reconsideration that amount to a renewal of a prior argument or an additional argument based on facts available at the time of the hearing.
- d. Only one request for reconsideration per dispute from each party shall be allowed.

## 5. Acceptance

- a. The District and the Contractor shall submit their written acceptance or rejection of the report concurrently to the other party and to the DRB within 14 Days of receipt of the report or following receipt of responses to requests for clarification or reconsideration.
- Failure by either party to accept or reject within the specified period shall be construed as acceptance of the report by that party.
- Acceptance by the District of a report on entitlement only, or on entitlement with guidelines for quantum, does not obligate the District to any particular quantum amount.

# H. Advisory Opinions

 An advisory opinion serves as a method for potentially avoiding a DRB hearing. It is not intended to replace the dispute resolution process specified herein but may be implemented as part of the good-faith negotiations conducted between the parties.

2. When mutually agreed to by the District and by the Contractor, the DRB may, at its discretion, provide an advisory opinion on any issue.

### 3.14 Escrow Bid Documents

A. When required by the Special Provisions, Escrow Bid Documents shall be prepared and submitted as specified herein.

#### 3.14.01. Introduction

- A. The Escrow Bid Documents shall include complete documentation of all backup information used in the preparation of the Contractor's Bid prices for this Project as described below. The Escrow Bid Documents of the successful Bidder will be held in escrow for the duration of the Contract or until all Claims are resolved, whichever is later.
- B. The Escrow Bid Documents are, and shall always remain, the property of the Contractor, subject to joint review by the District and by the Contractor as provided herein.
- C. The District stipulates and expressly acknowledges that the Escrow Bid Documents, as defined herein, constitute trade secrets.
  - This acknowledgement is based on the District's express understanding that the information contained in the Escrow Bid Documents is not known outside the Bidder's business, is known only to a limited extent and by a limited number of employees of the Bidder, is safeguarded while in the Bidder's possession, and is extremely valuable to the Bidder's competitors by virtue of its reflecting Bidder's construction strategies, assumptions, and intended means, methods, and techniques of construction.
  - 2. The District acknowledges that the Bidder expended substantial sums of money in developing the information included in the Escrow Bid Documents and further acknowledges that it would be difficult for a competitor to replicate the information contained therein.
  - 3. The District further acknowledges that the Escrow Bid Documents and the information contained therein are being provided to the District only because it is an express prerequisite to award of the Contract.
  - 4. The District further acknowledges that the Escrow Bid Documents include a compilation of information used in the Bidder's business intended to give the Bidder an opportunity to obtain an advantage over competitors who do not know or do not use the contents of such information.
  - 5. The District further agrees, to the fullest extent permitted by law, to safeguard the Escrow Bid Documents against disclosure and not provide as public records.

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D. The successful Bidder agrees, as a condition of award of the Contract, that the Escrow Bid Documents constitute all of the information used in the preparation of its Bid for this Work and that no other Bid preparation information shall be considered in resolving disputes or Claims. The successful Bidder also agrees that nothing in the Escrow Bid Documents shall change or modify the terms or conditions of the Contract Documents.

# 3.14.02. Purpose

A. The Escrow Bid Documents will be used solely to assist in the settlement of disputes and Claims. They will not be used for pre-award evaluation of the Contractor's anticipated methods of construction nor to assess the Contractor's qualifications for performing the Work.

#### 3.14.03. Format and Contents

- A. The Bidders may submit the Escrow Bid Documents in their usual cost estimating format; a standard format is not required. However, sufficient detail shall be included to ensure that the Escrow Bid Documents enable complete understanding and proper interpretation of their content.
- B. The Escrow Bid Documents shall clearly itemize and separate the estimated cost of performing each major activity for each Bid item contained in the Bid. Bid items should be separated into sub-items to present a detailed cost estimate. Crews, Equipment, estimated quantities, and the rate of production shall be detailed. Increments of cost shall include, but shall not be limited to, such items as direct labor, permanent Material, supplies, consumables, subcontracts, Equipment charges, and allocation of overhead and profit. Plant, Equipment, and indirect costs should be detailed. All costs included in the Bid prices must be specifically identified and the methods of application described.
- C. The Escrow Bid Documents shall include all quantity takeoffs; calculations of rates of production and progress; copies of quotes from Subcontractors and Suppliers; and memoranda, narratives, and all other information used by the Bidder to arrive at the prices contained in its Bid.

#### 3.14.04. Submittal

- A. The Escrow Bid Documents shall be submitted by the three (3) apparent low Bidders in a sealed container separate from their proposal no later than 5 p.m. on the second business day following the Bid opening Day. Each container shall be clearly marked on the outside with the Bidder's name, date of submittal, Project name, and the words "Escrow Bid Documents." Timely submission of these forms is considered material by the District.
- B. The Escrow Bid Documents shall be accompanied by a separate certification, "Bid Form 10 Escrow Bid Documents Certification of Completeness," signed by an individual authorized by the Bidder to execute the bidding proposal and stating that the material in the Escrow Bid Documents constitutes all of the

documentary information used in preparation of this Bid, and that the Bidder's authorized individual has personally examined the contents of the Escrow Bid Documents container and has found that the documents in the container are complete.

- C. The Escrow Bid Documents of the apparent successful Bidder will be opened and examined by an appointed member of the District in the presence of the Bidder before the Contract is awarded. The apparent successful Bidder and applicable Subcontractors as stated in paragraph "G" in this Article shall attend this examination.
- D. This examination is to ensure that the Escrow Bid Documents are legible and complete. It will not include a review of, or constitute approval of, proposed construction methods, estimating assumptions, or interpretations of the Contract Documents. The examination will not alter any condition or term of the Contract. Should the examination indicate that any data is incomplete or missing, the Bidder shall supply the missing information within 24 hours or at such other time as is mutually agreeable.
- E. The timely submittal of complete Escrow Bid Documents is an essential element of the bidding process and a prerequisite to Contract award. Failure to provide the necessary Escrow Bid Documents will be sufficient cause for the District to reject the Bid as nonresponsive.
- F. If the Contract is not awarded to the apparent successful Bidder, the Escrow Bid Documents of the Bidder next to be considered for award shall be processed as described above. The Escrow Bid Documents of unsuccessful Bidders will be held in escrow until such time that they are returned unopened upon execution of the Contract by the successful Bidder.
- G. If any Bidder's proposal is based upon subcontracting any part of the work, each Subcontractor whose total subcontract price exceeds the percentage of the total Bid price specified in the Special Provisions shall provide separate Escrow Bid Documents to be included with those of the Bidder. Such documents shall be opened and reviewed in the presence of the Subcontractor only in the same manner and at the same time as the review described above for the apparent successful Bidder.
- H. It is the District's policy, in accordance with State law, that new Subcontractors are not accepted after award. However, if the Contractor wishes to lawfully change a Subcontractor or lawfully issue an additional subcontract for any portion of the Work after award and the District grants a specific exception to this policy, the District retains the right to require that the new Subcontractor submit Escrow Bid Documents before the new subcontract is approved.

#### 3.14.05. Storage

A. Upon completion of the examination, receipt of the apparent successful Bidder's Escrow Bid Documents will be acknowledged in writing by the District. The

documents will be placed in escrow for the life of the Contract at an escrow firm within the greater Santa Clara County area chosen by the District. The District will pay for storage and maintenance of the Escrow Bid Documents.

#### 3.14.06. Examination

- A. The Escrow Bid Documents may be examined at any time deemed necessary by either the District or by the Contractor to assist in settling disputes and Claims.
- B. An examination of the Escrow Bid Documents is subject to the following conditions:
  - 1. As trade secrets, Escrow Bid Documents are proprietary and confidential.
  - 2. The District and the Contractor (and any Subcontractor to the extent Escrow Bid Documents are required by a Subcontractor) shall each designate in writing to the other party seven (7) Days prior to any examination representatives who are authorized to examine the Escrow Bid Documents. With the consent of both the District and the Contractor, members of the DRB may participate in the examination of the Escrow Bid Documents. No other person shall have access to the Escrow Bid Documents.
  - 3. Access to the Escrow Bid Documents may take place only in the presence of a duly designated representative of both the District and the Contractor. If the Contractor fails to designate a representative or fails to appear for joint examination on seven (7) Days' notice, then the District representative may examine the Escrow Bid Documents upon an additional three (3) Days' notice.

# 3.14.07. Final Deposition

A. The Escrow Bid Documents will be returned to the Contractor after the Work has been completed and accepted and after all Claims and disputes involving this Work have been settled. The Contractor will thereupon be required to waive, in writing, any right to lodge further Claims involving this Work.

#### 3.15. Partnering

### 3.15.01. Partnering Relationship

A. The District encourages a partnering relationship with the Contractor to effectively complete the Contract to the benefit of both parties. The purpose of this relationship will be to maintain cooperative communication and to mutually resolve conflicts at the lowest possible management level.

# 3.15.02. Professionally Facilitated Project Partnering

A. To further the partnering relationship, Professionally Facilitated Project Partnering can be implemented by one of two methods:

- 1. The District requires Professionally Facilitated Project Partnering. The Contractor shall comply with the Special Provisions regarding this requirement.
- 2. The Contractor submits a written request for Professionally Facilitated Project Partnering. However, this method can only be implemented if the Engineer approves the request in writing.
- B. Implementation of Professionally Facilitated Project Partnering
  - 1. Scheduling the Professionally Facilitated Project Partnering workshops, selecting the Professional Partnering Facilitator and workshop site, and other administrative details shall be as agreed to by both parties.
  - 2. Partnering workshops will be held on a quarterly basis during construction, or as needed, and as determined by the Engineer and by the Contractor. Both parties will determine workshop attendees, agenda, and duration. Persons required to be in attendance will be the Engineer and/or the Engineer's authorized agents and key Project personnel; the Contractor's authorized representative, on-site Project manager, and key Project supervision personnel of both the prime and principal Subcontractors and Suppliers; and other personnel as deemed necessary by the District and by the Contractor.
  - 3. The Contractor shall secure the Professional Partnering Facilitator and the off-site meeting room. The District will pay in full for the services of a Professional Partnering Facilitator and for the off-site meeting room based on invoices priced without markup. Payment for these services shall be made utilizing the Professionally Facilitated Project Partnering Bid item or Contract Change Order if no Bid item is specified. All other costs associated with the partnering workshops will be borne separately by the party incurring the costs (e.g., wages and travel expenses); no additional payment shall be made.
- C. The establishment of Professionally Facilitated Project Partnering will not change or modify the terms and conditions of the Contract and will not relieve either party of its legal requirements of the Contract.

### 3.16. Claims and Disputes per Public Contract Code Section 9204

A. Public Contract Code Section 9204 (PCC 9204) applies to all contracts entered into on or after January 1, 2017. PCC 9204 shall remain in effect only until January 1, 2020, and as of that date is repealed, unless a later enacted statute,

- that is enacted before January 1, 2020, deletes or extends that date. The provisions of PCC 9204 are set forth below.
- B. The Legislature has found and declared that it is in the best interests of the state and its citizens to ensure that all construction business performed on a public works project in the state that is complete and not in dispute is paid in full and in a timely manner. PCC 9204 shall apply to any claim by a contractor in connection with a public works project.
- C. Prior to submitting a claim per PCC 9204, the Contractor shall comply with Article 3.11.01. Protest, Article 3.11.02 Notice of Potential Claims, 3.12. Claims, A. through F.
- D. For purposes of PCC 9204, the following definitions apply:
  - "Claim" means a separate demand by a contractor sent by registered mail or certified mail with return receipt requested, for one or more of the following:
    - a. A time extension, including, without limitation, for relief from damages or penalties for delay assessed by a public entity under a contract for a public works project.
    - b. Payment by the public entity of money or damages arising from work done by, or on behalf of, the contractor pursuant to the contract for a public works project and payment for which is not otherwise expressly provided or to which the claimant is not otherwise entitled.
    - c. Payment of an amount that is disputed by the public entity.
  - 2. "Contractor" means any type of contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who has entered into a direct contract with a public entity for a public works project.
  - 3. "Public entity" means, without limitation, except as provided in subparagraph (b), a state agency, department, office, division, bureau, board, or commission, the California State University, the University of California, a city, including a charter city, county, including a charter county, city and county, including a charter city and county, district, special district, public authority, political subdivision, public corporation, or nonprofit transit corporation wholly owned by a public agency and formed to carry out the purposes of the public agency.
  - 4. "Public works project" means the erection, construction, alteration, repair, or improvement of any public structure, building, road, or other public improvement of any kind.

5. "Subcontractor" means any type of contractor within the meaning of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code who either is in direct contract with a contractor or is a lower tier subcontractor.

- E. 1. a. Upon receipt of a claim pursuant to PCC 9204, the District shall conduct a reasonable review of the claim and, within a period not to exceed 45 days, shall provide the Contractor a written statement identifying what portion of the claim is disputed and what portion is undisputed. Upon receipt of a claim, the District and Contractor may, by mutual agreement, extend the time period provided in this Article.
  - 1.b. The Contractor shall furnish reasonable documentation to support the claim
  - 1.c. If the District needs approval from the Board to provide the Contractor a written statement identifying the disputed portion and the undisputed portion of the claim, and the Board does not meet within the 45 days or within the mutually agreed to extension of time following receipt of a claim sent by registered mail or certified mail, return receipt requested, the District shall have up to three days following the next Board meeting after the 45-day period, or extension, expires to provide the Contactor a written statement identifying the disputed portion and the undisputed portion.
  - 1.d. Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the District issues its written statement. If the District fails to issue a written statement, paragraph 3. below shall apply.
  - 2.a. If the Contractor disputes the District's written response, or if the District fails to respond to a claim issued pursuant to this Article within the time prescribed, the Contractor may demand in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, the District shall schedule a meet and confer conference within 30 days for settlement of the dispute.
  - 2.b. Within 10 business days following the conclusion of the meet and confer conference, if the claim or any portion of the claim remains in dispute, the District shall provide the Contractor a written statement identifying the portion of the claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the District issues its written statement. Any disputed portion of the claim, as identified by the Contractor in writing, shall be submitted to nonbinding mediation, with the District and the Contractor sharing the associated costs equally. The District and Contractor shall mutually agree to a mediator within ten (10) business days after the disputed portion of the claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall

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select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the claim remaining in dispute shall be subject to applicable procedures outside this Article.

- 2.c. For purposes of this section, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party assists the parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this Article.
- 2.d. Unless otherwise agreed to by the District and the Contractor in writing, the mediation conducted pursuant to this Article shall excuse any further obligation under Public Contract Code Section 20104.4 (see Article 3.12.01. Claims Less Than Fifty Thousand Dollars through Article 3.12.04. Civil Actions) to mediate after litigation has been commenced.
- 2.e. This Article does not preclude the District from requiring arbitration of disputes under private arbitration or the Public Works Contract Arbitration Program, if mediation under this Article does not resolve the parties' dispute.
- 3. Failure by the District to respond to a claim from a Contractor within the time periods described in this Article shall result in the claim being deemed rejected in its entirety. A claim that is denied by reason of the District's failure to have responded to a claim, or its failure to otherwise meet the time requirements of this Article, shall not constitute an adverse finding with regard to the merits of the claim or the responsibility or qualifications of the Contractor.
- 4. Amounts not paid in a timely manner as required by this Article shall bear interest at 7 percent per annum.
- 5. If a Subcontractor or a lower tier Subcontractor lacks legal standing to assert a claim against the District because privity of contract does not exist, the Contractor may present to the District a claim on behalf of a Subcontractor or lower tier Subcontractor. A Subcontractor may request in writing, either on his or her own behalf or on behalf of a lower tier Subcontractor, that the Contractor present a claim for work which was performed by the Subcontractor or by a lower tier Subcontractor on behalf of the Subcontractor. The Subcontractor requesting that the claim be presented to the District shall furnish reasonable documentation to support the claim. Within 45 days of receipt of this written request, the Contractor shall notify the Subcontractor in writing as to whether the Contractor presented the claim to the District and, if the original

Contractor did not present the claim, provide the Subcontractor with a statement of the reasons for not having done so.

- F. A waiver of the rights granted by PCC 9204 is void and contrary to public policy, provided, however, that (1) upon receipt of a claim, the parties may mutually agree to waive, in writing, mediation and proceed directly to the commencement of a civil action or binding arbitration, as applicable; and (2) a public entity may prescribe reasonable change order, claim, and dispute resolution procedures and requirements in addition to the provisions of PCC 9204, so long as the contractual provisions do not conflict with or otherwise impair the timeframes and procedures set forth in PCC 9204.
- G. Nothing in PCC 9204 shall impose liability upon a public entity that makes loans or grants available through a competitive application process, for the failure of an awardee to meet its contractual obligations.

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# SECTION 4. LEGAL REGULATIONS AND RESPONSIBILITY

#### 4.01. Laws to be Observed

A. The Contractor shall remain informed of and in compliance with the latest version of applicable existing and future Federal, State, County, and Municipal laws, ordinances, rules, and regulations, including, but not limited to, those cited herein.

# 4.02. Equal Opportunity Requirements

- Α. The Santa Clara Valley Water District is an equal opportunity employer and requires its contractors to have and adhere to a policy of equal opportunity and nondiscrimination. In the performance of the Agreement, the Contractor will comply with all applicable Federal, State, Local Laws and Regulations, and will not discriminate against any Subcontractor, employee, or applicant for employment in the recruitment, hiring, employment, utilization, promotion, classification or reclassification, transfer, recruitment advertising, evaluation, treatment, demotion, layoff, termination, rates of pay or other forms of compensation, and selection for professional development training (including apprenticeship); or against any other person on the basis of sex (which includes pregnancy, childbirth, breastfeeding, and medical conditions related to pregnancy, childbirth, or breastfeeding); race, religion, color, national origin (including language-use restrictions); ancestry, religious creed (including religious dress and grooming practices); political affiliation, disability (mental and physical, including HIV or AIDS); medical condition (cancer and genetic characteristics) and genetic information; marital status, parental status, gender, age (40 and over); pregnancy, military, and veteran status; sexual orientation, gender identity, and gender expression; the exercise of family and medical care leave; the exercise of pregnancy disability leave; or the request, exercise, or need for reasonable accommodation.
- B. The Contractor's policy must conform with applicable State and Federal guidelines, including the Federal Equal Opportunity Clause, "Section 60-1.4 of Title 41, Part 60 of the Code of Federal Regulations;" Title VII of the Civil Rights Act of 1964 as amended; the American's with Disabilities Act of 1990; the Rehabilitation Act of 1973 (Sections 503 and 504); the Age Discrimination Act of 1975 (42 U.S.C. Section 6101 et. seq.); California Fair Employment and Housing Act (Government Code Section 12900 et. seq.); and California Labor Code Sections 1101 and 1102.

### 4.03. Employment of Labor

A. In the employment of labor in the performance of the Contract, the District desires that the Contractor and all Subcontractors give first consideration to residents of the District.

# 4.04. Prevailing Wages

- A. The Work to be performed pursuant to this Contract is "public works" subject to the California Prevailing Wage Law, California Labor Code Section 1720, et seq. and the applicable implementing regulations (the Prevailing Wage Law) with which the Contractor must comply. The General Prevailing Wage Rates issued by the California Department of Industrial Relations may be adjusted by the State during the term of this Contract. Notwithstanding any other provisions of this Contract, the Contractor will not be entitled to any adjustment in compensation in the event there are adjustments to the General Prevailing Wage Rates.
  - 1. In accordance with the Prevailing Wage Law, the Director of the Department of Industrial Relations has ascertained the general prevailing rate of wages and employer payments for health and welfare, pension, vacation, and similar purposes available to the particular craft, classification, or type of workers employed on the Work. These rates are set forth in the latest determination obtained from the Director, which is on file in the office of the Clerk of the Board of Directors and incorporated herein by reference the same as though set out in full. The rates are also available on the State of California Department of Industrial Relations website at <a href="http://www.dir.ca.gov">http://www.dir.ca.gov</a>.
  - The Contractor shall pay a penalty to the District of \$200 for each Day, or
    portion thereof, for each worker paid less than the stipulated prevailing
    rate for any public Work done under the Contract by the Contractor or by
    any Subcontractor in violation of the provisions of the Prevailing Wage
    Law.
- B. Each Contractor and Subcontractor shall keep an accurate payroll record, showing the name, address, Social Security number, work classification, straight time, and overtime hours worked each Day and week, and the actual per-diem wages paid to each journeyman, apprentice, worker, or other employee by him/her in connection with the public Work. The payroll records shall be certified and shall be available for inspection at all reasonable hours at the principal office of the Contractor in accordance with the Prevailing Wage Law.
  - The Contractor and each Subcontractor, pursuant to California Labor Code Section 1776, must submit certified weekly payroll(s) within ten (10) Days after the Owner's request for submission of certified weekly payroll records. The certified payroll(s) must include the date of actual payment of wages for each worker employed on the Project and a breakdown of each payment, including all fringe benefits included in such wage for each worker.
  - 2. In the event that the Contractor fails to comply with the ten (10)-Day submission deadline of California Labor Code Section 1776, the Contractor shall pay a penalty to the District of \$100 for each calendar Day or portion thereof, for each worker, until the Contractor achieves compliance with Section 1776.

- 3. The Contractor shall inform the District of the location of the payroll records—including the street address, city, and county—and shall, within five (5) working Days, provide a notice of a change in location and address. The Contractor is responsible for compliance with payroll record requirements imposed by Section 1776 of the Labor Code.
- C. The Contractor must submit certified weekly payroll(s) in support of the monthly request for payment as required herein. Certified weekly payroll(s) must be submitted within ten (10) calendar Days from the progress payment end date. Payroll(s) shall contain the full name, address, and Social Security number of each employee; his/her correct classification and rate of pay; daily and weekly number of hours worked; itemized deductions made; and actual wages paid. Payroll shall also indicate apprentices and ratio of apprentices to journeymen. The employee's address and Social Security number need only appear on the first payroll on which his/her name appears. The payroll(s) shall be accompanied by a Statement of Compliance signed by the employer or agent indicating that the payroll(s) is correct and complete and that the wage rates contained therein are not less than those required by the Contract. The Statement of Compliance shall be on forms furnished by the District or on any form with identical wording. The Contractor shall be responsible for the submission of copies of the payroll(s) of all Subcontractors, including sub-Subcontractors.
  - 1. This project is subject to compliance monitoring and enforcement by the State of California Department of Industrial Relations. The Contractor and Subcontractors must furnish the records specified in Section 1776 directly to the Labor Commissioner in the following manner: monthly, in a format prescribed by the Labor Commissioner.
  - 2. The District will take all actions reasonably necessary to enforce the prevailing wage requirements of this Contract, including retaining progress payment funds not supported by certified payroll(s).
  - 3. Retentions for failure to submit satisfactory payroll(s) are in addition to all other retentions provided for in the Contract.
- D. The Contractor and each Subcontractor shall preserve their respective payroll records for a period of four (4) years from the date of filing a Notice of Completion and Acceptance under the Contract.
  - 1. The work of installing, assembling, repairing, or reconditioning—or other work of any nature on machinery, Equipment, or tools used in or upon the Work—is considered a part of the Work to be performed under the Contract; any laborers, workers, or mechanics working on such machinery, Equipment, or tools are subject to all of the requirements relating to labor set forth in the Contract.
  - 2. The construction, erection, and operation of Material production, proportioning, or mixing plants from which Material is used wholly on the Contract or on contracts under the supervision of the District shall be

considered a part of the Work to be performed under the Contract; any laborers, workers, or mechanics working on such plants shall be subject to all of the requirements relating to labor set forth in the Contract.

#### 4.05. Hours of Labor

A. Eight (8) hours of labor constitutes a legal Day of work. The Contractor shall pay a penalty to the District of \$25 for each worker employed in the execution of the Contract by the Contractor or by any Subcontractor for each Day during which such worker is required or permitted to labor more than eight (8) hours in violation of Labor Code Sections 1810 to 1815, inclusive.

# 4.06. Apprentices

- A. The Contractor shall comply with Sections 1777.5, 1777.6, and 1777.7 of the Labor Code concerning the employment of apprentices by the Contractor or by any Subcontractor.
- B. Section 1777.5 requires the Contractor or Subcontractor employing persons as defined in any apprenticeable occupation to apply for a certificate of approval to the joint apprenticeship committee that is nearest the site of the public works project and that administers the apprenticeship program in that trade. The certificate will also fix the ratio of apprentices to journeymen that will be used in the performance of the Contract. The ratio of work performed by apprentices to journeymen in such cases shall not be less than one (1) hour to five (5) hours, except when the committee finds that any one of the following conditions are met:
  - 1. In the event unemployment for the previous three (3)-month period in the Project site area exceeds an average of 15 percent; or
  - 2. In the event the number of apprentices in the area exceeds a ratio of one (1) to five (5); or
  - 3. If there is a showing that the apprenticeable craft or trade is replacing at least one thirtieth of its journeymen annually through apprenticeship training either (i) on a statewide basis, or (ii) on a local basis; or
  - 4. If assignment of an apprentice to any Work performed under a public works contract would create a condition that would jeopardize his/her life; or the life, safety, or property of fellow employees; or the public at large; or if the specific task to which the apprentice is to be assigned is of such a nature that training cannot be provided by a journeyman.
- C. The Contractor is required to make contributions to funds established for the administration of apprenticeship programs if the Contractor employs registered apprentices or journeymen in any apprenticeable trade on such contracts and if other contractors on the public works site are making such contributions.

- D. The Contractor and any Subcontractor shall comply with the requirements of Sections 1777.5 and 1777.6 in the employment of apprentices.
- E. Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the Director of Industrial Relations, ex officio the Administrator of Apprenticeship, San Francisco, CA, or from the Division of Apprenticeship Standards and its branch offices.

### 4.07. Permits and Licenses

A. The Contractor shall procure all permits and licenses, pay all charges and fees, and give all notices necessary and incident to the prosecution of the Work, except as provided in the Special Provisions.

# 4.08. Patents and Copyrights

A. The Contractor shall assume all costs, including any costs of defense arising from the use of any copyrighted composition, secret process, patented or unpatented invention, article, Equipment, device, or appliance manufactured, furnished, or used in the performance of the Contract, including their use by the District, unless otherwise specifically stipulated in the Specifications.

# 4.09. Interference With Fire Hydrants, Highways, and Fences

A. The Contractor shall conduct operations so as not to close or obstruct any portion of any highway, road, or street, or prevent in any way free access to fire hydrants until permits have been obtained thereof from the proper authorities. If any highway required to be kept open shall be rendered unsafe by the Contractor's operations, the Contractor shall make such repairs or provide such temporary guards as shall be acceptable to the authorities having jurisdiction and to the Engineer. Any highway or street maintenance or repair work required by local authorities in connection with necessary operations under the Contract shall be performed by the Contractor at the Contractor's own cost and expense. Fences subject to interference shall be maintained as effective barriers consistent with the original intent; upon approval of the Engineer, they may be moved or rearranged to facilitate prosecution of the Work until the Work is finished, after which they shall be restored to their original location in an equal or better condition than existed prior to rearrangement.

# 4.10. Preservation of Property

A. The Contractor shall exercise due care to avoid damage to existing improvements, utility facilities, and adjacent property, real and personal. The fact that any existing underground improvement or facility is not shown on the Drawings shall not relieve the Contractor of the responsibility to ascertain the existence of any underground improvement or facility that may be subject to damage by reason of the Contractor's operations.

- B. Any damage to improvements or property—whether above or below ground, private or public, within or adjacent to the Project limits—arising from or in consequence of the performance of the Contract shall be promptly repaired by the Contractor.
- C. If the Engineer requires such repair to be made prior to the execution or continued performance of any part of the Work included in this Contract, the Engineer will so notify the Contractor who shall delay or discontinue the performance of that part of the Work until the necessary repair has been made. Such delay shall be considered Inexcusable Delay; no extension of time for completion of the Contract will be allowed. The Contractor will be subject to Contract damages for any impact to the Contract Milestones resulting from its damage to property or from failure to make timely repairs.
- D. When ordered by the Engineer to make any such repair, the Contractor shall start work thereon within four (4) hours and shall prosecute the same with diligence to completion. Upon failure of the Contractor to so comply with such order, or upon the Contractor's failure to make immediate emergency repairs reasonably determined by the Engineer to be necessary in the best interests of the public, the Engineer shall have authority to cause the repair to be made and to deduct the costs thereof from any money due, or which may become due, the Contractor.
- E. In an emergency affecting the safety of life or property, including adjoining property, the Contractor shall act to prevent, to the extent possible, such threatened loss or injury whether instructed or not to do so by the Engineer.

### 4.11. Contractor's Responsibility for the Work

A. Until the Acceptance of the Work, the Contractor shall have the charge and care of the Work and of the Material to be used therein and shall bear the risk of injury, loss, or damage to any part thereof by the action of the elements or from any other cause, whether arising from the execution or from non-execution of the Work. The Material to be used in the Work include both those furnished by the District and those furnished by the Contractor, including Material for which the Contractor has received partial payment.

#### 4.12. Indemnification

- A. The Contractor shall defend, indemnify, and hold harmless the District and its Directors, officers, employees, and agents from liability, loss, suits, actions, or claims brought for or on account of violation of Laws, Ordinances, Rules, or Regulations, or injury, damage, or loss (including death) caused by acts or omissions of the Contractor, its employees, or its agents.
- B. The Contractor shall defend, indemnify, and hold harmless the agencies/parties named in Article 14.16. Insurance, of the Special Provisions—including their officers, employees, and agents—from liability, loss, suits, actions, or claims brought for or on account of any violation of Laws, Ordinances, Rules, or

Regulations, or injury, damage, or loss (including death) caused by acts or omissions of the Contractor, its employees, or its agents.

### 4.13. Contractor's Insurance

#### 4.13.01. General

- A. The insurance procured by the Contractor for the benefit of Santa Clara Valley Water District shall not be deemed to release or limit any liability of the Contractor. Damages recoverable by Santa Clara Valley Water District for any liability of the Contractor shall, in any event, not be limited by the amount of the required insurance coverage. Failure by the Contractor to maintain all required insurance at all times during the performance of this Contract and until acceptance by the District, shall, at the discretion of the District, result in temporary suspension of Work, or termination of control, or termination of the Contract as indicated herein, and shall not be a basis for a time extension. The Contractor's insurance shall be primary with respect to any other insurance that may be carried by Santa Clara Valley Water District.
- B. The District has the right to require the Contractor to provide complete, certified copies of all required pertinent insurance policies, including endorsements affecting the coverage required by the Agreement.
- C. The specific insurance requirements and coverages shall be in accordance with the Special Provisions.

### 4.13.02. Insurance on Work and Material

A. The Contractor shall secure and maintain such direct damage insurance against such perils as the Contractor may deem necessary to protect the Work called for in this Contract, including Work completed, Material in place or to be used in the performance of this Contract, and such other miscellaneous items as may be necessary to the performance of this Contract.

# 4.14. Payment of Taxes

A. Except as otherwise specifically provided in the Special Provisions, the Contract Price(s) shall include full compensation for all current and future taxes that the Contractor is required to pay, whether imposed by Federal, State, or Local government; no tax exemption certificate or any other document designed to exempt the Contractor from payment of tax will be furnished to the Contractor by the District.

### 4.15. Cooperation With Others

A. The District reserves the right to do other work on or near the Project. The Contractor shall cooperate with others and coordinate its Work with planned or ongoing work of the District or of other District contractors within or adjacent to the limits of the Contract Work. The Contractor shall conduct the Work so as to

- facilitate work by the District or by others and prevent delay, additional expense, or hindrance thereto, and allow for the satisfactory prosecution of the Work.
- B. The Contractor shall request from, and exchange with others, Drawings, data, and information as necessary to ensure proper completion of the Project and of the work of others. The Contractor shall furnish to the Engineer copies of correspondence and Drawings exchanged with other contractors.
- C. The Contractor shall complete the following activities as requested by the Engineer to assist in the coordination of Contract Work with work by others: attend planning meetings; review and comment on Project documents relative to coordination aspects; schedule Work to promote efficient installation of all improvements; move Material, Equipment, or vehicles to allow work by others to proceed; and other reasonable activities.
- D. No additional payment shall be made or Claims considered for Delay due to the Contractor's failure to coordinate the Work or because of conflicts with other construction, including that of the District.
- E. The Contractor agrees to reimburse the District for any payments made to other Contractors that were incurred as a result of the Contractor's Inexcusable Delays.

# 4.16. Property Rights in Material

A. Nothing in the Contract shall be construed as vesting in the Contractor any right of property in the Material used after they have been attached or affixed to the Work or after payment has been made for 90 percent of the value of Material delivered to the site of the Work, whether or not they have been so attached or affixed. All such Materials shall become the property of the District upon being so attached or affixed or upon payment of 90 percent of the value of Material delivered by the Contractor to the worksite and not used as provided herein.

### 4.17. Rights in Land and Improvements

A. Nothing in these Standards shall be construed as allowing the Contractor to make any arrangements with any person to permit occupancy or use of any land, structure, or building within the limits of the Contract for any purpose whatsoever, either with or without compensation, in conflict with any agreement between the District and any owner, former owner, or tenant of such land, structure, or building.

#### 4.18. Title to Material Found on the Work

A. The title to all water and to the right to use all water; and all soil, stone, gravel, sand, minerals; and all other Material developed or obtained in the excavation or other operations by the Contractor, or by any Subcontractor, or by any of their employees, and the right to use or dispose of the same are hereby expressly reserved by the District; neither the Contractor, nor any Subcontractor, nor any of

their employees shall have any right, title, or interest in, or to any part thereof; neither shall they, nor any of them, assert or make any claim thereto. The Contractor may be permitted to use in the Work, without charge, any such Material that meet the requirements of these Specifications.

## 4.19. Trespass

A. The Contractor shall be responsible for all damage or injury that may be caused on or to any property by trespass by the Contractor, any Subcontractor, or any of their employees in the course of their employment, whether the said trespass was committed with or without the consent or knowledge of the Contractor.

### 4.20. Subcontracting

- A. The Contractor shall comply with the Subletting and Subcontracting Fair Practices Act commencing with Public Contract Code Section 4100. Violations shall subject the Contractor to penalties described therein.
- B. For the purposes of consenting to substitution of a designated Subcontractor in accordance with Public Contract Code Section 4107, 4109, and 4110, the Administrative Hearing Officer will be in accordance with Article 3.02. Engineer.
- C. The Engineer reserves the right to order the Contractor to terminate any subcontract if, in the Engineer's opinion, the Subcontractor fails to comply with the applicable requirements of this Contract.
- D. Nothing herein contained shall create any contractual relation between any Subcontractor and the District or shall relieve the Contractor of any liability or obligation hereunder.
- E. All contracts with Subcontractors and lower-tier Subcontractors and purchase agreements with Suppliers and lower-tier Suppliers shall provide that they are freely assignable to the District or to the District's designee under the following conditions:
  - 1. The District terminates the Contractor's control of the Work in accordance with Article 4.22. Termination of Control; and
  - 2. The District directs such assignment.

### 4.21. Assignment of Antitrust Claims

A. Government Code Sections 4550 through 4554 pertaining to the assignment of antitrust claims are incorporated herein in full by this reference.

### 4.22. Termination of Control

A. The District may terminate the Contractor's control of the Work at any time upon a determination that the same is in the best interests of the District.

#### 4.23. Termination of Contract

A. The District may terminate the Contract at any time upon a determination that the same is in the best interests of the District. Upon such termination, the rights, duties, and obligations of the parties shall be as stated in Section 8-1.14 of the 2010 State Specifications, wherein the words "Director" and "Engineer" shall mean the Engineer and the words "State" and "Department" shall mean District. Payment after termination of Contract shall be in accordance with the District's Standard and Special Provisions.

### 4.24. Contractor's Cost Data

A. The District or any of its duly authorized representatives shall, until the expiration of four (4) years after filing the Notice of Completion and Acceptance under this Contract or any subcontract under it, have access to and the right to examine any Contractor or Subcontractor payroll, records of personnel, invoices of Material, records of plant and Equipment costs, and any and all other directly pertinent books, documents, papers, and records of such Contractor or Subcontractors involving transactions related to the said Contract or subcontracts. In the event State or Federal funds are involved in financing the Project, the State or Federal Government shall have the same rights of inspection as the District.

# 4.25. Coordination With Utilities

- A. In general, the location of existing utility facilities as shown on the Drawings is approximate. This information has been obtained from utility maps furnished by the various agencies involved; the District does not guarantee either the correctness of the locations or the extent of such locations.
- B. California Government Code Section 4215 does not require public agencies to indicate the presence of service laterals or appurtenances whenever the presence of such utilities can be inferred from the presence of other visible facilities (e.g., buildings, meter boxes, junction boxes) on or adjacent to the construction site. Service laterals (e.g., house sanitary, water, electrical, gas, cable TV, storm or telephone cables, appurtenances) may not all be shown on the Drawings. No changes in the Contract Price(s) or the Contract Time(s) shall be made due to the presence of unidentified or incorrectly located service laterals or appurtenances. It shall be the responsibility of the Contractor to ascertain the exact location of the utility facilities.
- C. Unless otherwise indicated on the Drawings or specified in the Specifications, the Contractor shall maintain in service all utilities, including house services, power, lighting, and telephone conduits, and any other surface or subsurface structure or facility of any nature that may be affected by the Work; provided, however, that the Contractor, for convenience, may arrange with the owner to temporarily disconnect house service lines or other facilities along the line of the Work. The cost of disconnecting and restoring such utilities shall be borne by the Contractor.

- D. In the event that a main or trunk-line utility facility is encountered that interferes with the Work and that is neither shown on the Drawings nor specified in the Specifications, the Contractor shall immediately notify the District in writing. The District may have the appropriate utility company or public agency relocate the facility, or the District may direct the Contractor to relocate the facility in accordance with Article 3.06. Changes in the Work.
- E. In the event that a main or trunk-line utility facility is encountered that interferes with the Work and that the Contractor believes is not shown on the Drawings or indicated in the Specifications with Reasonable Accuracy, the Contractor shall immediately notify the District in writing.
  - 1. If the Engineer determines that the main or trunk-line utility facility was shown on the Drawings or was indicated in the Specifications with Reasonable Accuracy, the Contractor shall be solely responsible for relocation or removal; no additional time shall be granted nor additional payment made, for any additional Work required.
  - 2. If the Engineer determines that the main or trunk-line utility facility was not shown on the Drawings or was not indicated in the Specifications with Reasonable Accuracy, the District may have the appropriate utility company or public agency relocate the facility, or the District may direct the Contractor to relocate the facility in accordance with Article 3.06. Changes in the Work.
- F. When a delay in the completion of the Project is caused by the failure of the District or by the owner of a utility facility to provide for removal or relocation of existing main or trunk-line utility facilities that are not shown on the Drawings or that are not indicated in the Specifications or that are not shown on the Drawings or indicated in the Specifications with Reasonable Accuracy, the Contract Time(s) shall be extended in accordance with Article 3.08. Change in Contract Time(s).

#### 4.26. Asbestos-Related Work

- A. The Contractor shall comply with California Business and Professions Code Section 7058.5, which states that no Contractor shall engage in asbestos-related work, as defined, unless certified by the Contractor's State License Board to do so.
- B. The Contractor shall comply with California Labor Code Section 6501.5 relative to asbestos related work, the applicable provisions of the Code of Regulations, Title 8 General Industry Safety Orders, and BAAQMD Regulation 11 Rule 2.

# SECTION 5. PROSECUTION AND PROGRESS OF WORK

# 5.01. Assignment

- A. The performance of the Contract may not be assigned except upon consent of the Board of Directors. Consent shall not be given to any proposed assignment that would relieve the original Contractor or surety of its responsibilities set forth in the Contract.
- B. The Contractor may assign moneys due in accordance with the Contract; such assignment shall be recognized by the District if given proper notice thereof, to the extent permitted by law. Assignment of moneys shall be subject to all proper setoffs in favor of the District and to all deductions provided for in the Contract. All money withheld, whether assigned or not, shall be controlled by the District.

#### 5.02. Notice to Proceed

A. The Notice to Proceed (NTP) shall be issued by the Engineer within ten (10)
Days after receipt of the signed Agreement and after approval by the District of
the contract bonds and insurance documents. The NTP authorizes the
Contractor to proceed with the Work and establishes the First Chargeable Day of
the Contract.

#### 5.03. Commencement of Work

- A. The First Chargeable Day as specified in the NTP will be at least ten (10) Days after the date of said Notice.
- B. The Contractor shall provide written notice to the Engineer, at least 2 working days in advance, of the date the Contractor intends to start work on site.

# 5.04. Professional Scheduler

- A. All Detailed Progress Schedules shall be prepared and updated throughout the Contract Time(s) by a Schedule Professional who has, at a minimum, five (5) years of recent, verifiable experience in preparing, updating, and maintaining computerized Critical Path Method (CPM) construction schedules using Oracle Primavera, Microsoft Project, or similar scheduling software on at least two (2) completed construction projects of a similar size and degree of complexity as this Project.
- B. Prior to the Contractor's submission of the initial Detailed Progress Schedule, the Contractor shall submit and receive a favorable review of the résumé and professional references of the proposed Scheduler. The references shall be from at least two (2) project owners or construction managers familiar with the Scheduler's work on projects identified in the Scheduler's résumé. The District reserves the right to reject the proposed Scheduler based on lack of qualifications as defined in this Article.

# 5.05. Progress Schedules

A. The Contractor is responsible for scheduling the sequence of its Work in all Progress Schedule(s) as described below.

# 5.05.01. Preliminary Progress Schedule

A. Within ten (10) Days of the First Chargeable Day of the Contract as specified in the NTP, the Contractor shall submit to the Engineer a Preliminary Progress Schedule. This schedule shall include all activities that are planned to occur within the first 45 Days of the Contract.

# 5.05.02. Baseline Progress Schedule

- A. Within 30 Days of the First Chargeable Day of the Contract as specified in the NTP, the Contractor shall submit its initial Detailed Progress Schedule, which, if accepted, shall become the Baseline Progress Schedule for the Project. The submittal shall be in hard copy and native electronic format and shall fully conform to the numbered items below:
  - 1. The schedule shall be prepared using Oracle Primavera, Microsoft Project or similar Precedence Diagramming Method (PDM) scheduling software.
  - 2. The Baseline Progress Schedule shall be a Critical Path Method (CPM) schedule that is comprehensive, credible, well-constructed, and controlled. The schedule shall include input from its major Subcontractors and Suppliers and represent the complete scope of work. It shall represent the planned order of significant activities to complete the Work within the time allowed under this Contract. Any Detailed Progress Schedules shall be presented in sufficient detail such that sequence and interdependence of activities of the Project can be identified. The schedule shall include proper logic and adequate activity durations and show a logical critical path and Controlling Items of Work.
  - 3. The schedule shall account for on-site and off-site activities, including, but not limited to, permits, mobilization, and submittals (prepare and submit, review and approve, revise and resubmit); fabrication and delivery, installation, construction, system shutdowns, testing and start-up; training of District personnel; deficiency list; closeout; and demobilization. The schedule shall include key Milestones; reviews by the District, regulatory agencies, and other third parties of the Work; construction and sequencing constraints as specified in these Specifications; construction Work by the District forces or other third parties that interface with the Work; District-managed activities, such as the District furnishing Equipment; removal or relocation of interfering utilities by third parties; delivery of operation and maintenance manuals; and adequate time for Work completion and closeout activities.

- 4. Activity calendars shall reflect the planning basis and any Contract restrictions. All non-work Days and work hours shall be explained for each calendar.
- 5. The schedule shall reflect any limitations on work hours required by the Contract and any permit restrictions and conditions that are required.
- 6. Each schedule activity shall include a unique ID number and description, pertinent predecessors and successors, start/finish dates, an assigned workday calendar, a duration, percent complete, calculated float and activity codes to group the Work into Work Breakdown Structure (WBS) categories, location, responsibility, trade, and other rational groupings to facilitate sorting and filtering of the schedule activities.
- 7. Activities making up the critical path for the entire Contract and the critical path for each specific designated portion of the Work shall be identified. The network diagram shall be organized to indicate a continuous flow of progress of activities from left to right.
- 8. Except for concrete curing, submittal review, Equipment fabrication and deliveries, schedule activities shall be no longer than 20 working days. Activities longer than 20 working Days shall be subdivided into sub elements of work.
- 9. The Contractor shall submit a tabular listing of the schedule along with the network diagram.
- 10. The use of float suppression techniques, such as preferential sequencing (arranging critical path through activities more susceptible to District-caused delay); special lead/lag logic restraints; zero-total or free-float constraints; extended activity times; or imposing constraint dates other than required by this Contract shall be cause for rejection of the schedule using such techniques. The use of Resource Leveling (or similar software features) for the purpose of artificially adjusting activity durations to consume float and influence the critical path shall also be cause for rejection.
- 11. The Engineer's favorable review of the schedule shall not relieve the Contractor of errors and omissions in tasks, durations, or logic. No time extensions shall be granted because of errors or omissions on the schedule. It is the Contractor's responsibility to incorporate all necessary activities to cover the entire Work scope.
- 12. A favorably reviewed Baseline Progress Schedule is a condition precedent to payment.

# B. Cost Loading

- 1. Work activities other than third-party and District-managed activities shall be cost loaded. No activity shall have a value greater than \$50,000 except for activities representing major Equipment purchases or installation. Progress Schedules exhibiting front-loaded costs are unacceptable. The Contractor shall revise the Schedule of Values (SOV) pursuant to Article 6.01. Schedule of Values until accepted by the Engineer.
- The Contractor shall create two (2) hierarchical schedule activity codes in the scheduling software: (i) Bid Item and (ii) SOV. Each code shall have line item name corresponding to the accepted Bid items and SOV titles. Costs shall progressively roll up from the activity level to the SOV level; SOV codes shall roll up to the Bid Item level.
- 3. Each cost-loaded schedule activity shall be assigned one of the SOV codes. An activity shall not contain work assigned to more than one SOV code. The SOV code will be used to summarize cost-loaded activity values to produce the required SOV submittal. Table 6-1, referenced in Article 6.01.02. Submittal, is an acceptable form for this submittal. The SOV submittal shall be produced from the Progress Schedule software.
- 4. The sum of the monetary values of the activities assigned to each SOV code shall be equal to the accepted amount of that SOV line item. The sum of all the cost-loaded activities in the latest accepted schedule update shall total the latest approved Contract amount.

### C. Early Completion Schedule

- 1. The District is not required to accept an earlier (advanced) schedule (i.e., one that shows early completion date[s] but within the specified Contract Time[s]). Time(s) for completion of Work shall adhere to the Contract Time(s) specified in these Specifications unless earlier time(s) of completion is requested by the Contractor and agreed to by the District. Any such agreement shall be formalized by a Change Order or by a DCO.
- 2. If the Contractor submits any Baseline Progress Schedule or Detailed Progress Schedules showing any Contract Time(s) earlier than a corresponding, specified Contract Time(s) and that early completion date is not agreed to by both parties through a Change Order or through a DCO, the duration from such early completion date and from the specified Contract Time(s) is considered "float" and shall belong to the Project.
- 3. Accordingly, the Contractor in this situation is to show in the Baseline Progress Schedule or in the Detailed Progress Schedules a specific activity identified as Project Completion Float, which may be adjusted as that float is used or increased. The Contractor shall not be entitled to a

time extension due to any cause or reason that consumes Project Completion Float.

### 5.05.03. Revised Baseline Schedules

- A. If the Contractor desires to make a change to the Baseline Progress Schedule after commencing construction, a revised Baseline Progress Schedule and associated narrative shall be submitted to the District at least 15 Days prior to any such change.
- B. The narrative shall state the reasons for the change; any change to the Baseline Progress Schedule shall be discussed in the submittal to the District.
- C. A revised Baseline Progress Schedule shall not become effective until accepted by the District.

# 5.05.04. Updates to the Detailed Progress Schedules

- A. Any and all updates or revisions to the initial Detailed Progress Schedule shall conform to the same requirements as the Baseline Schedule in Article 5.05.02. Baseline Progress Schedule.
- B. The Contractor shall submit an update of the prior month's Detailed Progress Schedule to the Engineer before the twenty-fifth Day of each month.
- C. Each schedule update shall incorporate all current information, including progress. Actual start and finish dates shall be updated and shall match daily reports. Work completed shall be shown with actual start and finish dates for each activity. Work in progress shall be shown with the actual start date and the percentage of Work completed as of the last date of the previous month.
- D. The Contractor shall also submit a narrative report that shall include a description of problem areas, state the reasons for any changes made to the schedule activities, current and anticipated delaying factors and their impact, and an explanation of corrective actions taken or proposed.
- E. Progress status shall be evaluated on the basis of float on the critical path at the time of updating, with negative float indicating the Project is behind schedule and positive float indicating ahead-of-schedule status.
- F. Acceptance of the Detailed Progress Schedule updates is a condition precedent to payment.
- G. Recovery Schedules
  - 1. At any time that construction progress lags behind any Baseline Progress Schedule or any updated/revised Detailed Progress Schedule accepted by the Engineer by either ten (10) working days or by five (5) percent of the remaining time to complete the Contract, whichever is less, the

Contractor shall prepare and submit a Recovery Schedule to the Engineer. This Recovery Schedule shall demonstrate how construction will be expedited and executed to achieve the contractual completion dates (either Milestone Completion or Project Completion dates).

- Activity ID numbers shall be the same as in the most current and accepted and updated Detailed Progress Schedule. ID numbers of deleted activities shall not be reused on the Recovery Schedule. New ID numbers (not used in the most current and accepted Detailed Progress Schedule) shall be used for new activities.
- A revised narrative describing the remaining Work as reflected in the Recovery Schedule shall be included and shall include a separate listing of all activities deleted, changed, or added with an explanation for each change.
- 4. Once favorably reviewed by the Engineer, the Recovery Schedule shall become the current, revised Detailed Progress Schedule against which future progress is to be measured.

### 5.05.05 Time Impact Analysis

- A. If the Contractor foresees that an Excusable Delay, as defined, will impact a Controlling Item of Work, a written request for adjustment of the impacted Contract Time(s) and supporting data shall be promptly submitted to the Engineer in accordance with Article 3.08. Change in Contract Time(s). To substantiate the Contractor's request, the supporting data shall include a Time Impact Analysis (TIA) based on the updated and accepted Detailed Progress Schedule for the month preceding the Excusable Delay.
- B. The TIA shall represent Excusable Delays as separate activities or as groups of activities. These activities shall be entered into the relevant part of the schedule update that was accepted just prior to the time the Excusable Delay occurred. In case of a deductive change reducing the quantity of Work, activities representing the deleted scope shall be dissolved or its estimated duration adjusted to reflect the reduction.
- C. The Contractor shall submit a written report with the TIA describing the Excusable Delay by the occurrence and the impact of the event time computation on all affected activities.
- D. Only changes or delays that affect or create Controlling Items of Work as defined by the schedule shall result in time adjustments. The Engineer shall determine if a request for time extension is warranted.
- E. Total float or slack is defined as the amount of time between the early start date and the late start date, or the early finish date and the late finish date of any activity in the schedule. Total float or slack is not for the exclusive use or benefit

of either the District or the Contractor. It is an expiring resource available to either party on a first-come, first-served basis.

### 5.05.06. "Three-Week-Look-Ahead" Schedules

- A. The Contractor shall provide Three-Week-Look-Ahead Schedules on a weekly basis and present them at the weekly progress meetings.
- B. The Three-Week-Look-Ahead Schedules shall be prepared in the form of a bar chart breaking down activities into detailed subtasks on the Contractor's Detailed Progress Schedules. Subtasks shall identify related activities on the Detailed Progress Schedules and responsibility for completion of the sub task.
- C. The Contractor shall notify the Engineer in writing of any deviation from the current Three-Week-Look-Ahead Schedule within 24 hours of identification of said deviation.
- D. The Three-Week-Look-Ahead Schedules shall indicate inspections by the Engineer or by regulatory agencies and construction Work by the District forces or by other third parties that interface with the Work.

# 5.05.07. Payment

- A. Contractor shall submit a Baseline Progress Schedule, detailed monthly Progress Schedule updates, and Recovery Schedules to the District. The schedules shall be favorably reviewed by the District before a pending payment request is approved.
- B. Full compensation for furnishing, updating, revising, and submitting Detailed Progress Schedules and associated reports shall be considered as included in various Contract items of work; no additional payment shall be made.
- C. Submittal and favorable review of Detailed Progress Schedules and their components that meet the requirements of Article 5.05. Progress Schedules in this Section is a condition precedent to making a payment request.

# 5.06. Temporary Suspension of Work

- A. By written order to the Contractor, the Engineer may suspend the Work, wholly or in part, for an indefinite period or for such period as the Engineer may deem necessary, for any of the following reasons:
  - 1. Weather conditions or other conditions that are unfavorable for the proper prosecution of the Work.
  - 2. Failure of the Contractor to carry out orders given or to perform any provisions of the Contract.
  - For the convenience and benefit of the District.

- B. Such suspension shall be effective upon receipt by the Contractor of the written order suspending the Work and shall be terminated upon receipt by the Contractor of the written order terminating the suspension.
- C. If the Engineer orders a suspension of all or of a portion of the Work that is on a critical path, pursuant to A.1 or A.3 in this Article, this shall be cause for a time extension if it impacts Milestone completion.

# 5.07. Liquidated Damages

- A. If the Work is not finished or completed by the Milestone dates in the Contract, it is agreed that damage shall be sustained by the District and that it is and shall be impracticable and extremely difficult to ascertain and determine actual damage that the District will sustain. It is agreed that the Contractor shall pay to the District the sum(s) set forth in the Special Provisions. Liquidated Damages shall be assessed separately and independently.
- B. The Contractor agrees to pay Liquidated Damages herein provided for, and further agrees that the District may deduct the amount thereof from any moneys due, or that may become due, to the Contractor under the Contract. Imposition of Liquidated Damages shall not preclude the District from taking other action as deemed appropriate to ensure performance of the Contract and shall not relieve the Contractor of its responsibility to comply with these Specifications.

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# SECTION 6. MEASUREMENT AND PAYMENT

#### 6.01. Schedule of Values

### 6.01.01. Preparation

- A. The Contractor shall develop the Schedule of Values (SOV) in the Baseline Progress Schedule.
- B. Progress payments shall not be made until the SOV has received a favorable review by the Engineer.
- C. Each schedule activity representing a component of lump-sum Bid items shall include a directly proportional amount of the Contractor's overhead and profit. The Contractor's overhead and profit shall be completely distributed among all schedule activities. The Contractor shall provide additional cost documentation to the Engineer when requested so that values can be verified.
- D. The Contractor shall list and maintain separately on the SOV and on any Detailed Progress Schedule all values for items of Equipment that will be submitted for on-site Material payment. These Material items shall not be "progressed" as a part of the physical progress assessment.
- E. The Contractor shall prepare a Cash Flow Summary and a corresponding Cash Flow "S" Curve indicating the total dollar amount of Work planned for each month of the Project and shall equate the sum of monthly amounts to the Total Bid Price.

### 6.01.02. Submittal

- A. The Contractor shall submit to the Engineer the detailed SOV that conforms to Table 6-1 as part of its Baseline Progress Schedule and Detailed Progress Schedule Update submittals.
- B. The SOV submittals shall include a Cash Flow Summary and a Cash Flow "S" Curve.

## 6.01.03. Revision

- A. All construction Change Order authorizations shall be added to updated and revised Detailed Progress Schedules as cost-loaded activities and shall be coded to appropriate SOV line items. Additional cost documentation shall be provided to the Engineer when requested.
- B. The Contractor shall not change the final approved SOV without the approval of the Engineer. The SOV has a one-to-one direct relationship to the list of activities on the Contractor's Progress Schedule. Additions or deletions of activities on the Contractor's Detailed Progress Schedules shall require line item additions or deletions in the SOV. Any revision to the SOV shall be submitted with the monthly Detailed Progress Schedule updates.

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# 6.02. Application for Payment

A. Applications for payment shall be based upon actual progress as measured on the accepted Detailed Progress Schedules and as in the SOV.

# 6.02.01. Preparation

- A. Measurement of Quantities and Percent Complete
  - 1. All Work, except Work based on Time and Materials, shall be paid for at the Contract Price(s) per unit of measurement and shall be measured by the Engineer in accordance with the English system of measurement. Unless otherwise specifically provided, the Engineer shall compute quantities by a method that, in the Engineer's opinion, is best suited to obtain an accurate determination. The weights of metalwork, pipe, and other metal parts to be paid for on the basis of weight shall be determined by the Engineer. The District will not provide scales for weighing Material. The Engineer shall determine the weight of each part or item in the most practicable manner and shall use for that purpose manufacturer weights, or in their absence, catalog weights or estimated weights, in that order; weights of nonmetallic coatings shall be excluded.
  - Progress payments shall be based on percent complete for each applicable cost-loaded schedule activity as determined by visual observation of the Project by the Contractor and by the Engineer on a monthly basis. The schedule activity shall be updated to reflect percent complete. The schedule shall roll up activities to an activity code for each SOV and for each Bid Item.

#### B. Inclusion of Material On-Site

- 1. Partial payments may be made by the District to the Contractor for Material and Equipment furnished and delivered to the Project site but not yet incorporated into the Work, at the District's sole discretion, and only if the Material and/or Equipment meet all of the following requirements:
  - Material and/or Equipment are fabricated and/or are manufactured goods or Equipment relatively unique to the Project.
  - b. The Contractor can transfer clear title to the District.
  - c. If the Contractor does not have Builder's Risk coverage, the Contractor shall, at no additional cost to the District, (i) insure the Material against theft, fire, loss, vandalism, and malicious mischief; (ii) name the District as additional insured; (iii) deliver this policy or certificate of this insurance to the District; and (iv) receive the District's acceptance of the policy or certificate of insurance. Insurance shall not be cancelable for at least 30 Days;

- cancellation shall not be effective until certificate thereof is given to the District.
- d. Submittals for the Material and/or Equipment have been favorably reviewed by the District.
- e. The Material and/or Equipment have been delivered, identified as property of the District, and physically separated from other Material; protected, properly stored, and maintained at the site in accordance with manufacturer requirements.
- 2. Only the Contractor's actual cost for Material may be paid prior to inclusion in the Work. The Contractor's actual cost for the Material must be supported by Supplier invoices, proof of payment by the Contractor, and other supporting documentation warranting that the Contractor has received and owns the Material or Equipment free and clear of all liens, charges, security interests, and encumbrances.
- 3. Material delivered to the site fewer than 30 Days prior to their scheduled incorporation shall not qualify for partial payment consideration.
- 4. Temporary construction material (e.g. shoring) do not qualify for partial payment.
- 5. Final payment shall be made only for Material or Equipment incorporated into the Work. Upon Acceptance of the Work, all Material remaining for which advance payments had been made shall revert to the Contractor, unless otherwise agreed; partial payments made for these items shall be deducted from the final payment for the Work.
- 6. Payment for Material on-site does not relieve the Contractor of its obligations pursuant to the Contract.

### 6.02.02. Submittal of Application for Payment

- A. On the 25th of each month, the Contractor shall prepare and submit the Application for Payment to the District. Each progress pay request is to include payment for Work completed up to and including the 25th of the month. The basis for partial payments of lump sum or other unit Contract items shall be determined by agreement between the Engineer and the Contractor.
- B. Each Application for Payment shall be transmitted under the signature of the responsible authorized representative of the Contractor.
- C. The Contractor's properly submitted Application for Payment request and request for final payment shall include the following substantiating data:
  - 1. Cover letter identifying:

- a. the Project name and Project number;
- b. application number and date; and
- a detailed list of enclosures.
- 2. Contractor monthly Progress Pay Estimate summary sheet.
  - The pay request submitted by the Contractor shall contain a source document that provides backup information on how the estimate was prepared.
  - b. A source document is defined as the basic document used to record or calculate quantities.
  - c. The source document must contain the appropriate Contract Bid Item, the location of the installation, the necessary measurement and/or calculations, and the name of the person preparing the document.
- 3. Request for payment that meets the criteria listed in 6.02.01.B. Inclusion of Materials On-site.
  - a. This form requires a description of each specific Material, quantity, value, and submittal review status substantiating evidence of purchase and cost and a completed affidavit.
- 4. Certified weekly payroll(s) for the pay estimate period in accordance with the Contract Prevailing Wage requirements.
- 5. Small/Micro Business Enterprise Utilization Report, if required.
- 6. Favorably reviewed Detailed Progress Schedule update with Cash Flow Summary and Cash Flow "S" Curve.
- 7. Daily Extra Work Report Form signed by both the District inspector and by the Contractor's representative, if applicable.
- 8. Satisfactory evidence that the Engineer has approved the action taken to correct any Noncompliance Notices and a numbered copy of the noncompliance log.
- 9. Written acknowledgement by the Engineer that the as-built Drawings have been updated that month.

# 6.02.03. Review of Application for Payment

A. Upon receipt of a payment request, the District shall review the payment request for the purpose of determining that the payment request is a proper payment request. Any payment request determined not to be a proper payment request

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suitable for payment shall be returned to the Contractor no later than seven (7) Days after receipt. A payment request returned pursuant to this paragraph shall be accompanied by a letter citing reasons why the payment request is not proper. The following are examples of an improper payment request:

- 1. The item of Work requested to be paid was not performed.
- 2. The Work being requested to be paid has already been paid in previous Progress Pay Estimates.
- 3. The Work performed and requested to be paid was not done in accordance with the Contract (noncompliance).
- 4. The quality of the finished product is unacceptable.
- 5. The source documentation is inaccurate.
- 6. The Daily Extra Work Reports are not properly filled out.
- 7. There is a failure to submit an approved SBE Utilization Report, if required.
- 8. There is a failure to submit any of the Substantiating Documentation in Article 6.02.02. Submittal of Application for Payment.

#### 6.02.04. Payment

- A. Payment for all items of Work at the unit or lump-sum price shall be considered as full compensation for furnishing all labor, Material, tools, Equipment, and incidentals necessary to complete the item of Work; no additional payment shall be made. Payment for items of Work called for in the Specifications or shown on the Drawings but that are not separately identified in the Proposal Form shall be compensated as part of the Bid price of one or more of the items that are listed; no additional payment shall be made.
- B. Non-Waiver: No progress payment made to the Contractor or the Contractor's sureties shall constitute a waiver of the right to assess Liquidated Damages pursuant to the Contract Documents.
- C. The District shall pay within 30 Days valid, undisputed amounts, less any retention, withholds required by law or allowed by this Contract.
- D. If the District fails to make any progress payment within 30 Days after receipt of an undisputed and properly submitted payment request from the Contractor, the District shall pay interest to the Contractor equivalent to the legal rate set forth in the Code of Civil Procedure, Section 685.010, subdivision (a).

- E. The number of Days available to the District to make a payment without incurring interest pursuant to this Section shall be reduced by the number of Days by which the District exceeds the seven (7)-day return requirement set forth in Article 6.02.03. Review of Application for Payment, paragraph A.
- F. Unless otherwise indicated in the Special Provisions, the District shall retain five (5) percent of the estimated value of Work done and five (5) percent of the value of the Material so estimated to have been furnished and delivered and unused as aforesaid and shall pay to the Contractor, while carrying on the Work, the balance not retained as aforesaid after deducting there from all previous payments and all sums to be kept or retained under the provisions of the Contract. No estimate or payment shall be required to be made when, in the judgment of the Engineer, the Work is not proceeding in accordance with the provisions of the Contract, or when, in the Engineer's judgment, the total value of the Work done since the last estimate amounts to less than \$1,000. No estimate or payment shall be considered to be acceptance of the Work. All progress estimates and payments shall be subject to correction in the final estimate.

#### G. Escrow in Lieu of Retention

- At the request of the Contractor, the District shall permit the substitution of securities or certificates of deposit equivalent to the amount of any monies withheld by the District as above provided. The deposit shall, in that event, be with the District or with a State- or Federal-chartered bank in California as the escrow agent.
- 2. Alternatively, upon written request of the Contractor, the District shall make payments of the retention as it is earned directly to the escrow agent.
- 3. The Contractor shall bear the expense of the District and of the escrow agent in connection with the escrow deposit made.
- 4. Securities or certificates of deposit to be placed in escrow shall include those listed in Government Code Section 16430, bank or savings and loan certificates of deposit, interest-bearing demand deposit accounts, standby letters of credit, or any other security mutually agreed to by the Contractor and by the District. Unless otherwise permitted by the escrow agreement, securities or certificates of deposit to be placed in escrow shall be of a value at least equivalent to the amounts of retention to be paid to the Contractor pursuant to this Section.
- 5. When the District makes payment of retentions directly to the escrow agent, the Contractor may direct, subject to approval of the District, the investment of the payments into securities.
- 6. The Contractor shall enter into an escrow agreement satisfactory to the District; this agreement shall be substantially similar to that specified in Public Contract Code Section 22300.

7. The Contractor shall obtain the written consent of the surety to the agreement.

## 6.02.05. Withholding from Payments

- A. The District may, at its option and at any time, withhold progress payment(s) or retain from any amounts due the Contractor sums sufficient to cover for one (1) or more of the following reasons:
  - 1. Stop-Payment Notice Claims filed pursuant to the Civil and Labor Code.
  - 2. Contractor has failed to comply with State law prompt payment requirements with regard to payments to Subcontractors.
  - 3. Third-party claims have been filed or there is reasonable evidence indicating probable filing of these claims.
  - 4. Liquidated Damages due or expected.
  - 5. The Contract sum has been reduced by Change Orders.
  - 6. Damage has occurred to the District or to another Contractor.
  - 7. The Engineer determines that:
    - a. the Work cannot be completed for the unpaid balance of the Contract sum;
    - if any Contractor's Detailed Progress Schedule forecasts inexcusable late completion, or if the District determines that the Work will not be completed within the Contract Time(s), and that the current unpaid balance and retention will not be adequate to cover actual or Liquidated Damages for the anticipated Delay;
    - c. the Contractor persistently fails to perform the Work in accordance with the Contract Documents:
    - d. the Contractor fails to submit timely Change Order cost proposal breakdowns and documentation in accordance with the Contract Documents:
    - e. the Contractor fails to timely submit the Preliminary Progress Schedules, or Detailed Progress Schedules, or any updates or revisions to those submittals, and reports in accordance with the Contract Documents;
    - f. the Contractor fails to maintain detailed, timely, updated as-built documents or closeout items.

- g. the Contractor fails to submit certified payroll records in accordance with the Contract Documents and prevailing wage requirements;
- h. the Contractor has not submitted an approved SBE utilization report;
- i. the Contractor fails to submit a proper payment request in accordance with the Contract Documents;
- j. the Contractor fails to comply with the submittal requirements requiring rereview of the submittal;
- k. the Contractor fails to submit a fully compliant Quality Control Plan;
- I. there has been material noncompliance with the insurance requirements; or
- m. the Contractor fails to comply with any other requirements of the Contract Documents.

# 6.03. Final Payment

- A. As soon as practicable after completion of the Work, the Engineer shall prepare in writing and furnish to the Contractor the final estimate of the quantities of Work done and all payments due as part of the Contract; this estimate will show deductions for prior payments and any other amounts to be retained or withheld as part of the Contract. The amount determined due, less the amount retained and/or withheld, shall be paid.
- B. The retained amount will not be due or payable until 35 Days after the filing of the Notice of Completion of Contract and Acceptance of Work, subject to any withholds required by law or by the Contract.
- C. Prior to release of the retained amount, the Contractor shall furnish the District with a release of all Claims by the Contractor against the District arising by virtue of this Contract. The release of Claims may include disputed Contract Claims in stated amounts as the Contractor may specifically exclude from the operation of the release pursuant to acceptance of Final Payment.

	Activity ID	Activity Name	Duration Coart		Float	Cost	Cost	Comple
otal			809.5d 21-Oct-08 A	18-Dec-11	139.56	\$81,420,582.00	\$15,995,442.65	19.61
1.A.1.1			17.0d 10-Nov-08 A	10-Dec-08 A		\$1,120,000.00	\$1,120,000.00	100
1A1.1	P101040130	30% DESIGN	15.0d 10-Nov-08 A	10-Dec-08 A		\$1,120,000.00	\$1,120,000.00	100
1.A.1.2			30.0d 11-Dec-08 A	23-Feb-09 A		\$2,140,000.00	\$2,140,000.00	100
1A12	P101040150	60% DESIGN	30.0d 11-Dec-08 A	23-Feb-09 A		\$2,140,000.00	\$2,140,000.00	100
1.A.1.3			87.1d 11-Dec-08 A	28-May-09 A		\$1,240,000.00	\$878,500.00	70.85
1A13	P101040160	SITE CIVIL DESIGN 90%	30.0d 11-Dec-08 A			\$0.00	\$0.00	
1A.1.3	P101040190	ARCHITECTURAL 90%	30.0d 11-Dec-08 A			\$0.00	\$0.00	
1A.1.3	P101040250	90% DESIGN	48.0d 24-Feb-09 A 30.0d 10-Nov-08 A	28-May-09 A 19-Dec-08 A		\$1,240,000.00	\$878,500.00 \$82,190.23	70.85
1.A.1.4	P101040100	ONSITE GEOTECHNICAL INVESTIG.	28.0d 10-Nov-08 A			\$100,000.00	882 190 23	82.19
1.A.1.5	P101040100	ONSITE GEOTECHNICAL INVESTIG	17.0d 10-Nov-08 A			\$25,000.00	\$25,000.00	100
1.A.1.5	P101040110	POTHOLE RESULTS & SITE SURVE	15.0d 10-Nov-08 A			\$25,000.00	\$25,000.00	100
1.A.2.1	P101040110	POTROCE RESOLTS & SITE SURVE	63.0d 01-Jun-09	28-Aug-09	253.04	\$2,824,000.00	\$0.00	100
1A2.1	2A01040100	100% DESIGN	35.0d 01-Jun-09	20-Jul-09	48.0d	\$2,500,000.00	\$0.00	-
1A2.1	2A01040120	ADDRESS REVIEW COMMENTS &	5.0d 20-Aug-09	28-Aug-09	244.0d	\$324,000.00	\$0.00	_
1.B.1.1			328.0d 21-Oct-08 A	30-Nov-09	9.04	\$2,217,000.00	\$2,155,000.00	49.3
1.8.1.1	8U02574100	SUBMIT STEEL PIPE & FABRICATE	0.0d 21-Oct-08 A			\$1,000.00	\$1,000.00	0.05
1.8.1.1	8U02574110	SUBMIT STEEL PIPE FABRICATION	5.0d 03-Dec-08 A	17-Dec-08 A		\$1,000.00	\$972.00	97.2
1.B.1.1	PR02574100	PROCURE 144" & 84" HEADERS (S	115.0d 08-Nov-08 A	18-Jun-09	10.0d	\$959,481.00	\$932,598.09	97.2
1.8.1.1	PR02574110	PROCURE 120" & 144" PIPE (S.D	149.0d 08-Nov-08 A	29-Sep-09	4.0d	\$491,874.00	\$477,907.13	97.2
1.8.1.1	PR02574120 PR02574130	PROCURE INLET & OUTLET TIE-IN PROCURE 48" BRANCH PIPING (S	231.0d 08-Nov-08 A 110.0d 08-Nov-08 A	30-Nov-09 18-Jun-09	9.0d 36.0d	\$298,578.00 \$487.287.00	\$288,245.78 \$454.279.00	97.19 97.22
1.B.1.10	PH025/4130	PROCURE 48" BRANCH PIPING (S	0.0d 10-Nov-08 A	10-Nov-08 A	36.00	\$2,594,444.00	\$1,028,157.00	39.55
1.B.1.10	P101040120	BONDS & INSURANCE	0.0d	10-Nov-08 A		\$2,594,444.00	\$1,026,157.00	39.55
1.B.1.2	P101040120	BUNDS & INSURANCE	253.0d 03-Nov-08 A	30-Sep-09	8.5d	\$757,077.00	\$757,077.00	100
1.0.1.2	SU15100100	SUBMIT 84" & 144" VALVES (S.D	5.0d 03-Nov-08 A	12-Nov-08 A	0.50	\$1,000.00	\$1,000.00	100
1.B.1.2	PR15100100	PROCURE 84" VALVES (S.D REQ	149.0d 08-Jan-09 A	29-Sep-09	4.04	\$251,773.00	\$251,773.00	100
1.B.1.2	PR15100110	PROCURE 144" VALVES (S.D RE	185.0d 25-Nov-08 A	30-Sep-09	8.54	\$504,304.00	\$504,304.00	100
1.B.1.3			202.0d 10-Dec-08 A	15-Jen-10	0.84	\$1,102,273.00	\$1,051,281.00	95.37
1.B.1.3	8U15100110	SUBMIT DeZURIK VALVES (S.D R	5.0d 10-Dec-08 A	15-Dec-08 A		\$1,000.00	\$1,000.00	100
1.B.1.3	PR15100120	PROCURE 48" DeZURIK VALVES (S	150.0d 02-Mer-09 A	15-Jen-10	-25.4d	\$550,638.00	\$525,308.74	95.4
1.B.1.3	PR15100130	PROCURE 90",78", 68" & 60" DeZUR	158.0d 02-Mar-09 A	21-Aug-09	100.5d	\$550,637.00	\$524,974.28	95.34
1.B.1.4			285.0d 13-Mar-09 A	05-Apr-10	67.04	\$307,500.00	\$0.00	
1.8.1.4	SU11286100	SUBMIT CO2 SYSTEM	10.0d 13-Mar-09 A	08-Oct-09	65.0d	\$1,000.00	\$0.00	0
1.8.1.4	PR11288100	PROCURE CO2 SYSTEM	110.0d 28-Oct-09 102.0d 29-Sep-09	05-Apr-10 18-Feb-10	65.0d	\$308,500.00 \$109,680.00	\$0.00	
1.B.1.5								
1.B.1.5	SU11241100	SUBMIT CHEMICAL TANKS	5.0d 29-Sep-09 80.0d 21-Oct-09	08-Oct-09 18-Feb-10	44.5d 44.5d	\$1,000.00 \$108.680.00	\$0.00	0
1.B.1.5 1 B 1 G	PR11241100	PROCURE CHEMICAL TANKS	244.0d 01-Jun-09	08-May-10	44.5d 49.0d	\$108,880.00	\$184,500.00	14.31
1.8.1.6	8U16260100	SUBMIT EMERGENCY GENERATO	5.0d 01-Jun-09	05-Jun-09	47.04	\$1,000.00	\$1,000.00	100
1.8.1.6	PR16260100	PROCURE EMERGENCY GENERAT	220.0d 23-Jun-09	08-May-10	47.0d	\$1,288,099.00	\$1,000.00	14.25
1.B.1.7		The second section of the second section secti	269.0d 23-Dec-08 A	15-Jan-10	-27.4d	\$75,605.00	\$75,605.00	100
1.8.1.7	8U13420100	SUBMIT 48-IN MAG METERS (S.D	5.0d 23-Dec-08 A	26-Dec-08 A		\$1,000.00	\$1,000.00	100
1.8.1.7	PR13420100	PROCURE 48-IN MAG METERS (S.D	200.0d 19-Jan-09 A	15-Jen-10	-25.4d	\$74,805.00	\$74,805.00	100
1.B.1.8			117.0d 11-Sep-09	23-Feb-10	53.5d	\$128,925.00	\$0.00	
1.8.1.8	SU11240100	SUBMIT CHEMICAL METERING PU	5.0d 11-Sep-09	18-Sep-09	53.5d	\$1,000.00	\$0.00	
1.B.1.8	PR11240100	PROCURE CHEMICAL METERING P	95.0d 05-Oct-09	23-Feb-10	53.54	\$127,925.00	\$0.00	
1.B.1.9			143.0d 08-Aug-09	23-Feb-10	53.5d	\$15,750.00	\$0.00	
1.8.1.9	SU11247100	SUBMIT CHEMICAL TRANSFER PU	5.0d 08-Aug-09	13-Aug-09	53.5d	\$1,000.00	\$0.00	0
1.8.1.9	PR11247100	PROCURE CHEMICAL TRANSFER P	120.0d 28-Aug-09	23-Feb-10	53.5d	\$14,750.00	\$0.00	
1.B.2.1.1	,		357.5d 21-Apr-09 A	03-Nov-10	38.5d	\$1,269,346.00	\$99,175.00	7.81
1.8.2.1.1	SW02900100	PLANT TREES & TEMP IRR. SYSTEM	15.0d 08-Oct-10	27-Oct-10	34.5d	\$90,000.00	\$0.00	
1.B.2.1.1 1.B.2.1.1	SW02900110 SW02200110	HYDROSEED PREP ROAD SUBGRADE	4.0d 27-Oct-10 10.0d 20-Jul-10	03-Nov-10	34.5d 34.5d	\$16,000.00 \$155,000.00	\$0.00	
1.8.2.1.1	SW02200110 SW02520100	CONSTRUCT ROADS TO TOP OF S	10.0d 20-Jul-10 15.0d 17-Aug-10	03-Aug-10 08-Sep-10	34.5d 54.5d	\$195,000.00	\$0.00	
1.8.2.1.1	SW02520100 SW02770100	CURBS & GUTTERS	15.0d 03-Aug-10	24-Aug-10	54.5d	\$167,500.00	\$0.00	- 0
1.8.2.1.1	SW02510110	PAVE ROADS	10.0d 31-Aug-10	15-Sep-10	68.54	\$161,331.75	\$0.00	-
1.8.2.1.1	SW01500120	RELOCATE DSL LINE (S.D REQUI	15.0d 21-Apr-09 A	11-May-09 A		\$14,900.00	\$14,900.00	100
			Page 1 of 1	1 TASK	filter: Co	st Account On	у.	

TABLE 6-1. SCHEDULE OF VALUES SAMPLE

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## SECTION 7. SUBMITTAL MANAGEMENT

## 7.01. Submittal Requirements

- A. This Article includes requirements and procedures for preparing and submitting submittals and other information required by the Contract Documents.
- B. Drawings listed in the Specifications shall be supplemented by the Contractor with the submittals required throughout the Contract Documents for the prosecution of the Work and for approval of Equipment. Submittals may include shop detail Drawings, fabrication Drawings, falsework and formwork Drawings, pipe layouts, and similar classes of Drawings, calculations, specifications, product data, samples, manuals, spare parts, photographs, survey data, schedules, or similar items required to be submitted to the Engineer by the Contract Documents.
- C. These submittals shall be favorably reviewed by the Engineer before any Work involving these submittals is performed. No change shall be made by the Contractor to any submittal after it has been favorably reviewed by the Engineer.
- D. Submittals shall contain all required, detailed information at a reasonable scale with enough views to clearly show the Work to be done or the item to be furnished and shall be properly checked.

## 7.02. Master Submittal List

- A. Within 30 Days of the First Chargeable Day of the Contract as specified in the NTP and monthly thereafter, the Contractor shall submit an electronic copy of the Master Submittal List to the Engineer. This list shall be in Microsoft Excel spreadsheet format and shall identify all originally planned submittals. The purpose of this list is to assist in planning for submittal creation and review and to provide a monthly update of submittal review status. Items on this list shall be sorted by Specifications Number and shall include, at a minimum, the following information:
  - 1. Item number.
  - 2. Reference Specification Section number and paragraph.
  - 3. Description of submittal.
  - 4. Type of submittal (e.g., Shop Drawing, catalog, sample, certificate, test data, manual, other).
  - 5. Original preparer of the submittal to include preparer's name, firm name, telephone number, and email address.
  - Estimated date for submission to the Engineer by the Contractor. Dates shall be coordinated with the Contractor's Progress Schedules to ensure sufficient time is allowed for processing submittals and for procurement of

Material prior to the start of a construction activity. The Contractor shall include submittals as activities in the Detailed Progress Schedules.

- 7. Actual date sent by the Contractor to the District.
- 8. Actual date returned by the District to the Contractor.
- Submittal status.
- B. The Contractor shall identify in the master submittal list the submittals that may require long-lead times for manufacturing and/or for delivery and that must be submitted early to the Engineer for review.

# 7.03. Timing of Submittals

- A. The Contractor shall make submittals promptly in accordance with the accepted Detailed Progress Schedules and in such sequence as to cause no Delay in the Work. The time allowed by the Contractor for submittal review shall also provide sufficient time for disapproval and resubmission.
- B. The sequence of submission of submittals shall be such that all information is available to the Engineer for review of each submittal as it is received. The Contractor is responsible for furnishing submittals in sufficient time for approval action, including resubmittal, without delaying construction.

#### 7.04. Submittal Format

- A. One (1) electronic copy and five (5) paper copies of each submittal shall be submitted.
- B. All submittals shall be clearly identified by reference to the Project name, Specification Section, Article, paragraph, Drawing number, or detail as applicable. Submittals shall be well organized, clear, and legible, and of sufficient size for clear presentation of the data. Data submitted shall describe the Materials, Equipment, or other items to be furnished, and where applicable, the system in sufficient detail to indicate full compliance with the requirements of these Contract Documents. Data shall consist of complete Materials and Equipment lists accompanied by catalog data sheets, cuts, performance curves, diagrams, or similar descriptive Materials. Materials and Equipment lists shall give, in each case, the name of the manufacturer, trade name, catalog reference, size, finish, and all other pertinent data.
- C. All submittals shall be in the English language and per the customary Imperial System units of measure and weight (i.e., feet, inches, pounds, degrees in Fahrenheit, etc.). Metric units may be provided in addition to the customary Imperial System units of measure and weight.
- D. All submittals and supporting data, catalogs, schedules, etc., shall be submitted as the instruments of the Contractor, who shall be responsible for their accuracy,

completeness, coordination, and conformance with the Contract Documents. These submittals may be prepared by the Contractor, Subcontractors, or Suppliers; the Contractor shall review and ascertain that submittals meet all of the requirements of the Contract Documents while conforming to structural, space, and access conditions at the point of installation prior to submission to the Engineer. Designation of Work "by others" if shown in submittals shall mean that the Work shall be the responsibility of the Contractor rather than of the Subcontractor or of the Supplier who prepared these submittals. The Contractor shall ensure that there is no conflict with other submittals. The Contractor shall ensure coordination of submittals among the related crafts and Subcontractors.

- E. If the submittals show any deviations from the Contract requirements, the Contractor shall include with the submittal a separate written description of such deviations and the reasons therefore. If any deviations from the Contract requirements are not clearly noted and prominently identified on the submittal, the review of the submittal shall not constitute acceptance of such deviations.
- F. The Contractor shall review all submittals before submitting them to the Engineer and shall certify on each transmittal letter and on each submittal that the submittal has been checked, is in compliance with the Contract Documents except as specifically noted, and that each deviation from the Contract Documents is specifically noted.
- G. Submittals shall include the following:
  - 1. A separate transmittal form shall be used for each specific item, class of Material, Equipment, and items specified in separate, discrete Specification Section or Article, for which a submittal is required. Submittal documents common to more than one (1) piece of Equipment shall be identified with all appropriate Equipment numbers. Submittals for various items shall be made with a single form when the items taken together constitute a manufacturer's package or are so functionally related that expediency indicates checking or reviewing the group or package as a whole. The Specification Section or Article to which the submittal is related shall be indicated on the transmittal form.
  - 2. A sequential number in chronological order shall be assigned for each submittal and shall be noted on the transmittal form. Submittal numbers shall have the following format: XXX.Y, where XXX is the sequential number (001 to 999) assigned by the Contractor; and Y is the re-submittal number (0 to 9). For each item submitted, the Contractor shall include the applicable Specification number on the submittal and on the transmittal form.
  - 3. A separate written description of deviations from the Contract Documents, if any.
  - 4. The date of submission and the dates of any previous submissions.

- 5. The District's name and the Project title and number.
- Contractor identification.
- 7. The names of the following (as applicable):
  - a. Subcontractor
  - b. Supplier
  - c. Manufacturer
- 8. Identification of the product with the Specification Section or Article number, page, and paragraph(s).
- 9. Field dimensions clearly identified as such.
- 10. Relation to adjacent or critical features of the Work or Material.
- 11. Applicable standards (e.g., ASTM).
- 12. Identification of revisions on resubmittals.

## 7.05. Submittals to be Furnished by the Contractor

# A. Shop Drawings

- Shop Drawings include, but are not necessarily limited to, custom prepared data (e.g., fabrication on erection/installation [working] Drawings, scheduled information, setting diagrams, actual shop work manufacturing instructions, custom templates, special wiring diagrams, coordination Drawings, individual system or Equipment inspection and test reports), including performance curves and certifications, as applicable to the Work.
- 2. Submittal of shop Drawings by simply annotating copies of the Contract Drawings is subject to rejection.

#### B. Product Data

1. Product data as specified in the individual Section or Article, includes, but is not necessarily limited to, standard, prepared data for manufactured products (sometimes referred to as catalog data or "cuts"), such as the manufacturer's product specification and installation instructions, availability of colors and patterns, manufacturer's printed statements of compliance and applicability, roughing in diagrams and templates, product photographs, standard wiring diagrams, printed performance curves and operational range diagrams, production or quality control inspection and test reports and certifications, mill reports, product

operating and maintenance instructions, recommended spare parts listing, and printed product warranties, as applicable to the Work.

# C. Samples

1. Samples specified in individual Sections or Articles, include, but are not necessarily limited to, physical examples of the Work, such as sections of manufactured or fabricated work, small cuts or containers of Material, complete units of repetitively used products, color/texture/pattern swatches and range sets, specimens of coordination of visual effects, graphic symbols and units of work to be used by the Engineer or by others for independent inspection and testing, as applicable to the Work.

#### D. Concrete Reinforcement Submittals

1. Submittals for concrete reinforcement shall not simply be annotated copies of the Contract Drawings. New scale Drawings shall be prepared showing plans, all vertical structure elevations, sections, and details as required to clearly delineate the reinforcing to be furnished and installed. Submittals shall show and tabulate reinforcement dimensions, sizes, grades, shapes, splices, laps, splice locations, dowel lengths, and all similar information needed for construction, Material takeoffs, and Engineer's review to determine compliance with the structural design. Submittals shall show reinforcement dimensioning and placement that reflect the Contractor's intended and approved concrete placement sequence.

## E. Electrical and Instrumentation Equipment Submittals

- 1. Submittals as described herein shall be provided for all electrical and instrumentation Equipment and systems furnished as part of products and systems specified in these Specifications. These submittals shall include, but are not necessarily limited to, the following:
  - a. An Equipment list tabulating all components furnished, followed by the manufacturer's name, manufacturer's model number, and a cross-reference to its location on the submittals.
  - b. A complete conduit riser diagram and conduit schedule shall be prepared and submitted for the interconnection of all electrically powered Equipment. The riser diagram and conduit schedule shall detail conduit identification numbers as shown on the Drawings, as well as size, wires, and location. Where the riser diagram requires either more wires or larger conduits than detailed in the Drawings, the Contractor shall coordinate any required changes with the electrical Subcontractor, if any, before installation begins.

- c. Interior and exterior panel elevation Drawings for all panels, consoles, and Equipment enclosures. The elevations shall be drawn to scale and shall detail all Equipment in or on the panel. Nameplates, conduit access locations, mounting provisions, panel construction details, manufacturer's model number, and panel color (or color samples) shall be included.
- d. Drawings and descriptive data and brochures of each item of Equipment. Electrical characteristics and requirements, enclosure types, manufacturer, and model number shall be included. Sheets or Drawings showing more than the particular item under consideration shall have crossed out all but the description of the item for which the review is requested.
- e. Schematics and connection diagrams. A manufacturer's standard connection diagram or schematic showing more than one (1) scheme of connection shall not be accepted unless it is clearly marked to show the intended, work specific connections; terminal numbers shall be included. A written operation theory shall be included for all complex control schemes.
- 2. For each instrument furnished with mechanical systems, submittals shall include an Instrumentation, Systems, and Automation Society (ISA) S20 Data Sheet and technical bulletins or brochures. The summary data sheets and the technical bulletins shall include, but shall not necessarily be limited to, the following:
  - a. tag numbers per the Process and Instrumentation Drawings;
  - b. the manufacturer's model or other ordering designation;
  - c. product (item) names used on the Drawings;
  - d. physical location where installed;
  - e. input output characteristics;
  - f. range, size, and graduations as required;
  - g. physical size with dimensions and mounting details;
  - h. quantity and quality requirements for electric power, air, and/or water supply;
  - i. Materials in contact with or otherwise exposed to the process;
  - j. certified calibration and/or calibration curves where applicable;
     and

- k. Detailed Instrumentation, Systems, and Automation Society (ISA) loop wiring diagrams showing requirements for each instrument that is furnished under this Section. The diagram shall identify all device terminal points, as well as any intermediate terminal blocks. Power supplies, loop grounds, wire/cable number, etc., shall be detailed. Such loop wiring diagrams shall be prepared per ANSI/ISA S5.4. Optional items 1, 3, 4, 6, and 7 from paragraph 5.3 of S5.4 are also required. Note that the District loop numbering protocol used in these documents and required for submittals does not comply with ISA standards.
- 3. Submittal of motor data for acceptance shall include complete nameplate data in accordance with NEMA Standards and, in addition, the following information for motors typical of the units furnished:
  - a. Ambient temperature setting.
  - b. Service factor.
  - c. Efficiency at ½, ¾, and full load.
  - d. Power factor at ½, ¾, and full load.
  - e. Motor outline, dimensions, and weight.
  - f. Descriptive bulletins, including full description of insulation system.
  - g. Bearing design data.
  - h. Special features (i.e., space heaters, temperature detectors, etc.).

#### 7.06. Submittal Review Procedures

- A. Review of submittals has as its primary objective the completion of the Work in full conformance with the Contract Documents, unmarred by field corrections and within the construction time provided. In addition to this primary objective, submittal review as a secondary objective shall assist the Contractor in its procurement of Equipment that shall meet all requirements of the Contract Documents; shall fit the structures detailed on the Drawings; shall be completed with respect to piping, electrical, and control connections; shall have the proper functional characteristics; and shall become an integral part of a complete operating facility.
- B. For submittals that require the Engineer's review, one (1) copy shall be returned to the Contractor within 20 Days after receipt. The Contractor shall make any necessary corrections and revisions to the returned submittals and shall resubmit the submittals within 20 Days after receipt. The Contractor is responsible for furnishing submittals in sufficient time for approval action, including re-submittal without delaying construction.

- C. The Contractor shall be solely responsible for agreement and conformity of submittals with the Contract Drawings and with the Specifications. The review of submittals shall be for general conformance with the design concept and with the Contract Documents. It is expressly understood that the Engineer's review of the Contractor's submittals shall not relieve the Contractor of any responsibility for:
  - 1. accuracy of dimensions and details;
  - 2. coordinating the Work with all other associated Work and trades;
  - 3. selecting fabrication processes;
  - 4. techniques of assembly;
  - 5. departing from details furnished by the Engineer;
  - 6. its obligation to meet safety requirements;
  - 7. its obligation to meet all other requirements of laws;
  - 8. compliance with the Contract requirements; and
  - 9. errors, including details, dimensions, and Material.
- D. Favorable review of all submittals (returned "No Exceptions Noted" "In Receipt of" or "Make Corrections as Noted") shall apply in general design only and shall in no way relieve the Contractor of responsibility for errors or omissions contained therein. Favorable review shall not relieve the Contractor of its obligations to meet safety requirements and all other requirements of laws nor shall it constitute a Change Order authorization. Favorable review shall not constitute acceptance by the District of any responsibility for the accuracy, coordination, and completeness of the submittals or for the items of Equipment represented on the submittals, nor shall it constitute a Change Order authorization.
- E. If the Contractor submits an incomplete or disorganized submittal, the submittal shall be considered "Rejected" and shall be returned to the Contractor without review. The Engineer may, at its sole discretion, elect to provide a list of, or mark the submittal indicating some or all of, the areas that are incomplete. A complete submittal shall contain sufficient data to demonstrate that items comply with the Contract Documents; shall meet the minimum requirements for submissions cited in the Technical Specifications; and shall include any necessary revisions required for Equipment other than the first named manufacturer. The Engineer's determination of whether a submittal is complete shall be final. The District reserves the right to return a submittal that requires coordination with another or other submittals not yet received by the District.
- F. After review by the Engineer of each of the Contractor's submissions, the submittal shall be returned to the Contractor with actions defined as follows:

- No Exceptions Noted: The favorable review of a submittal is subject to its compatibility with future submissions and with additional partial submissions for portions of the Work not covered in this submission. It does not constitute approval or deletion of specified or required items not shown in the partial submission. The Contractor may proceed with the Work shown in the submittal.
- Make Corrections As Noted: Same as 1 except that minor corrections as noted shall be made by the Contractor. The Contractor may proceed with the Work, providing corrections have been made; resubmission is not required.
- 3. Revise and Resubmit: Rejected because of inconsistencies or errors that shall be resolved or corrected by the Contractor prior to subsequent resubmission. The Contractor may not proceed with the Work shown in the submittal.
- 4. Rejected: Submitted Material does not conform to Drawings and Specifications in major respects (i.e., wrong size, model, capacity, or Material). The Contractor may not proceed with the Work shown in the submittal.
- 5. In Receipt Of: Receipt of submittal is acknowledged by the Engineer.
- G. Resubmittals shall be processed in the same manner as first submittals. On resubmittals, the Contractor shall direct specific attention, in writing on the letter of transmittal and on resubmitted shop Drawings by use of revision triangles or other similar methods, to revisions from previous submissions. Any such revisions that are not clearly identified shall be made at the risk of the Contractor. If any such revisions are installed, all portions thereof that do not fully conform to the Contract Documents shall be corrected by the Contractor at its expense and as required by the Engineer.
- H. The favorable review of submittals (returned "No Exceptions Noted" or "Make Corrections as Noted") shall be obtained from the Engineer prior to the fabrication, delivery, and construction of items requiring submittals.
- I. All resubmittals shall be accompanied by a memorandum or letter from the Contractor that responds to each written review comment provided by the Engineer in the previous submittal. Each response shall describe the corrective action taken or reason for the Contractor's actions.
- J. The Contractor shall make a complete and acceptable submittal to the Engineer at least by the second submission. If a returned submittal is required to be resubmitted more than once due to the Contractor's failure to comply with submittal requirements, the Contractor may be charged all costs associated with rereview of the submittal. The charges may be deducted from a progress payment due, or that will become due, to the Contractor and shall be based on

actual review hours recorded by the Engineer, District staff, and by the Engineer's consultants, multiplied by their actual, fully burdened labor rates.

#### 7.07. Substitutions

- A. Substitutions are considered changes to the Contract. If Materials, Equipment, item, means, method, technique, sequence, or procedure of construction is required by the Contract Documents, the Contractor may furnish or utilize a substitute item, means, method, sequence, technique, or procedure of construction acceptable to the Engineer, unless identified as a sole/single-source item. Substitutions shall be formally submitted as a Request for Substitution. The Contractor must submit sufficient information to allow the Engineer to determine whether the substitution proposed is equivalent to that indicated or as required by the Contract Documents.
- B. The Engineer shall respond in writing to the Contractor within ten (10) Days indicating the time necessary to evaluate each proposed substitution.
- C. The Engineer shall be the sole judge in this matter. In the event the Engineer rejects the proposed items, the Contractor shall submit the Specified Items.
- D. No substation shall be ordered, installed, or utilized without the Engineer's prior written acceptance, which shall be evidenced by either a favorably reviewed Request for Substitution, Change Order, or by a DCO. The District may require the Contractor to furnish, at the Contractor's expense, a special performance guarantee with respect to any approved substitution.
- E. The Engineer shall record time required by the Engineer, District staff, and by the Engineer's consultants to evaluate substitutions proposed by the Contractor and to make changes in the Contract Documents occasioned thereby. Regardless of whether or not the Engineer accepts a proposed substitution, the Contractor shall reimburse the District for the charges of the Engineer and for the Engineer's consultants for evaluating each proposed substitution.
- F. Cost or time impacts to other items of Work that are caused by any Contractorinitiated Request for Substitution, whether anticipated or unforeseen, shall be the responsibility of the Contractor.
- G. Request for Substitution: Submission of items that are proposed as equivalent to any other item, means, method, sequence, technique, or procedure of construction shall be evaluated in accordance with the provisions outlined below. Burden of proof as to the submitted items being equivalent to the items required by the Contract Documents is the responsibility of the Contractor.
  - 1. All provisions and evaluation criteria under Article 7.08. "Or Equal" Items, paragraph E in this Article shall apply to the proposed substitutions.
  - 2. No submission of proposed substitutions shall be accepted or considered by the Engineer prior to Contract award.

- 3. Other additional provisions and/or criteria as deemed necessary by the Engineer.
- 4. Substitution(s) of Specified Item(s) item, means, method, sequence, technique, or procedure of construction proposed by the Contractor may require modifications in the Project design, Project schedule, and/or in the construction sequencing. The Contractor shall identify all necessary Project modifications required for the substitution(s). Necessary Project modifications may include, but may not be limited to, electrical, instrumentation, structural, mechanical, architectural, testing, engineering costs, and other related modifications.
- 5. The Contractor shall be responsible for all costs associated with the substitution(s), including submittal reviews and any Project redesign and modification. Contractor refusal to accept any of these costs shall be just cause for disapproval of the substitution(s).
- 6. If the proposed items are accepted, 50 percent of all savings shall be credited to the District. Total cost savings shall be less any design costs required for substitution(s) implementation.

## 7.08. "Or Equal" Items

- A. Specified Item: Materials, Equipment, product, thing, or service referenced in the Contract Documents that has been identified by one (1) or more specific brand, manufacturer, Supplier, company, catalog number, or trade name. Whenever such designations shall be deemed to be used for the purpose of facilitating the description of the Specified Item and shall be deemed to be followed by the words "Or Approved Equal," whether explicitly stated or not, unless specifically noted to the contrary, in these instances, the Contractor may presume the specific brands are the only product known to the District that meet the requirements of the Contract Documents; the Contractor may propose the provision of Materials or Equipment that are equal to the Specified Item.
- B. Equal Item: Item as referenced in these Contract Documents are those that, to the Engineer's knowledge, meet the requirements of the Contract Documents and are considered equal to the Specified Items.
- C. The Contractor shall submit sufficient data, Drawings, samples, literature, calculations, and all other information as requested by the District to demonstrate to the Engineer that the proposed items are equal to the Specified Items.
- D. Failure of the Contractor to submit the proposed Equal Item for review in the manner and time described in this Article shall be sufficient cause for rejection by the Engineer of the proposed Equal Item.
- E. The Engineer's evaluation of the submitted items proposed as being equivalent to the Specified Items is based on, but is not limited to, the following:
  - Performance.

- 2. Functionality and efficiency.
- 3. Durability.
- 4. Life cycle costs.
- 5. Ease and economy of maintenance and operation.
- 6. Construction and physical characteristics as compared to the Specified Items or as delineated in the Contract Documents.
- 7. Dimensional compatibility with the Material it combined to produce a unified design system.
- 8. Compatibility with products in use.
- 9. All aspects of finished appearance, including form, texture, and color, that may affect other design elements.
- 10. Impacts to Project design, construction schedule, or construction sequencing.
- F. The Engineer shall be the sole judge in this matter. In the event the Engineer rejects the proposed items, the Contractor shall submit the Specified Items.
- G. The Contractor shall submit to the Engineer, in accordance with Public Contract Code Section 3400, after Contract award, no later than 35 Days after the date of NTP, a proposal for replacing a specified item with an equal item. At the sole discretion of the Engineer, the District may give written consent to the submission of the proposed Equivalent Item after the expiration of a 35-day time limit.

## 7.09. Sole/Single Source

- A. No substitution of designated Sole/Single Source items listed in the Contract Documents shall be allowed.
- B. Wherever the District has made a finding and specified in the Contract Documents that a Sole//Single Source is required for one (1) or more of the listed reasons stated in the Public Contract Code Section 3400(c), the Material or Equipment specification shall list only one (1) manufacturer, catalog number, or trade name, followed by the designation "No Equal," "No Others Acceptable," "No Alternatives Allowed," "No Other Manufacturers Accepted," and/or similar language.

# SECTION 8. SAFETY AND SECURITY MANAGEMENT

# 8.01. Public Safety

- A. The Contractor shall be solely and completely responsible for conditions of the job site, including safety of all persons and property during the performance of the Work, except from the District's sole negligence or intentional misconduct. The Contractor's compliance with this requirement is not limited to normal working hours.
- B. At all times, the Contractor shall provide for public safety and convenience. The Contractor's operations shall be conducted so as to offer the least possible obstruction and inconvenience to the public along with the greatest safety to the public. At no time shall the Contractor have more Work underway than can be prosecuted with proper regard to these considerations to the public.
- C. At all times, the Contractor shall provide sufficient measures, such as, but not limited to, fences, barriers, barricades, railings, lights, signs, and any other warning devices and shall provide flagging and guards as are necessary to give adequate warning of any dangerous condition to the public and to reasonably and prudently provide for the greatest public safety and convenience. The Contractor shall comply with all reasonable requirements of the Engineer or public agency having jurisdiction in interpreting this subparagraph.

## 8.02. Accident Prevention

- A. The Contractor is hereby informed that Work on this Project could be hazardous. The Contractor shall instruct all personnel working in potentially hazardous work areas of the potential dangers and shall provide safety Equipment and instruction as is necessary to prevent injury to personnel and damage to property. Special care shall be exercised relative to Work around high-voltage wires, high-pressure gas mains, high-pressure water pipelines, and other utilities. Temporary supports, as required by the utility company, shall be provided by the Contractor to protect utility facilities.
- B. The Contractor shall strictly comply with all applicable City, County, and State Rules, Ordinances, Regulations, and Codes, including, but not limited to, CAL OSHA Labor Code Section 6300 et seq. and California Code of Regulations Title 8, Chapter 4. Nothing in these Specifications shall be construed to permit Work not conforming to governing Codes. When Contract Documents differ from governing Codes, the Contractor shall furnish and install the higher standards called for without additional charge. The Contractor shall also take, or cause to be taken, additional measures as may be necessary for the prevention of accidents.
- C. The Contractor shall maintain an accurate record of, and shall report to the Engineer in writing, exposure data and all accidents resulting in death, traumatic injury, occupational disease, or damage to property, Material, supplies, or Equipment incident to Work performed under the Contract.

- D. If the Engineer notifies the Contractor of any noncompliance with the foregoing provisions, the Contractor shall, after receipt of this notice, immediately take corrective action. If the Contractor fails or refuses to comply immediately, the matter may be referred to the proper authority. No part of the time lost due to any stop order issued by a proper authority shall be made the subject of a Claim for extension of time or for extra costs or damages by the Contractor.
- E. Compliance by Subcontractors with the provisions of this Article shall be the responsibility of the Contractor.

# 8.03. Explosives and Stream Pollution

- A. When the use of explosives is necessary for the prosecution of the Work, the Contractor shall not endanger life or property.
- B. The Contractor must obtain and comply with permit(s) from all regulatory agencies for the storage and use of explosives.
- C. The Contractor must obtain a permit from the California Department of Fish and Wildlife, if required, in advance of the use of underwater explosives. The Contractor shall comply with all applicable requirements of the Fish and Game Code relating to stream pollution, particularly Section 5650.

#### 8.04. Fires

A. The Contractor must obtain and comply with the permit(s) from all regulatory agencies, including from the Bay Area Air Quality Management District (BAAQMD) if required, for fire-related activities.

## 8.05. Excavation Safety Plans

A. In accordance with Labor Code Section 6705, Miscellaneous safety Provisions, excavations five (5) feet or more in depth shall not begin until the Contractor has submitted, and the Engineer has returned indicating "In Receipt Of," the Contractor's detailed plan for worker protection from the hazards of caving ground during these excavations. The plan may be reviewed by the Engineer for completeness in accordance with Federal, State, and Local regulations. The Engineer shall not be responsible for reviewing the accuracy of assumptions, data and information used, and procedures contained in the plan, or for the adequacy thereof. The plan shall show the details of the design of shoring, bracing, sloping, or other provisions to be made for worker protection during the excavations. The plan shall not allow the use of shoring, sloping, or a protective system less effective than that required by the Construction safety Orders. If the plan varies from the shoring system standards established by the Construction safety Orders, the plan (including calculations) shall be prepared, signed, and stamped by a registered Civil or Structural Engineer and by a registered Geotechnical Engineer in the State of California.

- B. These plans shall be accompanied by a copy of a Permit to Excavate that has been issued by the Division of Occupational safety and Health as required by Labor Code Section 6500 et seq.
- C. This Article shall be applicable regardless of the Contract Price(s).
- D. The Contractor's Engineer shall review the adequacy of the Contractor's work methods, Equipment, bracing, or scaffolding, or safety measures, in, on, or near the construction site.

## 8.06. Tunnel Construction Safety

- A. The Contractor shall comply with all applicable requirements of Labor Code Section 7950 et seq. regarding tunnel safety.
- B. The Contractor shall notify the California Division of Occupational Safety and Health and the Engineer before any initial construction may be started at any tunnels.
- C. The Contractor shall schedule a pre-job safety conference with representatives of the Division, District, employer, and employees before Work begins as required by Labor Code Section 7955. This conference shall include the employer's review of the construction plan and any special Equipment, practices, and potential safety and health problems. The Engineer shall be notified of the time and place of the conference.
- D. The District shall obtain the tunnel classification prepared by the Division of Occupational Safety and Health prior to the request for bids, whenever possible, and make it available to the Contractor. A notice of the classification and any special orders, rules, or regulations to be used in construction, remodeling, demolition, or operation of the tunnel or underground mine shall be prominently posted at the site by the Contractor.

## 8.07. Confined Space Program

- A. The Contractor working in or supporting work in a confined space shall have a Confined Space Program.
- B. The Contractor shall submit a copy of its confined space program document to the Engineer. The program document shall be in compliance with all requirements of California Code of Regulations Title 8, Sections 1950 1962, and other applicable confined space requirements. Entry into a confined space shall not occur until the Contractor has submitted, and the Engineer has returned, indicating "In Receipt of," the Contractor's Confined Space Program document.
- C. The Contractor shall ensure that all of its employees and Subcontractors working in or supporting Work in a confined space have received all training mandated by

- Cal/OSHA and meet any other Cal/OSHA requirements related to the Work. All entries into confined spaces shall be coordinated with the Engineer.
- D. The Contractor shall provide confined-space rescue services for all Work performed in a permit-required confined space and for all entrants to a permit-required confined space regardless of the entrant's employer.
- E. All employees of the Contractor or Subcontractor performing rescue services shall have received previous training, as applicable, in (i) atmospheric monitoring and ventilation; (ii) communication; (iii) emergency, self-rescue, and non-entry rescue operations; (iv) permit systems; (v) signs, symptoms, and consequences of exposure to contaminants; (vi) first aid and CPR; (vii) lockout/tagout; (viii) fall protection; (ix) electrical safety; and (x) respiratory protection.
- F. The required training as described in Paragraph E above, shall be per established industry standards (i.e., the latest version of ANSI Z117.1, Safety Requirements for Confined Spaces, American National Standards Institute); and per Cal/OSHA regulations (i.e., California Code of Regulations, Title 8, Sections 1960[b] and 5157[k].) All rescue personnel shall also have practiced making permit space rescues at least once every 12 months by means of simulated rescue operations in which they remove dummies, mannequins, or actual persons from actual permit spaces or from representative permit spaces. Representative permit spaces shall, with respect to opening size, configuration, and accessibility, simulate the types of permit spaces from which rescue is to be performed. This training shall have taken place no more than 12 months before the Work to be performed on this Project begins.
- G. Prior to the start of Work, the Contractor or any Subcontractor performing Rescue Services, shall submit to the District for review, a Rescue Training Certification (District Form FC 1767) included at the end of this Section, if/when it becomes necessary for District staff to enter a permit required confined space.
- H. Prior to entry, the Contractor shall post the most current copy of its Rescue Training Certification form (without its attachments) at the worksite where rescue services are to be provided.
- The Contractor shall submit an updated Rescue Training Certification form to the Engineer prior to the performance of each rescue service event. In addition, the Contractor shall submit an updated form to include any personnel not previously identified.

## 8.08. Temporary Facilities

A. Use construction hoists, elevators, scaffolds, stages, shoring, and similar temporary facilities of ample size and capacity to adequately support and move loads to which they will be subjected. Provide railings, kick plates, enclosures, safety devices, and controls required by law or regulation or for adequate protection of life and property.

- B. Staging and falsework: Temporary support (e.g., formwork, falsework, or shoring) shall be designed and constructed in accordance with Construction Safety Orders, California Code of Regulations, Title 8, Sections 1541.1 and 1717. The falsework plan, shoring plan, and any required calculations shall be submitted, and the Engineer has returned indicating "In Receipt of," prior to commencement of any associated work on site.
- C. Warning devices and barricades: Identify and guard hazardous areas and conditions by visual warning devices, and, where necessary, by physical barriers per Cal/OSHA requirements; by the latest version of the California Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD); and by State agency permit conditions.
- D. Barricades: Place barriers at ends of excavations and along excavations to warn pedestrian and vehicle traffic of excavations. Provide barriers with flashing lights after dark. Keep barriers in place until excavations are entirely backfilled and fully compacted. Barricade excavations to prevent persons from entering excavation areas in streets, roadways, parking lots, or other public or private areas associated with the Project.
- E. Temporary enclosures: When sandblasting, spray painting, spraying of insulation, fireproofing, or other activities inconveniencing or dangerous to property or to the health of employees, District staff, or the public are in progress, the area of activity shall be enclosed adequately to contain the dust, over spray, or other hazard. In the event that there are no permanent enclosures of the area or that enclosures are incomplete or inadequate, the Contractor shall provide suitable, temporary enclosures. The Contractor shall submit to the Engineer a temporary enclosure plan for protection of open bodies of water from contamination. Temporary enclosures shall not hinder or adversely affect treatment plant operations.
- F. Above-grade protection: On multilevel structures, the Contractor shall provide safety protection that, as a minimum, shall meet the requirements of California Code of Regulations, Title 8 Industrial Relations.
- G. Fences: Enclose Work site with fencing adequate to protect the Work as necessary against acts of theft, violence, and vandalism. When entire site or part thereof is to be permanently fenced, permanent fencing may be built to serve as both permanent and temporary protection of the Work site, provided that any damaged or defaced fencing is replaced prior to final acceptance.

## 8.09. Injury and Illness Prevention Program

A. Work shall not commence until the Contractor has submitted, and the Engineer has returned indicating "In Receipt of," the Contractor's Injury and Illness Prevention Program (IIPP). The IIPP shall comply with Cal/OSHA requirements California Code of Regulations, Title 8, Section 1509 (Construction), Section 3203 (General Industry), and other regulations as applicable. A copy of the

program shall be available at all times at the job site. The Contractor shall designate a Safety Officer who will monitor and enforce the IIPP.

## 8.10. Safety and Health Program for Hazardous Waste Operations

- A. The Contractor shall comply with California Code of Regulations, Title 8, Section 5192 and shall develop and implement a written safety and health program and a site-specific safety and health plan for employees involved in Hazardous Waste operations. The program shall be designed to identify, evaluate, and control safety and health hazards and provide for emergency response for Hazardous Waste operations. In compliance with Title 8, Section 5192, the written safety and health program shall incorporate:
  - 1. an organizational structure;
  - 2. a comprehensive work plan;
  - 3. a Site-Specific Safety and Health Plan;
  - 4. a safety and health training program;
  - 5. a medical surveillance program;
  - 6. the Contractor's standard operating procedures for safety and health; and
  - 7. any necessary interface between general program and site specific activities.

## 8.11. Site Safety and Health Supervisor

- A. The Contractor shall provide a site safety and health supervisor who has the responsibility and authority to develop and implement the site-specific safety and health plan and to verify compliance in accordance with California Code of Regulations.
- B. The site safety and health supervisor shall be a qualified and experienced safety and health professional whose sole duty is safety, health, environmental control, and monitoring and who shall be on-site during normal working periods and available 24 hours a day, seven (7) Days a week by telephone or by other approved means. Safety representatives from Subcontractors shall not be substituted for the Contractor's safety representative.
- C. The site safety and health supervisor shall meet, at a minimum, the following qualifications: five (5) years of construction project safety management experience on similar projects with OSHA 30-hour certified construction training or certified safety professionals (CSP) with experience in construction-related projects. The safety officer or other competent person shall maintain current training certificates in first aid and in CPR.

# 8.12. Site-Specific Safety and Health Plan

- A. The Contractor shall develop, implement, and verify compliance of a site-specific safety and health plan for Work on this Project.
- B. The safety and health plan shall conform to the requirements of all local, state, and federal ordinances, rules, regulations, and guidelines concerning occupational health and safety issues. It shall also include protocol to be utilized in the event unexpected materials or substances are encountered.
- C. The safety and health plan shall consist of procedures for the protection of the Contractor's personnel, including Subcontractors, District personnel, consultants, inspectors, and Supplier personnel working with Hazardous Material and the general public from Site-specific hazards.
- D. The safety and health plan shall be prepared and signed by a certified industrial hygienist (CIH). The safety and health plan shall identify the site safety and health supervisor who is responsible for the implementation of the plan.
- E. Should the types of activities and associated hazards change during the course of work, the Contractor's CIH shall amend the appropriate sections of the safety and health plan to reflect the changed site conditions. The revisions shall address the specific potential hazards to workers and to any others who will be involved in the construction that could result from exposure to the new hazard(s).
- F. The Contractor shall keep a copy of the safety and health plan at the job site at all times and shall provide a copy to all personnel working on site. All Contractor personnel performing work on-site shall be required to read the safety and health plan and shall be required to sign an acknowledgment that he/she has obtained and read a copy of the safety and health plan. No worker shall be allowed to perform Work on the site until a copy of his/her signed acknowledgment has been submitted to the Engineer by the Contractor. At a minimum, the safety and health plan shall consist of the following items:
  - 1. Project Organization: To include project manager, project site safety officer, superintendent, forepersons, Subcontractors, any team leaders, and other workers and shall address their roles and responsibilities.
  - Work Plan: Address anticipated Project activities and objectives of the site operations; identify performance tasks for the Project, methods, and activities for accomplishing these tasks, task hazard analysis for each task activity listed in the safety and health plan, personnel requirements, personnel training requirements, and medical monitoring requirements for site personnel.
  - 3. Site Safety Meetings: Include the frequency of the meetings, who will conduct the meetings, time of day meetings will be held, general topics that will be covered at the meetings, and documentation protocol.

- 4. Employee Training Assignments: Discuss the training elements and the employees who received the training.
- 5. Review of the Site History for Overall Hazard Characteristics: Discuss physical and health hazards, site characterization, and known and potential exposures to Hazardous Material.
- 6. Site Control Program: At a minimum, specify the site work zones, site personnel training requirements for each class/type of worker, site protective clothing requirements, safe working practices, and site communication.
- 7. Personnel Medical Monitoring Requirements: Discuss requirements for each class/type of worker to be on-site and special condition hazards.
- 8. Personnel Protective Equipment Program: At a minimum, specify selection, personnel training requirements, Equipment storage requirements, Equipment maintenance and repair requirements, Equipment decontamination requirements, and Equipment limitations.
- 9. Engineering Controls: Specify additional engineering controls to be used for workplace safety, if any.
- Monitoring: As applicable, at a minimum, specify monitoring methodology, frequency of monitoring, personnel training requirements to monitor, Equipment to be used, Equipment calibration methodology, and documentation protocol.
- 11. Material Handling: As applicable, specify machinery and Equipment to be used, tools to be used, containers to be used, and personnel training requirements for operators.
- 12. Decontamination: As applicable, specify procedures for decontamination area construction, personnel decontamination, Equipment decontamination, reinstate control, protective clothing debris control, and decontamination station personnel requirements.
- 13. Emergency Response Program: At a minimum, specify directions to the nearest medical facility, decontamination procedures for injured workers, and emergency Equipment available on-site.
- 14. Spill Contamination Contingency Program: Shall include provisions for gases, liquids, and solids.
- 15. Sanitation Facilities: Identify availability for workers and provisions for different sexes.

- 16. Illumination: If used during the Project, specify the condition requirements for use, type of illumination to be provided, and illumination locations on site.
- 17. Confined Space Entry: Discuss personnel protective Equipment, ventilation method and Equipment, illumination method and Equipment, atmosphere testing and Equipment, safety protocol, and documentation protocol.
- 18. Site Excavation: Discuss types of Equipment to be used, personnel training requirements, safety practices to be utilized, open excavation construction, and personnel entry safety.
- 19. Safety Inspections: Identify scope of inspections, frequency and time of inspections, personnel qualification of inspector, and communications protocol.
- G. The Contractor shall comply with the safety and health plan. Noncompliance with the safety and health plan shall be grounds for temporary suspension of all Work. Suspension of Work for noncompliance shall not be grounds for additional time or compensation.
- H. The safety and health plan may be revised and/or amended by the Contractor and the Contractor's CIH as necessary during Work progress and as specified in these Specifications. Revisions and/or amendments to the safety and health plan shall be considered incidental to this item of Work; no additional payment shall be made.

## 8.13. Safety and Health Plan Implementation

- A. Providing for worker safety and personal protection is the Contractor's responsibility and shall be in accordance with the Contractor's safety and health plan. The Contractor is responsible for providing any and all training, monitoring, personal protective Equipment, protective clothing, devices, Equipment, and/or facilities necessary for ensuring worker safety as may be recommended and/or as specified in the Contractor's safety and health plan.
- B. The Contractor is responsible for ensuring that its personnel understand and comply with all site health and safety requirements specified in the safety and health plan.

#### 8.14. Submittals

A. This Article summarizes required safety-related submittals. This Article is not intended to be all inclusive. In addition, some submittal requirements specified below may not apply depending on the specific Work under this Contract. Contractor is solely responsible for identifying and submitting to the District and/or to appropriate authorities having jurisdiction all Submittals required by

applicable laws, rules, and regulations. The Contractor shall submit at a minimum the following items:

- 1. Injury Illness Prevention Program (IIPP): Shall be submitted and favorably reviewed by the Engineer prior to commencement of any Work on site. The District may review or comment on the IIPP. The District's review or comment on the IIPP does not in any way relieve the Contractor of (i) any responsibility or liability for the IIPP, and (ii) being solely, fully, and completely responsible for the safety of all persons and property at the job site.
- 2. Site-Specific Safety and Health Plan: Shall be submitted and favorably reviewed by the Engineer prior to commencement of any Work on site (if applicable). The District may review or comment on the safety and health plan. The District's review or comment on the plan does not in any way relieve the Contractor of (i) any responsibility or liability for the plan, and (ii) being solely, fully, and completely responsible for the safety of all persons and property at the job site.
- 3. Names and qualifications (résumés including education, training, experience, and certifications) for the designated site safety and health supervisor and other competent and qualified personnel to be used on the Project in support of job site safety requirements.
- 4. Completed Activity Hazard Analysis (AHA) or Job Hazard Analysis (JHA) submitted for all significant activities and tasks with a high-risk potential, describing the job steps, hazards associated with each job step, and the controls used to remove or minimize the associated hazards. No hazardous Work shall be allowed without an approved AHA or JHA.
- 5. Incident Investigation Reports: Submitted to the Engineer within 24 hours of the Project incident.
- 6. Project-Specific Hazardous Substances Communications Plan:
  Contractor shall prepare and submit plan and receive favorable review by the Engineer prior to commencement of sitework activities.
- 7. Safety Meeting Attendance Sheet ("Toolbox" meetings): Submitted to the Engineer within seven (7) working Days of the last working Day of the month.
- 8. Air Monitoring Results/Reports: Submitted to the Engineer on request (if applicable).
- 9. Monthly Field Project Report (including man-hours, incident/injury, and property damage reports): Submitted to the Engineer on a monthly basis within seven (7) Days of the last working Day of the month.

- 10. Heavy Equipment Inspection Forms: Submitted to the Engineer on request (if applicable).
- 11. Documentation for all Individuals Applicable to Regulatory Medical Surveillance Guidelines and HAZWOPER Training per Cal/OSHA Requirements: Submitted to the Engineer for review prior to beginning any Work associated with these requirements (if applicable).
- 12. Critical Lift Plans: Submitted to the Engineer on request (if applicable).
- 13. Crane Inspection Certifications: Submitted to the Engineer on request (if applicable).
- 14. Crane Operators Certification: Submitted to the Engineer on request (if applicable).
- 15. Applicable employee training and required medical approval documentation in compliance with Cal/OSHA standards.
- 16. Copies of detailed and documented quarterly crane inspections conducted by qualified individuals (if applicable).
- 17. Written crane inspections submitted to the Engineer on a daily basis.

## 8.15. Security Requirements at Job Site

- A. The Contractor shall make adequate provision for the protection of the Work area against fire, weather, theft, and vandalism and for the protection of the public against exposure to injury. All costs arising from theft, fire, or vandalism of the construction Material and Equipment shall be borne by the Contractor.
- B. During night hours, weekends, holidays, and during other times when no Work is performed at the site, the Contractor shall provide temporary closures or enlist services of security guards to protect temporary openings.
- C. The Contractor shall not allow its staff to stay at the Project site outside of specified hours of Work.

#### 8.16. General

- A. The Contractor shall comply with the security requirements specified herein during the entire construction duration. These requirements are not to be construed to relieve the Contractor of its responsibility for the Work as specified in Article 4.11. Contractor's Responsibility for the Work.
- B. The Contractor's personnel includes the Contractor's own staff, including, but not limited to, all tiers of Subcontractor staff, manufacturer representatives, technicians, delivery drivers, etc.

# 8.17. Identification and Badging

- A. All Contractor personnel who enter the Project site are required to possess and carry a valid photographic identification. A current driver's license, or identification card issued by the California Department of Motor Vehicles or by other States, or a current passport is considered valid photographic identification. This identification shall be presented to District staff and security guards upon request. Contractor personnel without this identification shall be denied access to or shall be asked to leave the site.
- B. The District shall provide Project-specific identification badges for use by Contractor personnel. The District shall issue a photographic identification badge to each person who works at the site for more than five (5) continuous Days and generic (nonphotographic), temporary badges for Contractor personnel who work on an occasional basis (less than five [5] continuous Days.)
- C. The Contractor shall submit to the Engineer for approval a list of all Contractor personnel intended to work at the site for more than five (5) continuous Days. The list shall include the name, employer, and work phone number of each person. Upon approval by the Engineer, the Contractor shall complete a District furnished identification badge application for each eligible employee and make arrangements with the Engineer to have Contractor employee photographs taken at the District for the purpose of obtaining District-furnished photographic identification badges. Approved applications and valid photographic identifications shall be required before issuance of District photographic identification badges.
- D. Planned, occasional site access. The Contractor shall plan in advance all occasional (less than five [5] continuous Days) site accesses. The Contractor shall notify the Engineer of the name and employer of the Contractor's personnel requiring occasional site access at least one (1) Day in advance of each occasional site access. After sign in, the District's security guard will issue a generic, temporary badge to the occasional visitor. The occasional visitor shall return his/her badge to the security guard upon leaving the site.
- E. Emergency or unplanned site access. For emergency or unplanned access, as determined by the Contractor and approved by the Engineer and upon notification by the District's security guard, the Contractor designee shall verify to the District's security guard the identity of the Contractor personnel requiring emergency or unplanned site access. After sign in, the District's security guard will issue a generic, temporary badge to the emergency or unplanned visitor. The emergency or unplanned visitor shall return his/her badge to the security guard upon leaving the site.
- F. The Contractor shall ensure that all Contractor personnel display their District issued photographic identification badge or generic, temporary badge in plain view at all times while on-site. Any Contractor personnel who does not display his/her photographic identification badge or generic, temporary badge while on-site shall be required to leave the site.

- G. Lost or missing photographic identification badges shall be reported immediately to the Engineer; a generic, temporary badge shall be issued by the District's security guard. The District shall deduct \$100 for each lost or missing photographic identification badge from the Contract amount.
- H. Lost or missing generic, temporary badges shall be reported immediately to the Engineer; a generic, temporary badge shall be issued by the District's security guard. The District shall deduct \$100 for each lost generic, temporary badge from the Contract amount.
- I. The Contractor shall maintain a list of Contractor personnel in possession of a photographic identification badge. The Contractor shall record, at a minimum, the following information: employee name, employer, work phone number, badge issuance date, date when employee ceases working at the site, and date when badge was missing, lost, or returned to the District. The Contractor shall submit updated badge lists to the Engineer on or before the fifth Day of each month. The District may deduct from the Contract amount \$200 for each badge list not submitted on time. Approved lists shall be the basis for determination of the deductions for photographic badges not returned within the allowed time limit.
- J. The Contractor shall collect and return to the District photographic identification badges from all Contractor personnel within 30 Days from the date of their employment termination or when their assignment on-site is complete. If the Contractor fails to return the badges within 30 Days of the employee's termination or assignment completion, the District shall deduct \$100 from the Contract amount for each photographic badge not returned on time.
- K. At the completion of the Project, the Contractor shall return all District-issued photographic identification badges to the District. The District shall deduct \$100 from the Contract amount for each photographic badge unreturned or returned after Project Completion.

# 8.18. Background Checks

- A. The District reserves the right to request and receive this information as allowed by law and as required to complete a background check on any Contractor personnel who must enter the site.
- B. The District reserves the right to deny access to the site to any person, as allowed by law.

## 8.19. Site Access Control

A. The District may maintain a security checkpoint at the gate(s) and facility(ies). The security checkpoint(s) may be staffed by a District security guard during normal working hours, and at other hours, on an as-needed basis. District roving guard(s) may also patrol the property.

- B. Unless otherwise specifically required in these Specifications, the entire site perimeter, including all fences and gates, are to remain intact and functional throughout the construction period. Fences and gates that are accidentally breached by the Contractor shall be restored by the Contractor at no additional cost to the District by the end of the workday at the latest. Perimeter breaches shall be secured by the Contractor until the breaches have been closed to the satisfaction of the Engineer. For work requiring perimeter breaches, the Contractor shall work with the Engineer to arrange appropriate measures to secure the perimeter at the Contractor's cost. The Contractor shall promptly inform the District of any accidental perimeter breaches. No unauthorized entries shall be allowed in these breaches, including deliveries and Contractor personnel.
- C. All vehicles entering the Project site are subject to search by District guards.

## 8.20. Mail and Postal Deliveries to the Project Site

A. Unless an exception is granted by the Engineer, the Contractor shall not have United States Postal Service, Federal Express, UPS, or similar mail and package deliveries addressed to any District facility. Under no circumstance shall mail/packages be delivered to the reception area of any District facility.

# 8.21. Productivity Lost for Noncompliance With Security Measures

- A. Costs and delays incurred by the Contractor due to security measures (e.g., deliveries or personnel held at the gate without badges or identification, refusal of package deliveries, etc.) shall not be cause for additional Contract Time(s) or for additional compensation for the Contractor.
- B. Failure to comply with these security measures may lead to Delay or to stop of the Work with no additional Contract Time(s) or additional compensation granted to the Contractor.

#### 8.22. Payment

A. Full compensation for doing all Work and furnishing all Material required to comply with site safety and security requirements as specified in these Specifications shall be considered incidental and shall be included in other items of Work; no additional payment shall be made.

# Enter Company Name Here

RESCUE TRAINING CERTIFICATION FC 1767 (01-31-14)

Contractor shall ensure that all its employees working in or supporting work in a confined space have received all training mandated by Cal-OSHA and meet other Cal-OSHA requirements related to such All employees of the Contractor or subcontractor performing rescue services must have received previous training in (1) Atmospheric monitoring and ventilation; (2) Communication; (3) Emergency, self-rescue, and non-entry rescue operations; (4) Permit system; (5) Signs; (6) First aid and CPR; (7) Lockout/lagout; (8) Fall protection; (9) Electrical safety; and (10) Respirator protection

Rescue services training must have been performed consistent with established industry standards (ANSI 2117.1. Safety Requirements for Confined Spaces, American National Standards institute and Cal/OSHA regulations). All trained employees must have practiced making permit required confined space rescues at least once every twelve months by means of simulated rescue operations in which they remove dumines, mannequins, or actual persons from actual permit spaces or from representative permit spaces. Training states in the respect to opening size, configuration and screenishity, simulate the types of permit spaces from which a rescue could be performed. Such training shall have taken place no more than twelve months before the work to be performed on this Project begins.

With regard to employees of Contractor or any subcontractor performing rescue services, prior to the start of work. Contractor shall submit for review and acceptance by the District all of the following information the spaces designated below: a certification with the respective employee's name, the namefol's of the tracture practice sessions, and brief descriptions of the rescue practice sessions. Copies of all written materials provided during the training courses or rescue practice sessions shall be attached to this form. Prior to entry, the Contractor shall post copies of such certifications (without their attachments) at the worksite where rescue services are to be provided.

DESCRIPTION OF THE RESCUE PRACTICE SESSION (BRIEF) TITLE	PREPARED BY			PHONE NO.	E-MAIL ADDRESS		
PRINT NAME TITLE	EMPLOYEE'S NAME	DATE OF LAST INCLUSIVE TRAINING (1, 2, 3, 4, 5, 6, 7, 8, 9, 10)	DATE OF LAST PRACTICE RESCUE SESSION (ANNUAL)	TRAINER NAME/COMPANY	DESCRIPTION OF THE RESCUE PRACTICE SESSION (BRIEF)	COPIES OF ALL WRITTEN MATERIAL PROVIDED DURING THE TRAINING COURSES OR RESCUE PRACTICE SESSIONS	L WRITTE PROVIDED TRAINING R RESCUE SESSIONS
PRINT NAME TITLE	1			***************************************		□ Yes	2
PRINT NAME TITLE  COMPANY ADDRESS	2					□ Yes	₽ □
PRINT NAME TITLE	3					□ Yes	₽ □
PRINT NAME TITLE COMPANY ADDRESS	4					□ Yes	2
PRINT NAME TITLE COMPANY ADDRESS	5					□ Yes	₽ □
PRINT NAME TITLE  COMPANY ADDRESS	9					□ Yes	2
PRINT NAME TITLE  COMPANY ADDRESS	2					□ Yes	2
PRINT NAME TITLE  COMPANY ADDRESS	8					□ Yes	<b>№</b>
PRINT NAME TITLE COMPANY ADDRESS	6					□ Yes	₽ □
PRINT NAME COMPANY ADDRESS	10					□ Yes	° □
PRINT NAME COMPANY ADDRESS	l Certify that the information	provided is true and	s correct:				
	SIGNATURE			PRINT NAME	Тпле		
	DATE PREPARED			COMPANY ADDRESS			

Santa Gara Valley Water District

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# **SECTION 9. QUALITY MANAGEMENT**

## 9.01. General Quality Requirements

- A. This Section includes quality control (QC) requirements and procedures for Materials, products, Equipment, and workmanship; inspection procedures and limitations; sampling and testing of Materials; and Contractor's quality assurance/quality control (QA/QC) program.
- B. The Contractor shall provide and use Construction Equipment and plants capable of producing the quality and quantity of Work required. Construction Equipment shall be identified by readily visible numbers. If ordered, the Contractor shall remove unsatisfactory Construction Equipment and discontinue the operation of unsatisfactory plants.

## 9.02. District Quality and Environmental Policy Training

- A. The following training requirements are minimum requirements. This training is required as part of the District's Quality and Environmental Management System (QEMS) and required for ISO certification. Additional training may be required in accordance with the Special Provisions for environmentally sensitive Projects.
- B. The following applies to all Contractor and Subcontractor Project personnel:
  - The Contractor is hereby informed that all supervisory-level personnel must attend QEMS training before Work begins on the Project site. All other Contractor personnel must attend QEMS training within seven (7) Days of beginning Work on the Project site.
  - 2. QEMS training will be administered by the District and will include one (1) 30-minute training session for all staff. It may be necessary to conduct training at the District's headquarters building. All personnel shall sign a acknowledgement that they have attended the subject training.
  - 3. Upon completion of training, personnel will be provided with a QEMS training sticker to be placed on their hard hats. The District may require training on an annual basis.

## 9.03. Contractor's Quality Control Program

A. The Contractor's Quality Control (QC) program is the successful and systematic execution of a realistic plan to certify that required standards of quality design and construction are met and to preclude problems resulting from poor quality or lack of quality. In performing its QC function, the Contractor develops procedures to manage and control its Material, Equipment, personnel, and work so that the completed Work complies with the Contract requirements. The Contractor, in building to the quality standards in the Contract Documents, controls the quality of the Work.

- B. The Contractor shall establish and execute a QC program for services that are procured by the Contractor. The program shall provide the Contractor with adequate measures for verification of and conformance to defined Contract requirements by the Contractor's personnel and lower-tier Subcontractors (including fabricators, Suppliers, and sub-contractors).
- C. When required, as stated in the Special Provisions the Contractor shall submit to the Engineer a Project-specific QC plan. The QC plan shall contain a comprehensive account of the Contractor's QC procedures as applicable to this Work. Detailed requirements for this QC plan are delineated in the following paragraphs. The Engineer's review of the Contractor's QC plan shall not relieve the Contractor from any of its obligations for performing the Work. No Work shall start until the Contractor's QC plan has been favorably reviewed by the Engineer. No payments shall be made to the Contractor until the QC plan is favorably reviewed by the Engineer.
- D. The QC Plan shall demonstrate that it has qualified QC personnel who meet or exceed the requirements of Special Provisions Article 20.04.02. Contractor's Quality Staffing Requirements. The QC plan shall identify the independent testing firms to be used in accordance with Article 9.09. Testing.
- E. The Contractor's QC program shall ensure the achievement of adequate quality throughout all applicable areas of the Contract. The QC plan shall describe the program and include procedures, work instructions, and records. In addition, the Plan shall describe methods relating to areas that require special testing and procedures as noted in the Specifications.
- F. Identification and Control of Items and Material: Procedures to ensure that items or Material that have been accepted at the site are properly used and installed shall be described in the QC plan. The procedures shall provide for proper identification and storage and prevent the use of incorrect or defective Material.
- G. Inspection and Tests: The Contractor shall have written procedures and checklists defining a program for control of inspections performed; these procedures and checklists shall be described in the QC plan. Procedures shall include specific instructions for observing all Work in process and for comparing this Work with the Contract requirements (organized by Specification section), precluding the covering of deficient or rejected Work, halting or rejecting Work, and resolving differences between the Field QC Representative(s) and the production representative(s).
- H. A complete matrix listing all operational, performance, and QC tests and inspections required in the Contract Documents: Each entry in the matrix shall include the Specification Section and paragraph; test/inspection description; procedure used; on/off-site; test frequency and acceptance criteria; and testing firm conducting each test. Below is a sample showing one (1) particular test:

#### Test and Inspection Plan Table

Spec	Test/Inspection	Procedure	On/Off	Frequency	Acceptance	Conducted	Documentation	Notes	П
Section	Description	Used	site		Criteria	by	/Report		П
15453.	Hydraulic	15453.	On	After leak	30 ft	John Smith	Hydro-test		1
3.04.B	Pressure Test	3.04.B		test, 2			Report		Г
				hours			_		П

- I. The QC plan shall identify all contractual hold/inspection points, as well as any Contractor-imposed hold/inspections points.
- J. The QC plan shall include procedures to provide verification and control of all testing provided by the Contractor.
- K. Supplier Quality Control (SQC): The QC plan shall include procedures to ensure that procured products and services conform to the requirements of the Specifications. This plan shall include periodic visits to the place of manufacture by the Contractor to perform QA activities. The District shall be notified of all such SQC visits a minimum of two (2) weeks in advance in case it elects to attend the visit. Requirements of these procedures shall be applied as appropriate to lower-tier Suppliers and/or to Subcontractors.
- L. Deficient and Nonconforming Work and Corrective Action: The QC plan shall include procedures for handling deficiencies and non-conformances. Deficiencies and non-conformances are defined as documentation, Drawings, Material, Equipment, or Work not conforming to the contractually specified requirements or procedures. The procedures shall prevent non-conformances by identification, documentation, evaluation, separation, disposition, and corrective action to prevent recurrence. Conditions having adverse effects on quality shall be promptly identified and reported to the Contractor's senior-level management and to the Engineer. The cause of conditions adverse to quality shall be determined and documented and measures implemented to prevent recurrence. In addition, at a minimum, this procedure shall address:
  - 1. Personnel responsible for identifying deficient and non-complying items within the Work.
  - 2. The manner/process and the name of personnel by which deficient and noncompliant items are documented "in the field."
  - 3. The personnel and process utilized for logging deficient and noncompliant work into a deficiency log at the end of each Day.
  - 4. Tracking processes and documentation for deficient and noncompliant items.
  - 5. Personnel responsible for achieving resolution of outstanding deficiencies.
  - 6. Once resolved, the manner/process by which the resolutions are documented and by whom.

- M. Special Processes and Personnel Qualifications
  - 1. The QC plan shall include detailed procedures for the performance and control of special processes (e.g., welding, soldering, heat treating, cleaning, plating, nondestructive examination, etc.).
  - Personnel performing special process tasks shall have experience, training, and certifications commensurate with the scope, complexity, or nature of the activity. The Contractor shall submit personnel qualifications information to the Engineer before the start of Work on the Project.
- N. The Contractor's QC staffing is subject to the Engineer's continued review. The Engineer, at its sole option and without cause, may direct the Contractor to remove and replace the Field QC Representative.
- O. Audits: The Contractor's QC program shall provide for documented audits on a quarterly basis to verify that QC procedures are being fully implemented by the Contractor as well as by its Subcontractors and Suppliers. Audit records shall be submitted to the Engineer within five (5) business Days after an audit.
- P. The Engineer may perform independent QA audits to verify that actions specified in the Contractor's QC plan have been implemented. No Engineer audit finding or report shall in any way relieve the Contractor from any requirements of this Contract

## 9.04. Quality Coordination Meetings

- A. The Contractor shall provide, at a minimum, five (5) working Days' advance notice and shall participate in the following three (3) QC coordination meetings. Minutes for each meeting shall be prepared by the Contractor's Field QC Manager and submitted to the Engineer. The meetings shall be mentioned in the Contractors daily inspection report with the minutes attached:
  - 1. Pre-submittal Conference
    - a. Prior to the Contractor's submittal of the QC plan, the Field QC Manager, its Superintendent, and other relevant personnel shall convene a QC coordination conference with the Engineer to review and discuss the QC plan. During the conference, mutual understanding of the QC plan requirements should be developed.
  - 2. Preparatory Meeting
    - a. Thirty (30) Days prior to beginning Work on each Definable Feature of Work (e.g., ceramic tile, fencing and gates, masonry, rough-in electrical, etc.), the Contractor's Field QC Manager, Superintendent, other Contractor QC personnel (as applicable), and the foreman responsible for the Definable Feature of Work

shall meet with the District Engineer. The meeting shall cover the following agenda, with minutes documented by the Contractor's Field QC Manager.

- 1) Review the Contract Plans and Specifications.
- 2) Review reference Codes and Standards.
- 3) Confirm that all required submittals have been approved.
- 4) Review relevant RFIs, field memos, and changes to the design of the Definable Feature of Work.
- 5) Review QC requirements for the Work, including inspection, testing, and acceptance and tolerance requirements.
- 6) Review critical installation procedures and quality compliance.
- 7) Examine Work area to assure that all required predecessor Work has been completed, that all required deficiencies have been corrected and approved, and that all documented, remaining deficiencies shall not impair the construction of the planned Definable Feature of Work.
- 8) Check availability of required resource and Equipment to perform the Work.
- 9) Review Activity Hazards to address safety precautions.
- 10) Determine commencement of the initial meeting.

## Initial Meeting

- a. One (1) workday before the beginning of construction of a Definable Feature of Work, the Contractor's Field QC Manager, Superintendent, other CQC personnel (as applicable), and the foreman responsible for the Definable Feature of Work shall meet with the Engineer. The meeting shall cover the following agenda, with Minutes documented by the Contractor's Field QC Manager.
  - 1) Review minutes of the preparatory meeting.
  - 2) Verify specified Material and Equipment is on-site.
  - 3) Establish level of workmanship and verify that it meets minimum acceptable workmanship standards.

- 4) Compare with required samples and mockups as appropriate.
- 5) Verify adequacy of QC for the Work, including availability of test Equipment.
- 6) Resolve all differences.
- 7) Indicate exact location of initial phase in the minutes for future reference and comparison with follow-up phases.
- Repeat the initial phase for each new crew to work on-site or any time accepted or specified quality standards are not met.

### 9.05. Documented Quality Control Records

- A. The Contractor shall establish control methods of Contract Documents that describe how Drawings and Specifications are received and distributed to assure the correct issue of the document is being used. The methods shall also describe how as-built data are documented and furnished to the Engineer.
- B. The Contractor shall maintain evidence of activities affecting quality, including operating logs, records of inspections and tests, audit reports, Material analyses, personnel qualification and certification records, procedures, and document review records.
- C. Quality records shall be maintained in a manner that provides for timely retrieval, and traceability. Quality records shall be protected from deterioration, damage, and destruction.
- D. The Contractor shall provide a list of QC records as specified in the Contract Documents that will be furnished to the Engineer at the completion of activities.

## 9.06. Inspection and Daily Reports

## **9.06.01.** Inspection

- A. The Contractor shall utilize qualified individuals to perform and document inspections and tests. At a minimum, "qualified" shall mean having performed similar QC functions on similar-type projects. Records of personnel experience, training, and qualifications shall be maintained and made available for review by the Engineer upon request.
- B. The Engineer shall at all times have access to the Work during its construction and shall be furnished with every reasonable facility for ascertaining that the Material and the quality of performance are in accordance with the requirements and intentions of the Drawings and Specifications. All Work done shall be subject to the Engineer's inspection as well as by external parties.

- C. The day-to-day inspection performed by the various inspectors employed by the District shall not constitute approval or ratification of Work improperly done by the Contractor. The Engineer is the only person authorized to recommend acceptance of Work and Material.
- D. The presence or absence of an inspector during performance of the Work shall not relieve the Contractor of any obligation to fulfill the Contract. It shall be the duty of the Contractor to see that all provisions are complied with in detail, irrespective of the inspection given the Work during its progress by the Engineer or by representatives of the Engineer. The District and the Engineer shall assume no responsibility for any plan or method suggested to the Contractor by the Engineer or by an inspector that is not specified or required. Any such suggestion shall be used at the risk and responsibility of the Contractor.
- E. Inspection does not waive or alter the requirements or provisions of the Contract Documents. Inspection of the Work or receipt of payment shall not relieve the Contractor of its obligation to fulfill all conditions of the Contract; improper Work shall be subject to rejection.
- F. No portion of any Work, installed Material, products, or Equipment shall be covered or concealed in any manner without first being inspected by the Engineer. Whenever the Contractor is ready to backfill, bury, cast in concrete, hide, or otherwise cover any Work under this Contract, the Contractor shall notify the Engineer not less than one (1) Work Day in advance to request inspection before beginning any such Work of covering. Failure of the Contractor to notify the Engineer at least one (1) Work Day in advance of any such inspections shall be reasonable cause for the Engineer to order a sufficient Delay in the Contractor's schedule to allow time for such inspection. If any Work, Material, products, or Equipment is covered prior to inspection or prior to the express approval of the Engineer, that Work, Material, products, or Equipment shall be uncovered at no additional cost to the District. All associated costs, including its impact on other portions of the Work, shall be borne by the Contractor.
- G. The Contractor shall not conceal any part of the Work until record Drawing information has been taken and recorded by the Contractor.
- H. Should it be considered necessary or advisable by the District at any time before acceptance of the entire Work to make an examination of Work already completed by removing or tearing out same, the Contractor shall, on request, promptly furnish all necessary facilities, labor, and Material. If such Work is found to be defective or nonconforming in any material respect due to the fault of the Contractor or of Subcontractors, the Contractor shall defray all of the expenses of this examination and of satisfactory reconstruction. If, however, the Work is found to meet the requirements of the Contract, an equitable adjustment shall be made in the Contract Price(s) to compensate the Contractor for the additional services involved in the examination and reconstruction, and if completion of the Work has been delayed thereby, the Contractor shall, in addition, be granted a suitable extension of time.

Work, Material, products, and Equipment not conforming to the Contract
 Documents shall be considered defective and shall be corrected or removed and
 replaced with conforming Work, Material, products, and Equipment at no
 additional cost to the District.

### 9.06.02. Daily Inspection Reports

- A. The Contractor is required to submit a daily QC inspection report providing factual evidence that required QC activities and/or tests have been performed. These records shall include the Work of Subcontractors and Suppliers and shall be on a form acceptable by the Engineer. Reports shall be made available at the end of each work day or no later than prior to the beginning of the next work day. Such reports shall, at a minimum, include the following:
  - 1. Item(s) inspected.
  - 2. Quality characteristics in compliance.
  - 3. Quality characteristics not in compliance.
  - 4. Corrective/remedial actions taken.
  - Statement of certification.
  - 6. Field QC Representative's signature.
  - 7. Contractor/Subcontractor and its/their area of responsibility.
  - 8. Test and/or control activities performed with results and references to Specification/Drawing requirements.
  - 9. Test reports as attachments.
  - 10. Contractor's completed QC checklists, where applicable.
  - 11. Records of any SQC reports performed off-site as an attachment.
  - 12. Any Noncompliance Notices (NCN) issued.
    - a. An NCN shall be issued to document defective Work.
    - Corrective Action Reports (CAR) shall be completed to close out an NCN. An NCN may not be closed until the CAR is accepted by the Engineer.
    - c. A log of the NCN and the corresponding CAR shall be published at the end of each month.
  - 13. A Contractor's verification statement stating that each daily report is a complete, true, and accurate account of that Day's construction activity.

- a. These records in report form shall be prepared daily. The records shall be available in the field within 24 hours after the date covered by the report for review by the Engineer; all reports for that week shall be submitted weekly to the Engineer.
- b. Reports need not be submitted for Days on which no Work is performed. At a minimum, one (1) report shall be prepared and submitted for every seven (7) Days of no Work and on the last Day of a no-Work period. All Days shall be accounted for throughout the life of the Contract. The first report following a Day of no Work shall be for that Day only.
- Reports shall be signed and dated by the Contractor Field QC
   Manager. The report from the Contractor Field QC Manager shall
   include copies of reports prepared by all subordinate QC
   personnel.

## 9.07. Plant Inspection

- A. Material and Equipment that become a part of the completed Work shall be subject to inspection at the place of production or manufacture, at the shipping point, or at the site of the Work. Material and Equipment requiring inspection at the place of production or manufacture shall be designated by the Engineer. Where plant inspection is so designated, the Engineer shall be given a 14-day advance notice of the start of manufacture or of production. For international locations and sites outside of the continental United States, a minimum notification of 30 working Days shall be provided. The Contractor's purchase orders for Material and Equipment, for which plant inspection has been designated by the Engineer, shall bear a suitable notation advising Suppliers and Subcontractors of inspection requirements.
- B. If the required notification is not given, the District shall schedule the inspection at its convenience, and the activity to be witnessed shall not proceed until the Engineer arrives or until the District notifies the Contractor that it is choosing to waive its witness inspection requirement.
- C. The Engineer or an authorized representative shall have free entry at all times to such parts of the plant as concerns the manufacture or production of Material and Equipment for the District. Adequate facilities shall be furnished free of charge to make the necessary inspection.
- D. The Engineer may attend scheduled inspections of the off-site plant for Material, Equipment, or software to be incorporated into the Work. The District assumes no obligation to inspect Material or Equipment at the place of manufacture or production or at the shipping point. Unless otherwise noted in the Special Provisions, cost for District representatives to attend off-site inspections shall be borne by the District.

- E. In the absence of the Engineer, the District may reject the processes completed to date and require the activity to be redone. Delays resulting from waiting on the witness inspection for the reasons given above shall be considered an Inexcusable Delay. Expenses incurred by Delays or repeat of the Work process shall be borne by the Contractor.
- F. Should any inspection attended by the Engineer be delayed, the Contractor shall reimburse the District for the actual salary costs of District staff, consultants, and special inspection firms multiplied by their actual, fully burdened labor rates and shall reimburse the actual cost of other direct costs incurred due to the inspection Delay.
- G. The Contractor shall provide safe passage and access for inspection of the Work in any area. Off-site storage areas and warehouse facilities are also subject to inspection.
- H. Material, products, and Equipment that are specified to require testing and inspection at the point of origin shall receive and pass such testing and inspection prior to being shipped to the Project site.

### 9.08. Sampling of Material

- A. The Contractor shall furnish samples of Material as specified and as requested by the Engineer at no additional cost to the District. Samples shall be obtained and tested whenever necessary to determine the quality of the Material and compliance with the Contract Documents.
- B. The Contractor shall assist the Engineer, District staff, regulatory agency personnel, and third parties in collecting or providing samples.
- C. The Contractor shall not use Material specified to be tested in the Work until such testing indicates satisfactory compliance with the Contract Documents.

#### 9.09. Testing

- A. Unless otherwise specified, the Contractor is responsible for completing all required testing at no additional cost to the District. All tests shall be performed by independent testing firms accredited by the appropriate authority.
- B. The testing firm shall be staffed with experienced personnel, properly equipped, and fully qualified to perform the tests in accordance with the specified standards. The Contractor shall submit documentation demonstrating that the testing firm and its personnel are properly accredited by the appropriate authority.
- C. The Engineer has the right to inspect Work performed by the independent testing firm. This may include inspection of the independent testing firm's internal QA records (e.g., QA manual, equipment calibrations, proficiency sample performance, etc.).

- D. Testing shall be completed in accordance with the specified standards in effect on the date bids are due. Where no standard is specified, testing shall be completed in accordance with the applicable ASTM and/or the latest published edition of the State of California Department of Transportation Standard Specifications and Standard Plans and updates thereto.
- E. The Contractor shall submit copies of all manufacturer test reports performed to satisfy the applicable Material standard specification or test standard (e.g., certified mill test reports). Reports shall identify the lot of Material represented by the test. The manufacturer test reports supplement the inspection, sampling, and testing provisions otherwise required by the Contract Documents.
- F. Content of Test Reports: Inspection and test results shall be documented and evaluated to ensure that requirements have been satisfied. Individual test records shall contain the following information:
  - 1. Date and time of test.
  - 2. Item tested, item number, and item description.
  - 3. Test designation.
  - 4. Test work sheet, including location the sample was obtained.
  - Test results.
  - 6. Acceptance or rejection.
  - 7. Retest information, if applicable.
  - 8. Control requirements.
  - 9. Tester signature.
- G. The Contractor shall immediately inform the Engineer of all test results.
- H. Availability and Submittal of Test Reports: All test reports shall be made available to the District's representative for viewing within 24 hours and must be submitted to the Engineer within seven (7) Days after each test is completed, with the Contractor's weekly inspection reports. Each test report for each type of test shall be consecutively numbered. The Contractor shall maintain a copy of all test results on-site.
- I. Control of Measuring and Test Equipment: Measuring and/or testing instruments shall be adequately maintained, calibrated, and adjusted to maintain accuracy within prescribed limits. Calibration shall be performed at specified periods against valid standards traceable to nationally recognized standards and documented.

# 9.10. District Quality Assurance

A. Quality assurance (QA) involves the activities of the District that are separate from, but in coordination and cooperation with, the Contractor to monitor that the level of quality set by the Contract Documents is achieved. Through periodic review, inspections, and tests, the District monitors that the Contractor's QC is working effectively and that the end product complies with the level of quality established by the Contract.

# 9.10.01 Testing by the District

- A. The District may arrange for independent tests at its own cost. In such cases, the Contractor shall cooperate with the District's independent testing firm. This testing by the District shall not relieve the Contractor of its obligation to do the QC testing required under the Contract.
- B. If independent testing indicates noncompliance with the Contract Documents, any retesting shall be charged to the Contractor.
- C. Upon request, the Engineer will furnish the Contractor with copies of test results.

#### 9.10.02 Defective Work

- A. All Work not conforming to the Contract shall be considered defective and subject to rejection by the Engineer regardless of when or where the deficiency is detected. Unless otherwise permitted by the Engineer, rejected Work shall be remedied, removed, or replaced by the Contractor in a manner acceptable to the Engineer and at no additional cost to the District.
- B. Noncompliance Notice (NCN): The Engineer may issue a NCN to the Contractor for any detected defective Work or a portion thereof.
- C. The Contractor shall provide a written response within five (5) working days after receipt of the NCN. The Contractor's response shall detail either (i) reasons it believes that the Work was performed in accordance with the Contract Documents; or (ii) the corrective action it intends to take to correct the defective Work.
- D. If the Contractor disputes issuance of the NCN, the Engineer shall respond after receipt of the dispute by either (i) withdrawing the NCN; or by (ii) directing the Contractor to correct the Work. If the Engineer directs the Contractor to correct the Work, the Contractor shall make such correction within five (5) working days after receipt of such direction from the Engineer or at such other time as may be agreed to with the Engineer.
- E. If the Contractor fails to promptly comply with any order of the Engineer to correct the defective Work, the Engineer may terminate the Contractor's right to proceed with the affected Work and cause the defective Work to be removed and replaced at the Contractor's expense.

- The District shall deduct from the Contractor's progress payment any cost it incurs in correcting the defective Work, including, but not limited to, rectifying the nonconforming Work, removing and storing salvageable Material and Equipment, discarding other Materials and Equipment, administrative costs, and all costs of repair or replacement of the Work of others.
- 2. If the District self-performs the remediation of the Contractor's nonconforming Work, the Contractor shall also be charged for the District's overhead markup.
- 3. If the current Contract unpaid balance and retention are insufficient to cover this amount, the Contractor shall reimburse the District.

## 9.11. Plumbing and Piping Quality

A. The Contractor shall consult with industry and manufacturer representatives for all piping Material being used in the Work. The purpose of this consultation is to ensure that the Contractor's personnel are fully trained and knowledgeable, possess written instructions on proper assembly, and have all recommended tools for quality Work. Consultation shall also include discussions between industry and manufacturer representatives and Contractor management and construction staff on the causes of past plumbing and piping failures and of problems and methods of avoidance. The Contractor shall provide training for its forces as required to produce consistent, high-quality Work without failed tests and warranty problems.

### 9.12. Control of Materials and Equipment

- A. This Article includes general product requirements and requirements for delivery, storage, packing, loading, unloading, transportation, protection, and selection of Material and Equipment. Additional specific requirements for delivery, handling, protection, loading, and unloading may be specified within the Technical Specifications for Materials and Equipment.
- B. The Contractor shall furnish Materials and Equipment as specified. Only new Material and Equipment conforming to the requirements of the Contract shall be incorporated in the Work.

## 9.12.01. Source of Material and Equipment

A. The Contractor shall furnish a list of sources of Material and Equipment to the Engineer in sufficient time to permit proper inspection and testing of Material and Equipment in advance of their use. Inspection and tests shall be made and reports rendered. It is understood that such inspections and tests shall not be considered a guarantee of acceptance of any Material or Equipment that may be delivered later for incorporation in the Work. Any Equipment or Materials that, after has in any way become non-compliant with the Contract, shall not be used in the Work.

B. At the option of the Engineer, the source of supply of each of the Material shall be approved before the delivery is started. All Material proposed for use may be inspected or tested at any time during their preparation and use. If it is determined that sources of supply that appeared satisfactory do not furnish a uniform product, or if the product from any source proves unacceptable at any time, the Contractor shall furnish approved Material from other sources.

## 9.12.02. Product Data and Samples

- A. The Contractor shall furnish without charge such samples as may be required.
- B. No Material or Equipment shall be delivered to the Work without prior approval of submittals by the Engineer.
- C. The Contractor shall provide products by the same manufacturer when products are of similar nature, unless otherwise specified; provide identical products when products are required in quantity; and provide products with interchangeable parts whenever possible.
- D. The Contractor shall require each Equipment manufacturer to have maintenance facilities meeting the following minimum requirements:
  - 1. Minimum three (3) years' operational experience.
  - 2. Located in the continental United States.
  - 3. Equipment and tools capable of making repairs.
  - 4. Staff qualified to make repairs.
  - 5. Inventory of maintenance spare parts.
- E. All Materials, products, and Equipment shall be new, of the specified quality, and free of defects. Where samples have been submitted, the Materials, products, and Equipment incorporated into the Work shall be equal to the samples that have been approved. Should Materials, products, and Equipment required by the Work not be specified or described on the Drawings, the Contractor shall provide Materials, products, and Equipment of high, generally accepted quality standards that are comparable to the Work and that meet the identifiable needs of the Work.

### 9.12.03. Transportation and Delivery

- A. The Contractor shall:
  - 1. Transport and handle items in accordance with manufacturer's instructions.
  - 2. Schedule delivery to reduce long-term, on-site storage prior to installation and/or operation. Under no circumstances shall Equipment be delivered

- to the site more than one (1) month prior to installation without written authorization from the Engineer.
- 3. Coordinate delivery with installation to ensure minimum holding time for items that are hazardous, flammable, easily damaged, or sensitive to deterioration.
- 4. Deliver products to the site in the manufacturer's original sealed containers or other packing systems, complete with Material Safety Data Sheets (MSDS) and instructions for handling, storing, unpacking, protecting, and installing.
- B. The Contractor may store Material and Equipment only in those locations approved by the Engineer. The Contractor is responsible for maintaining and restoring any affected areas as required by the Engineer.
- C. All items delivered to the site shall be unloaded and placed in a manner that shall not (i) impact the Contractor's normal construction operation or those of Subcontractors and other contractors; (ii) interfere with the flow of necessary traffic; and (iii) interfere with the District's normal operations and maintenance activities. In addition, the Contractor shall:
  - 1. Provide necessary Equipment and personnel to receive, accept, and unload all items delivered to the site.
  - Promptly inspect the shipment to assure that products comply with requirements, quantities are correct, and items are undamaged. For items furnished by others (i.e., the District, other Contractors), perform inspection in the presence of the Engineer and shall notify the Engineer verbally and in writing of any problems.

### 9.12.04. Storage and Protection of Material

- A. Store and protect products in accordance with the manufacturer's instructions with seals and labels intact and legible.
- B. Material and Equipment shall be stored to ensure preservation of quality and fitness for the Work. They shall be placed under cover when necessary and shall be stored in a manner that will facilitate prompt inspection.
- C. Loose granular Material shall be stored on solid, flat surfaces in a well-drained area. Mixing with foreign matter shall be prevented.
- D. Cement, lime, and similar moisture-sensitive Material shall be stored under a roof and off the ground and shall be kept dry at all times. All structural, miscellaneous, and reinforcing steel shall be stored off the ground or to otherwise prevent accumulation of dirt or grease and in a position to prevent accumulation of standing water and to minimize rusting. Beams shall be stored with the webs vertical. Precast concrete shall be handled and stored in a manner to prevent

- accumulation of dirt, standing water, staining, chipping, or cracking. Brick, block, and similar masonry products shall be handled and stored in a manner to reduce breakage, cracking, and spilling to a minimum.
- E. Material and Equipment storage areas shall be suitably secured to protect Material and Equipment from damage or from theft.
- F. Except as stated in the Contract Documents or as otherwise approved by the Engineer, locations and arrangements for storage sites for Material and Equipment shall be selected and maintained by the Contractor at the Contractor's expense. Full compensation for furnishing such storage sites as may be necessary or as required by the Contractor shall be considered as included in the Bid price; no additional payment shall be made.
- G. The storage and handling of potential pollutants and Hazardous Material, including, but not necessarily limited to, gasoline, diesel, oils, paint, and solvents shall be in accordance with all Federal, State, and Local Laws and all other requirements. Temporary special storage enclosures, double-walled tanks, berms, or other protective facilities shall be provided as required by law. All Hazardous Material shall be stored and handled in strict accordance with the MSDS for each product. A copy of each MSDS shall be maintained at the Project site by the Contractor.
- H. Any Equipment or Materials that, in the opinion of the Engineer, has become damaged as to be non-compliant with the Contract shall be promptly removed from the site of the Work. The Contractor shall receive no compensation for the Materials or Equipment removed or for removal costs.

### 9.12.05. Maintenance and Protection of Installed or Stored Equipment

- A. All mechanical and electrical Equipment and instruments subject to moisture or corrosive damage by the atmosphere if stored outdoors (even though covered) shall be stored in a weather-tight building and provided with adequate ventilation, as required, to prevent damage. The Contractor shall maintain temperature and humidity within the range required by the Equipment or instrumentation manufacturer. The building may be a temporary structure on the site or elsewhere, must be painted in a neutral color, and must be no larger than required.
- B. All Equipment shall be stored fully lubricated with oil, grease, and other lubricants unless otherwise instructed by the manufacturer.
- C. Moving parts shall be rotated or otherwise maintained in accordance with the manufacturer's instructions. Upon installation, the Contractor shall periodically exercise the Equipment to ensure that it does not deteriorate from lack of use.
- D. Lubricants shall be changed as frequently as required by the manufacturer between installation and acceptance. New lubricants shall be put into the Equipment at the time of acceptance.

- E. The Contractor shall maintain a preventive maintenance record for all Material and Equipment installed but not yet accepted that requires preventive maintenance by the manufacturer. A monthly report of all maintenance performed shall be submitted to the Engineer to certify maintenance has been performed as recommended by the manufacturer.
- F. The Contractor shall maintain and repair, as recommended by the manufacturer, any Equipment that has been installed but not yet accepted.
- G. The Contractor shall clean exposed Material and Equipment just prior to turnover to the District.
- H. Prior to the District's use or acceptance, the Contractor shall have the manufacturer inspect any Equipment valued at more than \$2,500 and stored longer than three (3) months and certify that its condition has not been detrimentally affected. Such certification must affirm that the Equipment has not been adversely impacted and the Equipment shall be guaranteed as specified. If such a certification is not provided, the Equipment shall be determined to be defective and shall be replaced at the Contractor's expense. Certification does not relieve the Contractor from meeting all testing requirements.

## 9.13. District-Furnished Material

A. Material furnished by the District shall be available as designated in the Special Provisions. The Contractor shall load, unload, and haul such Materials to the site of the Work at the Contractor's expense. Once received by the Contractor, the Contractor is responsible for all Material furnished and shall pay any damages and storage charges.

### 9.14. Final Inspection of Work

A. The Engineer shall make the final inspection of the Work in accordance with Section 11. Contract Closeout. The Contractor is directed to Section 11. Contract Closeout regarding the requirements necessary to obtain final inspection by the Engineer.

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# **SECTION 10. ENVIRONMENTAL**

## 10.01. Good Neighbor Requirements

- A. The District is a public entity that takes seriously its responsibility to be a "Good Neighbor." Accordingly, the District seeks to perform its activities, including construction of its facilities, in a manner that takes into consideration the needs of the neighborhood and that is minimally disruptive.
- B. The Contractor hereby acknowledges the critical importance of meeting the Contract requirements as set forth in these Specifications regarding "good neighbor requirements," which include, but are not limited to, public safety, working hours, noise pollution and vibration, air pollution, spillage and dust, traffic control, truck haul routes and parking restrictions, and storm water pollution.
- C. The Contractor shall adhere to the above "good neighbor requirements" which relate to the lessening of the impact causes by the Work being performed under this Contract. The Contractor acknowledges that its responsibility to observe the restrictions of this Contract relating to the above requirements is significant, critical, and a material provision of this Contract. Any non-compliance with these requirements may be cause for the District to suspend Work.

#### 10.02. Storm Water Pollution Prevention Plan

- A. The Contractor shall prepare and submit to the District an electronic and hard copy Storm Water Pollution Prevention Plan (SWPPP) as required under the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharge Associated with Construction and Land Disturbance Activities Order No. 2009-009-SWQ, (as amended).
- B. The SWPPP shall incorporate all appropriate storm water Best Management Practices (BMPs) and all risk-based requirements to comply with the NPDES General Permit. The BMP descriptions and the template for the SWPPP shall be in accordance with the current California Stormwater Quality Association (CASQA) Construction BMP Handbook/Portal, which can be purchased at http://www.cabmphandbooks.com.
- C. The SWPPP shall be written, amended, certified, and stamped by a Qualified SWPPP Developer (QSD). The implementation of BMPs and all pollution control measures shall be overseen by a Qualified SWPPP Practitioner (QSP). The QSD and QSP shall be provided by the Contractor and shall meet the certification requirements as defined under Section VII of the NPDES General Permit.
- D. The District shall make available the following: base maps for the Contractor's use in preparing the vicinity and site maps for the General Permit; a copy of preexisting site and site design information; and a copy of the completed Notice of Intent (NOI), if required.

E. Prior to the commencement of any Work at the site(s), the SWPPP shall be favorably reviewed by the Engineer. Review by the Engineer shall not relieve the Contractor of responsibility for the completeness of the SWPPP nor for the accuracy of assumptions, data, and information used and procedures contained in the Contractor's SWPPP or the adequacy thereof.

- F. The SWPPP shall be revised and/or amended by the Contractor's QSD as necessary during the progress of Work to comply with Federal, State, and local regulations and the requirements of these Specifications. All revisions and amendments shall be submitted to the Engineer. Revisions and/or amendments to the SWPPP shall be considered incidental to this item of Work; no additional payment shall be made.
- G. The Contractor's personnel supervising the earthwork, sitework, erosion control, and sedimentation control and inspecting erosion controls shall be required to read the SWPPP. A copy of the SWPPP shall be maintained at the construction site by the Contractor and shall be available at all times for review by all Contractors, by the District, or by regulatory agency personnel.

### 10.02.01. Storm Water BMPs

- A. The SWPPP shall include appropriate BMPs, as required, to comply with the specified risk level for the Project.
- B. The Contractor shall design, construct, operate, inspect, and maintain the BMPs in accordance with the NPDES General Permit and with the instructions provided in the current CASQA Construction BMP Handbook/Portal.
- C. The BMPs shall include, but shall not be limited to, the following:
  - 1. Erosion control.
  - 2. Sediment control.
  - 3. Run-on/runoff control.
  - Wind erosion control.
  - 5. Tracking control.
  - 6. Non-stormwater Management.
  - 7. Waste Management and Materials Pollution Control
  - 8. Project-specific Environmental BMPs as specified in the Contract.

## 10.02.02. Regulatory Fines

A. The Contractor is responsible for any penalties or fines imposed upon the District by the Regional Water Quality Control Board (RWQCB) or by other regulatory

bodies due to the Contractor's noncompliance with the requirements of the NPDES General Permit. The actual cost of such penalties or fines shall be subtracted from the amount due, or that may become due, the Contractor.

## 10.03. Water Pollution Discharges and Remedies

- A. The Contractor shall remedy immediately any public nuisance or deficiency arising from, or in consequence of, the Contractor's failure to perform the Work specified under Article 10.02. Storm Water Pollution Prevention Plan and Article 19.02. Other Discharge Permits.
- B. Upon the Contractor's failure to make appropriate and timely remedies as directed by the Engineer in the best interests of the public, the Engineer may employ private or public workforces and Equipment to perform the Work. The Contractor shall be charged all costs associated with such remedy including actual hours recorded by District staff, District consultants, and District services, multiplied by their actual, fully burdened labor rates. Such action(s) taken by the Engineer shall not preclude the Engineer from taking other appropriate actions and shall not relieve the Contractor of responsibility to comply with these Specifications.

### 10.04. Water Quality

- A. The Contractor shall meet all applicable regulatory requirements to ensure that any discharges to surface waters will not cause violation to the State water quality standards or violation of regulatory permits issued by regulatory agencies.
- B. The Contactor shall prevent water quality degradation of water bodies and/or of storm drains. Water quality is measured in terms of pollution substances, turbidity, dissolved oxygen, pH, and temperature.
- C. Oily, greasy, or sediment-laden substances or other Materials that originate from the Contractor's operation shall not be allowed to enter, or be placed where they may later enter, any reservoir, river, creek, or stream.
- D. The Contractor shall comply with the requirements of the following permits, where applicable, and as specified in the Special Provisions, Article 19.04. Water Pollution Discharges:
  - State Water Resources Control Board (SWRCB) and (NPDES), General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities
  - U.S. Army Corps of Engineers CWA Section 404 Permit, and Regional Water Quality Control Board/State Water Resources Control Board CWA Section 401 Water Quality Certification. And/or Waste Discharge Permit.
  - 3. Other individual RWQCB NPDES Permits.

> 4. Department of Fish and Wildlife 1603 Stream Bed Alteration Agreement.

E. The Contractor shall implement any additional water quality best management practices and mitigation measures described in these Specifications.

## 10.05. Burial Sites

- Α. The Contractor shall comply with all applicable laws and regulations pertaining to burial sites, including, but not limited to, Ordinance Code Section B6-18 of the County of Santa Clara and requirements of Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5. Upon discovering or unearthing any burial site as evidenced by human skeletal remains, the person making the discovery shall immediately stop work and notify the County Coroner. The Contractor shall also notify the Engineer. The Contractor shall immediately secure the site and protect any human remains from further disturbance.
- B. Upon determination by the County Coroner that the remains are Native American, the Coroner may contact the California Native American Heritage Commission and the County Coordinator of Indian Affairs. No further excavation or disturbance within 30 feet of the site or of any nearby area reasonably suspected to overlie adjacent remains may be made except as authorized by the California Native American Heritage Commission and/or by the County Coordinator of Indian Affairs, and by the Engineer.
- C. The Contractor is advised that if burials are encountered, it may be necessary to suspend Work on the Project to comply with the above requirements. Payment for a Delay of more than one (1) workday for each occurrence shall be made in accordance with Article 3.07. Change in Contract Price(s) and with Article 3.08. Change in Contract Time(s).

## 10.06. Cultural Resources (Archeological Discovery)

- The Contractor is advised that if archeological artifacts are encountered, the Α. Contractor will immediately notify the Engineer; it may be necessary to suspend Work on the Project to comply with this Article.
- B. Work at the location of the find will halt immediately within 30 feet of the find. If an archaeologist is not present at the time of the discovery, the Engineer will contact an archaeologist for identification and evaluation pursuant to Public Resources Code Section 21083.2, California Code of Regulations Section 15126.4 (California Environmental Quality Act [CEQA] Guidelines) and to the mitigation measures of the Project CEQA document. If the archaeologist determines that the artifact is not significant, the Engineer will authorize the Contractor to resume construction.
- C. If the archaeologist determines that the artifact is significant, the archaeologist will determine if the artifact can be avoided and, if so, will detail avoidance procedures. The Contractor will comply with these avoidance procedures.

Attachment 4

D. If the artifact cannot be avoided, the archaeologist will develop an action plan that will include provisions to minimize impacts and, if required, a data recovery plan for recovery of artifacts in accordance with Public Resources Code Section 21083.2 and CEQA Guidelines Section 15126.4.

E. The Contractor shall delay Work until the action plan and, if required, the data recovery plan, are favorably reviewed by the Engineer. Once the action plan and the data recovery plan are favorably reviewed, the Contractor shall comply with the requirements of these plans.

#### 10.07. Noise Pollution and Vibration

- A. The Contractor shall be responsible for ensuring that noise produced by construction activities does not exceed the applicable local noise ordinance standards and is in compliance with the performance standards set forth in Section 18. Permits and Regulations of the Special Provisions.
- B. At a minimum, the Contractor shall exercise precautionary measures listed below. Implementation of these measures shall in no way relieve the Contractor of the responsibility of compliance with the noise criteria.
  - 1. Air compressors and internal combustion engines shall be in good operating condition that meet or exceed original factory specifications and shall be equipped with high grade mufflers, air inlet silencers (where appropriate), and noise suppressers.
  - 2. All mobile or fixed noise-producing machinery and Equipment, including "package" Equipment (e.g., fans, cranes, arc welders, air compressors, electrical operators, etc.), shall be suitably housed, enclosed, shielded, and equipped with noise-control features or muffled to meet the noise limits specified in the Special Provisions.
  - 3. All mobile or fixed noise-producing Equipment used by the Contractor that is regulated for noise output by Federal, State, or local law shall comply with this regulation while in use. This shall include vehicles licensed for use on public highways.
  - 4. Electrically powered Equipment instead of pneumatic- or internal-combustion-powered Equipment shall be used where feasible.
  - 5. The use of noise producing signals, including horns, whistles, alarms, and bells, shall be for safety warning and emergency purposes only.
  - 6. No music system, including personal or vehicle radio, tape, CD players, or the like, shall be audible at the Project right-of-way line.
  - 7. Trucks or other mobile Equipment shall not use engine decompression ("Jake Brakes") for deceleration on grades where feasible.

C. The Contractor shall take all necessary precautions during its operations to limit peak particle velocities from vibratory compaction or percussion Equipment so that they do not become a public nuisance or result in property damage.

D. Any Equipment causing noncompliance with the noise or vibration criteria shall be removed from the job site as directed by the Engineer.

#### 10.08. Air Pollution

- A. The Contractor shall comply with all applicable requirements of the applicable air quality management or control district and California Air Resources Board regulations.
- B. Idling of internal combustion engines shall be held to an absolute minimum. All vehicles with internal combustion engines shall be fitted with spark arrestors.
- C. The Contractor shall not use any of the listed Materials banned by BAAQMD Regulation 8, Rule 15.
- D. Serpentine Materials that have average asbestos content greater than five (5) percent as determined by an aggregate bulk sample analysis pursuant to Air Resources Board Test Method 435 or an alternate method approved by the Air Resources Board or BAAQMD (see also California Code of Regulations, Title 17, Section 93106) shall not be used for surfacing.
- E. Except as provided by law, idling of heavy-duty diesel trucks with gross vehicular weight ratings of greater than 10,000 pounds shall be no more than five (5) minutes per California Code of Regulations, Title 13, Section 2485.
- F. The Contractor shall implement any additional air quality best management practices and mitigation measures described in these Specifications.

## 10.09. Spillage and Dust Control

- A. Care shall be taken to prevent spillage when hauling is done. Spillage resulting from hauling operations along or across any public-traveled way shall be removed immediately by the Contractor. The Contractor shall pay all expenses for removal of spillage.
- B. The Contractor shall control dust nuisances originating from the Contractor's operations either inside or outside the right of way.
- C. The Contractor shall provide all necessary precautionary measures to control dust and to prevent spillage on public-traveled ways. At a minimum, the Contractor shall provide the measures listed below and shall also implement additional dust control best management practices and mitigation measures described in these Specifications. Implementation of these measures shall in no way relieve the Contractor of the responsibility to comply with these Specifications.

 Active maintenance areas, unpaved access roads, and staging areas shall be kept sufficiently moist and watered as necessary or shall be applied with nontoxic soil stabilizers to control dust generation.

- 2. Trucks hauling sediments and other loose Material shall be covered and shall maintain at least six (6) inches of freeboard.
- 3. Tailgates of trucks shall be sealed.
- 4. Trucks shall be brushed down before leaving the site.
- 5. Paved site access roads shall be swept using vacuum-powered street sweepers when visible soil Material is carried onto the roadway.
- 6. During high winds, the excavation and grading activity shall be watered or the activity suspended, if necessary, to control dust.
- 7. Inactive areas shall be sprayed with soil stabilizers or shall be seeded to avoid erosion or dust.
- 8. Exposed stockpiles shall be watered, enclosed, covered, or sprayed with soil stabilizers.
- 9. Traffic speeds within the Project right of way shall be limited to 15 mph. For off-site restriction, comply with local agency requirements.
- 10. Sandbags or other bank protections shall be installed to prevent silt runoff to roadways.
- D. The Contractor shall immediately remedy any spillage and dust nuisance or deficiency arising from, or in consequence of, the Contractor's failure to perform the Work specified in these Specifications.
- E. Upon the Contractor's failure to make timely remedies determined by the Engineer to be necessary and in the best interests of the public, the Engineer may employ private or public workforces and Equipment to perform the Work. The Contractor shall be charged all costs associated with such remedy including actual hours recorded by District staff, District consultants, and District services, multiplied by their actual, fully burdened labor rates. Such action(s) taken by the Engineer shall not preclude the District from taking other actions as deemed appropriate and shall not relieve the Contractor of responsibility to comply with these Specifications.

### 10.10. Traffic Control

A. Traffic control shall consist of all work and Materials necessary to maintain safe vehicular, pedestrian, and cyclist traffic during construction and to perform "best management practices" to mitigate high-peak and high-volume construction traffic, prevent idling and queuing, establish site access limitations and mitigation

- measures, identify haul routes, and provide overall control of all construction traffic entering, exiting, and operating within the Project site.
- B. All traffic control Work shall be performed in accordance with the requirements of the local agency having jurisdiction and California Department of Transportation requirements, if applicable. If required, the Contractor shall prepare a traffic control plan and submit said plan to the Engineer and to the appropriate agency having jurisdiction for favorable reviews in advance of the Work at the site.
- C. The Contractor shall cooperate with the local agency having jurisdiction relative to handling traffic around the construction area. The Contractor shall make its own arrangements relative to keeping the Work area clear of parked vehicles to maintain sight visibility and access to adjacent properties. Existing road signs shall not be blocked at any time.
- D. Truck traffic and haul routes shall be in compliance with local permits and ordinances. The Contractor shall obtain, at the Contractor's expense, any required haul route permit from the local authority having jurisdiction for transporting to and from the Project site construction Material and the disposal of surplus Material.
- E. The Contractor shall conduct its operations and schedule cleanups that cause the least possible obstruction and inconvenience to traffic, pedestrians, cyclists, and adjacent property owners.
- F. Damage done by the Contractor during the course of its Work to adjacent city, town, county, or private property shall be repaired or replaced in kind and as directed by the Engineer.
- G. Personal vehicles of the Contractor's employees and the Contractor's Equipment and vehicles shall not, at any time, be parked on the traveled way, shoulders, medians, or lanes that have not been approved for closure. When entering or leaving roadways carrying public traffic, the Contractor's Equipment, whether empty or loaded, shall in all cases yield to public traffic and shall travel in the direction of the traffic. Flaggers and traffic signs may be required to control this activity. No driveways or private roads shall be blocked. Safe access must be maintained for pedestrian traffic throughout the Work areas at all times.
- H. Those parts of public streets, right of ways, and sidewalks that are allowed to be occupied by the Contractor shall be immediately vacated by the Contractor and returned to public use when the Contractor's use thereof is no longer necessary for the construction Work.
- I. The Contractor shall comply with and pay for all costs associated with Public Convenience Section 7-1.03; Public Safety Section 7-1.04; and Temporary Traffic Control Section 12 of the State Specifications; and Article 8.01. Public Safety, of these Standard Provisions Specifications. Nothing in these Specifications shall be construed as relieving the Contractor from its

- responsibility as provided in Public Safety Section 7–1.04 of the State Specifications.
- J. The Contractor shall coordinate with the appropriate local agencies having jurisdiction to receive their approval in the event any temporary lane closures on public streets are needed for the Contractor's operation. Any traffic signing and flaggers as approved by the local agencies for said lane closures shall be in place prior to closing the lane to traffic.

### **10.11. Regulated Material Management**

- A. Regulated Material includes, but shall not be limited to, Hazardous Material and Hazardous Waste.
- B. The Contractor is responsible for and shall obtain all required permits and pay all fees and taxes for satisfying the requirements of any regulatory agency for the storage, monitoring, usage, transportation, safety, and reporting, or for any other requirements regarding the management of Regulated Material on and off the Project site(s).
- C. The Contractor shall not allow Regulated Materials to spill on District property or on easements or on other public or private right of ways. Any spillage of Regulated Materials resulting from the Contractor's operation shall be removed immediately by the Contractor at the Contractor's expense.
- D. The Contractor shall immediately notify the Engineer of any potentially Hazardous Materials or Hazardous Waste encountered at the worksite and shall take all necessary action to prevent exposure of personnel until all material is identified and proper action can be taken.

## 10.11.01. Storage of Regulated Material

- A. Prior to the storage or use of any Regulated Materials, the Contractor shall submit to the Engineer a Regulated Materials Storage and Use Plan (Plan). The Plan shall include (i) an inventory of all Regulated Materials to be stored or used at the Project site that equals or exceeds any of the following separate material phases: 55 gallons liquid, 200 cubic feet of compressed gas, or 500 lbs. solid; (ii) the maximum quantity of Materials to be stored; (iii) purpose of the Materials; (iv) the MSDS for each Material; (v) a detailed description of how the Materials will be stored (including secondary containment where required by applicable regulatory agencies); (vi) a site plan drawn to scale; (vii) storage area maps drawn to scale; (viii) a detailed description of how the Materials will be monitored; (ix) a detailed description of how wastes from the Materials will be stored and/or disposed; and (x) a detailed description of the procedures to be followed in the event of an uncontrolled release of the Regulated Materials.
- B. The Plan shall be submitted to the Engineer and favorably reviewed at least 30 days prior to the storage or use of any Regulated Materials. The Plan shall be updated and submitted to the Engineer by the Contractor upon the addition of

new Regulated Materials not listed previously or upon a 100 percent (or greater) increase in quantity of a Regulated Materials that is listed in the plan.

## 10.11.02. Regulated Material Discharges or Releases

- A. The Contractor is responsible for all discarded or abandoned Material, including Regulated Materials and Hazardous Waste, generated as a result of the Contractor's operations unless specifically noted otherwise in these Specifications. The Contractor shall comply with Article 3.09. Differing Conditions.
- B. In the event of a discharge or release of a Regulated Materials from the Contractor's operation, the Contractor is responsible for notifying the proper authorities, providing containment of the material, identifying the contaminants, investigating the extent of all contaminants, testing and removing contaminated materials, disposing of contaminated materials, and verifying the removal of all contaminated materials. These activities shall be performed to the satisfaction of the Engineer at the Contractor's cost. The Contractor shall perform any Work and provide any and all documentation required by the District and by all Federal, State, and local agencies. The Contractor shall provide to the Engineer copies of all correspondence and reports related to these activities. All Work performed to accomplish these activities shall be in accordance with Federal, State, and local regulations.
- C. In the event of a discharge or release of Regulated Material, the Contractor shall notify the Engineer immediately. Immediate notifications may be verbal. The Contractor shall submit a detailed written report to the Engineer within 24 hours of the discharge or release. The written report shall include; a description of events leading to the discharge or release, action taken to prevent or control the discharge or release, a description of the discharge or release, the quantity of Material discharged or released, method used to determine the quantity discharged or released, type of Material discharged or released, MSDS for the Material(s) involved, a description of the area affected by the discharge or release, agencies notified and date and time of notification, and status of the cleanup. The report shall also include the proposed investigation, cleanup, and verification sampling activities.
- D. All expenses incurred by the Contractor as a result of or to remedy the discharge or release of Regulated Materials shall be borne solely by the Contractor; no additional compensation shall be made. The Contractor shall be responsible for signing the Nonhazardous Waste Manifests and the Hazardous Waste Manifests and for paying the State Superfund fees, the generator's fees, and other costs of disposal of these wastes unless specifically stated otherwise in these Specifications. The Contractor shall be identified as the owner and generator of the wastes associated with unauthorized releases or discharges.

#### 10.11.03. Hazardous Waste

A. The Contractor shall manage the Hazardous Waste generated from this operation in accordance with the Specifications below:

- 1. Labeling: The Contractor shall completely fill out and affix a "Hazardous Waste" label to each Hazardous Waste container for the Contractor's operations. Each Hazardous Waste label shall contain, at a minimum, (i) the words "HAZARDOUS WASTE"; (ii) information on the generator (i.e., name, address, phone number); (iii) EPA identification number for the waste stream; (iv) EPA and/or California Waste Code; (v) waste accumulation starting date; (vi) identification and content of the waste; (vii) the physical state of the waste (i.e., solid or liquid); (viii) and the hazardous property (i.e., flammable, toxic, corrosive, reactive, etc.). If the primary container is placed inside a secondary container, then the Contractor shall also prepare and affix another Hazardous Waste label on the secondary container.
- 2. Secondary containment: The Contractor shall provide appropriate secondary containment for all storage areas for Hazardous Materials and Hazardous Waste. In the case of an installation with one (1) primary container, the secondary containment shall contain at least 110 percent of the volume of the primary container. In the case of an installation with multiple primary containers, the secondary containment shall contain 150 percent of the volume of the largest container or ten (10) percent of the aggregate internal volume of all primary containers in the storage facility, whichever amount is greater. If the storage facility or storage system is open to rainfall, then the secondary containment must be able to additionally accommodate the volume of a 24 hour rainfall as determined by a 25 year storm history.
- 3. Accumulation time limit: The Contractor shall properly haul and dispose of all Hazardous Waste within 90 Days from the accumulation starting date identified on each Hazardous Waste label or on the completion date of the Contract, whichever event comes first. The waste accumulation starting date for each waste stream begins when the first drop of the waste is placed in the container.
- Hauling and disposal of waste: The Contractor shall be responsible for using appropriate Hazardous Waste haulers and disposing of all Hazardous Waste in accordance with Federal, State, and local regulations.
- B. Waste Manifests: Prior to issuance of the Project Completion letter, the Contractor shall submit copies of all Hazardous Waste Manifests signed by disposal facilities and certificates of disposal to prove that the Contractor has legally disposed of such materials. The Contractor shall submit four (4) copies of each manifest.

### 10.12. Non-regulated Materials

A. Non-regulated Material is any substance that is not required by any Federal, State, or local regulations to have special management, storage, disposal, or handling practices.

- B. Non-regulated Material may be disposed at State-permitted, non-hazardous waste landfills.
- C. For non-regulated material to be reused or disposed of on-site or at a site other than a State-permitted landfill, the Contractor must obtain all required permits, agency approvals, and property owner agreements and pay all fees and taxes for all services and Materials required in conjunction with the management, transportation, disposal, and reuse of non-regulated materials.

## 10.12.01. Disposal at Other than State-Permitted Landfills

- A. The Contractor shall enter into an agreement with the property owner prior to disposal of materials and submit a copy thereof to the Engineer conveying a written consent from the property owner receiving the materials providing:
  - 1. a written authorization from the property owner to accept materials at duly noted quantities, types of materials (e.g., soils, debris, etc.), and the disposal property location address; and
  - a written release from the property owner fully absolving the Santa Clara Valley Water District from any and all responsibility and legal liability toward any damage to life and environment in connection with the disposal of the materials on the property.
- B. Prior to the disposal of materials, the Contractor shall provide:
  - 1. copies of all applicable regulatory agency permits, approvals, licenses, and environmental clearances;
  - site specific health and ecological risk assessment and/or compliance with applicable regulatory agency regulations or guidelines, including, but not limited to, the Environmental Screening Levels per the latest guidelines from the San Francisco Bay RWQCB;
  - 3. copies of documentation of communication made by the Contractor with appropriate regulatory agencies on evaluation of regulatory requirements and regulatory agency approvals for disposal of materials; and
  - 4. copies of laboratory testing reports for the materials to be disposed.
- C. Within 15 Days after the disposal of materials at the property location, the Contractor shall submit an acknowledgement duly signed by the property owner certifying the date of receipt of the materials, including quantity and types of

- materials received (e.g., soils, debris, etc.), to prove that the Contractor has disposed of the materials at the location designated in the agreement.
- D. Waste Manifests: Prior to issuance of the Project Completion letter, the Contractor must submit copies of all Non-hazardous Waste Manifests signed by disposal facilities and certificates of disposal to prove that the Contractor has legally disposed of such materials. The Contractor shall submit four (4) copies of each manifest.

# 10.13. Imported Earthfill Material

- A. The Contractor shall not import earthfill material that is contaminated with Regulated Materials.
- B. If imported earthfill Material is, or is found to be, contaminated by Regulated Materials, the Contractor shall immediately remove the contaminated material and dispose of it in accordance with all applicable laws, ordinances, and regulations; conduct necessary sampling and monitoring to verify that all contaminated material has been removed; and verify to the satisfaction of the Engineer and/or to the appropriate regulatory agencies that any surrounding areas, materials, soils, or waters have not been impacted by the contaminated materials. The subsequent disposal of the contaminated material shall be the responsibility of the Contractor. No compensation shall be made to the Contractor by the District for removal, disposal, replacement, or chemical analysis, or for any other costs associated with the removal, disposal, and replacement of the contaminated material.
- C. For each imported earthfill material to be used on the Project, the Contractor shall submit to the Engineer completed Imported Materials Certification Form; copies of this form are available from the Engineer. If the imported earthfill materials are to be obtained from more than one (1) source, the Contractor shall submit a separate form for each source of earthfill material. This form shall be submitted at least 30 Days prior to the delivery of the earthfill material to the construction site and shall receive favorable review prior to delivery.
- D. The Engineer may obtain soil samples from the site and test them to monitor the Contractor's compliance with these Provisions.

## 10.14. Migratory Birds

- A. The Contractor shall comply with all applicable Federal and State laws, rules, and regulations related to the protection of migratory birds, including, but not necessarily limited to, the Federal Migratory Bird Treaty Act (16 USC 703-712 50 CFR Part 21 and 50 CFR Part 10) and the California Department of Fish and Game Code Sections 2000, 3503, 3503.5, 3513, and 3800.
- B. The Contractor shall carry out all activities in a manner consistent with the U.S. Fish and Wildlife Service's Migratory Bird Program. The Contractor shall not pursue, hunt, take, capture, kill, attempt to take, or posses any migratory bird

listed in 50 CFR 10.13, or any part, nest, or egg of any such bird. Active nests are those containing either an egg (or eggs) or young and/or nests used by birds of prey, regardless of the presence of eggs or of young. To determine the occupancy of nests, the Contractor shall rely upon the professional expertise of a Qualified Biologist. See Section 19. Environmental.

C. The Contractor shall coordinate several measures, including (i) awareness and training of the Contractor's personnel on which bird species are protected, their nesting seasons, and seasonal variability; (ii) surveys to determine the presence of nesting birds in the Project area; (iii) establishment, maintenance, and removal of protective buffer zones around nests; (iv) installation and maintenance of exclusion devices; (v) nest prevention activities; and (vi) monitoring to ensure the adequacy of the compliance measures.

### 10.14.01. Scope of Work

- A. The Contractor shall be aware of migratory bird nesting seasons (generally from January 15 to August 31) and variability; provide training to all Contractor personnel on the Project; monitor the Project site; perform preventative and deterrence measures to prevent birds from nesting; preserve and protect preestablished protective buffer zones; perform surveys to determine the potential for protected species to be in the Project area; establish new protective buffer zones around un-prevented nests, as required; install and/or maintain exclusion devices, such as netting and/or wire mesh screens; monitor to assure the adequacy of the compliance measures; and perform any other Work as specified herein to comply with all applicable statutes.
- B. The Qualified Biologist shall monitor regulatory compliance, train Contractor personnel, and coordinate with the Engineer in conformance with (i) this Article; (ii) the Project specific Mitigation Monitoring and Reporting Program (MMRP) requirements relating to this Article; and (iii) all applicable permit conditions. The Qualified Biologist shall:
  - 1. Provide bird nesting awareness training for all personnel working on the Project, including all sub contractors.
  - 2. Monitor the Project site for nest starts and occurrences of active bird nests.
  - 3. Document the location, status, and species of bird for each active nest.
  - 4. Monitor the Work to ensure that protected birds are not disturbed in a manner that could result in noncompliance.
  - 5. Establish protective buffer zones around active nests as specified herein.
  - 6. Ensure protective buffer zones are maintained and nests are not disturbed. Advise when protective buffer zones are no longer needed and can be removed.

- 7. Monitor the maintenance and effectiveness of bird exclusion devices.
- 8. Provide recommendations concerning vegetation management, installation of additional exclusion devices, and maintenance of such devices to prevent bird nesting. Advise when exclusion devices are no longer needed and can be removed.
- C. Within 14 Days of the First Chargeable Day, the District will release the site to the Contractor. Prior to the release, the Engineer and the Contractor shall assess the site to determine the presence of nesting birds and any existing protective buffer zones and exclusion devices within or near the construction areas. In no case shall the District maintain responsibility for the site for more than 14 Days after the First Chargeable Day. Upon release of the site, the Contractor assumes complete responsibility for the site, including Work site monitoring, existing protective buffer zones, and exclusion devices and shall perform all required Work as specified herein.

## 10.14.02. Migratory Bird Surveys

- A. The Qualified Biologist shall perform migratory bird surveys prior to any Project related activity that could pose the potential to affect migratory birds.
- B. The Contractor shall include activities for Qualified Biologist surveys on Project Schedules with assurance that the appropriate migratory bird surveys have been coordinated with the Qualified Biologist and will be performed in advance of activities.

### 10.14.03. Migratory Bird Monitoring

- A. The Contractor is responsible for ongoing monitoring to ensure that migratory birds, their active nests, eggs, and young are not harmed in any way.
- B. The Contractor and Qualified Biologist shall inspect all areas that may be affected by Project activities, including all vegetation, grounds, structures, and bridge(s), with sufficient frequency as needed to identify any new and partially built bird nests.
- C. At the direction of the Engineer and the Qualified Biologist, the Contractor shall be responsible for the removal of any inactive or partially built bird nests with the exception of raptor nests. No birds, nests with eggs, or nests with hatchlings shall be disturbed, nor shall raptor nests be removed unless specified in the Special Provisions Article 19. Environmental.

#### 10.14.04. Protective Buffer Zones

A. Existing protective buffer zones, if any, are shown on the Drawings or shall be communicated to the Contractor prior to the District releasing the site. In addition to District-established buffer zones, new protective buffer zones shall be required if a nest is established or discovered during the Contractor's activities. In the

event that an active nest is discovered in the Project area, or in adjacent areas considered to have the potential to be disturbed by the Contractor's activities, the Contractor shall notify the Engineer and establish a protective buffer zone around the nest. The exact location of the boundaries of protective buffer zones shall be established by the Qualified Biologist and approved by the Engineer. The Contractor shall install temporary fencing at the boundary of each new protective buffer zone except as otherwise directed by the Engineer. The fencing shall be Type ESA Temporary Fence per Caltrans Article 14-1.03. The Contractor shall attach signs labeled "Nesting Bird – Access Prohibited" at least every 50 feet along the fencing. The Contractor shall exclude Project activities to preserve and protect all protective buffer zones, including existing ones, at all times.

- B. In the event that an active nest is discovered by the Qualified Biologist, the Biologist shall immediately notify both the Contractor and the Engineer of the active nest and of the applicable protective buffer zone.
- C. The Qualified Biologist shall inspect all active nesting-bird protective buffer zones(s) on at least a weekly basis until such time as the nest is no longer active as confirmed by the Qualified Biologist. Once a nest is no longer active, the protective buffer zone shall be removed.
- D. The Contractor shall be responsible for any added costs or schedule Delays as a result of the establishment of new nests or of new protective buffer zones due to the Contractor's failure to perform bird exclusion responsibilities.
- E. The Contractor shall monitor protective buffer zone operations during the Project. Requirements for the protection of active nests may vary depending on the location and the species involved. The following are general guidelines to be followed by the Contractor when an active nest is encountered:
  - 1. Stop any activities that may harm the nest.
  - 2. Contact the Engineer immediately.
  - 3. Only the Qualified Biologist should approach the nest and only if necessary.
  - 4. The Contractor shall inform personnel of the presence of an active nest and take steps, described above, to avoid disturbing it.
  - 5. Until inspected by the Engineer or Qualified Biologist, a 20-foot-radius protective buffer zone shall be established around the nest of any non-raptor, ground nesting bird, and a 50-foot-radius protective buffer zone around nests established in shrubs, trees, on structures, on Equipment, etc., except for raptor nests. Furthermore, the protective buffer zone shall be 250 feet for nesting raptors (including hawks), owls and burrowing owls, falcons, eagles, herons, and egrets. The Qualified Biologist may recommend, for approval by the Engineer, modification of these zones.

6. Refer to Section 19. Environmental for additional specific buffer zone requirements.

#### 10.14.05. Exclusion Devices

A. The Contractor shall install nesting exclusion devices to prevent potential establishment or occurrence of a nest in the Project area during Project activities. The Contractor shall maintain all nesting exclusions devices, including existing ones, throughout the nesting season or until completion of Work in an area makes the devices unnecessary. The Contractor shall be responsible for the maintenance, repair, or replacement of exclusion devices until all of the Work is complete. The Contractor shall remove and dispose of all exclusion devices, including those installed by the District, when Work in the area is complete.

B. Bird exclusion devices shall be installed during the non-nesting season (generally September 1 through January 14). The Contractor shall obtain favorable review from the Engineer when installing bird exclusion devices during the nesting season (generally January 15 through August 31). At a minimum, all exclusion devices shall be inspected daily by the Contractor and weekly by the Qualified Biologist to ensure integrity of the devices and to prohibit birds from nesting without causing them harm.

### 10.14.06. Nest Prevention

- A. The Contractor is hereby notified that all areas to be cleared of vegetation may be suitable nesting habitat for migratory birds. The Contractor shall perform all necessary clearing prior to the nesting season if at all possible. If clearing must occur during the nesting season, the Contractor shall obtain prior approval from the Engineer. If vegetation must be cut and maintained to prevent birds from nesting, it must be cut to less than six (6) inches in height and removed.
- B. The Contractor shall inspect and monitor bare areas and gravel areas prior to commencement of the nesting season and as frequently as necessary thereafter and provide deterrence measures if necessary to prevent ground-nesting birds, such as killdeer, from establishing a nest.
- C. Removal of vegetation (trees, shrubs, grasses, and herbaceous plants) shall be limited to areas shown on the Drawings designated for vegetation removal unless approval is obtained from the Engineer to remove vegetation from additional areas. No vegetation shall be trimmed back unnecessarily, including trees and/or shrubs growing near the right of way that overhang onto the worksite. Such overhanging foliage shall be protected and tied back if necessary. Landscaped areas and irrigation systems outside of the construction areas shall be preserved and protected from damage by the Contractor's activities.
- D. Pre-established Vegetation Management Areas: Some areas of vegetation removal, clearing, and eradication may be established and cleared by the District prior to the First Chargeable Day. In these areas, the Contractor shall be responsible for the continued clearing and eradication of all re-sprouts.

#### 10.14.07. Submittals

A. Submit a résumé of qualifications of the Qualified Biologist for the Engineer's favorable review. The Qualified Biologist's qualifications must meet the minimum requirements as specified for the Qualified Biologist listed in Section 19. Environmental. The résumé shall be submitted and must be favorably reviewed by the Engineer prior to any Work.

- B. Submit migratory bird survey reports to the Engineer within two (2) Days upon completion of the survey and at least two (2) Days prior to commencement of Project related activities.
- C. Submit the Qualified Biologists' training materials for favorable review by the Engineer, prior to presenting bird nesting awareness training to personnel.
- D. Submit to the Engineer no later than 15th Day of each month a monthly report prepared and signed by the Qualified Biologist that documents the activities of the Contractor, including, at a minimum, the status of awareness trainings provided, the installation, maintenance, or removal of any bird exclusion devices or protective buffer zones and their locations and monitoring results, and report the current status of previously documented bird nests.
- E. When requested by the Engineer, maintain and submit a log of weekly documentation (including photo-documentation) of the time, date, condition of the nests, and any nest-prevention actions taken during inspections.
- F. Submit to the Engineer product data for nesting exclusion devices, fencing for protective buffer zones, and any shop Drawings as deemed appropriate by the Engineer.
- G. If the Contractor wishes to modify the dimensions of any protective buffer zone or modify any bird exclusion device, a written proposal of such modification must be submitted and favorably reviewed by the Engineer. The submittal must contain the Qualified Biologist's written justification for the proposed modification and shall include a description of the anticipated effects on the active nest and on nesting birds.

### 10.15. Other Wildlife and Fish Species

A. The Contractor shall comply with all regulatory and permit requirements pertaining to other wildlife and fish species as identified in Section 19. Environmental.

### 10.16. Sensitive Plants and Vegetation

A. The Contractor shall comply with all regulatory and permit requirements pertaining to sensitive or listed plants and vegetation communities as indentified in Section 19. Environmental.

# 10.17. Proper Pruning Techniques for Woody Vegetation Removal

A. An International Society of Arboriculture (ISA) Certified Arborist or Tree Worker is to be present at all times during pruning. Contractor shall comply with the following:

- 1. All pruning shall be in accordance with the most current editions of the Best Management Practices for Pruning (International Society of Arboriculture) and the American National Standard for Tree Care Operations (ANSI booklet Z133.1) and Pruning (ANSI booklet A300).
- 2. Pruning for clearance: Selectively remove only branches required for passage and movement of construction equipment.
- 3. Remove stubbed branches at the point of origin, outside the bark branch ridge.
- 4. No more than 25% of live foliage shall be removed from any tree at any one time (or in a given year).
- 5. Branch removal or reduction cuts (thinning cuts) are to be employed rather than heading cuts. Trees shall not be topped or headed back.
- 6. All cuts shall be distal to the branch bark ridge or, if present, the branch collar. The cuts shall be close to but shall not injure the branch collar. All final cuts shall be in one plane, with no torn bark.
- 7. Pruning cuts larger than 4 inches in diameter, except for dead or stubbed branches, shall be avoided.
- 8. Pruning operations shall be conducted in a manner that does not damage surrounding understory plants, if present.

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# SECTION 11. CONTRACT CLOSEOUT

## 11.01. Project Completion and Acceptance

## 11.01.01. Use Before Acceptance

- A. The District has the right to utilize or to place into service any item of Equipment or other usable portion of the Work before Acceptance of the entire Project. The District's exercise of said right shall hereinafter be referred to as Use Before Acceptance.
- B. Where Use Before Acceptance is identified in the Contract Documents, it shall be considered part of the Work; no additional compensation or payment shall be made.
- C. Should the District desire Use Before Acceptance that has not been identified in the Contract Documents, the Engineer shall notify the Contractor in writing, identifying the specific portion or portions of the Work proposed for Use Before Acceptance.
- D. The Contractor shall provide written notice within ten (10) Days after a request for Use Before Acceptance by the District stating whether the proposed portions of Work are suitable for Use Before Acceptance and if there are any associated costs, constraints, or other impacts.
- E. Until Use Before Acceptance, the Contractor is responsible for all care and maintenance of all items or portions of the Work.
- F. Unless the Engineer requires the Contractor to execute a Use Before Acceptance Guaranty as provided in Article 11.02.03. Use Before Acceptance Guarantee, upon the District's issuance of written notice of Use Before Acceptance, the District accepts responsibility for the protection and maintenance of all such items or portions of the Work described in the written notice, with the exception of any injury or damage resulting from the Contractor's actions or from negligence.
- G. If, by reason of the District's unidentified Use Before Acceptance, the premium for the Contractor's bodily injury and property damage insurance is increased, the District shall reimburse the Contractor for the additional amount necessarily incurred, allocable to the area and the period of the District's use up to the date of Acceptance of the Work.
- H. The District's Use Before Acceptance does not constitute Acceptance of the Work, or of any portion of the Work, by the District, nor does it relieve the Contractor of responsibility for correcting defective and/or deficient Work or Material found at any time before Acceptance of the Work or during the guarantee period after the District's Acceptance. Notwithstanding any Use Before Acceptance, the Contractor retains full responsibility for fulfilling all of the requirements of the Contract Documents.

## 11.01.02. Contractor's Responsibility to Manage Incomplete and Deficient Work

- A. The Contractor is responsible for identifying and managing incomplete and deficient Work. Incomplete and deficient Work includes, but is not limited to, noncompliance items, rework items, and nonconforming tests; deficiencies relating to inspections by the building official; administrative requirements; and items of Work not complete per the Contract.
- B. The preliminary final and final inspections shall not be conducted until:
  - 1. the entire Work of the Milestone/Project is complete;
  - cleaning has occurred pursuant to Standard Provisions Article 11.04.
     Final Cleaning and to Special Provisions Article 22.06. Final Cleaning; and
  - 3. deficient Work identified in all outstanding noncompliance notices and/or deficiency lists has been corrected.
- C. For each Milestone Completion, the Contractor must include activities for conducting the preliminary final inspection, completion of deficiency list, and final inspection in the Contractor's Detailed Progress Schedules.
- D. The District may withhold the estimated cost of the incomplete and deficient Work and consequences thereof until it is completed in accordance with the requirements of the Contract Documents.

## 11.01.03. Milestone Completion Preliminary Final Inspection

- A. When the Contractor believes the Work of a Milestone or Project is complete, including final cleaning of the Work area associated with the Milestone, the Contractor shall submit to the Engineer a written certification that the Work of the Milestone is complete and shall request a preliminary final inspection of the work of the Milestone by the District.
- B. Prior to requesting the inspection, the Contractor shall furnish the following Milestone Completion Certification to District:

"To the best of my knowledge, all Work of Milestone (#) has been completed,
inspected, and tested and is in full compliance with the requirements of the
Contract."

Certified by Contractor:		Date:	
·	(Signature)		

C. Within seven (7) Days of receipt of the Contractor's certification that all Work of a Milestone/Project is complete, the Engineer shall conduct a preliminary final inspection with the Contractor.

- D. If the Engineer determines that, based on the results of the preliminary final inspection, the incomplete/deficient Work identified is greater in substance and/or volume than can be appropriately declared on a Deficiency List, then the Work is not complete enough to complete the preliminary final inspection. The Contractor shall be so notified in writing. The Contractor must complete the Work and reinitiate procedures for another preliminary final inspection. Any costs to the District for more than two (2) preliminary inspections may be charged to the Contractor.
- E. If the results of the preliminary final inspection are satisfactory to the Engineer, a Deficiency List shall be prepared and issued to the Contractor. Neither the District's preparation of the Deficiency List, nor any omission from the Deficiency List of items of incomplete and/or deficient Work relieves the Contractor from completing all the Work required by the Contract.

## 11.01.04. Milestone Completion Final Inspection

A.	Prior to requesting the milestone completion final inspection, the Contractor shall
	furnish the following milestone completion certification to the District:

"The work of Milestone (#) has been completed, inspected, and tested and is in
full compliance with the requirements of the Contract. All Deficiency List items
identified during the Preliminary Final Inspection have been completed."

Certified by Contractor:		Date:	
•	(Signature)		

- B. Upon delivery of this certification to the Engineer and if the Engineer agrees with the Contractor's certification, a final inspection shall occur within ten (10) Days of the Contractor's delivery of the milestone completion certification.
- C. If the Engineer determines the Work is deficient, the Contractor shall again be furnished with a Deficiency List identifying the observed deficiencies in the Work. After all deficiencies have been corrected, the Contractor must initiate procedures for another final inspection. If more than two (2) final inspections are required, any costs to the District for additional final inspections may be charged to the Contractor.
- D. After Acceptance of the Contractor's milestone completion certification following the final inspection, the Engineer shall issue a milestone completion letter to the Contractor. This letter will establish the date of the completion of the milestone. The assessment of Liquidated Damages, if applicable, shall cease accruing as of the date of the milestone completion.
- E. The Contractor's Detailed Progress Schedules must include activities for final inspection of milestones.

## 11.01.05. Project Completion

- A. The Contractor shall certify that the entire Work of the Project is complete. Completion of the Project includes submission to and acceptance by the District of all milestone completion submittals. Article 22.05. Submission Closeout Items, describes in greater detail the submittal requirements for Contract Closeout.
- B. Prior to the Engineer issuing the Project completion letter, the Contractor shall furnish the following Project completion certification to the District. This certification is in addition to any intermediate Milestone completion certifications:

"The entire Work of the Project has been completed, inspected, and tested and is in full compliance with the requirements of the Contract Documents. All Deficiency List items have been completed. All Deficiency List items have been completed. All items on the rework list have been completed. All Closeout Documents required by Article 22.05. Submission of Closeout Items, have been submitted to and accepted by the Engineer."

Certified by Contractor:		Date:
•	(Signature)	

- C. The Contractor's certification shall also include the completion of all Deficiency List Work and the correction of all rework.
- D. After acceptance of the Contractor's final certification, the Engineer shall issue a Project completion letter to the Contractor. This letter shall establish the date of the completion of Project. The assessment of Liquidated Damages, if any, shall cease accruing as of the date of Project completion.

## 11.01.06. Acceptance of Work

- A. After issuing the Project Completion letter, the Engineer shall recommend that the District Board of Directors formally accept the Work.
- B. Acceptance of Work shall be made by the District Board of Directors and only after the Engineer has recommended acceptance.
- C. After the Board of Director's formal Acceptance of Work, the Clerk of the Board shall record a Notice of Completion of Contract and Acceptance of Work.
- D. The District's Acceptance of Work establishes conformity with the Contract except for Delays in completion, latent defects, fraud, or such gross errors as amount to fraud, willful misconduct, or gross negligence, and are subject to any guarantee and warranty, express or implied. Determinations by the Engineer that the Work is complete or Acceptance of Work by the Board of Directors does not bar any action by the District against the Contractor pursuant to Article 11.02. Guarantee and Guaranty Bond.

## 11.02. Guarantee and Guaranty Bond

#### 11.02.01. Guarantee

- A. The guarantee period for any item of Equipment or usable portion of the Work that the District utilizes or places into service shall commence on the date of the Notice of Completion of Contract and Acceptance of Work.
- B. The Contractor hereby agrees to make, at its own expense, all repairs or replacements necessitated by defects in Material or workmanship supplied or constructed under the terms of this Contract and to pay for any damage to other Work resulting from such defects that becomes evident within a minimum of three (3) years after the date of Notice of Completion of Contract and Acceptance of Work or within such period of time as may be prescribed by law. The Contractor further assumes responsibility for a similar guarantee for all Work and Materials provided by Subcontractors or by manufacturers of packaged Equipment components. The Contractor also agrees to indemnify, defend, and hold the District harmless from liability of any kind arising from damage due to said defects.
- C. The Contractor-furnished Guarantee and Guaranty Bond specified herein shall be in addition to any Equipment, workmanship or Material warranties specified elsewhere in the Contract or as provided by the manufacturer. The Contractor shall provide copies of all warranties required of the Specifications in addition to the Guarantee and Guaranty Bond.
- D. The Contractor shall execute and submit to the Engineer a completed guaranty form for the Work in the format provided below.
- E. The Contractor shall, upon receipt of notice in writing from the District, promptly make all repairs arising out of defective Materials, workmanship, or Equipment. If the Contractor has failed to make the repairs with due diligence within ten (10) Days after giving this notice to the Contractor, the District is hereby authorized to make such repairs. In case of emergency, where, in the opinion of the District, Delay could cause serious loss or damage, repairs may be made without notice sent to the Contractor. The Contractor and its Surety shall be liable for any expense in connection with repairs performed by the District or by its agents.
- F. Prior to the expiration of the guaranty period, the District reserves the right to hold a meeting and require the attendance of the Contractor and relevant Subcontractors and Suppliers at no cost to the District. The purpose of the meeting is to review guaranties, bonds, and maintenance requirements and to determine the required repair or replacement of defective items.
- G. For the purpose of this Article, Acceptance of the Work or a portion of the Work by the District shall not extinguish any covenant or Agreement on the part of the Contractor to be performed or fulfilled under this Contract that has not, in fact, been performed or fulfilled at the time of such acceptance. All covenants and

agreements shall continue to be binding on the Contractor until they have been fulfilled.

## 11.02.02. Guaranty Bond

- A. The Contractor shall furnish a written guaranty bond in the format provided below prior to issuance of the Project Completion letter. The guaranty bond shall be executed by both the Contractor and the surety (who must be an admitted surety in accordance with California Code of Civil Procedure Section 995.670). This guaranty bond shall be for a period of three (3) years after the date of Notice of Completion of Contract and Acceptance of Work and shall cover all Work.
- B. The amount of the guaranty bond shall be no less than 15 percent of the total Contract Price(s).

# SANTA CLARA VALLEY WATER DISTRICT GUARANTY FORM

## **Guarantee for**

(Project Name and Project Number)

City, State
We hereby guarantee the Project commonly known ashas been completed in accordance with the requirements of the Contract Documents and further agree that the Work to be free of defects in workmanship, Materials, and Equipment and to remain free of such defects for a period of three (3) years from the date of Acceptance of Work by the District's Board of Directors.
We agree that if any defects in Materials, workmanship, or Equipment become evident, we shall, within ten (10) Days after written notice of such defects, commence to repair or replace the same together with any other Work that may be damaged or displaced in so doing.
In the event of our failure to comply with the above-mentioned conditions within a reasonable time after being notified, or should the emergencies of the case require repairs or replacements to be made before we can be notified or respond to notification, we do hereby authorize the Santa Clara Valley Water District to proceed to have the defect repaired and made good at our expense; we shall pay the cost therefor upon demand.
The Guaranty provided herein shall not be in lieu of, but shall be in addition to, any warranties or other obligations otherwise imposed by the Contract Documents and by law.
Contractor:
Signature:
Title:
Date:

# SANTA CLARA VALLEY WATER DISTRICT GUARANTY BOND

WHEREAS, the Santa Clara Valley Water District, State of California, has awarded to
Bond for the faithful performance of said Contract's Guaranty.  NOW, THEREFORE, we, the Principal and
as Surety, are held and firmly bound unto the Santa Clara Valley Water District (hereinafter called "District") in the sum of  Dollars (\$
Clara Valley Water District (hereinafter called "District") in the sum of  Dollars (\$
he payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.  THE CONDITION OF THIS OBLIGATION IS SUCH that if the above Principal, or heirs, executors, administrators, successors, or assigns shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in the said Contract
executors, administrators, successors, or assigns shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in the said Contract
and any alteration thereof made as therein provided, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless the District, its officers, agents, and employees, as herein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.
And the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract or to the Work to be performed hereunder or to the Specifications accompanying the same shall in any way affect its obligation on this bond, and does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract or to the Work or to the Specifications.
n the event suit is brought upon this bond by the District and judgment is recovered, Surety shall pay all costs incurred by the District in such suit, including a reasonable attorney's fee to be fixed by the Court.
N WITNESS WHEREOF two identical counterparts of this instrument, each of which shall for all purposes be deemed an original thereof, have been duly executed by the Principal and Surety above named, on the Day of, 2
(Seal)(Seal)
(Seal)(Seal)
(Seal)(Seal)
Principal Surety
Address:

NOTE: Signature of those executing for Surety must be properly acknowledged.

## 11.02.03. Use Before Acceptance Guarantee

A. For Equipment or components of Equipment or other usable portions of the Work utilized or placed into service for the District's benefit during the progress of the Work and prior to Acceptance of Work, the Contractor shall submit the guarantee/warranty certificate below on the Contractor's letterhead.

(Contractor's Letterhead)

#### USE BEFORE ACCEPTANCE GUARANTY

**FOR** 

## EQUIPMENT OR OTHER USABLE PORTION OF THE WORK INSTALLED BY CONTRACTOR

AND

## USED BY DISTRICT BEFORE ACCEPTANCE OF WORK

We (Name of Contractor), agree to maintain and repair as recommended by the manufacturer the following described Equipment (system) or other usable portion of the Work that has been utilized or placed into service by the personnel of the District prior to Acceptance of Work. The Guaranty provided herein shall not be in lieu of, but shall be in addition to, any warranties, performance bond, payment bond, or other obligations otherwise imposed by the Contract Documents and by law.

Owner: Santa Clara Valley Water District
Description of Equipment or other portion of the Work:(Include manufacturer name, model number, serial number, and such other information as needed to positively identify the Equipment/system or portion of Work.)
Location of Equipment:
Installed under: (Contract Number and Contract Title)
Date Installed:
Date of first utilization or placement into service by the District:
This guaranty/warranty is effective upon date shown herein under, and shall remain effective until the District's Acceptance of Work.
Name of Contractor:
By:
Address:
Phone:
License No.
Date:

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#### 11.03. Submission of Closeout Items

#### 11.03.01. As-Built Drawings

- A. At completion of construction and prior to issuance of the Project Completion letter by the District, the Contractor shall deliver the following documents to the Engineer in the following form:
  - 1. One original set of As-Built Drawings.
  - 2. Field Test Records (two [2] copies): Unless required to be submitted elsewhere in the Specifications, field test records shall be submitted as a closeout item bound into three ring vinyl binders with clear plastic spine label pockets with all pages numbered. A complete, neat, word processed table of contents for each binder with page numbers for each entry must be provided.
  - 3. Field survey record documentation.
- B. Accompany the closeout document submittal with a transmittal letter in duplicate containing the following:
  - 1. Date.
  - 2. Santa Clara Valley Water District Project name and Project number.
  - 3. Contractor's name and address.
  - Title and number of each document.
  - 5. Certification that each document as submitted is complete and accurate.
  - 6. Signature of Contractor.

#### 11.03.02. Closeout Documents

- A. At completion of construction and prior to the issuance of the Project Completion Letter by the District, the Contractor shall deliver the following closeout documents to the Engineer:
  - 1. Evidence of compliance with and approval of Contractor obtained permits and associated inspections of authorities issuing the permits.
  - 2. Copies of all special guarantees, warranties, and bonds.
  - 3. Evidence of release of all liens and stop-payment notices.
  - 4. Release of Claims in accordance with Article 6.03. Final Payment.

- 5. Records indicating the District's receipt and acceptance of all tools, spare parts, and extra Material as specified in these Specifications.
- 6. Records indicating the District's receipt and acceptance of all O&M manuals as specified in these Specifications.
- 7. Any and all administrative paperwork required for closeout.

## 11.03.03. Keys

A. The Contractor shall turn over all keys to new and existing facilities to the Engineer. This includes keys that were loaned (if any) to Contractor staff by the District for use during the construction period. The Contractor shall provide a written description or schedule describing which keys correspond to which doors, gates, or other feature.

## 11.04. Final Cleaning

## 11.04.01. Scope and Schedule for Final Cleaning

- A. Final cleaning is separate Work from cleaning done throughout the Project to maintain the Project site in a safe and presentable condition. Final cleaning shall be a comprehensive cleanup of all new and existing facilities affected by the Work prior to and finished within 30 Days of the District's approval for continuous use and occupancy. Final cleaning may be performed separately by structure or area at different time periods only if approved by the Engineer.
- B. Completion of this Work shall be planned and scheduled to accommodate the operational requirements of this District facility.

#### 11.04.02. Final Cleanup

A. Before final inspection, the Contractor shall clean the premises and, unless otherwise specified, remove from the worksite and areas adjacent to the worksite, all building Material, rubbish, debris, unused Material, concrete forms, falsework, temporary structures, and other Material and Equipment used during the construction. All parts of the Work shall be left in a neat and presentable condition to the satisfaction of the Engineer.

## 11.04.03. Structures

- A. Structures shall have the interiors and exterior surfaces cleaned by a professional industrial janitorial service fully knowledgeable in proper and effective cleaning methods.
- B. The structures shall be thoroughly cleaned and shall include, but shall not be limited to, the following cleaning activities:
  - 1. Paint, glazing compounds, and other Material shall be removed from glazing and skylights. Glazing and skylights shall be washed and

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- polished on both sides. Care shall be exercised so that the glazing is not scratched or damaged.
- Interior surfaces, including walls, ceilings, light fixtures, doors, jambs, sills, piping, ducts, Equipment, electrical panels and conduits, handrails, guardrails, gratings, pipe trenches, drains, and miscellaneous fixtures shall be cleaned. Stains, spots, dirt, and dust shall be removed.
- 3. Temporary floor protections shall be removed; floors shall be vacuumed and washed; floors other than concrete shall be waxed and buffed.
- 4. Door and window hardware shall be cleaned and polished after all traces of stains, dirt, paints, and blemishes are removed.
- 5. Casework and plastic laminate surfaces shall be cleaned and polished.
- 6. Marks, stains, fingerprints, soil, and blemishes shall be removed from painted, decorated, or stained interior surfaces.
- 7. Spots, soil, paint, grout, plaster, concrete, and similar substances shall be removed from tile and the tile shall be washed.
- 8. Exterior walls, doors, and louvers shall be washed.
- 9. All interior and exterior signage shall be cleaned.
- C. All concrete decks and floors shall be swept and washed. Stains, including oil stains, metal rust, and weld splatter shall be removed. Spills of construction Materials, including paint, concrete, grout, adhesives, insulating Materials, chemicals, and similar Materials shall be removed and the underlying surfaces cleaned.

## 11.04.04. Streets, Roadways, Concrete Slabs, Sidewalks, and Paved Areas

- A. Streets, roadways, concrete slabs, sidewalks, and paved areas shall be cleaned and pressure washed so that they are free of debris, soil, and paint or construction Material spills. Painted construction markings on concrete and pavement shall be removed.
- B. All access roads and maintenance roads shall be graded, removing wheel tracks and smoothing up such roads, and restored to their specified condition, or if none specified, to the condition then existing prior to the start of construction.

## 11.04.05. Storm Drainage Facilities

A. All gutters, V ditches, swales, storm drain pipe inlets, catch basins, drop inlets, and manholes shall be cleaned of soil, vegetation, and debris.

## 11.04.06. Unpaved Areas

A. Unpaved areas between new facilities and between new and existing facilities shall be cleaned of all debris and construction Material. These areas shall be graded or raked to a smooth uniform surface without leaving holes, depressions, or tire tracks.

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## **SPECIAL PROVISIONS**

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## **SECTION 12. WORK AND CONTRACT TIME(S)**

## 12.01. Summary of Work

- A. The Work to be completed under this Contract shall consist of furnishing all tools, equipment, materials, supplies, and manufactured articles, and all labor, transportation and services, including fuel, power, water, and essential communications, and for performing Work or other operations required to construct the Project. Any quantities provided with Article 12.01. Summary of Work are approximate. Should there be a discrepancy between the quantities included herein and elsewhere in the Contract documents, those quantities specified elsewhere on the Contract shall govern.
- B. The Work to be completed under this Contract includes, but is not limited to, the following:
  - 1. Demolish, remove, and dispose of approximately 900 LF of existing 12-inch stainless steel air wash pipe.
  - 2. Furnish, install and test all materials needed for the installation of new 12-inch stainless steel air wash pipe and associated appurtenances.
  - 3. Clean, reline, video inspect, and disinfect approximately 670 LF of existing 12-inch stainless steel air wash pipe.
  - 4. Restore all impacted work sites to a condition equal to or better than that existing prior to construction.

## 12.02. Drawings

A. The Drawings, entitled "Map and Construction Plan for Santa Teresa Water Treatment Plant Air Wash Line Replacement" accompany these Specifications and are part thereof.

## 12.03. Contract Time(s)

- A. The Contractor shall complete all Work required under this Contract before the expiration of 504 Days from the first chargeable Day of the Contract. The first chargeable Day of the Contract shall be defined in the NTP issued by the District.
- B. No extension of time shall be given because of rain, or because of results of rain, except set forth in these Specifications.
- C. Work shall include the following Milestones:
  - 1. **Milestone 1** Completion of all work required in the West Filter Gallery, West Filters, and West Yard Piping.
  - 2. **Milestone 2** Completion of all work required in the East Filter Gallery, East Filters, and East Yard Piping.

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- D. Milestone Completion
  - 1. The Contractor shall complete Milestone 1 before March 31, 2021.
  - 2. The Contractor shall complete Milestone 2 before December 31, 2021.
- E. See Special Provisions Article 12.05. Liquidated Damages regarding assessments.
- F. Onsite work shall not be allowed between April 1, 2021, through September 30, 2021.

#### 12.04. Inclement Weather

- A. The time allowance for completion of Work is based upon the inclusion of <u>6</u> Days for inclement weather, which, pursuant to Standard Provisions Article 3.08.02. Inclement Weather may be excusable.
- B. The Contractor shall comply with Standard Provisions Article 3.08.02. Inclement Weather.

## 12.05. Liquidated Damages

- A. In accordance with Standard Provisions Article 5.07. Liquidated Damages, the District may assess as Liquidated Damages the following amounts:
  - 1. **\$200 per day** for failure to submit the Preliminary Schedule of Work, Detailed Schedule of Work, Schedule Updates, and Master Submittal List within the time limits allowed.
  - 2. **\$1,300 per hour** for failing to complete Milestone 1.
  - 3. \$1,300 per hour between November 01, 2020, and March 31, 2021, for any unscheduled facility or plant system shutdown due to action(s) by the Contractor.
  - 4. **\$1,300 per hour** for failing to complete Milestone 2.
  - 5. \$1,300 per hour between October 15, 2021, and December 31, 2021, in excess of the time allowed for a scheduled or for any unscheduled plant shutdown due to action(s) by the Contractor.
  - 6. **\$3,700 per hour** in excess of the time allowed for a scheduled or for any unscheduled full plant shutdown due to action(s) by the Contractor.
  - 7. **\$500** for each truck operated by the Contractor, subcontractors and suppliers for arriving, idling, or queuing at the plant entrance between 5 p.m. and 8:30 a.m.

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## 12.06. Bonus

A. No Special Requirements.

## **12.07. Changes**

A. No Special Requirements.

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## SECTION 13. GENERAL REQUIREMENTS

## 13.01. Abbreviations and Acronyms

A. In addition to the abbreviations provided under Section 1 of the Standard Provisions, the following abbreviations and acronyms shall apply for this Project:

STWTP Santa Teresa Water Treatment Plant

AW Air Wash ADDL Additional

## 13.02. Definition of Key Terms

- A. Operational Facility Shutdown: The period of time when the normal, intended use of the facility cannot take place or when the facility is operating at less than its normal, intended production capability.
- B. Unscheduled Operational Facility Shutdown: Operational Facility Shutdowns initiated by or due to action by the Contractor that are beyond that anticipated or allowed in the Contract. Causes of unscheduled shutdowns could include, but are not limited to, actions causing a power outage; contaminating water such that State water quality regulations are violated or are in imminent danger of violation; and impeding chemical feed systems, water quality monitoring, or process operations.
- C. Operational: To be considered Operational, a facility or facility component must be functional in all manners intended for its use at its rated capacity and through its entire operation range. Operational facilities may require transmission facilities, storage facilities, process facilities, and support systems (e.g., chemicals, water, power, communication) to be fully functional and accessible. For a new facility to be considered operational, it must be installed and tested and District personnel must have received specified training by the Contractor in the facility's operation and maintenance.
- D. Continuous Operation: A completed system operating continuously, 24 hours a Day, without interruption, and without the need for intervention other than normal Operational adjustments by the District's operating personnel.

## 13.03. Site Investigation

- A. The Contractor shall not be entitled to any adjustment in the Contract Price(s) or in Contract Time(s) if the existence of the condition that caused the alleged impact:
  - Could have been reasonably discovered or revealed as a result of examination, investigation, exploration, test, or study of the site and of contiguous areas required by the Contract Documents to be conducted by or for the Contractor prior to commencing the Work; or

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2. Could have been inferred from the presence of other visible features, such as boulders, buildings, meters, and junction boxes on or adjacent to the site.

## 13.04. District-Furnished Reports

#### 13.04.01. Geotechnical Reports

A. No Special Requirements.

## 13.04.02. Environmental Report

A. No Special Requirements.

## 13.04.03. Hazardous Material Investigation Report

A. No Special Requirements.

## 13.04.04. Cultural Resources Report

A. No Special Requirements.

#### 13.04.05. As-Built Documents

- A. The as-built or record documents referenced represent the District's knowledge of the existing facilities relevant to the planned Work areas for the Project. The as-built or record documents are for reference only; the District does not guarantee their completeness or correctness. The District makes no representation, either expressed or implied, that the conditions indicated in the Drawings, documents, or records are representative of those existing at the Site, or that different conditions may not occur or Material other than that indicated or in proportions different from those indicated may not be encountered.
- B. The following as-built Drawings are available for review:
  - 1. "Project Facilities Plan and Key Map for Santa Teresa Project," dated February 1986.
  - 2. "Map and Construction Plan for the Water Treatment Improvement Project Stage 2 at the Santa Teresa Water Treatment Plant," dated January 2007.
  - "Fluoridation at Water Treatment Plants Project," dated November 2015.
  - 4. "Incompatible Materials Stage-II Project," February 2013.
- C. Requirements for the Contractor to field-verify existing conditions are as specified in the Contract Documents.

- D. Other subsequent, undocumented improvements may also be present and would not be reflected in the as-built or record documents. Contractor's overall understanding shall be based on the Drawings and on a reasonable understanding of the facilities from a general field inspection.
- E. CAD files of the Drawings and Specifications will not be provided to the Contractor. The Contractor may request PDF copies of Drawings. If the Contractor uses the Drawings for any other purpose except as-builts for the Project, all title block information and authors of the Drawings shall be removed.

## 13.05. Contractor's Engineering and Design

- A. The Contractor shall provide engineering and design of the following Work components:
  - 1. Air Testing Plans.
  - 2. Pipe support hangers and other structures or items as specified herein or as indicated on the Drawings.
- B. See Technical Provisions for additional information.

## 13.05.01. Seismic Design Criteria

- A. Non-structural components to be furnished under this Contract shall be designed, constructed, and installed in accordance with the design criteria listed below.
- B. General Design Criteria
  - 1. CBC 2019 California Building Code 2019
  - 2. ASCE 7-10 Minimum Design Loads for Buildings and Other Structures
  - 3. ACI 318 Building Code Requirements for Structural Concrete
  - 4. AWS D1.1, D1.3 and D1.4, Structural Welding Code
- C. Seismic Design Criteria
  - 1. For Non-Structural Components (architectural, mechanical, and electrical items permanently attached to and supported by a structure)
    - a. Design Spectral Response Acceleration for Short Period: SDS = (See information provided on S-1)
    - b. Component Importance Factor:  $I_p = 1.0$
    - c. Seismic Design Category: D

D. Design in accordance with the current edition of the California Building Code (CBC) or with applicable, site-specific seismic criteria herein, whichever is more stringent.

## 13.05.02. Wind Design Criteria

A. No Special Requirements.

## 13.05.03. Hydraulic Design Criteria

A. No Special Requirements.

## 13.05.04. Truck Loading

A. No Special Requirements.

## **SECTION 14. SPECIAL REQUIREMENTS**

## 14.01. Engineer

A. The Engineer is the Deputy Operating Officer of the Water Utility Capital Division.

## 14.02. Project Signs

A. No Special Requirements.

## 14.02.01. Payment

A. Full compensation for doing all Work necessary to pick up and install the District furnished signs shall be included in the lump sum price Bid for mobilization.

#### 14.03. Office Facilities

A. Office facilities, furnishings, and/or Equipment specified in this Special Provisions Article 14.03 shall be furnished, installed, and in operating condition prior to performing any other Contract Work under the Contract.

## 14.03.01. Engineer's Office

A. No Special Requirements.

## 14.03.02. Contractor's Office

A. The Contractor shall provide and maintain at the project site a suitable trailer office for Contractor's use. Location of Contractor and sub-contractor office trailers shall be at one of the Contractor's staging area shown on the Drawings and shall be as approved by the Engineer. At this office shall be kept project copies of the Contract Documents, project progress records, project schedule, submittals, and other relevant documents which shall be accessible to the Engineer, representatives of the District's Construction Management and other District representatives during normal working hours.

## 14.03.03. Removal and Disposal

- A. Office facilities, furnishings, and/or Equipment specified in this Special Provisions Article 14.03. Office Facilities shall be furnished, installed, and in operating condition prior to performing any other Contract Work under the Contract.
- B. Prior to issuance of the Project Completion letter by the District, the Contractor shall remove and dispose of its temporary facilities, Material, and Equipment and restore the site to its original or better condition.

#### 14.03.04. Payment

A. Full compensation for doing all Work necessary to provide office facilities, including operating and maintenance costs as specified herein, shall be included in the lump sum price Bid for mobilization.

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#### 14.04. Use of District Facilities

- B. The Contractor's employees shall not use District restrooms, offices, lunchrooms, parking spaces, Work rooms, or similar facilities.
- C. The Contractor shall not be allowed to use any other District Equipment in the facility, including cranes, forklifts, and manlifts.

## 14.05. Temporary Utilities

- A. Temporary Electrical Power: All electrical power for the Contractor's construction operations, offices, storage spaces, lighting, testing, heating, cooling, ventilating, and security and to support other temporary utilities and facilities described herein shall be provided and paid for by the Contractor. The Contractor shall arrange with the Local electrical utility, at no additional cost to the District, the provision and removal of adequate, temporary electrical service and/or the provision of a temporary electrical generator. The location of the temporary electrical service Equipment will be subject to the approval of the Engineer.
- B. Temporary Lighting: The Contractor shall provide temporary lighting in all Work areas sufficient to maintain a lighting level during working hours not less than the lighting level required by California OSHA standards. As permanent lighting facilities are completed, these may be used in lieu of temporary facilities, provided, however, that bulbs, lamps, or tubes of such facilities used by the Contractor are replaced immediately prior to final Acceptance of the work. All temporary exterior lighting shall be shielded and directed downward and toward the interior of the Work site to minimize its effects on neighbors.
- C. Temporary Heating, Cooling, and Ventilation: The Contractor shall provide means for heating, cooling, and ventilating all Work areas as may be required to protect the Work from damage by freezing, high temperatures, and weather or to provide a safe environment for workers. Unvented, direct-fired heaters shall not be used in areas where freshly placed concrete will be exposed to the combustion gases until at least two (2) hours after the concrete has attained its initial set.
- D. Temporary Water: The Contractor shall furnish potable water for human consumption and non-potable water for use during construction.
- E. Temporary Sanitary Facilities: Sanitary facilities for the Contractor and all Subcontractors shall be provided by the Contractor. Sanitary facilities shall be of reasonable capacity, properly maintained throughout the construction period, and obscured from public view wherever possible. At least one (1) toilet shall be provided for every 20 workers.
- F. Solid and Liquid Waste Disposal: The Contractor shall provide a sufficient number of waste receptacles, dumpsters, and bins to contain all solid and liquid waste generated from construction operations. Waste receptacles shall be emptied weekly at a minimum and more frequently when full.

- G. Temporary Fire Protection: The Contractor shall provide portable, UL-rated, 20#, Class-A fire extinguishers at temporary Contractor, Engineer, and similar office spaces. In all other areas of construction operations, provide UL-rated, 20# or larger, Class-ABC, dry-chemical extinguishers or a combination of NFPA-recommended classes for the exposure. Comply with NFPA 10 and 241 for classification, extinguishing agent, and size required by location and class of fire exposure. Comply with the Uniform Fire Code and Cal/OSHA regulations for the number of fire extinguishers.
- H. Temporary Propane Service: If required for construction operations and temporary facilities, the Contractor shall arrange with a Local propane vendor, at the Contractor's own cost, to provide adequate, temporary propane service. The Contractor shall also obtain and pay for all required permits and fees from authorities having jurisdiction. The Contractor shall pay all charges from the utility or vendor, including charges associated with the removal of the service at the end of the Work. The location of the temporary propane service Equipment shall be mutually agreeable to the Contractor and to the Engineer.
- I. Temporary Compressed Air: The Contractor shall provide compressors for compressed air for construction operations as required. Use of existing or new plant air compressor systems for construction operations is prohibited.

## 14.05.01. Payment

A. Full compensation for doing all Work necessary to provide temporary utilities shall be included in the lump sum price Bid for mobilization.

## 14.06. Staging Area

- A. Staging areas that are not already paved or covered with compacted aggregate base and that are used for parking vehicles and trailers; or for workshops, maintenance areas, Equipment, piping, formwork, rebar; or for storing masonry on pallets and metal product storage shall be graded, as required, and surfaced with a minimum of three (3) inches of compacted, aggregate-base rock over a high-modulus, woven, soil-separation geotextile. Areas storing aggregate base or other rock products shall also be placed on this same geotextile. The objective is to maintain separation between native and construction Material. Areas storing soils and sand are not required to be surfaced with aggregate-base course.
- B. Aggregate base shall be removed from all staging areas prior to Project Completion; surfaces shall be regraded to their original grades or to matching surrounding conditions as directed by the Engineer.
- C. Any soils contaminated with petroleum product or other Hazardous Material by the Contractor shall be removed by the Contractor and disposed of in accordance with Federal, State, and Local laws.

- D. The Contractor is responsible for weed control in and immediately around the staging and material storage areas.
- E. The District may require installation of temporary posts, marks, or barricades. Staging areas are subject to inspection by District staff.

## 14.06.01. Payment

A. Full compensation for doing all Work necessary to provide staging areas as specified herein shall be included in the lump sum price Bid for mobilization.

## 14.07. District-Furnished Material and Equipment

A. No Special Requirements.

## 14.07.01. Assignment of Contract for District-Procured Material

A. No Special Requirements.

## 14.08. Salvaged Material and Equipment

- A. Non-salvaged materials removed and/or demolished in the course of the Contractor's operation shall become the property of the Contractor and shall be properly disposed of by the Contractor at no additional cost to the District.
- B. The Contractor shall salvage and protect the existing 12 Butterfly Valves and actuators, reinstall as shown on the drawings, and be responsible for installation and maintaining the full remote control functionality.

## 14.09. Tools and Spare Parts

A. No Special Requirements.

## 14.10. Operation and Maintenance Documents

A. No Special Requirements.

## 14.10.01. Scope of Work

A. No Special Requirements.

## 14.10.02. Submittal Schedule

A. No Special Requirements.

#### 14.10.03. Document Contents

A. No Special Requirements.

#### 14.10.04. Document Format

A. No Special Requirements.

## 14.10.05. Equipment, Products, and Systems Requiring O&M Documents

A. No Special Requirements.

## 14.10.06. Payment

A. No Special Requirements.

#### 14.11. Maintenance of Record Documents

- A. The Contractor shall maintain at the site the following record documents:
  - 1. As-Built Drawings (full size).
  - 2. Specifications and Addenda.
  - 3. Favorably reviewed submittals, including shop Drawings, product data, samples, calculations, and other submittals.
  - 4. PCOs, Change Orders, DCOs, field orders, and other Contract modifications.
  - 5. Field and shop testing records.
  - 6. Survey records.
  - 7. Correspondence.
- B. The Contractor shall provide files and racks for orderly storage of the documents; maintain the documents in clean, dry, legible condition, and make all documents and samples available during regular business hours for inspection and reproduction by the Engineer.
- C. The Contractor shall keep the record documents current with construction in progress. Completed construction Work shall not be permanently concealed until required information has been recorded on the As-Built Drawings.

## 14.11.01. As-Built Drawings

A. The Contractor is required to keep on-site and available for inspection at any time an accurately marked, legible, up-to-date set of Contract Drawings (as-built Drawings) for the Work installed. The Contractor shall record as the Work progresses changes to the original Contract Drawings, including, but not limited to, the following items:

- 1. Field changes or adjustments in the final location or in the final dimensions or details of the Work.
- 2. Changes resulting from RFIs, Change Orders, DCOs, and other Contract modifications.
- 3. Locations of underground and above-ground utilities and appurtenances referenced to permanent, accessible features of the Work.
- 4. Details not included in the original Contract Drawings but incorporated into the Work, referenced to approved shop Drawings, product data, samples, calculations, or other submittals.
- 5. Location of items embedded or concealed from view (e.g., conduits, cables, junction boxes, piping, etc.).
- B. Changes shall be clearly described on the Drawings by note as required.
- C. All entries shall be dated, calling attention to the entry by a "cloud" drawn around the area or areas affected.
- D. The as-built Drawings shall be kept in a safe place and protected from damage by weather and manhandling. As-built Drawings shall be stored apart from documents used for performing the Work and shall be kept in a dry, legible condition and in good order. Do not use as-built Drawings for construction at the job site.
- E. Changed Work or conditions of the Work covered up or concealed by the Contractor in advance of recordation on the as-built Drawings shall be uncovered to allow accurate recordation of the change then re-covered all at the Contractor's expense.
- F. Changes shall be marked directly on the Contract Drawings in accordance with instructions provided in Appendix B. If there is insufficient space on a Drawing to mark up the change, the Contractor shall draw additional sketches to completely show the change and shall attach the sketches to the Drawing.
- G. The Engineer has the right to review the Contractor's as-built Drawings at any time to ascertain that they are being kept up to date and that they show sufficient detail. Should the Contractor's as-built Drawings not be up to date or should they lack necessary detail per the as-built guidelines, the Engineer may withhold five (5) percent from each monthly progress payment until the Drawings are deemed acceptable by the Engineer. Such review by the Engineer shall not relieve the Contractor of its responsibility for keeping the as-built Drawings current and complete.
- H. The construction as-built Drawings shall be stamped "As-Built" and shall be, at completion of construction, signed and dated by the Contractor and submitted as required in Article 11.03.01. As-Built Drawings.

## 14.12. Emergency Work

A. The Contractor shall have personnel available on call for emergency Work connected with those improvements, tie-ins, and modifications being completed as part of this Work. Contractor on-call personnel shall be able to be on-site within two (2) hours of verbal notice, 24 hours a day, seven (7) days a week. Telephone numbers for these individuals shall be provided to the Engineer and shall be kept current.

## 14.13. Dispute Review Board

A. A Dispute Review Board (DRB) process is not required.

## 14.13.01. Payment

A. No Specific Requirements.

## 14.14. Escrow Bid Documents

A. Escrow Bid Documents are not required.

## 14.15. Partnering

A. Professionally Facilitated Project Partnering (PFPP) is not required but may be requested by the Contractor. The Contractor's attention is directed to Standard Provisions Article 3.15.02. Professionally Facilitated Project Partnering.

## 14.15.01. Payment

A. No Specific Requirements.

#### 14.16. Insurance

- A. Without limiting the Contractor's indemnification of, or liability to, the District, the Contractor must provide and maintain at its own expense during the term of this Contract or as may be further required herein the following insurance coverages and provisions.
  - The Contractor must provide its insurance broker(s)/agent(s) with a copy
    of these requirements and warrants that these requirements have been
    reviewed by the Contractor's insurance agent(s) and/or broker(s) who
    have been instructed by the Contractor to procure the insurance coverage
    required herein.
  - 2. In addition to certificates, the Contractor must furnish the District with copies of original endorsements affecting coverage required herein. The certificates and endorsements shall be signed by a person authorized by the insurer to bind coverage on its behalf. All endorsements and certificates are to be received and approved by the District before the Contract commences. In the event of a Claim or dispute, the District has

the right to require the Contractor's insurer to provide complete, certified copies of all required, and pertinent insurance policies, including endorsements affecting the coverages required herein.

B. The Contractor must, at its sole cost and expense, procure and maintain during the entire period of this Contract through Acceptance of the Work by the District's Board of Directors the following insurance coverage(s).

## 14.16.01. Required Coverages

- A. Commercial general/business liability insurance with coverage as indicated.
  - 1. **\$5,000,000** per occurrence/**\$5,000,000** aggregate limits for bodily injury and property damage.
  - 2. **\$5,000,000** products/completed operations aggregate to be maintained for at least three (3) years following acceptance of the Work by the District.
  - 3. General liability insurance must include the following:
    - a. Coverage at least as broad as found in standard ISO Form CG 00 01.
    - b. Premises and operations.
    - Contractual liability expressly including liability assumed under this Contract.
    - d. If the Consultant shall be working within 50 feet of a railroad or light rail operation, any exclusion as to performance of operations within the vicinity of any railroad bridge, trestle, track, roadbed, tunnel, overpass, underpass, or crossway must be deleted or a railroad protective policy in the above amounts provided.
    - e. Owners and contractors' protective liability.
    - f. Severability of interest.
    - g. Explosion, collapse, and underground hazards, (X,C, and U).
    - h. Broad form property damage liability.
    - i. If the standard ISO form wording for "Other Insurance" or other comparable wording is not contained in the Consultant's liability insurance policy, an endorsement must be provided that states the insurance will be the primary insurance and that any insurance or self-insurance maintained by the District, its Directors, officers, employees, agents, or volunteers will be in excess of the Consultant's insurance and will not contribute to it.

- B. Business auto liability insurance with coverage as indicated.
  - 1. **\$2,000,000** combined single limit for bodily injury and property damage per occurrence, covering all owned, non-owned, and hired vehicles.
- C. Builders' risk (course of construction) insurance.
  - Covering all risks of loss less policy exclusions for an amount equal to the completed value of the Project with no coinsurance penalty provisions. Builder's Risk policy shall name Santa Clara Valley Water District as the loss payee.
- D. Workers' compensation and employer's liability insurance.
  - 1. Statutory California workers' compensation coverage covering all Work to be performed for the District.
  - 2. Employer liability coverage for not less than \$1,000,000 per occurrence.
- E. Surety bonds
  - 1. The Contractor shall provide the following surety bonds:
    - a. A Bid bond as specified in the Notice to Bidders.
    - b. A performance bond as required by the Notice to Bidders
    - c. A payment bond as required by the Notice to Bidders.
- F. Environmental Pollution Liability: In the event that Hazardous, contaminated Material is discovered during the course of the Work and the Contractor or its Subcontractor is required to perform abatement or disposal of such Material, then the Contractor or its Subcontractor who performs abatement of Hazardous or contaminated Material removal shall maintain in force, throughout the term of this Contract, the Contractor's pollution liability insurance with limits not less than \$1,000,000 for each occurrence combined single limit (true occurrence form), including coverages for on-site or off-site third-party claims for bodily injury and property damage.

## 14.16.02. General Requirements

A. Additional Insured Endorsement(s): The Contractor must provide an additional insured endorsement for commercial general/business liability and business automobile liability coverage naming the Santa Clara Valley Water District, its Directors, officers, employees, and agents, individually and collectively, as additional insured and must provide coverage for acts, omissions, etc. arising out of the named insureds' activities and Work. The following shall also be added to the additional insured endorsement:

- 1. Santa Clara Valley Water District, its Board members, employees and representatives.
- B. Primacy Clause: The Contractor's insurance must be primary with respect to any other insurance that may be carried by the District, its officer, agents, and employees; the District's coverage must not be called upon to contribute to or share in the loss.
- C. Cancellation Clause Revision: The Certificate of insurance must provide a 30-day notice of cancellation (10-day notice for nonpayment of premium). NOTE: The standard wording in the ISO certificate of insurance is not acceptable. The following words must be crossed out or deleted from the standard cancellation clause: ". . . endeavor to . . ." AND ". . . ; failure to mail such notice shall impose no obligation or liability of any kind upon the company, its agents, or its representatives."
- D. Acceptability of Insurers: All coverages must be issued by companies admitted to conduct business in the State of California that hold a current policyholder's alphabetic and financial size category rating of not less than A-V according to the current *Best's Key Rating Guide* or to a company of equal financial stability that is approved by the District's risk management administrator.
- E. Self-Insured Retentions or Deductibles: Any deductible or self-insured retention must be declared to and approved by the District. At the option of the District, either (i) the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the District, its officers, officials, employees, and volunteers; or (ii) the Contractor shall provide a financial guarantee satisfactory to the entity guaranteeing payment of losses and related investigations, claim administration, and defense expenses.
- F. Subcontractors: The Contractor must require each of its Subcontractors of any tier to carry the aforementioned coverages, or the Contractor may insure Subcontractors under its own policies.
- G. Amount of Liability Not Limited to Amount of Insurance: The insurance procured by the Contractor for the benefit of the District must not be deemed to release or limit any liability of the Contractor. Damages recoverable by the District for any liability of the Contractor must, in any event, not be limited by the amount of the required insurance coverage.
- H. Coverage to be Occurrence Based: All coverage must be occurrence-based coverage. Claims-made coverage is not allowed.
- I. Waiver of Subrogation: The Contractor agrees to waive subrogation against the District to the extent that any loss suffered by the Contractor is covered by any commercial general liability policy, automobile policy, workers' compensation policy, or builders' risk policy described in Article 14.16.01. Required Coverages. The Contractor agrees to advise its broker/agent/insurer about this provision and obtain any endorsements, if needed, necessary to ensure the insurer agrees.

- J. Noncompliance: The District reserves the right to withhold payments to the Contractor in the event of Material noncompliance with the insurance requirements outlined above.
- K. The Contractor shall mail or deliver the certificates and endorsements to:
  - Construction Contracts and Support Unit
  - Contracts Administrator/ Plan Room
  - Santa Clara Valley Water District

See District website (<a href="http://www.valleywater.org/ContactUs.aspx">http://www.valleywater.org/ContactUs.aspx</a>) for appropriate address to mail, express mail, or hand carry.

- L. The certificate of insurance must include the name of the Project.
- M. For any questions, the Contractor's insurance broker is advised to call the District Risk Management Administrator at (408) 630-2213.

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## **SECTION 15. GENERAL COORDINATION**

## 15.01. Meeting Requirements

- A. This Article includes requirements for scheduling, attending, and conducting Project meetings for the purpose of addressing issues related to the Work and for reviewing and coordinating progress of the Work. Project meetings include the preconstruction meeting, progress meetings, coordination meetings, and special meetings as specified herein.
- B. Qualifications of meeting participants: Representatives of firms and organizations participating in each meeting shall be qualified and authorized to act on behalf of the firm or organization they represent.

## 15.01.01. Preconstruction Meeting

- A. The purpose of the preconstruction meeting is to review the Project, designate responsible personnel, and inform the Contractor of the District's Contract administrative procedures, correspondence communication protocol, and other special requirements of the Contract. The Contractor shall come prepared to discuss its staffing, how it will successfully perform the Work, and discuss its plan for temporary utilities, safe Work environment, environmental compliance, emergency response, and any tie-ins, outages, or shutdowns. The Contractor shall also be prepared to review and discuss the Contractor's markup breakdown, Change Order pricing structure, the Standards to be used on the Project, and what the Contractor must provide as backup for Change Orders or for extra Work pricing.
- B. The Engineer will arrange the preconstruction meeting and will notify the Contractor regarding the meeting time, date, and place. The meeting shall be attended by the Contractor and its Superintendent and all representatives of Subcontractors or suppliers whom the Contractor may desire to invite or whom the District may request with the intent being a full understanding of the issues discussed by all parties. The Engineer shall prepare the agenda, preside at the meeting, and record meeting minutes.

## 15.01.02. Progress Meetings

- A. The Engineer shall conduct progress meetings on a regular weekday and at a time mutually agreed to by the Contractor and by the Engineer. The purpose of the progress meetings is to review construction progress; submittal status; Potential Change Order, Change Order, and DCO status; construction safety issues and concerns; conflicts; environmental compliance; public/neighborhood issues; progress payments; and any other subject as deemed appropriate.
- B. The Contractor shall allow for one (1) meeting a week.
- C. Subject to the Engineer's approval, the frequency of the progress meetings may be reduced at the beginning and at the end of the construction period.

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- D. The Contractor's superintendent, suppliers, and Subcontractors shall attend the meetings as required. Third parties, such as agency representatives and utilities, may be invited by the Engineer to attend as deemed appropriate.
- E. Typical agenda. Typical agenda items can include:
  - 1. Review and approval of previous meeting minutes.
  - 2. Review of progress since the previous meeting.
  - 3. Contractor's Progress Schedules, including Look-Ahead Schedules.
    - a. Review of off-site fabrication and delivery schedules.
    - b. Problems that may affect the Contractor's schedule performance.
    - c. Corrective measures to recover from forecasted Delays whether Excusable or Inexcusable.
    - d. Updates and/or revisions to the Contractor's Detailed Progress Schedules.
  - 4. Interface with operations.
  - 5. Safety and security.
  - 6. Review of submittals schedule.
  - 7. Status of RFIs.
  - 8. Field observations, problems, and conflicts.
  - 9. Status of QC inspections and corrections.
  - 10. Environmental issues.
  - 11. Housekeeping.
  - 12. Status of submittal review.
  - 14. Status of PCOs.
  - 15. Status of COs.
  - 16. Other business.
  - 17. A review of the monthly billing once per month.

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# 15.01.03. Coordination and Special Meetings

- A. The Engineer shall conduct other coordination and special meetings in addition to progress meetings when appropriate. The purpose of these meetings is to discuss and coordinate shutdowns, outages, utility tie-ins, and any other special issues as deemed necessary.
- B. Date, time, and location for coordination and special meetings shall be as mutually agreed to by the Engineer and by the Contractor. The Contractor shall ensure attendance of appropriate Contractor staff, Subcontractors, and suppliers.
- C. Worker Environmental Awareness Training (BMP G-1)
  - 1. All Contractor personnel including subcontractors that will access the project site shall attend a 30-minute environmental awareness meeting in the field prior to start of construction. See Section 10 and Section 19 for additional requirements.
  - District staff and construction personnel are informed by District environmental staff about the conditions and restrictions agreed to by the Water District according to project permit requirements, protected species, and the California Environmental Quality Act (CEQA) documents adopted for the project.
  - 3. Training includes information about approved work and road use limitations, and construction activity restrictions. The purpose of the training is to protect water, air quality, people, and sensitive biological resources and avoid fines associated with non-compliance.

### 15.02. Integration and Coordination With District Operations

### 15.02.01. Overview of Existing Systems and Facilities

- A. The Following is a cursory overview of typical processes, functions, and work at the Santa Teresa WTP. Not all items listed are shown on the Drawings.
  - 1. Water treatment:
    - a. Water flows from reservoirs and pipeline sources to Santa Teresa WTP. This, as yet untreated, water is called "raw water."
    - b. Raw water is injected with several chemicals in the raw water pipeline system at the Static Mixer. These chemicals are added to aid in the conglomeration of particles in the water and oxidize particulate matter. The raw water piping splits to the East and West sides of the treatment plant. Chemicals can be added at the East and West Pumped Mixer points prior to the raw water entering the flocculation and sedimentation basins.

- c. Water flows through the sedimentation basins where particles drop to the bottom of these basins. This "settled water" enters the Settled Water (SW) Channel and heads to the Ozone Contactor where ozone and other chemicals are added to disinfect the water and provide other process benefits.
- d. After ozonation, the "ozonated water" enters the Applied Water (AW) Channel and flows to and through 12 filters (6 on the east side and 6 on the west side). Water enters the top of the filter and flows downwards through the filter media where it enters the Filtered Water (FW) Channel as "filtered water." Chemicals are injected at the end of the FW Channel.
- e. Periodically, a filter is removed from service and is cleaned by reversing the flow of water through the filter media and blowing air into the filter media. This process is known as "backwashing." Water for backwashing is pumped from the backwash water pump station. Large blowers provide air for agitating the filter media during backwashing. Each blower is essential to keep the filter media clean and to prevent the filter from plugging. These blowers are housed in the generator/blower building. This same building also houses standby electrical power generators for the treatment plant.
- f. Backwash water is also called "washwater." Used backwash water flows into the Washwater Equalization Basins. The washwater is pumped to the Washwater Clarification Facility where it is treated as it goes through the flocculation and sedimentation process. The "settled" washwater enters the Washwater Clarification wetwell. This wetwell water eventually gets pumped back to the head of the plant for reprocessing.
- g. After the filter-to-waste cycled ends, which indicates that the filter has hit the finished water turbidity setpoints, water assumes its normal flow pattern and flows to the clearwell and transmission system.
- h. The filtered water is routed via a 96-inch diameter pipeline into the buried 10 million-gallon clearwell. Chemicals are added at the entrance into the clearwell. This clearwell is connected with piping that distributes water to consumers.

#### Operations

a. The treatment plant is staffed 24 hours a day, every day of the year by licensed water treatment professionals. Staff monitors all plant facilities, operate equipment and systems, and enter and exit the water treatment plant grounds as required for their duties.

- Supervisory operations, maintenance, and engineering staff are also based at the treatment plant.
- b. Chemical storage, metering, conveyance, and application systems are operated continuously 24 hours a day, 7 days a week (i.e., live chemical systems).
- c. Chemical deliveries for the various treatment processes occur on an almost daily basis. The arrival times of chemical deliveries are very difficult to predict as it depends upon the vendor's delivery schedule and area traffic conditions. In addition, the plant may have several chemical deliveries scheduled on the same day depending on their needs.
- d. Deliveries of various supplies and materials occur on an almost daily basis.
- e. Training and staff meetings occur on a daily basis.
- f. Many District vehicles are stationed at Santa Teresa WTP.
- g. Security guards check vehicles and people entering the gate(s) and patrol the property. Refer to Section 16.

#### 3. Maintenance

- a. Maintenance, electrical, instrumentation, and other technical staff work at Santa Teresa WTP or use it as a resource center for work at other SCVWD facilities. Staff enters and exits the water treatment plant grounds regularly each day and night as required by their duties.
- b. During the winter, typically half the plant is taken out of service to perform annual winter maintenance while the other half remains operational.

#### 4. District Staff

a. District staff of various professional disciplines work inside the Operations Building completing various work assignments.

#### 15.02.02. Requirements of an Operational Facility or System

A. The Santa Teresa WTP is the regular source of potable water for a large portion of the service area of the Santa Clara Valley Water District. Facility operation must continue as described below at all times, 24 hours a day, every day of the year during the construction of this work. The plant has a rated production capacity of 100 million gallons per day (mgd).

- B. During the high production demand period (between March 16<sup>th</sup> through November 14<sup>th</sup>) the plant must be capable of producing up to 90 million gallons per day (MGD). The plant must have the following facilities intact, serviceable, and operational (at a minimum, together with associated appurtenant facilities) to have a production capacity of 90 million gallons per day (mgd):
  - 1. Raw water pipelines and control and pressure reducing valves.
  - 2. All pipelines (settled, ozonated, filtered, backwash water and air supply, filter-to-waste, sludge, washwater return, drains, plant water, overflows, bypasses, etc.).
  - 3. All 4 flocculation and sedimentation basins with sludge collection systems and connecting channels.
  - 4. Eleven (11) of the 12 filters and connecting channels.
  - 5. Clearwell, including valve actuator power and instrumentation.
  - 6. All backwash pumps, constant head tank, flow meter, and appurtenances.
  - 7. All backwash air blowers.
  - 8. Plant electrical, instrumentation, and SCADA systems. This also includes the 21 kV and 480-volt electrical power equipment and distribution system.
  - 9. All existing chemical feed systems including storage tanks, piping, pumps, control panels, instrumentation, diffusers, meters, mixers, and related facilities necessary to maintain uninterrupted, controlled, feed of process chemicals. Interruptions to the feeding of process chemicals are not allowed. Chemical systems include, but are not limited to, sodium hypochlorite, potassium permanganate, powdered activated carbon, liquid alum, ferric chloride, caustic soda, aqua ammonia, phosphoric acid, and cationic, anionic, and nonionic polymers.
  - 10. Plant water (pumps, hydropneumatic tank, pipelines, and appurtenances) and compressed air systems.
  - 11. The existing standby power generators, fuel tank and supply piping, transfer and control panels, and all other accessories.
  - 12. Operations building.
  - 13. Graystone Pumping Station.
  - 14. Both washwater recovery (equalization) basins.
  - 15. Washwater/sludge pump station.

- C. During the low production demand period (between November 1st through March 31st), the plant must be capable of producing up to 50 million gallons per day (MGD). Facilities must be in service so that one-half of the main treatment plant processes (e.g., flocculation basins, sedimentation basins, settled water channels, filters, etc.) can operate. The treatment plant has the capability of using the flocculation and sedimentation basins on one side and the filters on the opposite side provided the settled water channels are intact. If all of the settled water channels are not intact, then all facilities on the same side (east or west) must be intact. The plant must have the following facilities intact, serviceable, and operational (at a minimum, together with associated appurtenant facilities) to have a production capacity of 50 million gallons per day (mgd):
  - 1. Raw water pipelines and control and pressure reducing valves.
  - 2. All pipelines (settled, ozonated, filtered, backwash water and air supply, filter-to-waste, sludge, washwater return, drains, plant water, overflows, bypasses, etc.) plus all piping transporting water from either the west or east filters, so that filtered water can arrive at the clearwell.
  - 3. At least 2 adjacent sedimentation and flocculation basins and connecting channels.
  - 4. At least 6 filters, all 6 of which are either on the west or east sides of the treatment plant and connecting channels.
  - 5. Clearwell, including valve actuator power and instrumentation.
  - 6. All backwash pumps, constant head tank, flow meter, and appurtenances.
  - 7. All backwash air blowers.
  - 8. Plant electrical, instrumentation, and SCADA systems. This also includes the 21 kV and 480-volt electrical power equipment and distribution system.
  - 9. All existing chemical feed systems including storage tanks, piping, pumps, control panels, instrumentation, diffusers, meters, mixers, and related facilities necessary to maintain uninterrupted, controlled, feed of process chemicals. Interruptions to the feeding of process chemicals are not allowed. Chemical systems include, but are not limited to, sodium hypochlorite, potassium permanganate, powdered activated carbon, liquid alum, ferric chloride, caustic soda, aqua ammonia, phosphoric acid, fluoride, and cationic, anionic, and nonionic polymers.
  - 10. Plant water (pumps, hydro tank, pipelines, and appurtenances) and compressed air systems.
  - 11. The existing standby power generators, fuel tank and supply piping, transfer and control panels, and all other accessories.

- 12. Operations building.
- 13. Graystone Pumping Station.
- 14. Both washwater recovery (equalization) basins.
- 15. Washwater/sludge pump station.

#### 15.03. Coordination of Work Activities

#### 15.03.01. Work by Others

- A. The Contractor shall coordinate its Work with the planned or ongoing Work of the District or of other District Contractors within or adjacent to the limits of the Contract Work in accordance with Article 4.15. Cooperation with Others. No additional payment shall be made or Claims considered for Delay caused due to the Contractor's failure to coordinate the Work.
- B. The Contractor shall complete the following activities as requested by the Engineer to assist in the coordination of Contract Work with Work by others: attend planning meetings; review and comment on Project documents relative to coordination aspects; schedule Work to promote efficient installation of all improvements; move Equipment, Material, or vehicles to allow Work by others to proceed; and other reasonable activities.
- C. Santa Teresa Water Treatment Plant is staffed 24 hours a day, every day of the year. Staff monitors all plant facilities, operates and maintains equipment and systems, and enters and exits the pumping plant ground as required.
- D. The Contractor is advised that the following water treatment plant maintenance and miscellaneous improvements and Work may take place during the Work of this Contract:
  - 1. District staff will be completing miscellaneous minor improvements, servicing, and repairs to all areas of this treatment plant during the course of this Work.
  - 2. The District shall contract with a variety of firms during the course of this Work to complete improvements that are outside the scope of this Work.
  - District staff shall complete certain Work related to this Project as described under Special Provisions Article 16.01.02. Work Completed by District Staff.
- E. The Contractor is advised that the known construction Projects may take place during the Work of this Contract:
  - 1. Biennial Testing of Electrical Equipment
  - Filter Media Replacement Project

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#### 15.03.02. Coordination With Others

A. The Contractor is advised that District Staff will be solely responsible for the operation of the Santa Teresa Water Treatment Plant.

### 15.04. Construction Survey

- A. The Contractor shall be solely responsible for the measurement and layout of all of its Work. Any questions regarding the interpretation of project layout shall be resolved by the Engineer.
- B. The Contractor shall survey and/or GPS all points of connection to existing structures or underground utilities prior of beginning the installation of new facilities to confirm the actual locations and grades. Significant deviations shall be reported in writing to the Engineer prior to proceeding with the installation of new facilities.
- C. The Contractor shall not remove or disturb survey monuments and permanent markers unless otherwise approved by the Engineer and the District has recorded and referenced the locations. The Contractor shall be charged at a reasonable rate for the restoration or replacement of survey monuments and permanent markers by the District.

#### 15.05. Public Notification

A. The Engineer is responsible for all written and oral communication with the public and neighbors. The Contractor shall provide the Engineer with the schedules of major construction operations three weeks in advance of their occurrence to allow the District time to notify the neighbors. The Contractor shall include in the submittals the major milestones, descriptions of the work activities, and the start and end date(s) of each activity. THIS PAGE INTERNIONALLY LEFT BLANK

# SECTION 16. WORK CONSTRAINTS AND SITE RESTRICTIONS

#### 16.01. General Work Constraints

- A. Work for the air wash line replacement will be conducted within the City of San Jose, in Santa Clara County. The Contractor shall comply with all ordinances, regulations, permits, and requirements of the applicable jurisdiction having authority.
- B. The contractor shall take all precautionary measures as necessary to not cause any disruption of District operations. The activities discussed below do not include all items potentially affecting the Districts operations, but are intended to describe certain actions that could disrupt the normal functions or cause a shutdown of the facility:
  - 1. Contractor removing from service, restricting, or impeding the function of any utility such as water, electrical, gas, telephone, compressed air, sanitary sewer, storm drain, chemical, and instrumentation system.
  - 2. The Contractor's attention is directed to Article 16.02.02 "Protection of Existing Utilities."
  - 3. Contractor delaying or denying access to any District structure or area needed by District staff to complete their work assignment.

#### 16.01.01. Shutdown Constraints

- A. The water treatment plant is a critical operation facility which must remain in continuous operation except as specified herein. Construction shall be scheduled and performed in a manner to maintain continuous operation of the treatment plant except during the specified shutdown period. Operation of STWTP must continue at all times, 24 hours a day, every day of the year except during the specified shutdown periods.
- B. The total quantity, duration, and timeframe of allowable shutdowns are listed below:
  - 1. West Side Half Plant Shutdown: The District will allow the Contractor a half-plant shutdown, not to exceed consecutive 6 weeks Starting on February 15, 2021.
  - 2. East Side Half Plant Shutdown: The District will allow the Contractor a half-plant shutdown, not to exceed consecutive 6 weeks Starting on October 18, 2021.
- C. The District reserves the right to change the shutdown dates, if needed, based on the operational constraints to meet the water demands.

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- D. Plant shutdowns, system shutdowns, or partial power outages as allowed in these Specifications shall take place only during the winter months except when noted otherwise.
- E. The winter period is defined as the period between November 1st through March 31<sup>st</sup> each year.

# 16.01.02. Work Completed by District Staff

- A. Additional District staff will monitor the Contractor's activities during execution of the following special Work. The Contractor shall provide a minimum of three
   (3) working Days notification to the Engineer to arrange monitoring of the specific Work under the classifications described below:
  - 1. Shutdown of any pipelines.
  - 2. Disconnect the electrical and control system wires for Valve Actuators before demolition and reconnection after installation

#### 16.02. Utilities

- A. The Contractor's attention is directed to Standard Provisions Article 4.10. Preservation of Property and Article 4.25. Coordination with Utilities.
- B. Various existing utilities, both above and below ground, may be encountered during construction. The Contractor shall perform all Work in such a manner so as to avoid damage to existing utilities. The Contractor is responsible for any damage due to failure to exercise due care.
- C. The Contractor shall notify underground service alert (U.S.A.) a minimum of five (5) working Days prior to the start of excavation or demolition in accordance with California Government Code requirements. The Contractor is responsible for coordinating the U.S.A. notification according to the Contractor's schedule; any delay due to utility markings through the U.S.A. process is the responsibility of the Contractor.
- D. The Contractor shall verify the exact location of all indicated or field marked utilities and shall make a sufficient number of exploratory excavations of all utilities that may interfere with the Work sufficiently in advance of the construction. The Contractor shall promptly notify the Engineer when such exploratory excavations show the utility location as shown on the Drawings to be in error.
- E. The Contractor shall not interrupt the service function or disturb the support of any utility without authority from the utility owner or an order from the Engineer. All valves, switches, vaults, and meters shall be maintained and readily accessible for emergency shutoff.

# 16.02.01. Utility Coordination

- A. The Contractor is responsible for coordination of Work near utilities and for the protection of the utility during construction.
- B. The District and the owners of utilities or their authorized agents reserve the right to enter upon the right of way at all times for the purpose of operations and maintenance of their facilities or for making necessary connections or repairs to their properties. The Contractor shall cooperate with the District and with the affected utilities engaged in such Work to avoid any unnecessary Delay or hindrance to such Work.

### 16.02.02. Protection of Existing Utilities

- A. The Contractor is responsible for doing all Work and furnishing all Materials required for protecting in place or restoring all existing above- and below-ground utilities disturbed or damaged during construction to a condition equal to or better than that existing prior to construction.
- B. The Contractor shall protect all utilities that may be impacted by the Work. All exposed utilities shall be supported firmly and uniformly conforming to the utility requirements. No utilities shall be left exposed for a period exceeding eight (8) hours unless approved by the utility and by the Engineer. Unless otherwise shown on the Drawings, all utilities shall be backfilled with at least 12 inches of select imported backfill around the utility.
- C. All utility pole and guy anchors shall be protected, and, where the walls of a trench are within five (5) feet of a pole or anchor, lateral support to the pole shall be provided by the Contractor.
- D. The Contractor shall immediately notify the utility owner and the Engineer if any existing utilities have sustained damage prior to excavation or if the Contractor disturbs or damages the existing utility during the excavation. The Contractor shall bear the cost of repair or replacement of any utility damaged as a result of construction operation.
- E. In no case shall any service (e.g., gas, water, electricity, telephone, etc.) be interrupted.

# 16.02.03. Utility Installation/Relocation by Others

A. No Special Requirements.

### 16.03. Protection of Existing Improvements

A. The Contractor's attention is directed to Standard Provisions Article 4.10. Preservation of Property.

- B. Contractor shall at all times protect the granular activated carbon filter media from direct contact with the Contractor and the Contractor's materials, equipment, dust and debris.
- C. Contractor shall provide temporary facilities to support the loads imposed by the Contractor and the Contractor's materials and equipment to prevent crushing, grinding, or pulverizing the granular activated carbon filter media. Contractor shall prevent sinking into the media bed through the use of these temporary facilities.
- D. Contractor shall submit a filter media protection plan to include, but not be limited to materials used to protect the filter media and installation plan.

# 16.03.01. Survey Monuments

- A. No survey monuments, permanent markers for the District right of way, or District survey control points shall be removed or disturbed until the Engineer has recorded the locations thereof and a permit for such removal has been received from the agency having jurisdiction. When the construction Work has been completed, the Contractor shall replace the monuments accurately in the locations as referenced by the Engineer.
- B. If any marker or monument is destroyed by the Contractor without prior written approval of the Engineer, the Contractor shall be responsible for the accurate replacement of the marker or monument (i) by a land surveyor licensed by the State of California; (ii) in accordance with the California Business and Professions Code Chapter 15 Land Surveyors, Section 8771; and (iii) at no expense to the District.

#### 16.04. Preconstruction Surveys

### 16.04.01. Preconstruction Survey Within the Project Limits

- A. After the Contract has been awarded and before commencement of the Work, the Contractor shall conduct a thorough examination of the Work areas within the Project limits only after notification and coordination with the Engineer.
- B. The Contractor shall inspect the condition of all areas that may have potential impacts, including, but not limited to, existing improvements, levees, ramps, buildings, landscape planting, architectural finishes, the size of structural cracking or settlement, the rate of leakage, and any other conditions deemed appropriate. The presence of the Engineer shall in no way relieve the Contractor of the responsibility for completely and accurately documenting all existing conditions.
- C. Records of all observations shall be prepared by the Contractor; every copy of all documents shall be signed by the authorized representative of the Contractor and provided to the Engineer. Photographs and videos with dates shall be made by the Contractor and included in the record of observations. One (1) signed

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- copy of every document, photograph, and video will be kept on file in the office of the Engineer.
- D. The above records, photographs, and videos are intended for use as evidence in ascertaining the extent of any damage that may occur as a result of the Contractor's operations during the prosecution of the Work.
- E. Structural surveys, if required, shall be conducted by a licensed civil or structural engineer.

### 16.04.02. Surveys of Properties in the Vicinity of the Work

A. No Special Requirements.

# 16.05. Rights of Way

# 16.05.01. District-Furnished Right of Way

A. The District has provided all rights of way as shown on the Drawings. The Contractor has full use of this right of way except for the limitations specified in these Specifications and as noted on the Drawings.

### 16.05.02. Contractor-Furnished Right of Way

A. Any additional rights of way desired by the Contractor for its convenience shall be acquired by the Contractor at no expense or obligation to the District. The Contractor shall provide the Engineer with copies of any agreements between the Contractor and property owners regarding disposal of excess Materials generated by the Contractor's activities, storage of Materials, or any use of property in conjunction with this Project. The agreement shall state that the agreement is solely between the Contractor and the property owner and that the District is not a party to the agreement and not responsible for compliance with any conditions stated in the agreement.

# 16.05.03. Temporary Construction Easements

A. No Special Requirements.

### 16.06. Access to Properties Owned by Others

- A. The Contractor shall conduct the construction operations in a manner that cause as little inconvenience as possible to adjacent property owners.
- B. When construction operation is directly within the driveway area, temporary access shall be provided. The existing access shall not be closed until the temporary replacement access is usable. Once construction is completed, access shall be restored to a condition equal to or better than the existing condition prior to the Contractor's operation.

C. The Contractor shall comply with California Vehicle Code Sections 22500 Prohibited Stopping Standing or Parking and 22500.1 Additional Prohibited Stopping Standing or Parking Fire Lane regarding stopping, parking, or leaving any vehicle in front of a public or private driveway.

### 16.07. Access to the Job Site

- A. The Project location is shown on a map included in the Drawings. The Contractor may use the existing roads to access and perform the Work subject to the restrictions specified herein.
- B. It is the Contractor's responsibility to obtain any and all permits that may be required from all applicable regulatory agencies to move Materials and Equipment to the job site, dispose of excess Material created by the Contractor's operation, and for traffic control to, from, and on the Project sites.
- C. Project site access routes, staging areas, and work areas will be carefully controlled. Gates will control ingress and egress to the site. On-site access and work time will be allowed only during the daylight (dawn to dusk).

#### 16.08. Access Roads Within the Job Site

- A. The Contractor shall maintain access roads to all staging, office trailer, storage areas, and to other areas to which frequent access is required. The Contractor shall maintain access to all other existing facilities on the site, including access for delivery of Materials and for maintenance and operation.
- B. The Contractor is responsible for damages to buried utilities resulting from loads imposed on temporary roads constructed by the Contractor or other access routes used by the Contractor.
- C. The Contractor shall maintain on-site access roads free of mud. Under no circumstance shall vehicles leaving the site track mud or dirt off the site onto public rights of way.

### 16.09. District Use of Facilities/Premises Within the Work Area

- A. The District reserves the right to access and use the following premises during performance of the Work to conduct operations and maintenance of District facilities.
- B. The Contractor shall coordinate all construction operations with the District to avoid conflict and to facilitate the District's use of the premises.
- C. Unless otherwise altered by the Work, the Contractor shall restore the premises to preexisting condition, and shall immediately repair any damages to the premises caused by the Contractor's operations.

# **SECTION 17. SAFETY AND SECURITY**

# 17.01. Safety

A. Refer to Standard Provision Articles 8.01, 8.02, 8.05, 8.07–8.09 and 8.13 for safety requirements.

# 17.02. Safety and Health Program

- A. Refer to Standard Provision Articles 8.10–8.12, and 8.13 for safety and health program requirements.
- B. Refer to Santa Clara County Public Health Officer's safety Order for latest requirements on Novel Coronavirus COVID-19.

## 17.03. Security Requirements at Job Site

A. Refer to Standard Provisions Articles 8.15 for security requirements.

#### 17.03.01. General

# 17.03.02. Identification and Badging

A. Refer to Standard Provisions Articles 8.17 for Identification and Badging.

# 17.03.03. Background Checks

A. Refer to Standard Provisions Articles 8.18 for Background checks.

#### 17.03.04. Site Access Control

- A. Refer to Standard Provisions Articles 8.19 for Site Access Control for requirements.
- B. The District will maintain a security checkpoint at the Graystone Lane entrance gate of the Santa Teresa Water Treatment Plant.

# 17.03.05. Mail and Postal Deliveries to the Project Site

A. Mail and postal deliveries for the Contractor shall not be permitted to the project site.

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# **SECTION 18. PERMITS AND REGULATIONS**

# 18.01. Permits and Agreements

#### 18.01.01. District-Obtained Permits

A. None.

#### 18.01.02. Contractor-Obtained Permits

A. None.

### 18.01.03. Operation Regulations

A. No Special Requirements.

#### 18.02. Hours of Work

- A. Unless noted otherwise, no Work, including Material hauling to/from the site and Equipment movement, shall be performed during the Days and hours restricted by and set forth in this Article.
- B. No work shall take place during the hours of 5:00 p.m. to 8:00 a.m.
- C. Work may be allowed on Saturdays, Sundays, and holidays. The Contractor must request approval from the Engineer forty-eight (48) hours in advance of such weekend or holiday. The Contractor shall, at all times, comply with the Santa Clara County noise ordinance.
- D. Holidays are defined to include New Year's Day, Martin Luther King's Birthday, President's Day, Cesar Chavez Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Veteran's Day, Thanksgiving Day, Friday after Thanksgiving, and Christmas Day.

#### 18.03. Noise Pollution and Vibration

#### 18.03.01. Noise

- A. The Contractor shall be responsible for ensuring that noise produced by construction activities does not exceed the applicable local noise ordinance standards and is in compliance with the performance standards set forth in this Article.
- B. In no case shall the noise levels produced by the Contractor exceed any of the following maximum levels at the Project rights-of-way line:

### Single- and Two-Family Dwelling Residential Areas

Weekdays: 7 a.m. to 7 p.m. 75 dBA Weekdays: 7 p.m. to 7 a.m. 50 dBA Saturdays, Sundays, and Holidays: 50 dBA

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### Multifamily Dwelling Residential Area

Weekdays: 7 a.m. to 7 p.m.	80 dBA
Weekdays: 7 p.m. to 7 a.m.	55 dBA
Saturdays, Sundays, and Holidays	55 dBA

### Commercial and Industrial Areas

Weekdays: 7 a.m. to 7 p.m.	85 dBA
Weekdays: 7 p.m. to 7 a.m.	60 dBA
Saturdays, Sundays, and Holidays	60 dBA

For areas where construction activities are adjacent to more than one (1) land zone, the Contractor shall comply with the more restrictive noise criteria.

Steady, audible tone of Equipment or machinery that must be left on continuously shall not exceed the above standards minus 5 dBA.

### 18.03.02. Noise Monitoring

A. Noise Monitoring: The Engineer will occasionally take sound readings with a hand-held noise-level meter during construction activities and operations of any noise-producing Equipment to monitor the Contractor's compliance with the noise criteria. Any Equipment causing noncompliance with the noise criteria shall be removed from the job site as directed by the Engineer.

# 18.03.03. Vibration Monitoring

A. No Special Requirements.

#### 18.04. Air Pollution

A. No Special Requirements.

# 18.05. Spillage and Dust

A. No Special Requirements.

# 18.06. Traffic Control

A. No Special Requirements.

#### 18.07. Truck Traffic and Hauling

- A. Trucks traffic and haul routes shall be in compliance with local permits and ordinances. The Contractor shall obtain, at Contractor's expenses, any required Haul Route Permits from the applicable local jurisdictions.
- B. The arrival and departure of trucks hauling material will be limited between 8:30 a.m. to 3 p.m. Monday through Friday.

- C. The Contractor shall post information signs for truck drivers at approved locations indicating truck traffic hour restrictions. Signs shall be readily visible. Violators shall be warned or barred from the site.
- D. The Contractor shall not perform any loading or unloading activities or any other related operations outside the project limits, or outside the hours of work as defined in these Specifications. In addition, no loading, unloading or any other construction related operations shall be performed at or near the water treatment plant entry gate.
- E. All hauling and delivery truck schedules shall be submitted to the Engineer for review within 72 hours of actual occurrence.

### 18.07.01. Truck Arriving Early, Truck Idling, and Queuing

- A. The District actively seeks to avoid or minimize unnecessary disturbance of the neighborhood from construction activities. Accordingly, all Contractor's deliveries shall be coordinated to ensure that no Contractor delivery vehicles arrive at the site entry gate before 8:30 am, unless otherwise specified in these Specifications.
- B. No idling or queuing shall take place on any residential streets in the surrounding neighborhood except for reasons noted below:
  - 1. Idling when the vehicle must remain motionless due to an official traffic control device, traffic control signal, or at the direction of a peace officer, or traffic conditions over which the driver has no control;
  - Idling when being forced to remain motionless due to adverse weather conditions or due to mechanical difficulties over which the driver has no control;
  - 3. Idling to verify that the vehicle is in safe operating condition as required by Law;
  - 4. Idling at the site entrance for security checks or searches by District guards.
- C. Contractor's attention is directed to Article 12.05 regarding Liquidated Damage Assessment for violating the arrival time or idling/queuing requirements.

#### 18.08. Parking

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- A. All construction equipment and worker vehicles arriving at the site shall park within the designated staging areas as indicated on the Drawings. Workers shall enter the site as soon as they arrive to the site.
- B. No trucks operated by the Contractor, subconsultants or deliveries for construction or worker vehicles shall be parked on residential streets.

C. Contractor's workers shall not arrive onto the site more than thirty (30) minutes prior to the start of work nor remain on the site thirty (30) minutes after the end of work.

# 18.09. Discovery of Archeological Artifacts and Human Remains

A. No Special Requirements.

# 18.10. Aesthetic Requirements

A. No Special Requirements.

### 18.11. Recreation

A. No Special Requirements.

# 18.12. Utilities and Service System

A. No Special Requirements.

### 18.13. Payment

A. Unless noted otherwise, full compensation for Work involved in complying with all requirements under Special Provisions Section 18 Permits and Regulations shall be considered incidental and included in the Contract Price(s) paid for the various items of Work involved; no additional time shall be allowed or payment made.

# **SECTION 19. ENVIRONMENTAL**

# 19.01. Compliance With NPDES General Permit

A. No Special Requirements.

#### 19.01.01. SWPPP

A. No Special Requirements.

### 19.01.02. Storm Water BMPs

A. The BMP Action Plan shall incorporate appropriated Storm Water BMPs as required.

# 19.01.03. Payment

A. Full compensation for doing all Work necessary to comply with the NPDES General Permit, including the preparation and implementation of the SWPPP; all Materials, labor, Equipment, service, supervision, documentation, and submittals shall be considered incidental and included in the other items of Work; no additional payment shall be made.

### 19.02. Other Discharge Permits

A. No Special Requirements.

#### 19.03. BMP Action Plan

- A. The Contractor's attention is directed to Standard Provisions Article 10.02.01.
- B. The Contractor shall prepare and implement a BMP Action Plan.
  - 1. The BMP Action Plan shall incorporate storm water BMPs and applicable Risk Level 1 requirements in accordance with the NPDES General Permit (Order # 2009-0009 DWQ). A copy of the NPDES General Permit can be found at the following:

    http://www.waterboards.ca.gov/water\_issues/programs/stormwater/docs/c
    - http://www.waterboards.ca.gov/water\_issues/programs/stormwater/docs/constpermits/wqo\_2009\_0009\_complete.PDF.
  - 2. The Contractor shall design, construct, operate, inspect, and maintain the BMPs in accordance with the current CASQA Construction BMP Handbook/Portal available at www.cabmphandbooks.com.
  - 3. The BMP Action Plan shall include, but shall not be limited to, the following:
    - a. Erosion control BMPs
    - b. Sediment control BMPs

- c. Run-on/runoff control BMPs
- d. Wind Erosion control BMPs
- e. Tracking control BMPs
- f. Non-storm-water management BMPs
- g. Waste management and Material pollution control BMPs.
- 4. The BMP Action Plan shall include (i) a site map showing the construction areas, staging areas, and where BMPs and other requirements are implemented; and (ii) a diagram of site storm water drainage patterns, including the Local storm drain system and the receiving waterway.
- 5. Prior to the commencement of any Work activities in the field, the Contractor shall receive a favorable review of the BMP Action Plan by the Engineer.

#### 19.03.01. Payment

A. Full compensation for doing all Work necessary to prepare and implement the BMP Action Plan, including all Materials, labor, Equipment, services, supervision, documentation, and submittals, shall be considered incidental and included in other items of Work; no additional payment shall be made.

# 19.04. Water Pollution Discharges

A. No Special Requirements.

### 19.05. Regulated Material Management

A. No Special Requirements.

### 19.05.01. Asbestos Management

A. No Special Requirements.

#### 19.05.02. Lead Management

A. No Special Requirements.

### 19.06. Solid Materials Management

### 19.06.01 Definitions

A. Certified Facility: A reuse, recycling, composting, or Materials recovery facility meeting the required Diversion percentages set forth in this Specification, which the Engineer (i) has determined can accept diverted Material; (ii) has obtained all applicable Federal, State, and Local permits; and (iii) is in full compliance with all

- applicable regulations for reuse, recycling, composting, and/or Materials recovery.
- B. Construction Waste: Building and site improvement Materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste does not include any of the above specified Material/solid waste that contains contaminated or hazardous substances. Construction waste does not include excavated soil or groundwater.
- C. Demolition Waste: Building and site improvement Materials resulting from demolition or selective demolition operations. Demolition waste does not include any of the above specified Material/solid waste that contains contaminated or hazardous substances.
- D. Disposal: Removal off site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in a landfill or an incinerator acceptable to authorities having jurisdiction.
- E. Divert/Diversion: Use of Materials for any lawful purpose other than disposal in a landfill or in a transformation facility.
- F. Post-Consumer Recycled Content: The percentage of a new product that contains Materials that were recycled from product that was used by the end consumer and then collected for recycling.
- G. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for use in some other form.
- H. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in the same form in another facility.
- I. Transformation Facility: A facility whose function is to convert, combust, or otherwise process solid waste by incineration, pyrolysis, destructive distillation, or gasification or to chemically or biologically process solid waste for the purpose of volume reduction, synthetic fuel production, or energy recovery. A composting facility is not a transformation facility.

### 19.06.02. Construction and Demolition Waste Management

A. The Contractor shall submit a Solid Materials Management Plan identifying procedures to be used for management of construction and demolition waste generated by the Work, including the facilities to be used for both disposal and recycling/salvaging; the estimated quantities and percentages (by weight) of construction demolition waste disposed; and recycled/salvaged categorized by waste type. For each facility listed in the waste management plan, the Contractor shall provide the facility name and address, facility owner name, and contact information. This submittal shall be approved by the Engineer prior to commencement of any Work on the Project site.

B. The Contractor is directed to the City of San Jose's Construction and Demolition Deposit Program Certified Facility List (http://www.sjRecycles.org/business/PDF/cddd\_certified\_list.PDF) for Local construction and demolition waste recycling service provider listings. Additional recycling resources are available at www.ciwmb.ca.gov/condemo/ and at www.crra.com/cdc/index.html.

- C. At the conclusion of the Project, the Contractor shall complete a solid material management report form, which documents Materials recycled/salvaged and disposed and demonstrates compliance with the requirements specified herein, facilities utilized, and weights of construction and demolition waste generated by the Project. Receipts shall be attached as well that verify Materials and quantities disposed and recycled/salvaged. This form shall be submitted with the request for final payment; the form is included in Appendix C.
- D. Full compensation for preparing the Solid Materials Management Plan and for completing the solid material management report form shall be considered as included in the Contract Price(s) for various items of Work involved; no additional payment shall be made.

# 19.06.03. Post-Consumer Recycled Content Requirements

- A. At the conclusion of the Project, the Contractor shall list Materials furnished/installed that contains PCRC and document that the percent content for each material equals or exceeds ten (10) percent and shall attach documentation certifying the percentage of post-consumer recycled product content contained in the material. This information shall be included in the solid material management report form specified in Special Provisions Article 19.06. Solid Materials Management. As specified herein, this form shall be submitted with the request for final payment, payment will be withheld until the completed form is submitted, and no interest on withheld amounts will be due the Contractor.
- B. Full compensation for documenting the above specified information in the solid Material management report form shall be considered as included in the Contract Price(s) for various items of Work involved; no additional payment shall be made.

## 19.07. Migratory Birds

A. The Contractor's attention is directed to Standard Provisions Article 10.14. Migratory Birds for additional requirements.

### 19.07.01. Regulatory Requirements

A. The Contractor shall comply with all applicable federal and state laws, rules and regulations related to protection of migratory birds. The Contractor's attention is directed to the federal Migratory Bird Treaty Act (16 USC 703-712 50 CFR Part 21 and 50 CFR Part 10), Appendix C of these Specifications, and the California Department of Fish and Game Code Sections 2000, 3503, 3503.5,

3513, and 3800, that protect migratory birds, their nests, and their eggs from disturbance or destruction.

B. The Contractor shall carry out all activities in a manner consistent with the U.S. Fish and Wildlife Service's Migratory Bird Program at the time Contractor's activities are performed. Except as may be noted elsewhere in this Article, active nests are those containing either an egg (or eggs) or young, and/or nests used by birds of prey (i.e., members of the orders Falconiformes and Strigiformes, known as raptors) regardless of the presence of eggs or young; whereas inactive or partially built nests of species other than raptors do not contain any eggs or young. To determine the occupancy of nests, the Contractor shall rely upon the professional expertise of a qualified biologist.

C. The Contractor shall coordinate several measures, including; awareness and training of Contractor's personnel of which migratory bird species are protected, their nesting seasons and seasonal variability; surveys to determine the presence of nesting birds in the project area; establishment of protective buffer zones around nests; installation and maintenance of exclusion devices; and periodic monitoring to assure the adequacy of the compliance measures.

# 19.07.02. Qualified Biologist

- A. The Contractor shall employ a biologist meeting the qualifications of a Qualified Biologist as listed in Article 19.07.02. paragraph B. to supervise all biological resource Work for the Project. At any time during the Contract, the District reserves the right to request a replacement biologist due to nonperformance or for reasons outlined in Standard Provisions Article 3.04. Character of Workers.
- B. The Qualified Biologist shall have the training, experience and qualifications to perform the migratory bird compliance describe in the Article and to supervise all migratory bird-related activities under Article 19.07. Migratory Birds. The Qualified Biologist shall possess educational and professional training in ornithology, habitat assessment, and migratory bird regulations; and shall be familiar with the species of birds and bird resources likely to be encountered on the Project. The Qualified Biologist shall have experience to implement protocols, collect and organize ornithological data and be capable of making appropriate decisions in the field. A minimum of one year of experience is required in performing biological, ecological or related scientific research.

### 19.07.03. General Nesting Seasons

A. The bird nesting season in the Project area is generally considered to be from January 15 through August 31. However, annual variation in climatic conditions can alter these periods by several weeks.

### 19.07.04. Protective Buffer Zones

A. The Contractor's attention is directed to Standard Provisions Article 10.14.04. Protective Buffer Zones.

#### 19.07.05. Exclusion Devices

A. Refer to Standard Provisions Article 10.14.05. Exclusion Devices.

# 19.07.06. Nest Prevention

A. The Contractor's attention is directed to Standard Provisions Article 10.14.06.

### 19.07.07. Submittals

A. No Special Requirements.

# 19.07.08. Payment

A. Work involved in complying with the requirements of this Article shall be considered as included in the Contract Price(s) paid for the various items of Work involved; no additional time or payment shall be made.

### 19.08. Other Wildlife and Fish Species

A. No Special Requirements.

# 19.09. Sensitive Plants and Vegetation

A. No Special Requirements.

# 19.10. Proper Pruning Techniques for Woody Vegetation Removal

A. No Special Requirements.

# 19.11. Plant Pathologen Management

A. No Special Requirements.

# 19.12. Payment

A. Unless noted otherwise, full compensation for Work involved in complying with all requirements under Special Provisions Section 19 Environmental shall be considered incidental and included in the Contract Price(s) paid for the various items of Work involved; no additional time or payment shall be made.

# **SECTION 20. SUBMITTAL AND QUALITY REQUIREMENTS**

# 20.01. Additional Submittal Requirements

A. This Article includes any additional submittal requirements. Also see Standard Provisions Section 7 Submittal Management.

### 20.01.01 General Requirements

A. Submittals shall be in accordance with Standard Provisions Article 7.05. Submittals to be Furnished by the Contractor unless otherwise modified herein.

# 20.01.02. Immediate Submittals

- A. Physical construction Work cannot begin until the following immediate submittals have been favorably reviewed by the Engineer. These immediate submittals shall be submitted no later than 15 Days after the date of issuance of the NTP.
  - 1. Section 03 Résumé of Project Superintendent
  - 2. Section 08 Injury and Illness Prevention Plan
  - 3. Section 08 Site Security and Protection Plan
  - 4. Section 08 Site-Specific Safety and Health Plan
  - 5. Section 09 Quality Control Plan
  - 6. Section 10 BMP Action Plan

### 20.01.03. Special Review Cycle

A. No Special Requirements.

### 20.01.04. Copies

A. The Contractor's attention is directed to Standard Provisions Article 7.05. Submittals to be Furnished by the Contractor and in Article 9.12.02. Product Data and Samples.

### 20.02. Exclusive Testing by the District

A. No Special Requirements.

# 20.03. Additional Testing Certifications

A. Materials in contact with the potable water system shall be NSF61 certified.

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# 20.04. Contractor's Quality Control

# 20.04.01. Quality Control Plan

- A. The Contractor is not required to prepare and submit a Project –Specific Quality Control plan.
- B. However, the Contractor is required to comply with its Quality Control program as outlined in Article 9.03. Contractor's Quality Control Program.

# 20.04.02. Contractor's Quality Control Staffing Requirements

A. The Contractor shall have a qualified Field QC Representative responsible for QC who is on-site whenever permanent Work is being performed. This Field QC Representative shall report directly to a senior manager of the Contractor to ensure organizational freedom, identify quality problems, and initiate and recommend solutions. The QC plan submittal shall include a letter signed by a principal officer of the Contractor's firm designating the Field QC Manager and specifying the authority delegated to the Field QC Manager to direct cessation or removal and replacement of defective Work. The Contractor shall maintain QC over suppliers, manufacturers, products, services, site conditions, and workmanship to produce Work of specified quality. Testing and inspection shall not relieve the Contractor of its responsibility for quality of Material in place.

# 20.04.03. Payment

A. Full compensation for doing all Work necessary to provide quality control shall be included in the Contract Price(s) for various items of Work involved; no separate payment shall be made.

# **SECTION 21. PAYMENT PROCEDURES**

#### 21.01. Bid Items

### 21.01.01. General Requirements

- A. Refer to Bid Documents Bid Form No. 1 Bid items for the listing of Bid items.
- B. Unless otherwise indicated, all Bid Items include labor, Material, Equipment, and incidentals in accordance with the Drawings and Specifications to complete the Work.
- C. No separate payment will be made for any Work included in the Drawings and/or Specifications but not specifically set forth in the listing of Bid items. All costs shall be included in a Bid item.
- D. Where there is an overlap in the Work paid for under different Bid items, the Work will be paid for only once under the appropriate Bid item(s), as determined by the Engineer.

# 21.01.02. Description of Bid Items

- A. Bid Item No. 1—Mobilization
  - 1. Scope of Work: This Bid item shall include the preconstruction meeting, all preparatory Work, and appurtenant preconstruction operations, including, but not limited to, those necessary for the movement of personnel, Equipment, supplies, and incidentals to the Project site; building and removing any temporary construction areas; Cleaning; installation and removal of temporary facilities necessary for Work on the Project; other Work and operations that must be performed or costs incurred prior to beginning Work on the various Contract items on the Project site; and other Work as specified in these Specifications.
  - 2. Measurement and Payment: Full compensation for furnishing all Work and Material for mobilization shall be included in the lump sum price Bid for Bid Item No. 1, Mobilization. Progress payments will be made in accordance with Section 9 Payment of the State Specifications.
- B. Bid Item No. 2— Demolition
  - 1. Scope of Work: This Bid item includes furnishing all labor, Material, tools, Equipment, and incidentals necessary for demolition work as shown on the Drawings and as specified in these Specifications.
  - 2. Measurement and Payment: Full compensation for furnishing all labor and Material for demolition shall be included in the lump sum price Bid for Bid Item No. 2, Demolition

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- C. Bid Item No. 3—Environmental Monitoring and Compliance
  - 1. Scope of Work: This Bid shall include doing all work, providing all equipment, and furnishing all materials required to protect, monitor, and restore all environmental conditions as specified in these Specifications and as shown on the Drawings.
  - Measurement and Payment: Unless otherwise specified, full
    compensation for doing all work and furnishing all materials required for
    the work as specified in these Specifications and as shown on the
    Drawings shall be included in the Lump Sum bid price for this Bid Item.
- D. Bid Item No. 4—Pipeline Replacement Work
  - 1. Scope of Work: This Bid shall include doing all work, providing all equipment, detailed pipe layout shop drawings, and furnishing all materials required to install the new 12-inch diameter stainless steel air wash line and air testing as specified in these Specifications and as shown on the Drawings.
  - 2. Measurement and Payment: Unless otherwise specified, full compensation for doing all work and furnishing all materials required for the work as specified in these Specifications and as shown on the Drawings shall be included in the Lump Sum bid price for this Bid Item.
- E. Bid Item No. 5—Support for Internal Pipeline Work
  - 1. Scope of Work: This Bid shall include doing all work, providing all equipment, detailed pipe layout shop drawings, and furnishing all materials required for internal pipeline cleaning, re-lining, air testing, disinfection and video inspection as specified in these Specifications and as shown on the Drawings.
  - 2. Measurement and Payment: Unless otherwise specified, full compensation for doing all work and furnishing all materials required for the work as specified in these Specifications and as shown on the Drawings shall be included in the Lump Sum bid price for this Bid Item.
- F. Bid Item No. 6—Painting and Coating
  - 1. Scope of Work: This Bid item shall include doing all work, providing all equipment and furnishing all non-District furnished materials required to prepare, coat and line all internal and external pipeline, appurtenances and associated component surfaces, as specified in these Specifications and as shown on the Drawings.
  - Measurement and Payment: Unless otherwise specified, full compensation for doing all work and furnishing all non-District furnished materials required for the work as specified in these Specifications and as

shown on the Drawings shall be included in the Lump Sum bid price for this Bid Item.

- G. Bid Item No. 7— AC Pavement Slurry
  - 1. Scope of Work: This Bid item shall include doing all work, providing all equipment and furnishing all materials required to remove prepare, and replace existing asphaltic concrete pavement, as specified in these Specifications and as shown on the Drawings. Additionally, this bid item includes the slurry seal for all new asphaltic pavement areas and existing asphaltic pavements as shown on the drawings.
  - Measurement and Payment: Unless otherwise specified, full
    compensation for doing all work and furnishing all non-District furnished
    materials required for the work as specified in these Specifications and as
    shown on the Drawings shall be included in the Lump Sum bid price for
    this Bid Item.

# 21.02. Progress Payments and Schedule of Values

- A. This Article includes requirements for the preparation, format, and submission of the Schedule of Values.
- B. The Contractor shall coordinate the preparation of the schedule of values with Contractor's progress schedule. The Schedule of Values shall be developed from the resource loading function of the Baseline CPM Progress Schedule.
- C. Progress payments will not be made until the Schedule of Values has received favorable review by the Engineer.
- D. Progress Payments shall be based on physical percent complete for each cost loaded schedule activity as determined by visual observation during a joint walkthrough of the project by the Contractor and Engineer on a monthly basis. The schedule activity % complete agreed to shall be input into the schedule. The schedule shall roll up activities to an activity code called Schedule of Bid Prices, in order to facilitate the lesser level of detail in the payment application.
- E. No progress payment made to the Contractor or its sureties will constitute a waiver of the liquidated damage under Article 12.05 of these Specifications.

### 21.03. Progress Payment Retention

A. No Special Requirements. The Contractor's attention is directed to Standard Provisions Article 6.02.04. Payment.

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# SECTION 22. CONTRACT CLOSEOUT

# 22.01. Project Completion and Acceptance

### 22.01.01. Use Before Acceptance

A. Should the District elect to partially occupy or use portions of the Work prior to Acceptance, the Contractor shall execute and submit to the Engineer a completed Use Before Acceptance Warranty form provided below. The Contractor must perform final cleaning as described in Article 11.04. Final Cleaning for those portions of the Work prior to their being so occupied or used.

### 22.01.02. Milestone Completion Preliminary Final Inspection

A. The District shall accept the work performed under milestone No.1, before the contractor is allowed to start on work specified under milestone No. 2.

# 22.02. Guarantee and Guaranty Bond

A. The Contractor's attention is directed to Standard Provisions Article 11.02. Guaranty Bond.

### 22.03. Training

A. No Special Requirements.

### 22.03.01. General Requirements

A. No Special Requirements.

#### 22.03.02. Submittals

A. No Special Requirements.

### 22.04. Testing and Facility Start-Up

A. This Article includes requirements for Materials, Equipment, instrumentation, structure, and process system testing and start-up.

# 22.04.01. Testing and Start-Up Overview

- A. Certain portions of the Work will be modified and completed at scheduled interim dates before completion of the Project. Consequently, testing and start-up activities shall take place throughout much of the duration of the Work.
- B. See other provisions in these Specifications for detailed testing requirements that shall be completed in the framework of the testing and start-up overview described herein.
- C. The general sequence of testing and start-up will proceed as follows. Variations to this general sequence may be authorized by the Engineer where necessary to

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meet constraints described in these Contract Documents and permits from authorities having jurisdiction.

- General construction testing. For example: soils compaction and moisture content, welding, concrete properties, coating application, carrier piping pressure, dielectric flange isolation, double containment piping pressure, etc.
- 2. Special construction testing. For example: air testing, video inspection of underground pipe, etc.
- Submittals. All submittals relevant to installation practices, Equipment, piping, anchorage calculations, instrumentation, Material, and testing plans have been submitted to the Engineer and have received favorable review status.
- 4. Mechanical valve testing. Individual inspection and testing to ensure and demonstrate that valves operate properly and reliably. Equipment that is capable of automatic or remote operation shall be tested first in manual mode. Manufacturer's representatives shall confirm that all Equipment and valves are properly installed before first operation and shall conduct/oversee the initial operation and testing. Limit switches shall be set and adjusted on all valves so equipped. Set points on all valves shall be confirmed and reset as directed by the Engineer.
- 5. Instrumentation wiring ring out. Test each conductor, and other wiring components for proper installation, termination, and identification.
- 6. Loop tuning. Complete the tuning of all loops.
- 7. Prior to system commissioning testing, the Contractor shall submit the Use Before Acceptance Guaranty in accordance with Article 11.02.03. Use Before Acceptance Guarantee. The Project guaranty period for the Work starts on the date of the Notice of Completion of Contract and Acceptance of Work.
- 8. Removal of replaced system. In some cases, after the successful completion of the system commissioning test, a replaced system exists that is subsequently removed.
- D. Contractor is required to maintain equipment through the duration of various stages of testing and start-up.

### 22.04.02. Water Tightness Testing

A. No special requirements.

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# 22.04.03. Operational Readiness Testing

A. No special requirements.

### 22.04.04. Functional Testing

A. No special requirements.

# 22.04.05. System Commissioning Testing

A. No special requirements.

### 22.04.06. Submittals

- A. Contractor shall receive a favorable review of a testing and start-up submittal at least two (2) weeks prior to the first scheduled testing and start-up activity for a new facility or an existing process system. Submittal shall include the following documentation:
  - Individual testing plans for each major new facility and modified existing process system. Testing plans should summarize all planned Work leading to the start-up of each modified and new process system. As a minimum, testing plans shall be submitted for:
  - 2. Blank test forms and checklists showing data to be recorded and checkout procedures prior to each test, whether factory or on-site.

#### 22.05. Submission of Closeout Items

A. At completion of construction and prior to issuance of the Project Completion letter by the Engineer, the Contractor shall deliver to the Engineer the closeout Documents described in Standards Provisions Section 11 Contract Closeout.

#### 22.06. Final Cleaning

- A. Structures that are to be cleaned by a professional industrial janitorial service as specified in Standard Provisions Section 11 Contract Closeout include:
  - 1. West Filter Gallery
  - 2. East Filter Gallery

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# **TECHNICAL PROVISIONS**

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#### 1.01 SUMMARY

- A. The work specified in this Article includes payment for bonds and insurance and all preparatory work and materials necessary for construction operations, including, but not limited to those necessary for the movement of personnel, equipment, supplies, and incidentals to the project sites; for the establishment and removal of field offices, temporary buildings, and other temporary facilities necessary for work on the project; cleanup of the site; other work and operations which must be performed or costs incurred prior to beginning work on the various contract items on the project site; and other work as specified in these Specifications.
- B. Demobilization tasks will consist of work and operations at the conclusion of construction including, but not limited to, those necessary for the removal of personnel, equipment, supplies, and incidentals from the project site; removal of temporary facilities; restore the staging area to its preconstruction condition or better, and all other work and operations that must be performed or costs incurred to conclude work on the various Contract items for the project. As part of the demobilization operations, the Contractor shall be responsible for leaving the project site in a clean state, free of all extraneous construction materials and impacts. This includes removal of al debris, and unused materials and equipment belonging to the Contractor or used during construction from the project site, areas adjacent to the project site, and access roads.

# 1.02 REFERENCES

- A. Related Articles:
  - 1. Article 14.03—Office Facilities
  - 2. Article 14.06—Staging Area
  - 3. Section 21—Payment Procedures

# 1.03 SUBMITTALS

A. As Required.

# 1.04 MEASUREMENT AND PAYMENT

- A. Full compensation for furnishing all work and materials for Mobilization shall be included in the lump sum price bid for Bid Item entitled "Mobilization."
- B. Refer to Article 21.01, Bid Items.

Mobilization Article 23.01

# PART 2 PRODUCTS (NOT USED)

# PART 3 EXECUTION

# 3.01 GENERAL

- A. The Contractor shall refer to the following articles:
  - 1. Article 14.03—Office Facilities
  - 2. Article 14.06—Staging Area

**END OF ARTICLE** 

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#### 1.01 SUMMARY

- A. The work specified in this Article includes the removal of all existing objectionable materials over and adjacent to the areas to be graded, excavated, trenched, filled, or as otherwise shown on the Drawings and as specified in these Specifications.
- B. The project area shall be cleared and grubbed only to the extent necessary to accommodate the work and in conformance with the notes and details shown on the Drawings and as specified in these Specifications.
- C. All cleared material shall become the property of the Contractor and shall be disposed of off-site by the Contractor at the Contractor's expense and in accordance with applicable regulatory requirements.
- D. The Contractor is advised that some work may require the removal and replacement of interfering landscaping including plants, ground cover, and irrigation systems. Damage to these facilities due to the Contractor's operation shall be repaired or replaced in kind by the Contractor to the satisfaction of the Engineer, and the area restored to a condition similar to, or better than, that existing before construction. Irrigation systems shall be replaced within 5 days of removal.

#### 1.02 REFERENCES

- A. Related Articles:
  - 1. Article 4.10—Preservation of Property
  - 2. Section 10—Environmental
  - 3. Article 24.01—Excavation and Backfill
  - 4. Article 23.03—Demolition

#### 1.03 SUBMITTALS

- A. Within 30 days after the first chargeable day, the Contractor shall submit copies of their clearing and grubbing plan. The Contractor's clearing and grubbing plan shall:
  - 1. address all aspects of the clearing and grubbing effort.
  - 2. provide descriptions, specifications, and quantities for all equipment.

- describe materials and labor to be used.
- 4. provide a description of the procedural methodology.
- 5. provide a comprehensive schedule for all clearing and grubbing activities illustrating the Contractor ability to complete the work on schedule.

# 1.04 QUALITY ASSURANCE

- A. Regulatory Requirements:
  - 1. Verify and comply with applicable regulations regarding those governing noise, dust, nuisance, drainage and runoff, fire protection, and disposal.
- B. Pre-Construction Meetings:
  - 1. Prior to the start of any clearing and grubbing work the contractor shall meet with the Engineer to discuss the order, method, and extent of the work to be performed.

# 1.05 DELIVERY, STORAGE AND HANDLING

- A. Waste Management and Disposal:
  - 1. All cleared material shall become the property of the Contractor and shall be disposed of offsite by the Contractor, at the Contractor's expense and in accordance with applicable regulatory requirements.

# 1.06 MEASUREMENT AND PAYMENT

A. Unless noted otherwise, full compensation for Work involved in complying with all requirements per this Article as shown on the Drawings, as specified in these Specifications, and as directed by the Engineer shall be considered incidental and included in the Contract Price(s) paid for the various items of Work involved; no additional time shall be allowed or payment made.

# PART 2 PRODUCTS (NOT USED)

## PART 3 EXECUTION

# 3.01 GENERAL

- A. All existing utilities and facilities not specifically designated on the Drawings to be removed or relocated shall remain in their original condition and location undisturbed. Existing facilities which are to remain in place shall be protected in accordance with the provisions of Article 4.10, "Preservation of Property."
- B. All trees, stumps, brush, bushes, roots, debris, and other unacceptable material shall be cut, grubbed, removed, and disposed of from areas to be occupied by pipelines, fills, conduits, engineered fills, and any other areas to be stripped. Stockpile areas shall be cleared before use.

C. Areas outside the limits of clearing shall be protected and no equipment or materials shall be stored in or allowed to damage these areas.

# 3.02 EXAMINATION

- A. Examine site and verify existing conditions for beginning work.
- B. Prior to any tree trimming or tree removal, the Engineer shall review the requested trimming or tree removal. Approval of the Engineer shall be required before any trimming or removal is done.

# 3.03 PREPARATION

- A. Protect existing improvements from damage by site preparation work.
- B. Protect trees or bushes from damage by all construction operations by erecting suitable barriers, or by other means. Suitable barriers shall be placed at or beyond the drip lines of trees and bushes in the vicinity of the Work.
- C. If the Contractor proposes to remove trees which are not designated to be removed on the Drawings, the Contractor shall obtain written approval from the Engineer prior to tree removal.

# 3.04 SEQUENCES OF OPERATIONS

# A. Clearing:

 Clear areas where construction is to be performed and other areas as indicated on the Drawings, or specified in this Section, of fences, lumber, walls, stumps, brush, roots, weeds, trees, shrubs, rubbish, and other objectionable material of any kind which, if left in place, would interfere with proper performance or completion of the work, would impair its subsequent use, or form obstructions.

# B. Grubbing:

1. From excavated areas: Grub stumps, roots, and other obstructions 3 inches or over in diameter to depth of not less than 18 inches below finish grade.

# C. Stripping:

Strip the top 3-inch layer of surface soils from all areas to be occupied by structures, pipes and all areas to be excavated or filled. Avoid mixing the top layer with lower layers and remove it from the Site or stockpile it in areas on the Site if so indicated on the Drawings. Soil so stockpiled shall be free from brush, roots, trash, large stones, and other extraneous material and protected from erosion.

#### 3.05 RESTORATION

A. The Contractor is advised that some work may require the removal and replacement of interfering landscaping including plants, ground cover, and irrigation systems. Damage to these facilities due to the Contractor's operation shall be repaired or replaced in kind by the Contractor to the satisfaction of the Engineer, and the area restored to a condition similar to or better than that existing before construction. Irrigation systems shall be replaced within 5 days of removal. Payment for removal and replacement of interfering landscaping and irrigation systems shall be incidental and included in the bid price for the item of work requiring landscaping or irrigation system removal and replacement.

# 3.06 DISPOSAL OF MATERIALS

- A. All surface soils, tree trunks, roots, brush and other vegetation, conduits, concrete, construction materials, and other buried utilities which are cleared, grubbed, or stripped shall be hauled to a suitable landfill or offsite disposal site, in compliance with local and state laws.
- B. Burning of cleared and grubbed materials will not be permitted.

**END OF ARTICLE** 

#### 1.01 SUMMARY

- A. The work specified in this Article includes but not limited to demolishing, modifying, and disposing existing piping and accessories, pipe supports, bird netting, pavement, concrete and miscellaneous items as required for the construction of the improvements.
- B. The work specified in this Article also includes the protection, support, and maintenance of buried and above grade utilities, site work facilities, roadways and pavements, and miscellaneous structures and items surrounding the demolition work free from damage or harmful effects.

#### 1.02 REFERENCES

- A. Related Articles:
  - 1. Article 23.02—Clearing and Grubbing
  - 2. Article 14.08—Salvaged Material and Equipment
  - 3. Section 26.02—Roadway Restoration

# 1.03 SUBMITTALS

- A. Submit documentation to the Engineer showing proposed start and finish dates, durations, and detailed descriptions of demolition work a minimum of 14 days in advance of such work. Include such work on all construction schedules.
- B. If requested by the Engineer, provide documentation on recycling of construction materials and disposal locations of materials.

# 1.04 MEASUREMENT AND PAYMENT

- A. Full compensation for furnishing all work and materials for demolition shall be included in the lump sum price bid for bid item entitled "demolition."
- B. Refer to Article 21.01, Bid Items.

# PART 2 PRODUCTS (NOT USED)

Demolition Article 23.03

# PART 3 EXECUTION

#### 3.01 PROTECTION

A. Protect all vegetation and landscaping except in areas designated for removal or within the footprints of new construction.

- B. Maintain free and safe passage for all personnel and the public at all times.
- C. Protect existing structures, utilities, equipment and adjacent work, which are to remain free from damage. Cut finish surfaces such as concrete, or metals by methods which will terminate or join work in a straight line at an appropriate point of division.
- D. Cease operations and notify the Engineer immediately if the safety of any structure or utility appears to be endangered. Take additional precautions to properly support such structure(s) and do not resume demolition operations until safety is restored.
- E. Utility locations shown on the Drawings are approximate and may vary from where they are shown. The Contractor shall contact Underground Service Alert (800-642-2444) and obtain field marking to determine the exact locations of utilities owned by agencies. Record, preserve and protect the field markings.
- F. Blasting and the use of explosives shall not be permitted for any demolition work. Burning of wastes is not permitted.
- G. Promptly repair any damage caused to facilities or landscaping by demolition operations as directed by the Engineer and at no additional cost to the District. The minimum quality of repair shall be equal to that which existed prior to the start of the Contractor's work.

#### 3.02 SCHEDULING

A. If required, perform location and marking of underground utilities and exploratory excavations (potholing) at least 30 days prior to the scheduled work activities in those areas. Report pothole results promptly. Identify conflicts determined by potholing to the Engineer in writing within 10 days of each exploratory excavation completion.

# 3.03 SEQUENCE OF WORK

- A. The sequence of demolition and the modifications of existing facilities shall be in accordance with the Standard and Special Provisions.
- B. The Contractor shall mark all facility components to be demolished in advance of demolition for the Engineer's review. The purpose of this requirement is to provide an opportunity to avoid unnecessary or erroneous demolition. The Contractor remains responsible for demolition as shown on the Drawings and as specified in these Specifications.

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C. The Contractor shall schedule a meeting and meet with the Engineer at the site of the proposed demolition in advance of the start of demolition. Contractor shall ensure that subcontractors are present if necessary or requested by the Engineer.

#### 3.04 DISPOSAL OF MATERIAL REMOVED BY DEMOLITION WORK

- A. All materials removed by demolition work shall become the property of the Contractor as soon as actual demolition is initiated unless specifically identified to be salvaged by the District. The Contractor shall remove demolition materials as soon as possible but in no case shall Contractor store materials removed by demolition on the project site longer than 10 working days. Demolition materials other than concrete and soil shall be properly contained in covered waste disposal bins. Concrete and soil shall be tightly stockpiled and covered until removal.
- B. The Contractor shall properly dispose of all Regulated and Non-regulated materials in accordance with all applicable Federal, State and Local laws, ordinances and regulations.

#### 3.05 DEMOLITION MATERIALS RETAINED BY THE DISTRICT

- A. The District reserves the right to retain ownership of miscellaneous materials and pieces of equipment immediately prior to demolition. Such items may include, but is not limited to piping, pipe accessories, instrumentation equipment, valves, and miscellaneous metals.
- B. During construction, the Engineer shall inform the Contractor of which materials and/or equipment the District wishes to retain. Contractor shall package, label, and transport said materials to a specified location.
- C. Contractor's attention is directed to Article 14.08, "Salvaged Materials and Equipment," of the Special Provisions.

# 3.06 REMOVAL OF MECHANICAL FACILITIES AND EXISTING PIPING

- A. Mechanical facilities removal includes, but are not limited to, the dismantling, preparation, and removal of existing piping and valves, fixtures, supports, anchorages, and other appurtenances as required for the completion of the work.
- B. Remove all anchor bolts, screws, supports, studs, rails, and other fastening devices that cannot be re-used or not shown in the plans to be re-used or utilized are remaining after mechanical facilities are removed shall be removed. In the case of such cast devices fastening into concrete, the concrete shall be chipped back one (1) inch and the device shall be cut below the plane of the finished surface. The area shall be patched with non-shrink grout and finished to match the surrounding surface.
- C. Removal work includes the plugging and sealing of wall, floor, ceiling, roof, and partition penetrations created by the removal of mechanical facilities. Plugging shall be completed using materials identical to the structural element and finish

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materials. Plugs shall be coated using materials compatible to the existing coatings. Generally, plugging and sealing of penetrations are not individually shown on the Drawings.

D. Existing piping which will attach to new piping shall be cut at the appropriate point which will allow the new piping to properly join, align, and be secured. New fittings, pipe, supports, and incidentals shall be provided to make up the connection or modification.

### 3.07 REMOVAL AND ABANDONMENT OF PIPE

- A. Buried and above ground piping shall be removed as noted on the Drawings or as specified by the Engineer.
- B. Where applicable, remove loose or broken concrete and repair in kind.

## 3.08 CLEAN-UP

- A. The Contractor shall remove from the site all debris resulting from the demolition operations as it accumulates. Upon completion of the immediate demolition work, the Contractor shall thoroughly clean each area, including dusting, vacuuming, and sweeping.
- B. Additionally, in the generator blower building and filter galleries the Contractor shall sweep, dust, and remove all debris at the end of each working day.

**END OF ARTICLE** 

#### 1.01 SUMMARY

- A. Excavation, backfill, trench excavation, underground utility construction, grading, backfilling and compacting, including but not necessarily limited to: excavation for conduits, pipes and paving; backfilling and fill; import of fill; disposal and stockpiling of waste and surplus materials; and all related work.
- B. Trench excavation shall include the saw cutting and removal of pavement and other such hard scape materials.
- C. Disposal of Excavated Soils: All excess backfill materials or excavated materials not acceptable for backfill shall become the property of the Contractor, shall be removed from the project site, shall be tested by a certified laboratory and disposed of in accordance with all applicable regulations, unless otherwise specified in these Specifications. See Article 10.04.03—Hazardous Material Investigation Report for "Soil Quality Testing Reports."

# 1.02 REFERENCES

- A. Related Articles
  - 1. Article 24.03—Demolition
  - 2. Article 24.16—Shoring and Bracing
  - 3. Article 26.02—Roadway Restoration
- B. California Department of Transportation (CalTrans)
  - 1. Standard Specifications Latest Revision
- C. American Society of Testing and Methods (ASTM)
  - ASTM D 698—Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort
  - 2. ASTM D1556—Standard Test Method for Density and Unit Weight of Soil in Place by Sand-Cone Method
  - ASTM D 1557—Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort
  - 4. ASTM D 2487—Standard Practice for Classification of Soils for engineering Purposes (Unified Soil Classification System)

- 5. ASTM D6938—Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)
- 6. ASTM D4318—Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils

# 1.03 SUBMITTALS

- A. The Contractor shall submit to the Engineer reports of tests of individual materials to indicate that the materials meet these specifications, prior to the materials being used in the Work. This requirement includes native or existing soils and materials which are proposed for use under any classification as listed in Part 2 herein.
  - 1. All material tests shall be in accordance with applicable ASTM standard test specifications listed in references section above.
- B. Submit to the Engineer for review the proposed methods of construction, including excavation, filling, compaction, and backfilling for the various portions of the Work. The Contractor shall remain responsible for the adequacy and safety of the methods.
- C. Submit the source and soils data for off-site sources of fill materials.
- D. Provide soil samples for testing by the Engineer if requested.
- E. Submit all exploratory excavation data as it is collected.
- F. Prior to commencement of any work, the Contractor shall submit complete calculations, and design drawings, showing a plan layout and shoring detail of all shoring systems for the Engineer's review. The calculations and Drawings will be signed and stamped by civil or structural engineer registered in State of California. Construction shall not proceed without the Engineer's review of the Contractor's calculations and Drawings.

## 1.04 QUALITY CONTROL AND ASSURANCE

A. The District may request additional testing to be performed by an independent testing laboratory for his guidance and quality assurance of the Work. Payment for such tests will be the responsibility of the District. Testing by the District is for the sole benefit of the District and shall not be considered a substitute for the specified testing by the Contractor. The Contractor shall cooperate with District's quality assurance testing work. The Contractor shall backfill quality assurance test areas at the Contractor's expense. The District may test any lift of fill at any time, location, or elevation.

# 1.05 EXPLORATORY EXCAVATIONS

A. The Contractor shall perform exploratory excavations to locate existing pipelines, pipeline elbows, and other utilities prior to trenching and general excavation. Reliable information on buried utilities is lacking in most areas. The objective of

- the exploratory excavations is to reduce the number of field changes due to unforeseen alignment conflicts, allow design adjustments prior to submittal preparation, and aid the Contractor in completing new improvements.
- B. Exploratory excavations shall be completed using small diameter vacuum excavation equipment in improved areas wherever feasible to minimize disruption and collateral damage.
  - 1. Excavations in paved areas shall be backfilled and repaired with 4-inches of cold asphalt in asphalt concrete pavement areas and 4-inches of concrete in concrete pavement areas.
  - 2. Excavations on landscaped areas shall be repaired in-kind and protected from damage.
- C. At a minimum, the pipeline access locations shall have exploratory excavations performed on existing utilities shown in the Drawings and identified through Underground Service Alert (USA)-type field markings prior to any major excavations.

#### 1.06 DELIVERY AND STORAGE

A. Excavated materials to be used for backfill may be deposited in stockpiles at points convenient for re-handling the material during the backfilling process. The location of stockpiles must be within the staging areas or other locations coordinated and submitted by Contractor. The location of stockpiles is subject to the approval of the District.

# 1.07 MEASUREMENT AND PAYMENT

- A. Trench Excavation and Backfill:
  - 1. The volume of trench excavation includes that quantity of pavement, sidewalk, and curb and gutter which must be removed as described in these Specifications and as shown on the Drawings. No distinction will be made between earth, rock, pavement, sidewalks, curb and gutter, structures, or any other material. No payment will be made for overexcavation or re-excavation unless unsuitable material is encountered and the Engineer directs the Contractor to remove the unsuitable material.
  - 2. The measurements for the removal and replacement of quantities of unsuitable trench subgrade material shall be made in the field by the Engineer.
  - No measurement will be made for the removal and restoration of concrete sidewalks, wheelchair ramps, driveway aprons, and curbs and gutters.
     Area excavated beyond designated limits shall be restored in accordance with the applicable provisions of these Specifications at the Contractor's expense.

- 4. Payment for removal and replacement of unsuitable subgrade material shall be considered as incidental to the work and shall be included in the item of work that requires Trench Excavation and Backfill and no additional payment shall be made therefore.
- 5. Unless noted otherwise, full compensation for Work involved in complying with all requirements per this Article as shown on the Drawings, as specified in these Specifications, and as directed by the Engineer shall be considered incidental and included in the Contract Price(s) paid for the various items of Work involved; no additional time shall be allowed or payment made.
- B. Refer to Article 20.01.

#### PART 2 PRODUCTS

# 2.01 MATERIALS - GENERAL REQUIREMENTS

- A. All sieve sizes referenced to are U.S. Standard sieve size unless otherwise noted. All percentages for amount passing a certain sieve are shown as a percentage of the total sample's dry weight.
- B. All materials noted herein shall have a maximum of one percent (1%) expansion when performed on a sample remolded to 95 percent of maximum ASTM D698 dry density and 2 percent below optimum moisture under a 100 pounds per square foot (psf) surcharge.
- C. In all cases where Caltrans Standard Specifications are referenced, references contained therein to measurement and payment does not apply.
- D. Materials shall not be corrosive, contain hazardous materials, debris, or vegetation, or be by-products of mineral mining, glassmaking, or other manufacturing processes.

# 2.02 FILL/BACKFILL AND TRENCH BACKFILL MATERIAL, STRUCTURAL AND NON-STRUCTURAL AREAS

A. This class of material shall: (1) have an organic content less than 3 percent by volume; (2) have all lumps or rocks less than 4 inches in any dimension; (3) have not more than 15 percent larger than 2.5 inches in the greatest dimension; (4) be predominantly granular; (5) have a liquid limit less than 40; and (6) have a plasticity index equal to or less than 12.

# 2.03 PIPE BEDDING

A. Pipe bedding shall consist of washed inert natural sand conforming to the requirements of ASTM C33.

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# 2.04 AGGREGATE BASE COURSE

A. Aggregate Base shall be Class 2, 3/4-inch maximum Aggregate Base in conformance with Section 26-1.02B, Class 2 Aggregate Base, of the State Specifications.

# PART 3 EXECUTION

#### 3.01 GENERAL

- A. The work performed under this Section shall be constructed to the lines, grades, elevations, slopes and cross sections shown on the Drawings and as specified. The Contractor shall be responsible for setting and maintaining grade stakes. Graded surfaces shall present a neat, uniform appearance upon completion of the Work.
- B. It shall be the Contractor's responsibility to maintain adequate safety measures and working conditions and to take measures necessary during the performance of the Work to protect areas affected by the Work.
- C. The Contractor shall be solely responsible for structural safety and providing shoring systems as indicated as required in accordance with Article 24.16, "Shoring and Bracing," of these Specifications.
- D. Inconvenience to traffic and work by others shall be avoided as much as possible.
- E. The Contractor shall provide the necessary storm water pollution prevention measures so as to prevent siltation of waterways and drainage courses.
- F. Blasting or other use of explosives for excavation shall not be permitted.
- G. No excavation shall be left open during periods when the Contractor is not at the site of Work without proper barricades, trench plates, and other protections as otherwise specified and as authorized by the Engineer.
- H. The Contractor shall establish existing (original) and final grades along the pipeline alignment. Unless otherwise shown on the Drawings, final grades shall be the same as existing grades.

# 3.02 PREPARATION OF GRADE

- A. Loose materials shall be removed from all cut surfaces. Exposed soils shall be scarified to a minimum depth of 6 inches and moistened (dried) to 2 to 3 percent above optimum moisture content, and re-compacted to a minimum of 95 percent relative compaction based on ASTM D1557 prior to placing any required backfill or base course.
- B. The bottom of all excavations shall be rendered firm and dry (except as noted).

#### 3.03 COMPACTION

A. Compaction of backfills, subgrade soils, aggregate base, aggregate subbase, and other soil materials shall be accomplished to the following density criteria in horizontal lifts of thicknesses noted, or if not noted, as compatible with the compaction equipment used.

Material	Minimum Percent Relative Compaction (ASTM D1557)	Maximum Uncompacted Lift Thickness (Inches)
Subgrade soil (minimum of 12-inch depth) below roads, parking lots,	95	8
sidewalks, foundation and slabs		
Base and subbase fill for pavement support:		
More than 3 feet below finish grade	90	8
Less than 3 feet below finish grade	95	8
Base course below asphalt or concrete pavement	95	8
Utility bedding and embedment	90	6
Non-structural backfill in utility trenches	90	6
Structural backfill in utility trenches	95	6
Non-structural fills/backfills	90	8
Structural fills/backfills	95	8

- B. Fill and backfill soils shall be aerated and placed at moisture content of 2 to 3 percent over optimum. Flooding or ponding of any fill or backfill materials and jetting of materials will not be permitted.
- C. No placement or compacting shall be done when either the previously placed or the new materials are too wet from rain or excess application of water to obtain the compaction specified. At such time, work shall be suspended until the previously placed and/or new materials have dried sufficiently to permit proper compacting.
- D. Uniform compaction of embankment slope faces may be developed either by (1) overbuilding the embankments and then trimming to final slope configuration, or (2) by close attention to slope face rolling and compaction which should be accomplished after each 4 feet of vertical embankment has been built.

#### 3.04 EXCAVATION BELOW GRADE

A. If the Contractor excavates below grade through error or for its own convenience, the Contractor may be directed by the Engineer to replace the over-excavated material with structural fill/backfill as acceptable to the Engineer. The work of excavating below grade and furnishing and placing the acceptable material shall be performed at no additional cost to the District.

# 3.05 MISCELLANEOUS EXCAVATION

A. The Contractor shall perform all the remaining miscellaneous excavation. The Contractor shall make all excavations necessary to permit the placing of landscaping, for constructing roadways, walks, slabs, or any other miscellaneous earth excavation required under this Contract.

# 3.06 TRENCH EXCAVATION, EMBEDMENT, AND BACKFILLING

- A. Excavation for all trenches required for the installation of pipes shall be made to the depths and widths indicated on the Drawings. Safe and suitable access shall be provided for all excavations in accordance with CAL-OSHA. The Contractor shall render the bottom of the excavations firm and dry. It is the Contractor's responsibility to support or temporarily relocate, and protect existing utilities across trenches and other narrow structural excavations.
- B. Rock and/or boulders shall be removed to a minimum clearance of 6 inches around the bottom and sides of all the pipes being installed.
- C. Pipes are to be installed in bedding. The trench may be excavated by machinery to or just below the designated subgrade, provided that the material remaining in the bottom of the trench is no more than slightly disturbed.
- D. Pipe Bedding, Embedment, and Backfill
  - After completion of the trench excavation and proper preparation of the trench bottom, bedding material shall be placed and compacted on the trench bottom for support under the pipe. Bell holes and similar excavations for appurtenances shall be hand excavated. All pipe shall be installed in such a manner as to ensure full support of the pipe barrel over its entire length and under appurtenances.
  - 2. Material for bedding and embedment shall be pipe bedding as specified herein unless otherwise shown on the Drawings.
  - 3. Laying and joining of pipe shall be as specified for the individual type of pipe. After joining flexible pipe it may be adjusted to line and grade as noted on the Drawings.
  - 4. As soon as practicable after pipe has been installed and joined, embedment material shall be placed around and over the pipe to the limits as noted on the Drawings. It shall be placed with equipment and by hand, and compacted by suitable hand-operated equipment, in lift thicknesses as defined above, paying particular attention to bell holes, sling holes, and elimination of voids and to ensure uniform support for the pipe. All bedding and embedment shall be compacted to not less than 90 percent relative compaction (ASTM D1557) unless otherwise shown on the Drawings.
  - 5. All pipe shall be embedded to a minimum height of 12 inches over the top of the pipe. The pipe bedding material shall be brought up in hand

- operated equipment compacted lifts not exceeding the thickness specified in Paragraph 3.03A, approximately equal on each side of the pipe. The tamping shall be done so as to not disturb or damage the pipe or fittings.
- 6. Jetting or flooding shall not be permitted.
- E. The Contractor shall meet the following criteria when his/her installation method includes the use of a trench "box":
  - 1. When installing flexible pipe (PVC, steel, ductile iron, corrugated metal pipe, etc.), the bottom of the box shall not extend below mid-diameter. This is to prevent loss of soil between the box and the pipe bedding which could result in excessive deflection of the installed pipe.

# 3.07 BACKFILLING WITH STRUCTURAL FILL/BACKFILL

- A. Place structural fill/backfill in layers having a maximum thickness and compaction effort as specified in Paragraph 3.03A.
- B. Backfilling work within 8 feet of structures shall be completed using compaction equipment weighing less than 1,000 pounds.

#### 3.08 DISPOSAL OF MATERIALS

- A. Excavated material shall not be stacked on any excavation or over buried pipes or structures. Inconvenience to traffic and work by others shall be avoided as much as possible. Excavated material shall be segregated for use in backfilling as structural fill/backfill, non-structural (fill/backfill, trench backfill material, or for off-site disposal).
- B. Surplus excavated material shall be disposed of by the Contractor off the work site. Any costs associated with the hauling and disposal of this surplus material shall be borne by the Contractor. If too much suitable fill material is removed from the site, the cost of bringing it back will be the responsibility of the Contractor.
- C. Material which is unsuitable for fill, including rock, cemented materials, boulders, broken concrete, asphalt and other materials, shall be removed and disposed of at the Contractor's expense at a waste disposal or landfill site conforming to all local, State, and Federal regulations.

#### 3.09 FINISH GRADING

A. Finish grading in preparation for placing of paving, sod, walks, slabs, and appurtenances shall be performed at all places that are indicated on the Drawings, to the lines, grades, and elevations shown and otherwise as acceptable to the Engineer. During the process of grading, the subgrade shall be maintained in a well-drained condition. Finish grading for areas underlying paving, walks, structures, and slabs on grade shall be to plus or minus 0.04 feet of the designated grade.

- B. If at the time of grading it is not possible to place any material in its proper section of the permanent embankment, fill, or excavation, such material shall be stockpiled for later use in designated staging areas. No extra payment will be made for the stockpiling or double handling of excavated material.
- C. Stones or rock fragments larger than 3 inches in their greatest dimensions will not be permitted in the top 6 inches of the finished subgrade of fills or embankments.
- D. In cuts, all loose or protruding rocks or boulders on the back slopes shall be barred loose or otherwise removed to line or finished grade of slope. All cut and fill slopes shall be uniformly dressed to the slope, cross-section and alignment shown on the Drawings.

#### 3.10 SOIL TESTING/QUALITY ASSURANCE

- A. Where referred to in the Specifications, "compaction" or "relative compaction" shall refer to in-place dry density of soil expressed as a percentage of the maximum dry density of the same material as determined by ASTM D1557.
- B. Prior to the general placement of any materials and during such placement, the Engineer will select areas within the limits of any work for testing the degree of compaction obtained. Contractor shall pay for soil tests to be made by an independent testing laboratory in accordance with article 19.02.08. The Contractor shall cooperate fully in obtaining the information desired. The frequency of testing shall be as determined and signed by the Engineer. Testing shall be in accordance with the ASTM references listed above.
- C. If test results are unsatisfactory, all costs involved in correcting the deficiencies in compacted materials shall be borne by the Contractor without additional cost to the District. Costs of retesting and reinspection required as the result of inadequate, insufficient, or incomplete work by the Contractor shall be deducted from the Contract amount.

**END OF ARTICLE** 

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#### 1.01 SUMMARY

- A. The Contractor shall provide temporary shoring necessary to support the sides of the excavation and trenches and to stabilize or prevent movement of the existing adjacent roadway, and adjacent structures. The shoring system shall be designed to prevent limited ground movement as specified in this Article, including movements at existing walls and slabs, in order to prevent and damage to the adjacent roadway, underground utilities, or structures; to prevent delay of the work; and to protect workers' life and safety during construction. The Contractor shall evaluate and design the appropriate shoring system; install the appropriate shoring system; monitor movements of adjacent structures and roadway grades; report results of the monitoring; and maintain temporary shoring as required by CAL/OSHA and other applicable governmental regulations and agencies.
- B. Falsework and vertical shoring shall be designed and constructed in accordance with the requirements in Section 48 and Section 51-1.03 of the State Specifications and Section 17.17 of the Construction Safety Orders, Title 8, California Administrative Code, and as modified herein.
- C. The Contractor's attention is directed toward Article 8.05, "Excavation Safety Plans," Article 4.10, "Preservation of Property," Article 4.11, "Contractor's Responsibility for the Work," and Article 16.05, "Rights of Way," of these Specifications, and Section 7-1.02K(6), Occupational Safety and Health Standards of the State Specifications.
- D. This Section requires the Contractor to employ California registered professional engineers and land surveyors.
- E. All excavated air wash pipe access points require an excavation shoring protection system.

# 1.02 REFERENCES

- A. Related Articles:
  - 1. Article 8.05—Excavation Safety Plan
  - 2. Article 24.01—Excavation and Backfill
- B. American Institute of Steel Construction, Inc. (AISC):
  - 1. Manual of Steel Construction Allowable Stress Design

- C. California Code of Regulations (CCR):
  - 1. Title 8—Industrial Regulations
- D. California Labor Code (CLC).
- E. Department of the Navy Naval Facilities Engineering Command (NAVFAC):
  - 1. NAVFAC Design Manual 7.2—Foundations and Earth Structures
  - 2. NAVFAC Design Manual 7.3—Soil Dynamics and Special Design Aspects
- F. International Conference of Building Officials (ICBO) and State of California:
  - 1. California Building Code (CBC)
- G. State of California Department of Transportation (CALTRANS):
  - 1. CALTRANS California Trenching and Shoring Manual

#### 1.03 SYSTEM DESCRIPTION

- A. Where General Engineering Design Practice is specified, provide drawings and signed calculations and have the design performed by a civil or structural engineer registered in the State of California:
  - 1. Provide design calculations that clearly disclose assumptions made, criteria followed, and stress values used for the materials being used.
  - 2. Furnish references acceptable to the Engineer substantiating the appropriateness of design assumptions, criteria, and stress values.
- B. Design and Qualifications Requirements:
  - General:
    - a. Design the means for safe and stable excavations in accordance with local, State, and Federal law and for more conservative practices specified herein.
    - b. Design steel members in accordance with the California Building Code and the AISC Manual of Steel Design.
    - c. Design shoring involving materials other than steel in accordance with California Building Code.
    - d. When electing to design with material stresses for temporary construction higher than allowable stresses prescribed in the Manual of Steel Construction and the California Building Code, increase in such stresses shall not exceed 10 percent of value of prescribed stresses.

- e. Generally acceptable references for the design of shoring and excavations are as follows:
  - (1) CALTRANS California Trenching and Shoring Manual
  - (2) NAVFAC Design Manual 7.2
  - (3) NAVFAC Design Manual 7.3
- C. Excavation Support and Protection Performance Requirements:
  - General:
    - a. Support faces of excavations and protect existing structures and improvements in vicinity of excavations from damage and loss of function due to settlement or movement of soils, alterations in groundwater level caused by such excavations, and related operations.
    - b. Additional Requirements:
      - (1) Nothing herein shall substitute or diminish the obligations of Contractor for the furnishing of a safe place of work pursuant to provisions of the Occupational Safety and Health Act of 1970 and its subsequent amendments and regulations and for protection of the Work, structures, and other improvements.
  - 2. Provide safe and stable excavations by means of sheeting, shoring, bracing, and other means and procedures, such as draining and recharging groundwater and routing and disposing of surface runoff, required to maintain the stability of soils and rock.
  - 3. Provide support for trench excavations for protection of workers from the hazard of caving ground.
  - 4. Provide shoring whenever any of the following conditions exist:
    - a. For all excavations related to the air wash pipe access.
    - b. Where indicated on the Drawings.
    - c. Where required to keep all access roads and access to structures continuously open. All access roads and access to structures shall be maintained open except as noted otherwise.
    - d. Where otherwise required by law.
  - 5. For safe and stable excavations, use appropriate design and procedures for construction and maintenance to minimize settlement of supported

ground and to prevent damage to structures and other improvements, including:

- a. Using stiff support systems.
- b. Following the appropriate construction sequence.
- c. Preventing soil loss through or under support system.
- d. Providing surface runoff collection, routing, and discharge away from excavations.
- e. Where dewatering by well points is necessary, recharge groundwater as necessary to prevent settlement in area surrounding excavation.
- f. Beneath excavation, maintain groundwater levels at least 3 feet beneath bottom of excavation.
- g. Not applying shoring loads to existing structures and other improvements.
- h. Not changing existing soil loading on existing structures and other improvements.
- Where shoring is used, horizontal and vertical settlement shall be limited to ½ inch. Fill voids between shoring and cuts to prevent cave-in or surface cracks.

# 1.04 SUBMITTALS

- A. It is the Contractor's sole responsibility to design a shoring system and falsework, where required. The District shall not be liable for use of the shoring system and falsework. The shoring plan and falsework shall be designed by a registered Civil or Structural Engineer in the state of California and shall include supporting design calculations, earth pressure diagrams, and a plan for shoring and falsework installation. The shoring plan and falsework plan shall be submitted to the Engineer in accordance with Article 8.05, "Excavation Safety Plans," of these Specifications.
- B. Prior to the installation of any shoring or falsework, the Contractor shall submit detailed design calculations, and working drawings, for showing a plan layout and detail of all shoring and falsework systems for the Engineer's review. The plan shall include shoring and falsework locations, details of control points, and method of measurement with initial elevations and locations. Copies of field notes pertinent to the shoring monitoring, which show the just-after or baseline shoring location and condition, and subsequent required measurements and relative movements, shall be furnished to the Engineer. The calculations and Drawings shall be signed by a registered civil or structural engineer in the State of California. Construction shall not proceed without the Engineer's review and approval of the Contractor's calculations and Drawings, as well as, the shoring

- plan. Submittals shall be in accordance with Article 8.05 and Article 7.01, of these Specifications.
- C. Review by the Engineer of the calculations and Drawings or inspection performed by the Engineer will in no way relieve the Contractor of full responsibility for the sheeting, shoring, falsework and/or bracing systems.

#### 1.05 MEASUREMENT AND PAYMENT

- A. Unless noted otherwise, full compensation for Work involved in complying with all requirements per this Article as shown on the Drawings, as specified in these Specifications, and as directed by the Engineer shall be considered incidental and included in the Contract Price(s) paid for the various items of Work involved; no additional time shall be allowed or payment made.
- B. Any delays to the schedule, as a result of a shoring system that does not meet the specified performance requirements, and for resubmitting a revised shoring system, shall be at the Contractor's sole expense.
- C. Refer to Article 21.01—Bid Items.

# PART 2 PRODUCTS (NOT USED)

#### PART 3 EXECUTION

# 3.01 TRENCHING AND EXCAVATION SAFETY PLANS

A. Develop, provide, and implement trench excavation and excavation safety plans as required by the California Labor Code, Construction Safety Orders, and other relevant law.

# 3.02 INSTALLATION AND REMOVAL

- A. Install the means for providing safe and stable excavations.
- B. All shoring shall be removed by completion of the Work unless otherwise noted. Exceptions include rock anchors and soil nails that are at least 5 feet below existing and proposed underground infrastructure. Select shoring system and method of removal which will minimize the creation of voids and the creation of settlement. To prevent settlement caused by pulling shoring, fill voids with sand, pea gravel, or pressure injected grout if specifically approved by the Engineer. The methods used shall prevent settlement.

# 3.03 MAINTENANCE

A. Where loss of soil occurs, plug gap in shoring and replace lost soil with compacted structural fill, Class 2 aggregate base, or low-density concrete backfill material.

- B. Shoring shall be inspected no less frequently than weekly and needed repairs shall be completed as soon as required due to safety and the potential for damage.
- C. The Contractor shall provide shoring design calculations as necessary to specify the maximum allowable ground movement near the top facing and ground surface behind the temporary excavation support. Where measurements and observations indicate the possibility of failure or excessive movement of excavation support, or damage to existing structures and utilities, take appropriate action immediately. Appropriate action by the Contractor shall include, but not be limited to, placement of additional excavation supports, additional shoring design calculations, exploratory excavations, expediting work to complete and backfill excavations, repair of damage to existing structures and utilities, soil stabilization, greater ground and surface water control, and associated work.
- D. Movement of existing structures and utilities (due to nearby work by the Contractor) equal to or greater than 0.02 feet in any direction is considered excessive and damage, as is distress in piping or electrical conduits, shifting of openings (e.g., doors, windows), structural cracking, the creation of leaks from groundwater, surface water, or rainfall, and similar defects. In addition, observed movement in any direction near the top facing and ground surface behind the excavation supports equal to or greater than the specified allowable movement is also considered excessive and damage.

**END OF ARTICLE** 

#### 1.01 SUMMARY

- A. Asphaltic concrete (AC) pavement for roadways, parking areas, re-surfacing, ramps, grade adjustments, and other AC pavement replacement.
- B. New asphaltic concrete pavement sections shall be slurry sealed, tie into existing pavement sections and deemed acceptable by the Engineer.
- C. Removal, preparation, and replacement or repair of existing asphaltic concrete pavement that is damaged by Contractor's operations during the construction of the Work.
- D. Removal, preparation, and replacement of existing asphaltic concrete pavement required for potholing and other Work specified within this document.

# 1.02 REFERENCES

- A. Related Articles:
  - 1. Article 23.03—Demolition
  - 2. Article 24.01—Excavation and Backfill
- B. State of California, Department of Transportation (Caltrans):
  - 1. Standard Specifications
- C. American Society for Testing and Materials (ASTM):
  - D 1557—Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort
  - 2. D 5581—Standard Test Method for Resistance to Plastic Flow of Bituminous Mixtures Using Marshall Apparatus

# 1.03 SUBMITTALS

- A. Submittals shall be in accordance with Article 7.05 regarding submittals.
- B. Product information for aggregate materials, asphaltic concrete mix design, prime and tack coats, and slurry seal. Minimum information shall include source of aggregates and asphalt, asphalt content, proposed recycled asphalt products content, gradation, unit weight of mix design, gradation, air void content, oils used, stabilometer values, other test results, and method of placement needed for comparison with Caltrans Standard Specifications.

# 1.04 MEASUREMENT AND PAYMENT

A. Unless noted otherwise, full compensation for Work involved in complying with all requirements per this Article as shown on the Drawings, as specified in these Specifications, and as directed by the Engineer shall be considered incidental and included in the Contract Price(s) paid for the various items of Work involved; no additional time shall be allowed or payment made. Refer to Article 21.01—Bid Item 6.

#### PART 2 PRODUCTS

#### 2.01 MATERIALS

- A. Prime (tack) coat shall be Type SC-70 liquid asphalt conforming to the requirements of the Caltrans Standard Specifications Section 39-4.02 and 93.
- B. Asphaltic concrete surfacing for roadways, parking areas, ramps, grade adjustments, and walkways shall conform to the requirements of Caltrans Standard Specifications Section 39. Mineral aggregate shall be Type B, 3/4-inch maximum gradation, medium class.
- C. Asphalt to be mixed with the aggregate shall meet the requirements of Caltrans Standard Specifications Section 92, AR 4000, steam-refined paving asphalt.
- D. Recycled asphalt products content shall be the lower of that allowed by Caltrans Standard Specifications and a maximum of 15 percent of the aggregate weight.
- E. Glass shall not be used.
- F. Slurry seal shall conform to Caltrans Standard Specification Section 37-03, Type I.
- G. Asphalt or asphaltic concrete component quantities not defined herein or specifically defined in the Caltrans Standard Specifications shall be those typically used for high quality pavement products.
- H. All finished asphalt concrete mixes shall be such so as to provide a smooth, solid surface, and shall be free of voids as determined solely by the Engineer.

## PART 3 EXECUTION

# 3.01 GENERAL

- A. The Contractor shall conform to the requirements of Sections 37 and 39 of the State Specifications.
- B. The Contractor shall conform to the requirements of the governing agency's Technical Specifications and Standard Details. If the Drawings and Specifications should be found to be contradictory to the governing agency's Specifications in any part, the governing agency's requirements shall govern.

C. Footpaths, sidewalks, asphalt, concrete curbs and gutters, and driveways shall be replaced in kind.

## 3.02 CUTTING PAVEMENT

- A. Existing asphaltic pavements to be removed shall be cut by a wheel cutter, clay spade, or other device capable of making a neat, reasonably straight and smooth cut without damaging adjacent pavement that is not to be removed.
- B. The existing pavement shall be saw cut and trimmed off a minimum of an additional six inches on each side of the trench or pavement joint after placement of required base course material and just prior to placement of asphaltic concrete for pavement replacement, and the trimmed edges shall be painted with a coating of prime coat immediately prior to constructing the new abutting asphaltic pavements.
- C. All removed asphaltic pavement materials and aggregate is the property and disposal responsibility of the Contractor.

#### 3.03 PAVEMENT INSTALLATION

- A. The construction of pavements of asphaltic concrete shall conform to the requirements of the Caltrans Standard Specifications and upon completion; the pavement shall be true to grade and cross sections.
- B. The Contractor shall not pass equipment over any pipe, drain, utility line, or structure before it is protected by ample fill material, properly compacted. Any damage to such facilities shall be promptly repaired by the Contractor at no additional cost to the District.
- C. The subgrade shall be brought to the required grades and cross sections by grinding, excavating, filling, blading, and compacting as specified.
- D. Asphaltic concrete shall be constructed only when the surface is dry, when the atmospheric temperature in the shade is 40 degrees F and rising or above 50 degrees F if falling. No asphaltic concrete shall be placed when the weather is foggy or rainy or when the base on which the material is to be placed is in a wet or frozen condition.
- E. Base and subbase materials shall be bladed to a smooth surface and shall be compacted to 95 percent relative compaction as determined by ASTM D1557. Subgrade for pavement shall not vary more than 0.05 feet from the specified road grade.
- F. Asphaltic concrete shall be plant mix having a minimum overall thickness of 4 inches unless greater thicknesses are shown is required by authorities having jurisdiction or greater thicknesses are shown on the Drawings. Compact the asphaltic concrete to at least 95 percent of the relative compaction achieved by a specimen of the same mix design subjected to 75 blows per ASTM D5561.

- G. All existing asphaltic pavement and concrete surfaces to be paved over or against shall receive a tack coat at a minimum rate of 0.1 gallons per square vard.
- H. The total width of the accepted aggregate base material shall receive a bituminous prime coat at the minimum rate of 0.25 gallons per square yard. Application shall conform to Caltrans Standard Specifications. Adjacent ground, structures, gutters, curbing, and fencing shall be protected from spraying operations.
- I. When asphaltic concrete is to be applied over existing pavement and local irregularities (with only very minor damage) in the existing surface would result in a course of more than specified thickness, the surface of the existing pavement shall be brought to uniform contour by patching with asphaltic concrete, thoroughly tamped or rolled until it conforms with the surrounding surface, and a prime coat applied.
- J. When asphaltic concrete is to be applied over existing pavement, existing surfaces adjoining gutters and other permanent features shall be ground to create smooth transitions and to maintain surface water flow lines. Also grind existing asphaltic concrete as required where indicated or shown on the Drawings to maintain existing finish grades.
- K. Potholes and depressed areas in existing pavements to be overlaid with new asphaltic concrete shall be saw cut and completely removed subgrade and aggregate base course prepared, and patched with new asphaltic concrete before the installation of new pavement overlays.
- L. Spreading shall be as nearly continuous as possible. When asphaltic concrete is laid against vertical surfaces such as gutters, the face of the vertical surface shall be roughened for proper bonding, cleaned, and then painted with a light coating of asphalt cement or emulsified asphalt.
- M. All AC surface and AC base courses shall be machine-placed.
- N. At terminations of new surface courses, the asphaltic concrete shall be feathered into the existing surface over such a distance as may be required to produce a smooth riding transition. Existing pavements to be over-laid shall be ground or removed as required to avoid feather edges less than 1-inch in depth.
- O. Grind all edges with concrete swales and gutters to provide minimum 1-inch depth at transition and to maintain original drainage flow lines between new and existing surfacing unless otherwise noted.
- P. The finished surface shall be of uniform texture. When tested with a 10-foot straightedge laid on the surface parallel with the centerline of the road, the variation of the surface from the testing edge of the straightedge shall not be more than 1/4 inch (0.63 cm) except at grade changes.

- Q. All existing valve boxes, manholes, handholes, pull boxes, grounding boxes, vaults, and other flush utility features shall be raised or lowered to the new finish grade.
- R. The top of pavement shall match utility surface features such as valve boxes, corrosion protection test station boxes, electrical and telephone pull boxes, utility vaults, etc. Wherever possible drainage should be directed away from such utility structures, except drainage structures such as curb inlets and drop inlets.

#### 3.04 ROADWAY SURFACE REMOVAL

- All pavement cuts shall be neat and straight to provide an unfractured and level pavement joint for bonding existing surfacing with pavement replacement.
   Pavement cuts shall be parallel or at right angles to the road or area centerlines.
   All cut edges shall provide clean, solid, vertical faces free from all loose material.
- B. All existing crushed aggregate and asphaltic concrete removed, and any excess new material shall be hauled away from the project site and legally disposed of by the Contractor.

# 3.05 RESURFACING

- A. In all existing pavement areas where the surface is removed, broken or damaged by Contractor's equipment or in which the ground has caved in or settled due to the installation of the improvements, or areas designated to be repaved, resurfaced, or modified, the surface shall be restored to the original grade by the Contractor.
- B. Prior to resurfacing, the existing surfacing shall be removed as provided above. All broken and jagged edges of the pavement edge shall be straight. Areas to be cut shall be indicated until these edges have been sawed. If during the initial removal of the existing pavement a method of removal was used which disturbed the adjoining pavement, or if during general construction operations the adjacent pavement was disturbed, then this adjoining pavement must also be removed and replaced. Where irregular surfaces are to be surfaced, existing pavement shall be cut parallel to the alignment of the pipe or to the centerline of the roadway. Asphaltic concrete pavement shall be saw cut to a minimum depth of two inches at a point not less than six inches outside the limits of excavation or the previous pavement cut (made by pneumatic tools), whichever limits are the greater. The additional surfacing so cut shall be removed and disposed of by the Contractor prior to resurfacing.
- C. Restoration of asphaltic concrete pavement shall be to the same section as the existing roadway/paved area or a minimum thickness of 5-inches, whichever is greater.
- D. Wherever asphaltic concrete pavement does not terminate against a curb, gutter, or another pavement, the Contractor shall provide a ground contact rated, pressure treated hem-fir, No. 2 or better, 2 by 6 header board, securely staked and backfilled in place.

#### 3.06 PAVEMENT MARKING REPAIR

A. All existing traffic markings and signs painted on areas which are covered with new or repair pavement (e.g., parking lot lines) shall be replaced in kind.

# 3.07 SLURRY SEAL APPLICATION

- A. Slurry seal shall be applied to all new asphalt concrete pavement surfaces and existing asphalt concrete pavement surfaces as shown on Drawings near the completion of all work, after all heavy construction traffic is finished.
- B. The slurry seal shall be applied in accordance with Caltrans Standard Specification 37-3.
- C. Protect curbs, gutters, structures, walls and all other areas from overspray.

#### 3.08 SPECIAL REQUIREMENTS

A. The restoration of all surfaces, as described herein, disturbed by the installation or repair to underground facilities shall be completed as soon as is reasonable and practical.

#### 3.09 CLEAN-UP

A. After all installation, repair and restoration of paving has been completed, all excess asphalt, dirt, rock and other debris shall be removed from the roadways. Adjoining curbs, gutters, structures, and other surfaces over-sprayed or splattered shall be cleaned of all asphalt concrete products.

# 3.10 REPAIR OF PAVEMENT SURFACES

- A. Following Project completion, the Contractor shall repair settled pavement over trenches, excavation, or backfill placed as part of this Work during the period of the warranty of the Work.
- B. All materials and labor required for the repair of paving shall be supplied by the Contractor and the work shall be done in a manner satisfactory to the Engineer.

# **END OF ARTICLE**

#### 1.01 SUMMARY

A. The work specified in this Article includes furnishing and installing cement mortar grout, cement mortar for pipe joints, nonshrink grout, and nonshrink epoxy grout as shown on the Drawings and as specified herein.

# 1.02 REFERENCES

A. American Society for Testing and Materials (ASTM)

# 1.03 SUBMITTALS

- A. Submit product data and manufacturer's application instructions.
- B. Submit certification that the products are approved for use in contact with potable water per NSF 61.
- C. Certification from the manufacturer that the grout (where required) is appropriate for the intended application.

#### 1.04 MEASURMENT AND PAYMENT

A. Unless noted otherwise, full compensation for Work involved in complying with all requirements per this Article as shown on the Drawings, as specified in these Specifications, and as directed by the Engineer shall be considered incidental and included in the Contract Price(s) paid for the various items of Work involved; no additional time shall be allowed or payment made.

# PART 2 PRODUCTS

# 2.01 MATERIALS

- A. Cement Mortar grout shall consist of 1 part of Portland cement and 2 parts of clean sand by volume, with sufficient water to obtain workable consistency.
- Cement Mortar for Pipe Joints shall be in accordance with Appendix A of AWWA C205.
- C. Nonshrink grout (or nonshrink cementitious grout) shall meet or exceed the requirements of ASTM C1107, Grades B or C and CRD C-621. Grouts shall be Portland cement based and shall not contain expansive cement or metallic particles. The grouts shall exhibit no shrinkage when tested in conformity with ASTM C827. Approved products include Masterflow 928 by Master Builders, Inc.; Hi Flow Grout by the Euclid Chemical Co.; SikaGrout 212 by Sika Corp.; or equal. Nonshrink grout shall be delivered as preblended, prepackaged mixes

Grout Article 30.03

requiring only the addition of water. Maximum thickness of grout shall be 2 inches.

D. Nonshrink epoxy grout shall be a three-component, 100-percent solids system consisting of epoxy resin, hardener, and blended aggregate. It shall have a compressive strength of 14,000 psi in 7 days when tested per ASTM D 695. Approved products include Ceilcote 648 CP by Master Builders Inc.; Five Star Epoxy Grout by U.S. Grout Corp.; Sikadur 42 Grout Pak by Sika Corp. High Strength Epoxy Grout by the Euclid Chemical Co. or equal. Nonshrink epoxy grouts shall be delivered as premeasured, prepackaged, three component systems requiring only blending as directed by the manufacturer.

# PART 3 EXECUTION

## 3.01 INSTALLATION

- A. Concrete surfaces to receive grout shall be clean and sound.
- B. Roughen concrete surfaces by chipping, sandblasting, or other mechanical means to ensure bond of the grout to the concrete. Remove loose or broken concrete.
- C. Remove all loose rust, oil or other deleterious substances from metal embedment or bottom of base plates prior to the installation of the grout.
- D. Concrete surfaces shall be washed clean and then kept moist for at least 24 hours prior to the placement of cementitious or cement grout. Upon completion of the 24-hour period, visible water shall be removed from the surface prior to grouting.
- E. Epoxy based grouts do not require the saturation of the concrete substrate. Surfaces in contact with epoxy grout shall be completely dry before grouting.
- F. Mix, apply, and cure products in strict compliance with the manufacturer's recommendations and this Article.

# 3.02 QUALITY ASSURANCE / QUALITY CONTROL

- A. Testing shall be in accordance with the manufacturer's recommendations.
- B. Testing of the grout shall be in accordance with the manufacturer's recommendations. Field testing shall not be conducted until the installation is certified as acceptable by the manufacturer. Field testing may not be required for all items.

## **END OF ARTICLE**

## 1.01 SUMMARY

- A. This article includes the fabrication and installation of pipe fittings, couplings (flanged or unflanged), adapter couplings, pipe joints, all special sections and fittings and associated coatings and linings, as required. Unless otherwise noted, the word "piping" is intended to cover pipe, fittings, and appurtenances.
- B. Unless otherwise shown or noted in this section, stainless steel pipe shall be Schedule 10 or match existing pipe to ASTM A 312-83 "Specifications for Seamless and Welded Austenitic Stainless Steel Pipe."

#### 1.02 REFERENCES

- A. Related Articles:
  - 1. Section 40—Lining and Coating, and Painting
- B. American Society of Testing and Materials (ASTM)
  - 1. ASTM A193—Stainless Steel Bolts, Hex Cap Screws, and Studs
  - 2. ASTM A194—Stainless Steel Nuts
  - 3. ASTM A262, Practice A—Standard Practices for Detecting Susceptibility to Intergranular Attack in Austenitic Stainless Steels
  - 4. ASTM A269—Standard Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service
  - 5. ASTM A276—Standard Specification for Stainless and Heat-Resisting Steel Bars and Shapes
  - 6. ASTM A312—Standard Specification for Seamless and Welded Austenitic Stainless Steel Pipe
  - 7. ASTM A530—Standard Specification for General Requirements for Specialized Carbon and Alloy Steel Pipe
  - 8. ASTM A774—Standard Specification for As-Welded Wrought Austenitic Stainless Steel Fittings for General Corrosive Service at Low and Moderate Temperatures
  - 9. ASTM A778—Standard Specification for Welded, Unannealed Austenitic Stainless Steel Tubular Products

- C. American National Standards Institute (ANSI):
  - ANSI B16.5—Stainless Steel Pipe Flanges and Flanged Fittings
  - 2. ANSI B16.9—Factory-Made Wrought Steel Buttwelding Fittings
  - 3. ANSI B36.19—Stainless Steel Pipe
- D. American Water Works Association (AWWA)
  - 1. AWWA C606—Grooved and Shouldered Joints
  - 2. AWWA C220—Standard for Stainless Steel Pipe
  - 3. AWWA C226—Stainless Steel Fittings
  - 4. AWWA C231—Field Welding of Stainless

## 1.03 SUBMITTALS

- A. The Contractor shall furnish detailed dimensioned shop drawings and calculations covering the details of all pipe, fittings, special sections, including reinforcement joint details, and miscellaneous items to be furnished and fabricated for the air wash pipes. Dimensions, tolerances, wall thickness, coating, lining, and other pertinent information shall be shown. Shop drawings shall include pipe manufacturer's allowable joint deflection limits of gasketed joint pipe for unstressed joints and for joints stressed to the manufacturer's maximum permissible amount without leakage. Material properties of the lining, cylinder, and coating materials to be used shall be included in sufficient detail to determine compliance with the Contract Documents. These shall be submitted to the Engineer for review prior to fabrication in accordance with Article 7.05.
- B. The proposed test methods and procedures shall, as a minimum, address the following items of work and areas of concern.
  - Welding—Manual and Automatic Machines with Operator(s):
     Qualifications, Testing, Production Testing, Frequency of Test and Requalification, Reporting
  - 2. Inspection Report of Joints—Shall include final weld sizes
  - 3. Sustained Pressure Testing, Reporting
  - 4. Retesting, Welds, and Epoxy Coating—Causative Evaluation,
    Procedures, Limit(s) to Repair, Pipe Location Identification, Reporting
  - 5. Fusion Bonded Epoxy—Epoxy Mix (by batches), Application (test cylinders), Reporting
  - 6. Tolerances—Pipe, Epoxy Lining
  - 7. Physical and Chemical Properties

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- 8. Burst Strength Testing
- C. To facilitate the review of the testing information being submitted on the pressure pipe, it shall be prepared and presented in an orderly format to the Engineer for favorable approval. The format shall be such that it provides for the following:
  - 1. Defines the quality control/assurance procedures and reporting system on the manufacture of the pressure pipe and all its component parts.
  - 2. Includes a summary of all test results.
  - 3. Includes a representative sample of detailed test results.
  - 4. Includes an explanation of the method of selection of the representative sample of detailed test results.
  - 5. The maintenance by the Contractor of all records is necessary to assure that, for each separate fabricated section of pipe, complete traceability is established for all materials, testing, fabrication procedures, history of repairs, and machine/operator identification. The Engineer reserves the right to review and/or obtain copies of any or all of these records.
  - 6. Documentation including the description of the proposed means of accurately measuring the amount of water used during the hydrostatic testing.
- D. Final Piping layout with record drawing information (CAD electronic format) certified by a Professional Civil or Mechanical Engineer licensed in the State of California.
- E. Scaled AutoCAD drawings and AutoCAD electronic files for all new piping shall include:
  - 1. Coordinate file (i.e., Excel file) to include Point ID, Northing, Easting, Elevation, Description
  - 2. Metadata file (i.e., text report which details the work done) to include, but not limited to Vertical/Horizontal Datum, units of measure, instruments used, name of crew members, data collection procedure, office processing procedure, field and office software used, etc.
- F. Filter media protection plan (see 32.02 part 3.04).

# 1.04 PIPING LAYOUT SHOP DRAWINGS AND COORDINATION

A. Piping sizes, locations, and materials are indicated on Drawings. Not every offset, fitting, pip support, obstacle, and interface is shown. The Contractor shall complete the following work to coordinate and plan the coherent construction of piping systems in the systems with actual facilities and routes, pipe supports maintenance access, and constructability.

- 1. Show all components of the layout including (where applicable):
  - a. Dimensioned routing of piping with elevations
  - b. Dimensioned horizontal and vertical clearance between piping and/or adjacent piping, trench wall, trench grate, etc.
  - c. Elbows, couplings unions, reducers, drain points, restraint devices, thermal expansion joints and other fittings
  - d. Pipe supports
  - e. Elevations and slope of piping
  - f. Wall penetrations
  - g. Nearby obstacles (e.g., other piping, conduits, structural components)
  - h. References to typical civil, mechanical, electrical and instrumentation details
  - i. North arrows
  - j. Structural identification

## 1.05 MEASUREMENT AND PAYMENT

A. Unless noted otherwise, full compensation for Work involved in complying with all requirements per this Article as shown on the Drawings, as specified in these Specifications, and as directed by the Engineer shall be considered incidental and included in the Contract Price(s) paid for the various items of Work involved; no additional time shall be allowed or payment made.

## PART 2 PRODUCTS

## 2.01 MATERIALS

#### A. SHOP COATINGS AND LININGS

- 1. Shop coatings and linings for fabricated pipe shall be in accordance with all applicable AWWA and NSF standards.
- 2. Unless otherwise noted, shop coatings and linings for fabricated stainless steel pipe shall have epoxy coatings and linings.
- 3. All steel pipe shall be fusion epoxy-coated, or liquid epoxy-coated in accordance with these Specifications and painted to provide uniform color after assembly.
- 4. Fusion Bonded Epoxy Coatings and Linings shall conform to AWWA Standard C213.

# B. PIPE AND FITTINGS

- All Type 316L stainless steel pipe, fittings, and flanges shall be fabricated from stainless steel sheet and conform to ASTM A240 Type 316L, ASTM A778, and ANSI B36.19. Carbon content of Type 316L material shall be 0.03 percent maximum.
- 2. Flanges, where required, shall be steel flat-face ring flanges, drilling per ANSI B16.5, Class 150, conforming to ASTM A182. Finish shall be No. 1 or No. 2B. The Contractor shall verify that all flange drilling matches interfacing fittings and appurtenances.
- 3. Blind flanges shall be in accordance to the Drawings conforming to ASTM A182.
- 4. Flexible couplings shall be Type 316L Stainless Steel shall be Style 77s flexible coupling as manufactured by Victaulic, or equal.
- 5. Flanged expansion joint shall be style EZ-FLO 206 as manufactured by Garlock, or equal. Expansion joint material shall be as follows:
  - a. Tube Material—Chlorobutyl
  - b. Body Material—Nylon Tire Cord with Chlorobutyl
  - c. Cover Material—Chlorobutyl
  - d. Retaining Ring—Stainless Steel
- 6. Restrained Dismantling Joints shall be Type 316 Stainless Steel DJ400 Dismantling Joint as manufactured by ROMAC Industries, Inc., or Model 975 Dismantling Joint as manufactured by Smith-Blair, Inc. or equal.
- 7. Unless otherwise specified All nuts, bolts, and washers for joining flanged pipe, fittings, and appurtenances shall be Type 316L stainless steel and conform to ASTM A193 Grade B8M for bolts, and ASTM A194 Grade B8M for nuts. Flanged joints shall be torqued in accordance with AWWA M11 recommendations.
- 8. Unless otherwise specified, flange gaskets shall be 1/8 inch-thick, full face, cloth inserted rubber, corrosive acid and alkali free conforming to ANSI B16.21.
- Bird spikes shall be installed on top of all above ground/exposed pipe located in the west and east filters. Bird Barrier<sup>™</sup>, or equal per manufacturer's recommendation.

## 2.02 FABRICATION

- A. Pipe shall be die-formed or rolled true to dimension and round. Tolerances for length, inside and outside diameter and straightness shall conform to ASTM A530. The two edges of sheet shall be brought to line so as not to leave a shoulder on the inside of the Ends of pipe and fittings shall be perpendicular to the longitudinal axis. Longitudinal seams on pipe and fittings shall be welded by either the tungsten gas or the metallic-gas method. The interior welds shall be smooth, even and shall not have an internal bead higher than 1/16-in. All pieces shall be marked with gauge and type of stainless steel and with the initials of the inspector marked on the inside of each piece, at each end.
- B. Fittings shall be butt weld type for sizes 12-inch and larger, manufactured in accordance with ASTM A774, A778, and ANSI B16.9 of the same raw material and in the same thicknesses as the pipe. Long radius elbows up to and including 18-inch diameter shall be smooth flow; i.e., centerline to end of elbow radius shall equal 1.5 times the nominal pipe size. Reducers shall be straight tapered, cone type. Tees, crosses, laterals and wyes shall be shop fabricated from pipe, and in addition, stainless steel reinforcement pads shall be fully welded to the branch and run of the pipe to maintain the specified pressure rating of the system.
- C. Stainless steel pipe and fittings shall be supplied with the following wall thicknesses:

Diameter	Wall Thickness Schedule		
(Inches)	Per ANSI B36.19		
12 (Aboveground)	10S		
12 (Buried)	40S		

- D. All stainless-steel pipe and fittings shall be pickled at the point of manufacture, scrubbed and washed until all discoloration is removed. Pickling of piping with hydrochloric acid or other acid harmful to the base metal shall not be allowed. Pipe and fittings shall be sandblasted or cleaned with solvent or other means acceptable to the Engineer.
- E. Pipe ends shall be prepared for couplings or other type ends where required by transport and handling limitations, where required by the support layout requirements and where noted on the Drawings. Grooving (or built-up ends for Schedule 10s pipe) shall be of the coupling manufacturers standard type and grooving tools shall be of the same manufacturer as the grooved components. Contractor is responsible for ensuring rigidity of joints where required.
- F. Shop welding of fabrications shall be done according to the procedures and by welders certified per ASME Section IX. Welds shall be by an inert gas shielding process using only extra low carbon filler metals. Welds shall have a bead height of no more than 1/16- in. Butt welds shall have 100 percent penetration to the interior or backside of the weld joint. Cross-sectional thickness of welds shall be equal or greater than that of the parent metal.

# 2.03 APPURTENANCES AND ADDITIONAL PIPE JOINTS

A. Restrained joints shall be installed where indicated on the Drawings, or as directed by the Engineer. Restrained joints in manufactured pipe (with external lugs) shall be made by field welding of the joint unless harnessed mechanisms are used, such as across couplings.

# PART 3 EXECUTION

## 3.01 INSTALLATION

- A. All pipe and fittings shall be installed true to grade and alignment and pipe anchorage and/or restraint shall be provided where required. Manufacturer's instructions shall be strictly followed. All pipe shall be welded except where flanges, couplings, or flanged coupling adapters are shown on the Drawings.
- B. Special care shall be taken in placing the pipe and making the field joints.

  Bumping of the pipe in the trench will not be permitted. Fabric slings shall be used for handling coated pipe, and sandbags or cradles shall be used to support the pipe when stockpiled.
- C. Unless otherwise shown, all joints in welded stainless steel pipe shall be circumferentially welded in the field using butt straps. Minimum fillet weld leg shall equal the thickness of the adjacent steel cylinder. Field welding of joints shall conform to the requirements of AWWA C231 and American Welding Society.
- D. To assemble the joints in the field, the Contractor shall thoroughly clean all joint surfaces and gaskets, if any, with soapy water before assembly. Bolts shall be tightened alternately, evenly to the manufacturer's specified torques. Under no condition shall extension wrenches or pipe-over-handle ratchet wrenches be used to secure greater leverage.
- E. All devices shall be installed in accordance with manufacturer's instructions and bolts tightened to the manufacturer's recommended torque. Precautionary measures shall be taken to prevent damage to the device, the gaskets, and the exterior of the pipe during installation. The installed coupling shall provide a joint with no visible leaks.
- F. Welding in the field of exposed pipe shall be kept to a minimum. Field welds shall be made by welders certified under ASME Section IX and be equal in all respects to shop welds. After field welding has been done, all joints shall be thoroughly cleaned and buffed using stainless steel deburring and finishing wheels.
- G. After installation, stainless steel pipelines shall be washed clean with steam or hot water to remove any foreign material picked up during transport, storage, and installation.

# 3.02 PIPE AIR TESTING

A. Test all piping by the air test method for leakage and integrity as specified in the Piping Schedule below:

Fluid Abbreviation	Description	Material	Nominal Diameter (Inches)	Wall Thickness Schedule	Working Pressure (PSIG)	Test Pressure (PSIG), Test Medium	Allowable Leakage
AW	Filter Air Wash	Type 316L stainless steel (SSP)	12	SCH. 10	8	25, Air	No leakage

- B. Furnish all labor, testing plugs, caps, blanks, and fittings, dry, clean air supply, blocking, gauges, and all other equipment required. No testing against valves is permitted. All testing shall be completed in the presence of the Engineer and test reports shall be prepared for each test.
- C. Examine and test piping being air tested for leaks with soap solution.
- D. Replace all faulty joints, fittings, gaskets, and pipe as required to obtain a successful pressure test. Retest after repairs are made.

## 3.03 WALL AND SLAB PENETRATIONS

- A. Provide sleeves for piping penetrations through aboveground masonry, concrete walls, floors, and beams unless otherwise noted on the Drawings.
- B. Arrange sleeves and adjacent joints so piping can be pulled out of sleeve and replaced without disturbing the structure.
- C. Cut ends of sleeves flush with surfaces of concrete, masonry, or plaster.
- D. Conceal ends of sleeves with backer rods with grout where piping run through floors, walls, or ceilings of finished spaces within buildings.
- E. Seal spaces between pipes and sleeves.
- F. Provide link seal where seal is used to seal all welt wall sleeves. Coordinate the inside diameter of the wall sleeve with the size of the seal to provide watertight sealing.

# 3.04 PROTECTION OF WEST AND EAST FILTERS

- A. Contractor is required to enter the East and West Filters for the removal of the existing air wash piping and installation of the new air wash piping and appurtenances.
- B. Contractor shall at all times protect granular active carbon filter media from direct contract with the Contractor and the Contractor's materials equipment, dust and debris.

- C. Contractor shall provide temporary facilities to support the loads imposed by the Contractor and the Contractor's materials and equipment to prevent crushing, grinding, or pulverizing the granular activated carbon filter media. Contractor shall prevent sinking into the media bed through the use of these temporary facilities.
- D. Contractor shall submit a detailed filter media protection plan to include, but not be limited to materials used to protect the filter media and installation plan.

## 3.05 QUALITY ASSURANCE

- A. The manufacturer is responsible for the performance of all fabricated components, as specified herein. In addition, all pipe and fittings to be installed under this Contract may be inspected for compliance with these Contract Documents by the Engineer and an approved independent testing laboratory.
- B. Inspection of the pipe and fittings may also be made by the Engineer or other representatives of the District after delivery. The pipe shall be subject to rejection at any time due to failure to meet Contract Documents requirements, even though sample pipes may have been accepted as satisfactory at the place of manufacture. Pipe rejected after delivery shall be marked for identification and shall be immediately removed from the job site.
- C. All of the stainless-steel pipe and fittings shall be furnished by a manufacturer who is fully experienced (for at least five (5) years), reputable, qualified, and regularly engaged in the fabrication of the materials to be furnished.

**END OF ARTICLE** 

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# 1.01 SUMMARY

- A. The work specified in this Article includes furnishing and installing the permanent support and anchorage of above ground and in structure piping and associated appurtenances as shown on the Drawings or as specified herein.
- B. Unless otherwise noted, the word "piping" as used herein shall mean pipe, pipe sections, tubing, fittings, and appurtenances.
- C. The word "support" as used herein shall mean all manner and type of piping supports as used in the mechanical trades including overhead and wall hangers, brackets, clamps, rods, concrete inserts, struts, miscellaneous metals and non-metallic fabrications, anchorages, and appurtenances for the permanent installation of piping.
- D. All piping supports and anchorages are typically not shown on the Drawings.

# 1.02 RELATED REQUIREMENTS

- A. Article 32.02—Stainless Steel Piping and Fittings
- B. Article 40.01—Lining and Coating
- C. American Society of Testing and Materials (ASTM):
  - A 123—Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
  - 2. A 153—Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
  - 3. A 385—Standard Practice for Providing High-Quality Zinc Coatings (Hot-Dip)
- D. International Code Council (ICC):
  - 1. California Building Code, Most Recent Edition
  - 2. California Mechanical Code, Most Recent Edition
  - 3. California Plumbing Code, Most Recent Edition
  - 4. As a minimum, piping supports shall comply with the requirements of the above codes and with stricter criteria herein.

- E. SMACNA Seismic Restraint Manual Guidelines for Mechanical Systems, Most Recent Edition
  - 1. As a minimum, piping shall be provided with braces that satisfy the Seismic Restraint Manual Guidelines for Mechanical Systems, Seismic Hazard Level A. Connection Level 1.

## 1.03 SUBMITTALS

- A. Shop Drawings: Include layout of support system including pipe loads, part number, fittings, and appurtenances.
- B. Complete data, catalog information, and drawings covering fabrication pipe supports, fabricated inserts, and stainless steel and galvanized pipe supports shall be submitted.
- C. Design calculations of piping supports and anchorage. Calculations shall be stamped and signed by a Professional Engineer registered in California.

## 1.04 MEASUREMENT AND PAYMENT

A. Unless noted otherwise, full compensation for Work involved in complying with all requirements per this Article as shown on the Drawings, as specified in these Specifications, and as directed by the Engineer shall be considered incidental and included in the Contract Price(s) paid for the various items of Work involved; no additional time shall be allowed or payment made.

# PART 2 PRODUCTS

#### 2.01 PIPE SUPPORTS

- A. All materials furnished by the Contractor shall be of standard quality and proven ability as required for the given application and as specified in herein.
- B. Pipe supports and hardware shall be, stainless steel, as required for the given application and as indicated on the Drawings.
- C. Pipe supports and hardware shall be the appropriate applicable models as manufactured by: Anvil International, Elcen Metal Products Co., Carpenter and Paterson Inc., Unistrut, Powerstrut or equal.

## 2.02 OVERHEAD HANGERS

- A. Single pipes shall be supported by hangers suspended by threaded hot rolled steel rods from structural steel members, concrete ceilings and beams, unless specified or shown otherwise.
- B. Stainless Steel Overhead hangers for uninsulated piping shall be of the following type unless noted otherwise on the Drawings. Hangers supporting insulated piping shall be recommended by the manufacturer for that purpose.

Nominal Piping Diameter	Hanger Type	Anvil International Fig. Number	
12 in.	Adjustable Clevis	260SS	

C. Overhead hangers shall be capable of at least 1-1/2 in. vertical adjustment with the pipe installed.

#### 2.03 HANGER RODS AND STRUCTURAL ATTACHMENTS

- A. Hanger rods shall be machine threaded with the strength based on the root diameter. Hanger rods shall be Type 316 stainless steel. Hanger rod diameter shall be as specified or shown on the Contract Drawings.
  - 1. Hanger rods shall be supported from concrete as required.
  - 2. Anchor bolts, nuts, and washers shall be 316 stainless steel equal to Hilti Kwik Bolt 3.
  - 3. Epoxy adhesives for epoxy anchors shall meet ASTM C881, Type IV, Grade 3, be two-component, approved for installation in wet locations. Epoxy adhesives shall be Hilti HIT RE 500 V3, as manufactured by Hilti Inc., or equal.
  - 4. Turnbuckles shall be equal to Anvil International Figure 230.

## PART 3 EXECUTION

# 3.01 SUPPORT AND ANCHORAGE DESIGN CRITERIA

- A. As a minimum, piping supports shall comply with the requirements of the California Building Code, California Plumping Code, and California Mechanical Code. Comply with stricter criteria herein. As a minimum, steel piping shall be provided with braces that satisfy the SMACNA Seismic Restraint Manual Guidelines for Mechanical Systems (latest edition), Seismic Hazard Level A, Connection Level 1.
- B. All piping shall be properly and adequately supported and anchored so as to maintain the supported loads in proper position under all operation conditions without unnecessary movement or strain on any piece of equipment.
- C. The working factor of safety for supports shall be a minimum of five (5) times the ultimate pipe load, assuming pipe is being supported at the maximum spacing as specified.
- D. The minimum factor of safety for thrust anchorage design shall be 1.5 the times working pressure; or test pressure; whichever is highest or as noted on the Drawings, and as acceptable to the Engineer.

## 3.02 QUALIFICATIONS/RESPONSIBILITY

A. The supports specified under this section shall be furnished by a manufacturer who is fully experienced, reputable, qualified, and has been regularly engaged in

the manufacture (or fabrication) of the items to be furnished for at least five (5) years.

## 3.03 INSTALLATION

- All required piping, fittings, valves, and appurtenances shall be rigidly supported from the structures by acceptable support hangers, with adequate provisions for expansion and contraction. A minimum of 1-inch clearance (greater as required) shall be provided between all valves, unions, and fittings and walls, piping, equipment, and other obstructions to allow removal and repair. Support shall be provided at, or near, changes in direction, hubs, joints, valves, appurtenances, branches and elsewhere within 3 feet of couplings in accordance with the manufacturer's recommendations, as shown on the Drawings, and as specified herein.
- B. Additional supports and anchors where required by criteria other than the type of pipe or by joints shown on the Drawings shall be the Contractor's responsibility and as acceptable to the Engineer.
- C. Supports shall provide firm support but not so firm as to prevent longitudinal pipe movement due to thermal contraction and expansion. In addition, point loading shall be avoided for soft or non-metallic piping.
- D. Piping shall not be supported from other piping or from metal stairs, ladders, or walkways, unless specifically allowed by the Engineer. Piping 3 inches and larger shall be a minimum distance of 1-1/2 inches (flanges or bells 1inch) from finished floors, walls, or ceilings unless otherwise shown on the Drawings, or specified. Where piping is installed on structural steel supports, blocking of pipe rolls shall be provided to arrest lateral pipe movement.
- E. All pipes shall be anchored at locations and by methods as acceptable to the Engineer.
- F. All pipe supports shall be free of sharp edges, burrs, and rough edges, especially at cut surfaces.

## 3.04 COATING

A. After fabrication and before installation all metal surfaces of pipe supports, hangers, anchors, rods, support pipes, brackets, nuts, bolts, washers, and other metal used, shall be galvanized conforming to ASTM A123, A153, and A385, as applicable (except cast or ductile iron and stainless steel).

# 3.05 FIELD INSPECTION, TESTING, AND CORRECTION OF DEFICIENCIES

- A. Hangers, supports, and anchors installed on the piping system shall operate satisfactorily as specified in Paragraph 1.02 during the testing of the respective systems. The hangers, supports, and anchors shall maintain piping in position without evidence of bending, sagging, warping, vibration, or stress.
- B. Post-installed mechanical anchors shall be checked for tightness a minimum of 24 hours after initial installation. Install anchors using the manufacturer's

- recommended drive units and adapters, in compliance with the manufacturer's recommendations.
- C. Post-installed adhesive anchors shall not be loaded until the adhesive has reached its indicated strength in accordance with the manufacturer's instructions.
- D. Adhesive anchors installed in a horizontal or upwardly inclined position shall have the following additional requirements:
  - 1. Installation shall be performed by personnel certified in accordance with the ACI/CRSI Adhesive Anchor Certification program.
  - 2. Installation shall be inspected by a certified special inspector who is continuously present when the installation is performed.
- E. Holes for adhesive and expansion anchors shall be roughened with a brush on a power drill, cleaned, and dry.
- F. All materials and work shall be accessible and subject to inspection by the Engineer.

**END OF ARTICLE** 

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## 1.01 SUMMARY

- A. The work specified in this Article includes furnishing all labor, materials and equipment required to perform internal video inspection of the existing underground air wash pipeline system following the completion of the internal pipeline cleaning and after air wash pipeline relining.
- B. The Contractor is responsible for reviewing applicable as-built drawings and these Specifications to determine the distances and slopes between the potential access points to determine appurtenances needed for the inspection.
- C. The Contractor's equipment shall be capable of:
  - 1. Navigating the lengths, grades, and transition of the pipeline,
  - 2. Producing and recording continuous high-resolution color video for clear full coverage viewing of all internal pipeline surfaces, and
  - Producing high-resolution digital color still images of all areas of concern with time, date and distance imprints for documentation and reporting purposes.
- D. The contractor shall clean and disinfect all equipment and associated components prior to use on this application. Equipment disinfection shall be performed in accordance with applicable elements of the AWWA C652 standard.

## 1.02 REFERENCES

- A. Related Sections:
  - Article 32.21—Internal Pipeline Cleaning
- B. American Water Works Association (AWWA):
  - AWWA 6551—Disinfecting Water Mains

# 1.03 SUBMITTALS

- A. The Contractor shall submit copies of a site-specific inspection plan 3 weeks prior to beginning the internal pipeline video inspection. The inspection plan shall include the following:
  - Description of the video inspection methodology.
  - 2. Description and specifications of the video inspection equipment to be used including, but not limited to, resolution, degree of coverage and focus, method of in pipe movement, recording media, and onsite display.

If requested, the Contractor shall make the video inspection equipment available for viewing, by the Engineer.

- 3. Minimum of three (3) references of comparable water pipeline inspections within the last three (3) years. Reference information shall include:
  - a. Organization
  - b. Project site location
  - c. Contact person with contact information
  - d. Brief description of services provided
- 4. Samples of the video, photographs, and written documentation from a comparable pipeline inspection project.
- Qualifications
  - The Contractor or subcontractor shall be fully experienced and properly qualified, licensed, equipped and organized to perform the work specified.
  - b. The Contractor or subcontractor shall have at least three(3) years' experience in the video inspection of water pipelines.
  - c. The technicians performing the inspection shall have a minimum of three (3) years' experience in the video inspection of pipelines.
- B. After the internal pipeline video inspections, the Contractor shall submit copies of the following a comprehensive Inspection Report shall be submitted no later than one (1) week after the completion of the internal pipeline video inspection. This inspection report shall be prepared, in accordance, with standard industry practice, and at a minimum, include:
  - 1. Video files:
    - a. Three high-resolution color video copies of all inspections on USB flash drive, with audio and the requisite real-time on-screen inspection data displays. The raw and edited video files shall be provided on separate USB flash drives.
    - b. The flash drives shall include, at a minimum, the project name, dates of the pipeline inspection, contractor's name, and the pipe segments inspected as identified by site location.
  - 2. Inspection logs:
    - a. Inspection logs providing the requisite anomaly descriptions, information as to where each anomaly can be found in the video and a reference to accompany still photo images of each anomaly.

## Photos:

- a. A sufficient number of color photo images of each anomaly from varying perspectives must be included in the report to accurately and completely document the inspection findings.
- b. Still images shall be high-resolution (25 megapixel min.), color and time stamped to indicate where in the image can be found in the inspection video.

# 4. Schematic drawing:

a. Plan view schematic drawing(s) of the pipeline shall be included in the report, defining and identifying the segments of the pipeline that have been inspected and showing where the problem areas were identified and documented.

# 5. Inspection report:

- a. The inspection report shall be prepared in MS Word format and bound. Three full color copies of the report shall be submitted.
- b. All inspection log sheets, computer-generated reports, and other written documentation of the pipeline inspection shall be provided to the District.
- C. Prior to beginning the pipeline internal video inspection work, the Contractor shall provide documentation substantiating that all equipment and associated components entering the pipeline have been disinfected in accordance with applicable AWWA standards and as specified herein.

## 1.04 MEASUREMENT AND PAYMENT

A. Refer to Article 21.01, Bid Items.

## PART 2 PRODUCTS

## 2.01 MINIMUM EQUIPMENT REQUIREMENTS

- A. The video camera shall have, at the minimum, the following capabilities: 360-degree pan, 270-degree tilting, high resolution (25 megapixel min.), color, variable zoom and focus, light-emitting diodes (LED) or high intensity lighting and digital still photo color imaging. All referenced features shall be controllable from the viewing station.
- B. The video camera shall be tractor or wheel driven with the camera head suitably positioned and sized for each pipe diameter to be inspected. The tractor shall be able to pass over uneven and rough surfaces inside the pipeline. The camera shall be capable of inspecting pipe a minimum of 2500 feet from the available access site under varying conditions.
- C. The video inspection equipment shall be capable of a properly oriented on-site televised display and shall provide a full, clear, stable, and in-focus view of

- specific pipeline features at varying distances and of the full pipe diameter views at a minimum of eight (8) feet from the face of the video camera.
- D. The on-site televised and recorded video display shall have continuous on-screen indications for pertinent inspection data including, but not limited to, distance traveled, time, date, etc. The distance measurement shall be to the nearest foot and shall be zero from the centerline at each starting manhole (nozzle) access site to establish a uniform starting point for each section televised.
- E. For each pipeline section, the video record shall include the following information at the beginning of the recording: project name, pipeline name, location and site number, direction of travel, date, Contractor's Name.

#### PART 3 EXECUTION

## 3.01 SCHEDULE

- A. The schedule for the two internal video inspections, one following the completion of the internal pipeline cleaning and one after air wash pipeline relining, shall be incorporated into the Contractor's Detail Schedule of Work, as required and specified in Article 5.05.
- B. The Contractor shall provide ten (10) days advanced notice to the District prior to internal video inspection.

## 3.02 PREPARATION

- A. The Contractor shall review all applicable pipeline drawings and documents prior to beginning the internal video inspection work.
- B. Pipeline Conditions:
  - 1. The internal pipeline may be humid, foggy, wet and slippery.
  - 2. The Contractor shall be prepared and have the resources (i.e., equipment, labor, materials, etc.) available to remotely video inspect the entire pipeline regardless of site and pipeline conditions.
  - 3. The Contractor shall be prepared to install a tag line or pull rope between adjacent access points, prior to the remote video inspection, to assist the remote video equipment should it loose traction. The tag line or pull rope installation methodology must be reviewed and approved by the District prior to implementation and shall be described in the video inspection methodology submittal.

## 3.03 PERFORMANCE REQUIREMENTS

- A. The Contractor shall conduct the internal video inspections through existing pipeline access sites.
- B. The Contractor shall conduct the video inspection, analyze the inspection results, provide the District with a digital copy of the inspection and allow the District seven (7) calendar days to review the video inspection before permanently

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- securing the pipeline access site(s). If the Contractor, preemptively, closes the access point, then the Contractor shall, at his own expense, re-open and re-close the access site.
- C. The Contractor shall inspect the pipeline up and down stream of each access site to the extent possible given the pipeline configuration, sloped, internal obstructions, and the range of the video inspection equipment.
- D. The center of the video camera lens and lighting shall be positioned approximately in the middle of the pipeline. The camera lenses and lighting shall be kept clean and unobstructed at all times.
- E. The speed of the video camera through the pipeline shall be variable and controllable as required, but not more than 30 feet per minute. The video camera movement shall be stable and smooth to ensure steady progress while capturing a clear and in-focus video image.
- F. All appurtenances (laterals, manholes, etc.) and abnormal, distressed, deteriorated and/or defective areas in the pipeline shall be identified in the recorded video and in written and photographic documentation. Areas of concern may include, but are not limited to:
  - 1. The presence of an external objects.
  - 2. Longitudinal and/or circumferential cracking or pipe damage.
  - 3. Water infiltration.
  - 4. Large joint offsets or separations (over ½ inch).
  - 5. Any other structural & service abnormalities.
  - 6. Loss of concrete lining.
  - 7. Excess debris.
- G. Identification and documentation of all internal pipeline appurtenances and anomalies shall include the location relative to the access point, lateral position in the pipe, and the description, dimension and extent of the affected area. Pipeline appurtenances and anomalies shown in the video recording and still capture photos shall be clear and in enough detail for identification and condition assessment.
- H. A District representative shall be present during all internal pipeline video inspections. During the inspection, the District representative may request that the video camera be intermittently stopped and adjusted to view and analyze conditions that appear unusual or uncommon.
- I. The Contractor shall notify the Engineer immediately if the pipeline inspection cannot be completed due to excessively adverse internal pipeline conditions such as, but not limited to, collapse, void, displaced joints, excessive debris, solid obstructions, or other abnormalities. All pipeline sections that cannot be completed shall be noted and described.

- J. The Contractor shall notify the Engineer immediately if the video camera becomes stuck in the pipeline. The Contractor shall remove the stuck video camera using whatever means agreed upon with the Engineer.
- K. The Contractor shall use a computer system and video capture card to capture the original recording continuously regardless of the progress of the inspection. The Contractor shall edit the original raw digital file, using non-linear video editing software, to remove pauses where pipeline inspection progress is not continuous. The edited digital file shall not be recompressed.

**END OF ARTICLE** 

## 1.01 SUMMARY

A. This section includes materials and procedures for local cleaning and disinfecting new and existing pipeline, piping and associated appurtenances installed, modified and/or contaminated in the course of the Contractor's work.

# 1.02 REFERENCES

- A. Related Articles
  - 1. Article 32.02—Stainless Steel Piping and Fittings
  - 2. Article 32.21—Internal Pipeline Cleaning
- B. American Water Works association (AWWA)
  - 1. AWWA C651-14—Standard for Disinfecting Water Mains
  - 2. AWWA B300—Standard for Hypochlorite
- C. National Sanitation Foundation (NSF)
  - 1. NSF Standard 60 Drinking Water Treatment Chemical Program

## 1.03 SUBMITTALS

- A. Refer to Article 7.05—Submittals to be Furnished by the Contractor for submittal requirements.
- B. Refer to Article 32.01—General Piping Requirements for other piping submittal requirements.
- C. Prior to disinfectant work, Contractor shall submit a disinfectant plan.

## 1.04 MEASUREMENT AND PAYMENT

A. Unless noted otherwise, full compensation for Work involved in complying with all requirements per this Article as shown on the Drawings, as specified in these Specifications, and as directed by the Engineer shall be considered incidental and included in the Contract Price(s) paid for the various items of Work involved; no additional time shall be allowed or payment made.

Pipe Disinfection Article 32.19

# PART 2 PRODUCTS

# 2.01 MATERIALS

A. 1 to 5 percent Sodium Hypochlorite solution, conforming to the requirements of AWWA B300 and NSF 60, for swabbing surfaces.

# PART 3 EXECUTION

## 3.01 GENERAL

- A. The Contractor shall follow procedures as described in AWWA C651.
- B. The Contractor shall make every effort to prevent the entry of contaminating materials into the pipeline, piping and associated appurtenances during the execution of this work.
- C. The Contractor shall clean and disinfect the interior surfaces of all new piping, valves, fittings and associated appurtenances prior to installation.
- D. The contractor shall ensure that at no time during the work described in this section shall water be released or make contact with the filter media in the gallery.
- E. The Contractor shall thoroughly clean and disinfect all affected interior pipeline surfaces:
  - 1. Pipeline Cleaning:
    - a. The Contractor shall remove all loose dirt, debris and foreign materials accumulated in the pipeline during construction. Dirt, debris and foreign materials shall be removed from the pipeline by vacuuming or other suitable means.
    - b. The Contractor shall thoroughly clean all affected interior pipeline surfaces with potable water and clean swabs.
  - 2. Pipeline Disinfection:
    - The Contractor shall swab the, previously cleaned, affected interior pipeline surfaces with a 1 to 5 percent Hypochlorite Solution.
    - b. The Contractor shall follow procedures set forth in AWWA C651-14 for disinfecting water mains.
  - 3. The Contractor shall handle and dispose of all disinfecting materials and water in accordance with applicable regulatory requirements and as specified herein.

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Pipe Disinfection Article 32.19

# 3.02 INSPECTION AND TESTING

A. Contractor shall notify Engineer a minimum of two (2) working days in advance of all localized pipeline cleaning and disinfection activities. The Contractor shall allow the District to observe and inspect the affected interior of the pipeline surfaces prior to and following the cleaning and disinfection process.

B. Prior to closure, the Contractor shall allow up to 48 hours for Valley Water to perform bacteriological testing according to Valley Water standard practice WQ-Q\_002; if bacteriological testing is not satisfactory, the Contractor shall repeat disinfection, until two consecutive negative bacteriological results are obtained.

**END OF ARTICLE** 

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## 1.01 SUMMARY

- A. The work specified in this Article includes the performance of all work necessary to clean existing segments of non-operational air wash pipeline and connect to new air wash pipeline segments as shown on the Drawings and as specified herein.
- B. The Contractor is to provide internal video inspection following the completion of the work specified herein.
- C. Plan and Profile sheets for the Santa Teresa Water Treatment Plant Air Wash Line Replacement are provided as reference sheets in the Drawings.
- D. Due to the use of pipeline, the contractor shall disinfect all cleaning equipment and associated components prior to use on this air wash pipeline. Equipment disinfection shall be performed in accordance with applicable elements of the AWWA C652 standard.
- E. The intent of the pipeline cleaning is to:
  - 1. Remove all sand, silt, solids, sludge and other such debris and/or foreign matter that could prove deleterious to the transmission of back was air required to clean the filter media.
  - 2. Enable a thorough examination of the internal pipeline surfaces.
- F. The Contractor shall perform the pipeline cleaning work as necessary to enable a thorough internal video inspection. The pipeline shall be clean enough to make readily discernible 95% of the internal pipeline surface, including, but not limited to, all appurtenance nozzles, joints and unknown pipeline defects.
- G. The Contractor will be responsible for obtaining a transient water meter and paying for water used during course of cleaning.
- H. The contractor shall ensure that at no time during the work described in this section shall water be released or make contact with the filter media in the gallery.
- I. The Contractor shall pump-out and/or vacuum-out, capture, treat and dispose of all pipeline draining and cleaning water and associated debris in accordance with applicable regulatory requirements.
- J. The Contractor will be responsible for recovering any equipment that becomes lodged or lost in the pipeline including, but not limited to, any cost associated with required evacuation, restoration of roads, repairs to pipes and appurtenances as

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- needed to restore the pipeline and appurtenances back to their original conditions.
- K. The Contractor shall drain and clean the buried air wash segment of pipeline prior to removing the bulkheads from each end of the existing pipeline segment.

#### 1.02 REFERENCES

- A. Related Articles
  - 1. Article 32.19—Pipe Disinfection
  - 2. Article 32.09—Internal Pipeline Video Inspection
- B. American Water Works Association (AWWA):
  - 1. ANSI/AWWA C652—Disinfection of Water Storage Facilities

#### 1.03 SUBMITTALS

- A. Prior to beginning the pipeline cleaning work, the Contractor shall submit copies of a site-specific cleaning plan. The cleaning plan shall include the following:
  - 1. Description of the cleaning methodology. Including, a filter media protection plan.
  - 2. Description and specifications of the equipment to be used including, but not limited to, make and model number, as applicable.
  - 3. Minimum of three (3) references of comparable pipeline projects within the last three (3) years. Reference information shall include:
    - a. Organization
    - b. Project site location
    - c. Contact person with contact information
    - d. Brief description of services provided
- B. Prior to beginning the pipeline draining and cleaning work, the Contractor shall provide documentation substantiating that all equipment and associated components entering the pipeline have been disinfected in accordance with applicable AWWA standards and as specified herein.

## C. Qualifications

- 1. The Contractor or subcontractor shall be fully experienced and properly qualified, licensed, equipped and organized to perform the work specified.
  - a. The Contractor or subcontractor shall have at least three (3) years experience in the cleaning of water pipelines.

b. The technicians performing the cleaning shall have a minimum of three (3) years experience.

# 1.04 MEASUREMENT AND PAYMENT

- A. Full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all work required for cleaning the air wash pipeline, as shown on the Drawings and as specified in these Specifications, shall be included in the lump sum price bid for Bid Item entitled "Support for Internal Pipeline Work."
- B. Refer to Article 21.01, Bid Items.

## PART 2 PRODUCTS

# 2.01 CLEANING EQUIPMENT

- A. High-Velocity Jet (Hydro-Cleaning) Equipment:
  - 1. All high-velocity cleaning equipment shall be constructed for ease and safety of operation.
  - 2. All hydro-cleaning equipment shall be trunk mounted, and the truck shall carry its own water tank, fill system, auxiliary engines, pumps, water piping, hydraulically driven hose reel and pressure rated hose.
  - 3. The hose shall be capable of cleaning the diameter of pipeline specified and of sufficient length to perform the necessary cleaning operations.
  - 4. The hose reel shall be hydraulically driven in both directions and the drive shall have sufficient power to retract the hose and attachments when the cleaning nozzle is in operation.
  - 5. All high velocity jet cleaning equipment shall have a selection of high velocity nozzles and shall be capable of producing a range of scouring velocities ranging from fine mist to a solid stream.
  - 6. The range of water pressure shall be sufficient enough to completely clean the pipeline as specified.
  - 7. All functions of the high velocity jet hydraulic attachments must be remotely controlled.
  - 8. The nozzles shall be capable of producing a scouring action from fifteen (15) to forty-five (45) degrees from the horizontal.
- B. Vacuum machines and/or in-line pumps shall be used to remove the debris laden water from the pipeline.

# PART 3 EXECUTION

#### 3.01 PREPARATION

A. All equipment, hoses and associated components that will enter the pipeline must be disinfected prior to implementation. The method of equipment disinfection can be submersion in, spraying with or sponging with disinfection solution. The disinfection solution shall contain at least 200-mg/L of available chlorine.

## 3.02 CLEANING

- A. Cleaning shall consist of normal hydraulic jet cleaning to facilitate the internal video inspection. Cleaning shall consist of two to four passes of the jet nozzle, as required, so that 95% of the internal surface of the pipeline is readily discernible to enable a thorough internal video inspection.
- B. All material (cleaning water, debris, etc.) resulting from the cleaning operation shall be removed from the pipeline.
- C. Existing filter media shall be protected at all times.

# 3.03 SAFETY

A. All necessary precautions shall be taken to protect the pipeline from damage during all cleaning operations. Precautions shall also be taken to insure that no damage is caused to public or private property adjacent to work. The Contractor shall pay for and restore, at no additional costs to the District, any damage caused to public or private property because of such cleaning operations.

## 3.04 DISPOSAL

A. Contractor shall be responsible for the handling, hauling and disposal of all debris, silt, and accumulated solids removed from the pipeline. All debris, silt and solids removed by Contractor shall be disposed of at a facility licensed for the handling and disposal of such materials in accordance with all appropriate codes, rules and regulations for the handling and disposal of such materials.

## **END OF ARTICLE**

## 1.01 SUMMARY

- A. The work specified in this Article includes furnishing and installing of insulating joints, and other materials required for the protection of the pressure pipe and appurtenances, as shown on the Drawings and as specified herein.
- B. Work incidental to installation of these facilities includes installation field-apply epoxy at flanged insulating joints.
- C. Coating for all buried bolts, nuts and metallic washers shall have Bitumastic coal tar mastic coating.

# 1.02 Related requirements

- A. Article 32.02—Stainless Steel Piping and Fittings
- B. Article 40.01—Lining and Coating

# 1.03 SUBMITTALS

A. Refer to Article 7.05—Submittals to be Furnished by the Contractor for submittal requirements.

# 1.04 MEASUREMENT AND PAYMENT

A. Unless noted otherwise, full compensation for Work involved in complying with all requirements per this Article as shown on the Drawings, as specified in these Specifications, and as directed by the Engineer shall be considered incidental and included in the Contract Price(s) paid for the various items of Work involved; no additional time shall be allowed or payment made.

# PART 2 PRODUCTS

## 2.01 MATERIALS

- A. Materials and equipment furnished under this Article shall be the standard product of manufacturers regularly engaged in the manufacture of such products and shall be the manufacturer's latest standard design that complies with the requirements of these Specifications.
- B. All materials and equipment shall be new and shall bear Underwriters Laboratories (UL) approval where UL standards apply. Unless otherwise specified, materials and equipment shall conform to the requirements of the National Electric Code (NEC) and shall be installed to conform to all city, county, state, federal, and special codes and regulations.

# C. Insulating Joints

- 1. Flange insulation kits shall contain full face non-asbestos gaskets having a minimum dielectric strength of 500 volts/mil, full length insulating sleeves, insulating washers, and high strength steel bolts with steel washers as shown on the Drawings.
- 2. The complete assembly shall have a pressure rating equal to that of the flanges between which it is installed.
  - a. Gaskets shall be neoprene faced phenolic, 1/8-inch thick.
  - b. Insulating sleeves shall be NEMA G-10 epoxy glass insulating kits, min. 1/32-inch thick.
  - c. Steel washers shall be cadmium plated and fit well within the bolt facing on the flange.
  - d. Insulating washers shall be set of ½-inch thick fiberglass epoxy. Insulating washers shall fit within the bolt facing the flange over the outside diameter of the sleeve.

# D. Field Coating at Flanged Insulating Joints

- 1. The Contractor shall install a field-applied, two-part, 100 percent solids epoxy coating at insulating joints as shown on the Drawings and as specified herein.
- 2. The 100 percent solids epoxy coating shall be NSF 61 listed, 0 percent volatile organic compound, white color, two coats.
- 3. The 100 percent solids epoxy coating shall be Aquatapoxy Coating System A-6, as manufactured by American Chemical Corporation, 5231 Northrup Avenue, St. Louis, Missouri 63110, or equal.

# E. Bitumastic Coating

1. Bitumastic coating shall be TC Mastic, as manufactured by Tapecoat Company, Bitumastic 505, as manufactured by Kopcoat, Inc., or equal.

## PART 3 EXECUTION

# 3.01 GENERAL

A. Record Drawings for the cathodic protection system shall be maintained by the Contractor during installation and construction of the cathodic protection system. Record Drawings shall be revised by the Contractor to show exact locations of all anodes, rectifiers, cables, conduit, and wire to pipe connector locations and shall properly identify all items of equipment and material.

- B. Insulating Joints—Insulating joints shall be installed as specified herein. Locations for insulating joints shall include the following unless indicated otherwise on the Drawings:
  - 1. Buried air wash locations at access points.
  - 2. All connections between different types of pipe (i.e., welded steel pipe or ductile iron pipe). This requirement shall be waived at tapers and specials if the pipe coating on both types of pipe is the same.
  - 3. Other locations as shown on the Drawings or specified herein.
- C. Field Epoxy Coating at Flanged Insulating Joints
  - 1. Surface preparation shall consist of wire brushing to remove all rust and scale and to provide a suitable surface for adhesion of the 100 percent solids epoxy coating. See Article 40.01 'Coating and Paints' of the Technical Provisions.
- D. All buried nuts and bolts not in direct contact with mortar coating, mortar encasement, or CLSM shall be coated with bitumastic prior to encasement. After flange hardware is installed use wire brush, power brush, or an abrasive cleaning pad to remove all loose material, dirt and grime from substrate to a minimum cleanliness of SSPC SP2. Apply bitumastic coating liberally with a medium bristle brush to the extent that all surfaces are completely covered with no bare spots visually evident. Coat exposed surfaces of bolts, washers and nuts, giving special attention to the bottom-side surfaces. Follow the manufacturer's recommendations for drying times required before encasement and backfill.

## 3.02 TESTING

- A. The Engineer reserves the right to test and inspect all phases of the Contractor's work. The Contractor shall notify the Engineer at least two (2) days in advance for inspection of materials and critical operations as defined below:
  - 1. Installation of buried insulating fittings.

**END OF ARTICLE** 

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#### 1.01 SUMMARY

- A. This article covers protective coating and lining systems for the new stainless steel pipe and pipeline appurtenances.
- B. Unless otherwise specified herein or shown on the Drawings, all stainless steel pipe, including nozzles, bends, and fittings shall be shop fusion-bonded epoxy lined and coated conforming to AWWA Standard C213. Existing buried pipe shall be relined with liquid epoxy coating conforming to AWWA Standard C210.
- C. All flanges, couplings, both flanged and not flanged, shall be fusion bonded epoxy coated and lined conforming to AWWA Standard C213 on all surfaces.
- D. Unless otherwise indicated, insulating joints, bolt heads, and support hanger devices shall be liquid epoxy-coated in accordance with these Specifications and painted to provide uniform color after assembly.
- E. The entire procedure(s) of applying the protective coating materials as herein specified may be inspected by the Engineer from surface preparation to completion of coating. Such inspection shall not relieve the Contractor of their responsibility to furnish material and perform work in accordance with these Specifications.
- F. The Engineer shall have free access to those parts of all plants that are concerned with the furnishing of materials or the performance of work under this Contract.
- G. The Contractor shall furnish the Engineer reasonable facilities and space, without charge, for the inspection, testing, and obtaining of such information as he/she desires regarding the character of material used and the progress and manner of the work and the results obtained.

# 1.02 REFERENCES

- A. Related Articles:
  - 1. Section 32.02—Stainless Steel Piping and Fittings
  - 2. Article 40.02—Painting
  - 3. Article 39.01—Corrosion Control General

- B. American Water Works Association (AWWA):
  - AWWA C 210—Liquid Epoxy Coatings and Linings for Steel Water Pipe and Fittings
  - 2. AWWA C 213—Fusion-Bonded Epoxy Coatings and Linings for Steel Water Pipe and Fittings
- C. American Society of Testing and Materials (ASTM)
  - C 309—Standard Specifications for Liquid Membrane-Forming Compounds for Curing Concrete
  - 2. D 1505—Standard Test Method for Density of Plastics by the Density-Gradient Technique
  - 3. G14—Standard Test Method for Impact Resistance of Resistance of Pipeline Coatings (Falling Weight Test)
- D. National Association of Corrosion Engineers
  - SP-01-88 (2006)—Standard Practice, Discontinuity (Holiday) Testing of New Protective Coatings on Conductive Substrates

### 1.03 SUBMITTALS

- A. Refer to Article 7.05—Submittals to be Furnished by the Contractor for submittal requirements.
- B. The Contractor shall submit to the Engineer in accordance with Article 7.05 an affidavit of compliance stating that all coating systems furnished comply with the applicable requirements of the AWWA and ASTM Standards.
- C. Minimum of three (3) references of comparable pipeline projects within the last three (3) years. Reference information shall include:
  - 1. Organization
  - 2. Project site location
  - 3. Contact person with contact information
  - 4. Brief description of services provided

#### 1.04 MEASUREMENT AND PAYMENT

A. Unless noted otherwise, full compensation for Work involved in complying with all requirements per this Article as shown on the Drawings, as specified in these Specifications, and as directed by the Engineer shall be considered incidental and included in the Contract Price(s) paid for the various items of Work involved; no additional time shall be allowed or payment made.

### PART 2 PRODUCTS

### 2.01 MATERIALS

- A. Materials shall conform to the requirements of the AWWA Standards and the requirements of these Specifications.
- B. Unless otherwise indicated, steel pipe and fitting coating and lining options shall be fusion-bonded epoxy.
- C. Coating for New Stainless Steel Pipe—Coating for steel pipe shall be the following, as specified herein and as designated on the Drawings:
  - 1. Fusion-bonded epoxy coating conforming to the requirements of AWWA Standard C213 and the requirements of these Specifications.
- D. Lining for New Stainless Steel Pipe—Lining for pipe shall be the following, as specified herein and as designated on the Drawing.
  - 1. Fusion-bonded epoxy lining conforming to the requirements of AWWA Standard C213 and the requirements of these Specifications.
- E. Relining for Existing Buried Stainless Steel Pipe—Lining for pipe shall be the following, as specified herein and as designated on the Drawing.
  - 1. Liquid epoxy lining conforming to the requirements of AWWA Standard C210 and the requirements of these Specifications.

#### PART 3 EXECUTION

### 3.01 PLACEMENT

- A. Procedures for surface preparation and application, surface finishing, and curing as described in the AWWA standards shall be adhered to.
- B. Field joints shall be coated and lined as shown on the Drawings in accordance with the following requirements:
  - 1. The exterior of joints of fusion-bonded epoxy coated pipe shall be liquid epoxy coated conforming to AWWA C210. Liquid epoxy coating shall also be used for field repairs of fusion-bonded epoxy coating.
  - 2. A mastic shall be applied to provide a smooth, regular surface to allow tape coating to be placed without gaps, folds, or air pockets. See Article 39.01—Corrosion Control General.
  - 3. The mastic compound shall be flexible and shall be:
    - a. "Ram-Nek," as distributed by Hanson Concrete Products, or equal.

### 3.02 QUALITY ASSURANCE

- A. Testing shall conform to the requirements of AWWA Standards C210, C213, and these Specifications.
- B. Inspection failure over large areas, as determined by the Engineer, in any length of pipe shall be cause for rejection of the length of pipe as unfit and the pipe shall be removed immediately from the work site. The Contractor shall be responsible for replacement of rejected pipe at his/her sole cost. No extension of time for completion of the work will be provided due to rejection of pipe. The Contractor shall be responsible for arranging for and providing power as necessary for field testing.

**END OF ARTICLE** 

### PART 1 GENERAL

### 1.01 SUMMARY

- A. This article covers field applied protective painting, including surface preparation, protection of surfaces, inspection, and other appurtenant work for, piping, fittings and other such surfaces designated to be painted on top of the fusion bonded epoxy shop coat.
- B. Furnishing and operating all climate-controlled environments as required by any and all coating manufacturer's application requirements.
- C. Removing, handling and disposing of the existing exterior paint, coatings and any other hazardous materials in accordance with local, state, and federal regulations and as specified.
- D. Regardless of the number of coats previously applied, at least two field coats in addition to any shop fusion bonded epoxy coats or field prime coats shall be applied to the exterior of all fully assembled above grade piping surfaces to provide uniform and consistent coverage and color.
- E. Cleaning, surface preparation, coating application, and thickness shall be as specified herein and shall meet or exceed the coating manufacturer's recommendations. When the manufacturer's minimum recommendations exceed the specified requirements, Contractor shall comply with the manufacturer's minimum recommendations. When equivalent products are acceptable to the Engineer, Contractor shall comply with this specification and the coating manufacturer's recommendations.
- F. All cleaning, surface preparation, coating application, thickness, testing, and coating materials (where available) shall be in accordance with the referenced standards of the following AWWA, ANSI, NACE, SSPC, NSF, and ASTM.

### 1.02 REFERENCES

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- A. American Water Works Association (AWWA):
  - AWWA C 213—Liquid Epoxy Coatings and Linings for Steel Water Pipe and Fittings
- B. American Society of Testing and Materials (ASTM)
- C. State of California Department of Transportation (Caltrans)
- D. The National Association of Corrosion Engineers (NACE)
  - 1. SSPC-SP 1—Solvent Cleaning

- 2. SSPC-SP 2—Hand Tool Cleaning
- 3. SSPC-SP 3—Power Tool Cleaning
- 4. SSPC-SP 5—White Metal Blast Cleaning
- 5. SSPC-SP 6—Commercial Blast Clearing
- 6. SSPC-SP 7—Brush-off Blast Cleaning
- 7. SSPC-SP 10—Near-White Metal Blast Cleaning
- 8. SSPC-SP 11—Power Tool Cleaning to Bare Metal

#### 1.03 SUBMITTALS

- A. Contractor shall submit color cards for all coatings proposed for use, together with complete descriptive specifications, manufacturer's product data sheet and the completed Coating System Data Sheets, to Engineer for review and color selection. Each product data sheet shall include application temperature limits including recoat time requirements for the ambient conditions at the site, including temperatures up to 130°F. Requests for review submitted directly to Engineer by coating suppliers will not be considered.
- B. Contractor shall submit a Coating System Data Sheet for each separately identified surface in the Coating Schedule that will be used in the project, using the appropriate Coating System Data Sheet forms (Figures 1 and 2) at the end of this section. Each field coating system shall be acceptable to the coating material manufacturer.

### 1.04 MEASUREMENT AND PAYMENT

- A. Full compensation shall be included in the Contract prices of the various items of work.
- B. Refer to Article 21.01 Bid Items.

### PART 2 PRODUCTS

### 2.01 MATERIALS

A. In addition to the coatings listed herein, equivalent products of the following manufacturers will also be acceptable:

Sigma PPG Porter

Rust-Oleum MAB Carboline Company

ICI Devoe Tnemec International Protective Coatings

Sherwin Williams

B. Whenever a coating is specified by the name of a proprietary product or of a particular manufacturer or vendor, the specified coating shall be understood as establishing the desired type and quality of coating desired. Other manufacturers'

coatings will be accepted, provided that sufficient information is submitted to enable Engineer to determine that the proposed coatings are equivalent to those named. Proposed coatings must have an equivalent range of color selections to those manufacturers specified. Information on proposed coatings and color availability shall be submitted for review in accordance with the Submittals section. Requests for review of equivalency will be accepted only from Contractor, and will be considered only after the contract has been awarded.

- C. All coatings shall conform to the air quality regulations applicable at the location of use. Coating materials that cannot be guaranteed by the manufacturer to conform, whether or not specified by product designation, shall not be used.
- D. The coatings specified have been selected on the basis of the manufacturer's statement that the VOC content of the product is 2.8 lbs. per gallon or less; in the thinned condition, unless otherwise indicated herein; however, it shall be the Contractor's responsibility to use only coating materials that are in compliance with the requirements of all regulatory agencies including the Bay Area Air Quality Management District Regulation 8 Rule 3. Local regulations may require some coatings to have a lower VOC content than specified herein.
- E. The coatings specified may meet the VOC limits in the unthinned (as shipped) condition, but may exceed the limits if thinned according to the manufacturer's recommendations. Under these conditions, the coatings shall not be thinned beyond the 2.8 lbs. per gallon limit, and if the product cannot be thinned to suit the application method or temperature requirements, another manufacturer's coating shall be used, subject to acceptance by Engineer.
- F. Some of the architectural coatings specified may contain VOC's in excess of 2.8 pounds per gallon; however, the coatings may be acceptable if supplied in containers of 1 quart or less and provided it conforms to all applicable regulations, codes, and standards.
- G. Contractor shall be responsible for ensuring the compatibility of field coatings with each other or with the coatings on shop coated or previously coated surfaces. Coatings used in successive field coats shall be produced by the same manufacturer. Coatings used in the first field coat over shop coated or previously coated surfaces shall cause no wrinkling, lifting, or other damage to underlying coats.
- H. Primers

Universal Primer PPG Amercoat "Amercoat 385 Epoxy," Carboline

"Rustbond," ICI Devoe "Devran 224HS," Tnemec "Series 27 F.C. Typoxy," or Sherwin-Williams

"Macropoxy 646"

Zinc Primer PPG Amercoat "Dimetate 9 Series," Carboline "Carbo

Zinc II Series," ICI Devoe "Catha-Coat 304V," or

Sherwin-Williams "Zinc Clad II Series"

I. Intermediate and Finish Coatings

Epoxy Enamel (NSF certified systems)

Ferrous Metal Surfaces Contact with

Treated or Raw Water

PPG Amercoat "Amerlock 400 High-Solids Epoxy Coating," Carboline "Carboguard 891,"

ICI Devoe "Bar-Rust 233H," Tnemec "Series N140 Pota-Pox Plus," or

Sherwin-Williams "Macropoxy 646NSF";

immersion service

Aliphatic Polyurethane PPG Amercoat "Amercoat 450H," Carboline

"Carbothane 134HG," ICI Devoe

"Devthane 379H," Tnemec "Series 1074 Endura-Shield II," or Sherwin-Williams

"Acrolon 218HS"

J. Air Wash Piping and Fittings Color: Match Existing

### PART 3 EXECUTION

### 3.01 DELIVERY AND STORAGE

A. All coatings shall be delivered to the job in original, unopened containers, with labels intact. All coating products shall be received and stored in accordance with the coating manufacturer's recommendations. No adulterant, unauthorized thinner, or other material not included in the coating formulation shall be added to the coating for any purpose.

### 3.02 SURFACE PREPARATION

- A. All surfaces to be coated shall be clean and dry and shall meet the recommendations of the coating manufacturer for surface preparation. Freshly coated surfaces shall be protected from dust and other contaminants. Oil and grease shall be completely removed by use of solvents or detergents before mechanical cleaning is started. The gloss on previously coated surfaces shall be dulled if necessary for proper adhesion of topcoats.
- B. Shop fusion-bonded epoxy coated surfaces shall be cleaned prior to application of successive field finishing coats. This cleaning shall be done in accordance with SSPC-SP-1.
- C. Surfaces shall be free of cracks, pits, projections, or other imperfections that would interfere with the formation of a smooth, unbroken coating film, except for concrete block construction where a rough surface is an inherent characteristic.
- D. When applying touchup coating or repairing previously coated surfaces, the surfaces to be coated shall be cleaned as recommended by the coating manufacturer, and the edges of the repaired area shall be feathered by sanding or wire brushing to produce a smooth transition that will not be noticeable after the coating is applied. All coatings made brittle or otherwise damaged by heat of welding shall be completely removed.

E. Ferrous metal surfaces in non-immersion service shall be cleaned to the degree recommended by the coating manufacturer for surfaces to be coated with epoxy enamel, except galvanized surfaces. Blast cleaning to at least SSPC-SP6 shall be used where recommended by the coating manufacturer, and may be used elsewhere at the option of Contractor, provided that no dust is permitted to settle on adjacent wet coating. Surface profile shall be at least 15 percent of the dry film thickness specified for the coating system.

- F. Hardware items such as bolts, screws, washers, springs, and grease fittings need not be cleaned prior to coating if there is no evidence of dirt, corrosion, or foreign material.
- G. When a coating system is required, remove all oil or deleterious substance with neutral detergent or emulsion cleaner or blast lightly with fine abrasive.
- H. When a coating system is required, surface preparation shall conform to the coating manufacturer's recommendations.

### 3.03 MIXING AND THINNING

- A. Coating shall be thoroughly mixed each time any is withdrawn from the container. Coating containers shall be kept tightly closed except while coating is being withdrawn.
- B. Coating shall be factory mixed to proper consistency and viscosity for hot weather application without thinning. Thinning will be permitted only as necessary to obtain recommended coverage at lower application temperatures.
- C. In no case shall the wet film thickness of applied coating be reduced, by addition of coating thinner or otherwise, below the thickness recommended by the coating manufacturer. Thinning shall be done in compliance with all applicable air quality regulations.

### 3.04 APPLICATION

- A. Coating shall be applied in a neat manner that will produce an even film of uniform and proper thickness, with finished surfaces free of runs, sags, ridges, laps, and brush marks. Each coat shall be thoroughly dry and hard before the next coat is applied. Each coat shall be a different color, if available. In no case shall coating be applied at a rate of coverage greater than the maximum rate recommended by the coating manufacturer.
- B. Coating failures will not be accepted and shall be entirely removed down to the substrate and the surface recoated. Failures include but are not limited to sags, checking, cracking, teardrops, fat edges, fisheyes, or delamination.

### C. Priming

1. Edges, corners, crevices, welds, and bolts shall be given a brush coat (stripe coat) of primer before application of the primer coat. The stripe

- coat shall be applied by a brush and worked in both directions. Special attention shall be given to filling all crevices with coating.
- 2. Abraded and otherwise damaged portions of shop-applied coating shall be cleaned and recoated as recommended by the manufacturer of the finish coating. Welded seams and other uncoated surfaces, heads and nuts of field-installed bolts, and surfaces where coating has been damaged by heat shall be given a brush coat of the specified primer. Before the specified spot or touchup coating of metal surfaces, edges, corners, crevices, welds, and bolts in the area of the spot or touchup coating shall be given a brush coat of primer. This patch, spot, or touchup coating shall be completed, and the paint film shall be dry and hard, before additional coating is applied.

### D. Epoxy Enamel

- 1. When used, epoxy enamel shall be applied in accordance with the coating manufacturer's recommendations, including temperature limitations and protection from sunlight until top-coated.
- 2. When applying high build epoxy coatings with a roller or brush and where a dry film thickness of at least 4-6 mils per coat is required, two or more coats shall be applied to achieve the recommended dry film thickness equal to a spray applied coating.
- E. The total coating film thickness including intermediate coats and finish coat, shall be not less than the following:

Type of Coating	Minimum Dry Film Thickness
Epoxy enamel	
Surfaces with first coat of epoxy enamel and final coat of aliphatic polyurethane.	7 mils
Surfaces with first and second coat of epoxy enamel and final coat of aliphatic polyurethane	12 mils (10 mils DFT for epoxy plus 2 mils DFT for aliphatic polyurethane)
Other surfaces (two coats)	10 mils
Immersion service (three coats)	15 mils
Zinc, epoxy, polyurethane	
Surfaces with first coat of zinc, intermediate coat of epoxy, and final coat of aliphatic polyurethane	10 mils, 3 mils zinc, 5 mils epoxy, plus 2 mils for aliphatic polyurethane
Other (one coat)	5 mils
Other (two coats)	10 mils

### F. Weather Conditions

 Coatings shall not be applied, except under shelter, during wet, damp, or foggy weather, or when windblown dust, dirt, debris, or insects will collect on freshly applied coating.

- 2. Coatings shall not be applied at temperatures lower than the minimum temperature recommended by the coating manufacturer, or to metal surfaces such as tanks or pipe containing cold water, regardless of the air temperature, when metal conditions are likely to cause condensation. When necessary for proper application, a temporary enclosure shall be erected and kept heated until the coating has fully cured.
- 3. Coatings shall not be applied at temperatures higher than the maximum temperature recommended by the coating manufacturer. Where coatings are applied during periods of elevated ambient temperatures, Contractor and the coatings manufacturer shall be jointly responsible to ensure that proper application is performed including adherence to all re-coat window requirements. Precautions shall be taken to reduce the temperature of the surface application, especially for metal, at elevated temperatures above 100°F including shading application area from direct sunlight, applying coating in the evening or at night, and ventilating the area to reduce the humidity and temperature.

### 3.05 REPAIRING FACTORY FINISHED SURFACES

A. Factory finished surfaces damaged prior to acceptance by Owner shall be spot primed and recoated with materials equivalent to the original coatings. If, in the opinion of Engineer, spot repair of the damaged area is not satisfactory, the entire surface or item shall be recoated.

### 3.06 PROTECTION OF SURFACES

A. Throughout the work, the Contractor shall use drop cloths, masking tape, and other suitable measures to protect adjacent surfaces. Contractor shall be responsible for correcting and repairing any damage resulting from its or its subcontractors' operations. Coatings spilled or spattered on adjacent surfaces which are not being coated at the time shall be immediately removed. Exposed concrete or masonry not specified to be coated which is damaged by coatings shall be either removed and rebuilt or, where authorized by Owner, coated with two coats of masonry coating.

### 3.07 FIELD QUALITY CONTROL

- A. The following inspection and testing shall be performed: surface profile, visual inspection, spark testing, adhesion testing, and wet and dry film thickness testing. All inspection and testing shall be witnessed by Engineer.
- B. The surface profile for ferrous metal surfaces shall be measured for compliance with the specified minimum profile. The surface profile for concrete shall comply with SSPC 13/NACE 6 Table 1 for severe service.

- C. The surface of the protective coatings shall be visually inspected.
- D. Coating film thickness shall be verified by measuring the film thickness of each coat as it is applied and the dry film thickness of the entire system. Wet film thickness shall be measured with a gauge that will measure the wet film thickness within an accuracy of ±0.5 mil. Dry film thickness shall be measured in accordance with SSPC-PA 2.
- E. Coatings shall be spark tested by the coating manufacturer using an acceptable electrical spark tester set at the recommended voltage. Engineer shall observe the spark testing and shall verify the testing equipment is working properly before the spark testing of the coating is started. The electrode movement shall be continuous and shall proceed in a systematic manner that will cover 110 percent of the coated surface.
- F. Spark testing for coatings on metal shall be done in accordance with ASTM D5162. Spark testing for coating on concrete shall be done in accordance with ASTM D4787. All detected holidays and pinholes shall be marked and repaired as recommended by the coating material manufacturer.
- G. An adhesion test, when required, shall be conducted on a properly prepared and coated steel surface that is acceptable to the coating material manufacturer and Engineer. The test area shall be at least 2 square feet or larger to allow a minimum of three tests to be conducted. The test area shall be coated with the specified system and cured as recommended by the coating material manufacturer. Pull-off strength adhesion tests of the coating shall be conducted by the coating material manufacturer in accordance with ASTM D4541 using an Elcometer tensile adhesion tester. At least three adhesion tests shall be conducted and the results averaged. Adhesion strength shall equal or exceed the minimum adhesion strength recommended by the coating material manufacturer and shall exceed the tensile strength of the concrete.
- H. If the coating fails the adhesion test, the cause of the failure shall be determined and corrected before reconducting the test.

### 3.08 FIELD PRIMING SCHEDULE

A. In general, stainless steel, and steel surfaces of equipment are specified to be shop fusion-bonded epoxy lined and coated. Any such surfaces which have not been shop coated shall be field primed. Damaged or failed shop coatings which have been determined unsuitable by Engineer shall be removed and the surfaces shall be field coated, including prime coat (if any). Primers used for field priming, unless otherwise required for repair of shop coating, shall be:

Surface to be Primed	Material
Steel and cast iron, surfaces to be coated with Epoxy enamel	Same as finish coats or inorganic zinc
Stainless steel	Epoxy enamel

Unless otherwise recommended by the coating manufacturer or specified herein, priming will not be required on metal surfaces specified to be coated with epoxy enamel.

### 3.09 FINISH COATING SYSTEMS

A. The following schedule lists coatings systems and coating system designations.

No	Finish Coating Systems	Coating System Designation						
No.	Finish Coating Systems		С	Е	F	G	Н	Р
4.	Epoxy enamel – Three coats	Х	Χ	Χ				
6.	Epoxy enamel – First coat Aliphatic polyurethane – Finish coat	Χ	Χ	Χ	Χ	Χ		х

- B. Items to be shop finished include the following. Shop finishing shall be in accordance with the coating manufacturer's recommendations.
  - 1. Other surfaces where blast cleaning cannot be or is not recommended to be performed in the field.
  - 2. Other items as otherwise specified.
- C. Items to be field coated include the following. Field coating shall be in accordance with the field priming schedule, the coating schedule, and the manufacturer's recommendations.
  - 1. Surfaces not indicated to be shop finished and surfaces where blast cleaning can be performed in the field.
  - 2. All interior ferrous metal surfaces except stainless steel.
  - 3. Other items as otherwise specified.

### 3.10 METAL SURFACES COATING SCHEDULE

Surface to be Coated	Finish Coating System
Stainless steel, and steel piping above grade exposed to the elements and to view outdoors, including valves, fittings, flanges, bolts, supports, and accessories, and galvanized surfaces after proper priming.	A6
All metal surfaces, unless otherwise specified, which will be submerged or buried, all or in part, including valves, but excluding piping laid in the ground.	E4
Stainless steel and steel piping in vaults, manholes, basins, and similar locations, including valves fittings, flanges, bolts, supports, and accessories.	A4

### 3.11 QUALITY ASSURANCE

A. The coating applicator and coating manufacturer shall review and approve in writing the coating manufacturer's written recommendations for the coating system and the intended service. Any variations from the specifications or the coating manufacturers published recommendations shall be submitted in writing and approved by the coating manufacturer. The coating manufacturer shall observe the surface preparation, mixing, and application of the coating systems and submit a written report of his observations and any additional recommendations.

SURFACE DESCRIPTIO	N	SYSTEM NO.	
SURFACE PREPARATION	ON DESCRIPTIO	N	
Solvent SSPC-SP1 Ferrous Metal Nonimm SSPC-SP10 Other	nersion SSPC-SP	6 Ferrous Metal Immersion SSPC-SP-5	ı
COATING	DFT mils [µm]	MANUFACTURER AND	PRODUCT
First Coat (Primer)			
Second Coat			
Third Coat			
Total System		Not less than minimum thickness s	specified.
Notes: (Attached if neede	d)		
Project:			
Coatings Manufacturer:			Initials:
Painting Applicator:			Initials:
SCVWD	С	OATING SYSTEM DATA SHEET	Figure 1

SHOP PRIMED SURFAC	CE DESCRIPTION		SYSTEM NO.	-F
SURFACE PREPARATION	ON DESCRIPTION	ĺ		
Solvent SSPC-SP1 Other				
COATING	DFT mils [µm]	MANUF	ACTURER AND PRODUCT	
Shop (Primer)		(Identify Product/1	Гуре)	
Touchup				
Intermediate Coat				
Finish Coat				
Total System		Not less than mini	mum thickness specified.	
Notes: (Attached if neede	ed)			
Project:				

**END OF ARTICLE** 

COATING SYSTEM DATA SHEET

Coatings Manufacturer:

SCVWD

Painting Applicator:

Initials: \_\_\_\_

Figure 2

Initials: \_\_\_\_\_

### **APPENDIX A**

Agreement
Payment Bond
Performance Bond
Escrow Agreement for Security Deposits in Lieu of Retention

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# CONTRACT DOCUMENTS Agreement

Page 1 of 2

The following is an agreement entered into as of by and between the SANTA CLARA VALLEY WATER DISTRICT, State of California, hereinafter referred to as "District" and, hereinafter referred to as "Contractor."
For the considerations hereinafter specified, Contractor and District agree as follows:
ARTICLE I: Work to Be Done and Documents Forming the Contract
Contractor agrees to do all the work and furnish all materials necessary to construct and complete, in accordance with the Specifications the following work:
SANTA TERESA WATER TREATMENT PLANT
AIR WASH PIPELINE REPLACEMENT PROJECT
Project No. 93764004, Contract No. C0662
Said work shall be performed to the satisfaction of the Engineer all in accordance with the Drawings, Specifications, Notice to Bidders, and the Proposal of the Contractor, all of which documents are hereby specially referred to and by such reference made a part of this Contract.
ARTICLE II: Contract Price
District hereby agrees and promises to pay to Contractor the sum of Dollars (\$).
For the performance of said work; provided, however, that the above mentioned sum is one determined by the Proposal of Contractor as based upon the estimated amount of work to be done, and should there be any variance between the estimated amount of work to be done and the actual amount of work performed, then the final payment price shall be computed on the basis of the unit prices contained in the Proposal of Contractor.
ARTICLE III: Completion of Contract
It is hereby agreed that the work called for under this Contract, in all its parts and requirements, shall be completed before the expiration of <u>504</u> calendar days from the First Chargeable Day of the Contract as stated on the Notice to Begin Work unless the time for completion is extended, as allowed by the Specifications.
ARTICLE IV: Bonds Required
This Contract shall have no force or effect whatsoever unless and until Contractor delivers to District a Payment Bond in the sum of Dollars (\$).
Nor shall such Contract be effective until Contractor also gives a good and sufficient bond in the sum of Dollars (\$) for the faithful performance of the work to be done under the terms of this Contract.



## CONTRACT DOCUMENTS Agreement

Page 2 of 2

### **ARTICLE V: Certification by Contractor**

Contractor hereby certifies as follows:

"I certify that I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for workers' compensation or to undertake self insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the work of this Contract."

### **ARTICLE VI: Gift Policy Observance**

Contractor hereby acknowledges that District policy prohibits the acceptance by District personnel of gifts of any kind from vendors or contractors. Contractor shall honor this policy by not sending or bringing gifts to the District.

IN WITNESS WHEREOF, Contractor and District have caused this Agreement to be subscribed as of the day and year first hereinabove written.

Date Contractor signature affixed:	
	Ву
	Title
Federal I.D.	"Contractor"
	SANTA CLARA VALLEY WATER DISTRICT
Date District signature affixed:	Ву
	Chair/Board of Directors



## CONTRACT DOCUMENTS Payment Bond

Page 1 of 2

BE IT KNOWN BY THESE PRESENTS:
WHEREAS, the Santa Clara Valley Water District (hereinafter called "the Public Entity"), and (hereinafter
designated as "Principal") have entered into an agreement for the <u>SANTA TERESA WATER</u> TREATMENT PLANT AIR WASH PIPELINE REPLACEMENT PROJECT which said
agreement is dated as of, 20; and
WHEREAS, said Principal is required by California Civil Code Sections 9550 and 9554 to furnish a bond in connection with said agreement;
NOW, THEREFORE, we, the Principal and,
a corporation duly organized under the laws of the State of, having its
principal place of business at in the State of, and authorized to do
business in the State of California, hereinafter "Surety," are held and firmly bound unto the
Public Entity in the penal sum of Dollars
(\$) lawful money of the United States of America for the payment of which sum
well and truly to be made, we bind ourselves, our heirs, executors, Administrators, and
successors and assigns, jointly and severally, firmly by these presents.

- 1. THE CONDITION OF THIS OBLIGATION IS SUCH that if the Principal or the Principal's subcontractor fails to pay any of the persons named in Section 9100, or amounts due under the California Unemployment Insurance Code with respect to work or labor performed under the agreement, or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Principal and the Principal's subcontractors pursuant to Section 13020 of the Unemployment Insurance Code, with respect to such work and labor, that the Surety or Sureties will pay for the same, in an amount not exceeding the sum hereinabove specified, and also, in case suit is brought upon the bond, a reasonable attorney's fee, to be fixed by the court. The Principal may require of the Principal's subcontractors a bond to indemnify the Principal for any loss sustained by the Principal because of any default by the Principal's subcontractors under Section 9554 of the California Civil Code.
- 2. This bond shall inure to the benefit of any of the persons named in Section 9100 of the California Civil Code, so as to give a right of action to such persons or their assigns in any suit brought upon this bond.
- 3. Surety, for value received, hereby agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or to the Contract Documents accompanying the same shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the other portions of the Contract Documents.
- 4. Should the condition of this bond be fully performed, then this obligation shall become null and void; otherwise, it shall be and remain in full force and effect.



### **CONTRACT DOCUMENTS** Payment Bond Page 2 of 2

IN WITNESS WHEREOF two identical counter all purposes be deemed an original thereof, has Surety or Sureties above named on the	ive been duly executed by the	e Principal and
PRINCIPAL:	SURETY:	
Signature	Signature	
Name	Name	(Seal)
Title	Title	
Address	Address	

NOTE: Signature of those executing for Surety must be properly acknowledged.



## CONTRACT DOCUMENTS Performance Bond

Page 1 of 2

BE IT KNOWN BY THESE PRESENTS: That

WHEREAS, the Santa Clara Valley Water District, State of California, has awarded to

(hereinafter designated as "Principal") a Contract for <u>SANTA TERESA WATER TREATMENT</u> <u>PLANT AIR WASH PIPELINE REPLACEMENT PROJECT</u>, and

WHEREAS, said Principal is required under the terms of said Contract to furnish a bond for the faithful performance of said Contract,

NOW, THEREFORE, we, the Principal and	
as Surety, are held and firmly bound unto the Santa Clar	a Valley Water District (hereinafter
called "District") in the sum of	Dollars (\$)
lawful money of the United States, for the payment of wh	ich sum well and truly to be made, we
bind ourselves, our heirs, executors, administrators and s	successors, jointly and severally, firmly
by these presents.	

THE CONDITION OF THIS OBLIGATION IS SUCH that if the above bounden Principal, or heirs, executors, administrators, successors, or assigns shall in all things stand to and abide by, and well and truly keep and perform the covenants, conditions and agreements in the said Contract and any alteration thereof made as therein provided, to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless District, its officers, agents, and employees, as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

And the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract or to the work to be performed thereunder or the Specifications accompanying the same shall in any wise affect its obligation on this bond, and does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract or to the work or to the Specifications.

In the event suit is brought upon this bond by District and judgment is recovered, Surety shall pay all costs incurred by District in such suit, including a reasonable attorney's fee to be fixed by the Court.



## CONTRACT DOCUMENTS Performance Bond

Page 2 of 2

	eof, have been duly executed by Principa y of, 20	
PRINCIPAL:	SURETY:	
Signature	Signature	
Name	Name	(Seal)
Title	Title	
Address	Address	

NOTE: Signature of those executing for Surety must be properly acknowledged.



Escrow Agent.

WP File Name

# CONTRACT DOCUMENTS Escrow Agreement for Security Deposits in Lieu of Retention

Page 1 of 3

		Escrow Account No.:	
This	Escrow Agreement is made and ente	ered into by and between:	
	A CLARA VALLEY WATER DISTRICT ose, CA 95118 hereinafter called "Ow		den Expressway,
"Co	whose address	is	hereinafter called
"Es	whose address crow Agent," and	is	hereinafter called
	ne consideration hereinafter set forthe as follows:	n, the Owner, Contractor, and	d Escrow Agent
1.	Pursuant to §22300 of the Public Contract Code of the State of California, Contractor has the option to deposit securities with Escrow Agent as a substitute for retention earnings required to be withheld by Owner pursuant to the Construction Contract entered into between the Owner and Contractor for in the amount of attending dated (hereinafter referred to as the "Contract"). Alternatively, on written request of the Contractor, the Owner shall make payments of the retention earnings directly to the Escrow Agent. When the Contractor deposits the securities as a substitute for Contract earnings, the Escrow Agent shall notify the Owner within 10 days of the deposit. The market value of the securities at the time of the substitution shall be at least equal to the cash amount then required to be withheld as retention under the terms of the Contract between the Owner and Contractor. Securities shall be held in the name of Santa Clara Valley Water District, and shall designate the Contractor as the beneficial owner.		te for retention ction Contract mount of he "Contract"). make payments of tractor deposits the hall notify the Owner the time of the I to be withheld as contractor. Securities
2.	The Owner shall make progress payr otherwise would be withheld from proprovisions, provided that the Escrow specified above.	gress payments pursuant to th	ne Contract
3.	When the Owner makes payment of Escrow Agent shall hold them for the escrow created under this contract is investment of the payments into securand the rights and responsibilities of the when the Owner pays the Escrow Agents and the secrow Agents and the secrow Agents and the Secrow Agents and the Secrow Agents and S	benefit of the Contractor until terminated. The Contractor marities. All terms and conditions the parties shall be equally app	the time that the hay direct the soft this agreement
4.	Contractor shall be responsible for pa Agent in administering the Escrow Ac expenses and payment terms shall b	count and all expenses of the	Owner. These



# CONTRACT DOCUMENTS Escrow Agreement for Security Deposits in Lieu of Retention

Page 2 of 3

- 5. The interest earned on the securities or the money market accounts held in escrow and all interest earned on that interest shall be for the sole account of Contractor and shall be subject to withdrawal by Contractor at any time and from time to time without notice to the Owner.
- 6. Contractor shall have the right to withdraw all or any part of the principal in the Escrow Account only by written notice to Escrow Agent accompanied by written authorization from the Owner to the Escrow Agent that Owner consents to the withdrawal of the amount sought to be withdrawn by Contractor.
- 7. The Owner shall have a right to draw upon the securities in the event of default by the Contractor. Upon seven days' written notice to the Escrow Agent from the owner of the default, the Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by the Owner.
- 8. Upon receipt of written notification from the Owner certifying that the Contract is final and complete, and that the Contractor has complied with all requirements and procedures applicable to the Contract, Escrow Agent shall release to Contractor all securities and interest on deposit less escrow fees and charges of the Escrow Account. The escrow shall be closed immediately upon disbursement of all moneys and securities on deposit and payments of fees and charges.
- 9. Escrow Agent shall rely on the written notifications from the Owner and the Contractor pursuant to Sections (5) to (8), inclusive, of this Agreement and the Owner and Contractor shall hold Escrow Agent harmless from Escrow Agent's release and disbursement of the securities and interest as set forth above.
- 10. The names of the persons who are authorized to give written notice or to receive written notice on behalf of the Owner and on behalf of Contractor in connection with the foregoing, and exemplars of their respective signatures are as follows:
- 11. Throughout the term of this Escrow Agreement, the Escrow Agent herein agrees to provide monthly statements indicating the account balances and status of the account, directly to the Owner, the Santa Clara Valley Water District, at the address provided below, to the attention of the District's representative identified below. The Escrow Agent may submit a request to provide such statements in electronic format.
- 12. The Escrow Agent must provide written notice to the Owner in advance of any action that will negatively impact the account.



# **CONTRACT DOCUMENTS** Escrow Agreement for Security Deposits in Lieu of Retention Page 3 of 3

On behalf of Owner:		On behalf of Contract	tor:
Signature	Date	Signature	Date
Name Capital Program Deputy Opera Designated Engineer	ating Officer	Name	
Title		Title	
5750 Almaden Expressway San Jose, CA 95118			
Address		Address	
On behalf of Escrow Agent:			
Signature	Date		
Name			
Title			
Address			
at the time the Escrow Account in Agent a fully executed counterpa			liver to the Escrow
N WITNESS WHEREOF, the pane date first set forth above.	arties have execu	uted this Agreement by their p	oroper officers on
OWNER:		CONTRACTOR:	
Signature	Date	Signature	Date
Name Capital Program Deputy Opera Designated Engineer	ating Officer	Name	
Title		Title	
5750 Almaden Expressway San Jose, CA 95118			
Address		Address	

(Rev. 0715/19) WP File Name

### **APPENDIX B**

Guidelines for Contractor's As-Built Mark-Ups or Engineers Record Drawings THIS PAGE INTERVIOUS TO THE PAGE INTERVIOUS T



Guidelines for Contractor's As-Built Mark-Ups or Engineer's Record Drawings

> Santa Clara Valley Water District CADD Services Unit



Version: 1.1

Effective Date: December 2009

# Document Number CADD G101

### **EXTERNAL USERS:**

The version provided by the "District" represents the applicable version.

### **INTERNAL "DISTRICT" STAFF**:

Printed or downloaded versions are for reference only. See the CADD Services Unit website for released version.

# **Guidelines for Contractor's As-Built Mark-Ups or Engineer's Record Drawings**

### **CADD Services Unit**

These guidelines were developed and written by Emmanuel Aryee (CADD Services unit) and the example figures were provided by Roberto Parmituan (Construction Inspection unit). They were then reviewed by the Plans and Specifications Standardization team.



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### 1.0 REDLINE MARKING IN THE FIELD OR THE OFFICE

Redline mark ups should be neat, legible, clear, and orderly and should accurately record and reflect the actual as-built condition.

It should be done with the correct symbols, lines, lettering and text, details, dimensioning, etc. using red pencil or ink.

All construction changes are based on authorized change documents or Engineer's instructions. These documents are kept in the Project or Construction files.

Change documents include addendum, request for information (RFI), contract change order (CCO), engineers work order or extra work order (EWO), field memo, etc. See Figure 4 & 6. It is not acceptable to attach change documents to the drawings to avoid having to mark up changes on the drawings. Changes should be interpreted and then transferred by redline markings on to the drawing sheets; they should be referred to in the listing of the changes or revisions in the title block of the drawing sheet. See Figure 4 to 8.

Already drafted changes, sketches, diagrams of the changes (not the complete change document) may be attached on blank spaces on the drawing sheet or a separate blank sheet, (not to cover the original drawing information) to show or illustrate the extent of the changes, if that will be helpful.

Features, items, details that were changed should be clearly detailed, dimensioned, located (survey information, tying to control lines, other features or monuments, station offsets or reference lengths, distances, etc.) and described in detail with lines, lettering & text, etc. with redline mark up.

Redline mark ups should be done in a manner that enables any competent technician or drafter to draft the as-built mark-up or the record drawings with minimum difficulty. Redline marking includes making changes, additions and/or deletions representing the actual construction changes for the as-built drawings or changes authorized by the engineer on the record drawings.

### 1.1 CHANGE

A change is made when an item(s) on the drawing sheet is modified or replaced with completely new item(s). It may involve the change of a simple line, dimension, note or re-sketch of a part or a component. Only those areas of a drawing that are affected should be marked up. Item(s) changed should be <u>clouded</u>.

**Clouding**—The use of a cloud to surround the area or item, text or symbol changed so as to make the changes stand out and be easily identified. The original content that is not affected by the change is left unclouded. See Figure 8.

### 1.2 ADDITIONS

Additions occur when new item(s) are introduced on to the drawing sheet to supplement or clarify information without modifying or replacing the original items. When additions are made to the drawings that affect only the drawing content, the additions should also be <u>clouded</u> since they are revisions to the original drawings.



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### 1.3 DELETIONS

Deletions occur when features, details or items on the drawings are not constructed, are removed, are changed and/or replaced.

When preparing As-built drawings, all original drawing details, items are preserved. Deleted items should not be erased or removed from the marked up drawing. Deletions are shown by **crossing** out the deleted elements, details, lines, text, symbols, or any other items involved, with one of these methods;

- a slanted/horizontal line (strike-out line) across the element,
- a heavy "X" over the element,
- a bold, big X across a major element or across the entire drawing sheet.

The area or item affected should be <u>clouded</u> to indicate the limits of removal. See Figure 8.

### 2.0 ADDITIONAL SHEETS

When changes involve the incorporation of new additional sheet or sheets, it may or may not be necessary to do clouding on the original sheet. If there is a reference to a new sheet in the set, then the reference area should be clearly clouded and the call out to the additional sheet made. Otherwise the new drawing should be marked as normal but tracking notation should show that this is an additional sheet with the original sheet left intact.

In cases where the marking up of several changes on the same sheet leaves the drawing content unclear, crowded, or when features and items become unidentifiable or make the drawing unreadable, use of additional sheets should be considered.

### 3.0 TRACKING OF "AS-BUILT" CHANGES OR REVISIONS

All changes marked up must be tracked. They must be clearly identified with the triangle symbol with the revision number (used in the change document) or the letters "AB" embedded (if no revision numbers are used). The triangle symbol should be placed by the side of all changes, outside the cloud, on the affected drawing sheet.



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### Figure 1—As-Built (AB) Triangle Symbol

A subscript representing the number (#) assigned to track and identify the particular change or revision is placed by the triangle symbol as shown above in Figure 1.

### 4.0 LISTING OR RECORDING OF CHANGES OR REVISIONS

All changes that have been done since the final (construction) drawings were issued must be listed or recorded on the Contractor's "As-Built" drawing sheets and/or the Engineer's record drawings.

Changes made during construction must be listed or recorded and identified under the revision section of the title block of the drawing sheet. Each listing should be identified with the corresponding number (subscript) of the triangle symbol. The listing consist of a short description of the change and an abbreviated name of the change document such as CCO #2 for contract change order number 2, placed in brackets, under the "DESCRIPTION" heading.

It could also be "as per the Engineer instructions" for some of the changes done under the direct instructions of the Engineer. It must include a date and the initials of the person who authorized the change. See Figure 2.

REV	DESCRIPTION		APPR.
AB	<ol> <li>REMOVE AND REPLACE EXISTING PIPE SYSTEM (LOC #1)</li> <li>REVISE ANODE LEAD WIRE (CCO #2)</li> </ol>	08/01 05/02	

Figure 2—Listing or Recording of Changes



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### 5.0 SIGNING OF THE AS-BUILT OR THE RECORD DRAWINGS

Each sheet must be signed and dated by the contractor's representative for the contractor's as-built mark-ups. The representative must also include his/her printed name and his/her company's name. Similarly the Engineer must do the same for the record drawings. See sample below.

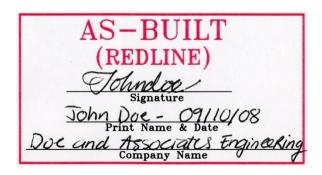


Figure 3—Sample of As-Built Signature Stamp



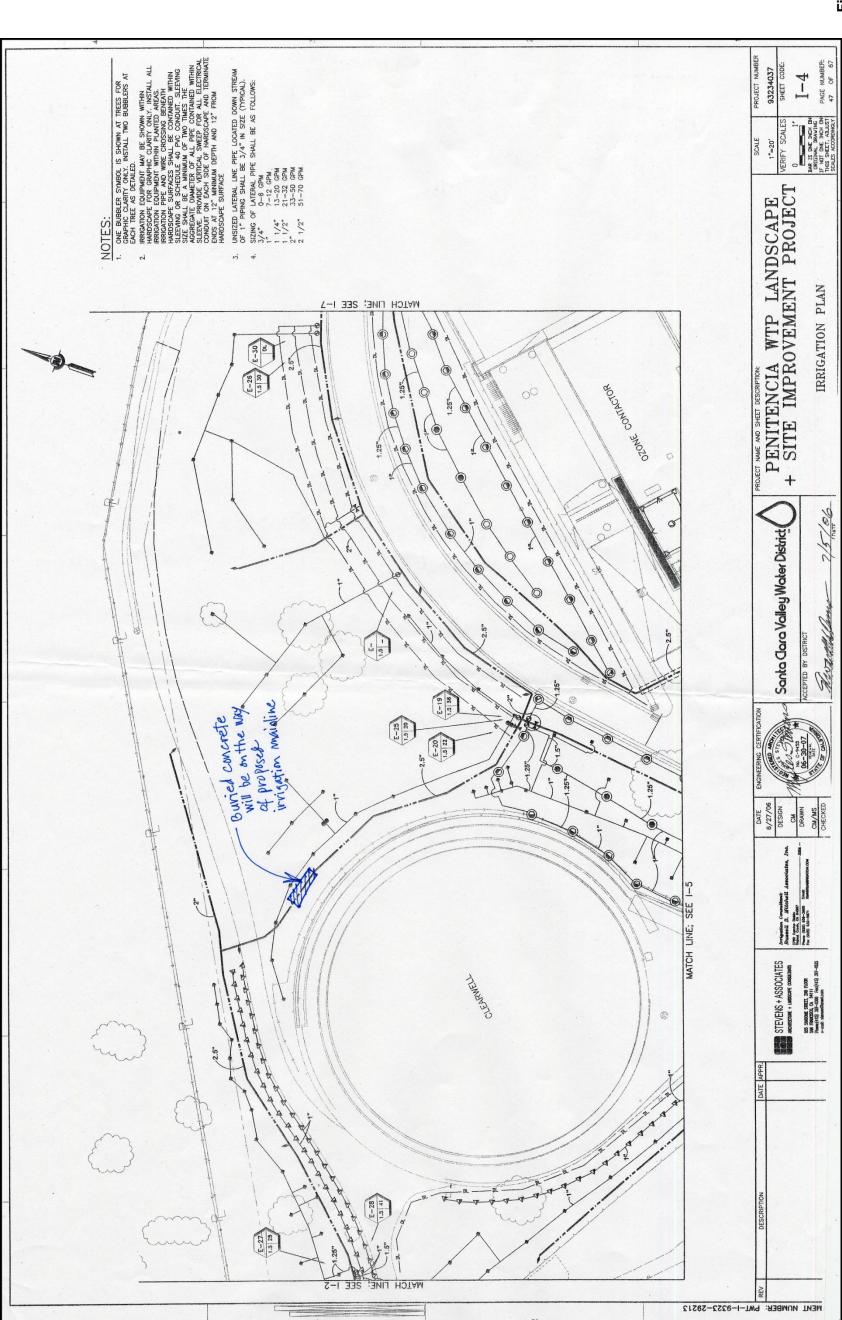
No	PLM SHT T-4
REQUEST FOR INFORMATION FC 825 (04-10-86)  Date: Feb. 6, 2008  Contractor File No.: 001  RFI Consec. No.: 4  Reply Needed By: Feb. 12, 2008	unried concrete block was discovered in excavation for the irrigation mainline. I he proposed irrigation mainline in the proposed irrigation mainline in the please provide direction on how.
REQUE FC 825  P. M.C. Contract  RFI Consec. No.:  Reply Needed By	unried concrete block was discovered check was discovered concrete block was discovered lown in the attached diswing.  The proposed irrigation mainline in the please provide direction on how.
a Gara Valley Water District  To: John De (Resident Inspector)  From: R. B. Construction (Contractor, Utility, etc.)  Contract: PWTP LandScaping  Contract No.: CO526	the then the time of the shown.
Sonto Gara Volley Water District To: John Do. From: R. B. Co. Contract: PWTP L. Contract No.: CO5.	1. An ex during Location installa location to pre

Figure 4—Request for Information



ENGINEER'S RESPONSE	
ra Clara Valley Water District REQUEST FOR INFORMATI	ION
To: John Doe Date: Feb. 6, 2008	
From: R. B. CONSTRUCTION Co., INC., Contractor File No.: QOI	
Contract: PWTP LandScapina RFI Consec. No.: 4	
Contract No.: C0526 Reply Needed By: Feb. 12, 2008	
tem No. INFORMATION ACTION NEEDED	Ref.Spec/Plan No
1. An existing buried concrete block was discovered	THE LODGE THAT THE
during the trench excavation for the irrigation mainline.	
Location is shown in the attached drawing.	PLAN SHT
	I-4
This buried concrete block will not allow for the	-
installation of the proposed irrigation mainline in the	<del> </del>
location shown. Please provide direction on how	-
to proceed.	-
	-
	1
DISTRIBUTION: Pink = retained by Initiator 3 copies to Resident Inspector	a special amelia distribution dell'accident
Item   BEDIV	Extra WO Forth- coming (Yes/No)
Item No. REPLY	Extra WO Forth-coming (Yes/No)
1. Please re-voute/re-align the irrigation line	coming (Yes/No)
1. Please re-voute/re-align the irrigation line installation as shown in the attached	coming (Yes/No)
1. Please re-voute/re-align the irrigation line	coming (Yes/No)
1. Please re-voute/re-align the irrigation line installation as shown in the attached	coming (Yes/No)
1. Please re-voute/re-align the irrigation line installation as shown in the attached	coming (Yes/No)
1. Please re-voute/re-align the irrigation line installation as shown in the attached	coming (Yes/No)
1. Please re-voute/re-align the irrigation line installation as shown in the attached	coming (Yes/No)
1. Please re-voute/re-align the irrigation line installation as shown in the attached	coming (Yes/No)
1. Please re-voute/re-align the irrigation line installation as shown in the attached	coming (Yes/No)
Item No.  Please re-voute/re-align the imagation line installation as shown in the attached dvawing.	coming (Yes/No)
Item No.  1. Please re-voute/re-align the imagation line installation as shown in the attached dvawing.  Design Consultant:  Project Engineer  REPLY  Project Engineer  Resident Inspector	coming (Yes/No)  TBD
Item No.  Please re-voute/re-align the imagation line installation as shown in the attached dvawing.	coming (Yes/No)
Item No.  1. Please re-voute/re-align the imagation line installation as shown in the attached dvawing.  Design Consultant:  Project Engineer  REPLY  Project Engineer  Resident Inspector	coming (Yes/No) TBD  Date: 2/11/08  Table different

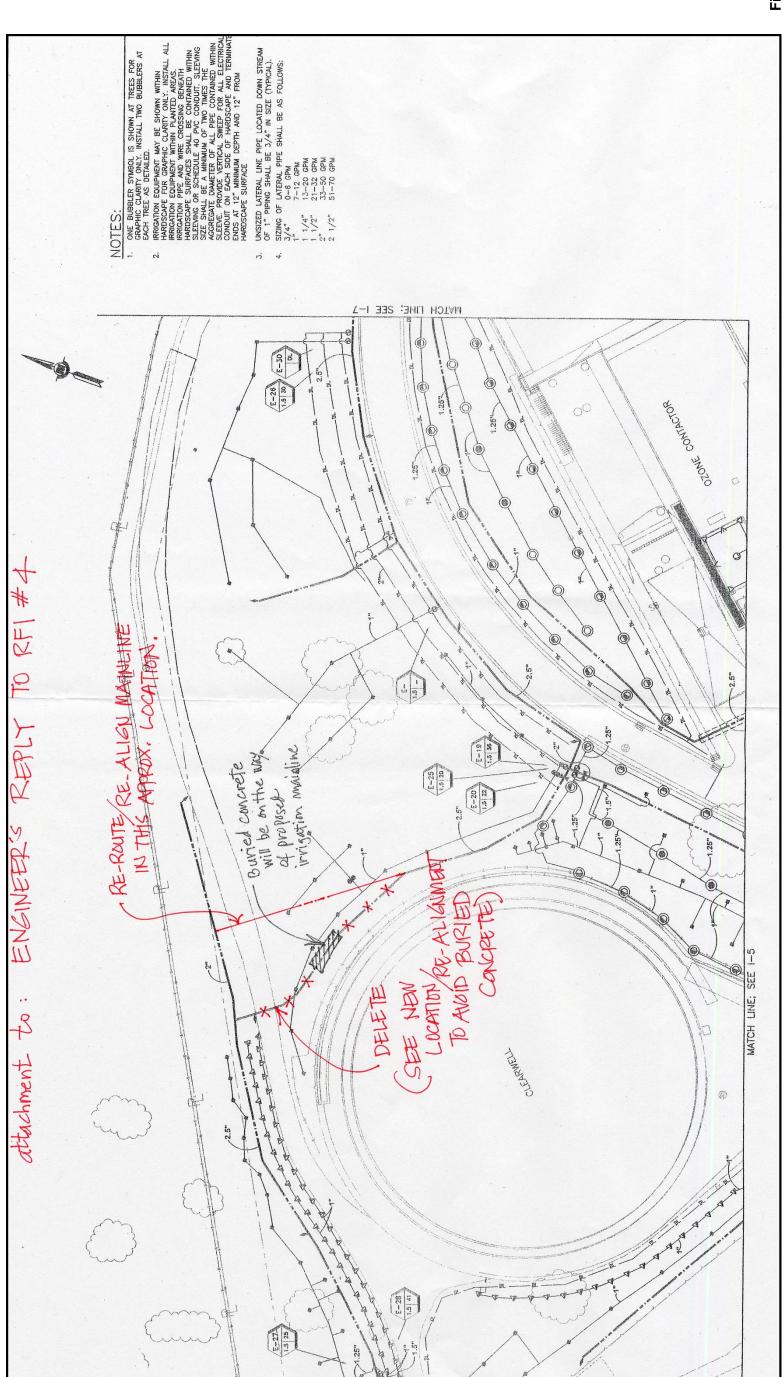
Figure 5—Engineer's Response to RFI



Mark-Up on Drawing Showing RFI

0

10



7-Mark-Up on Drawing Showing Engineer's Response to RFI

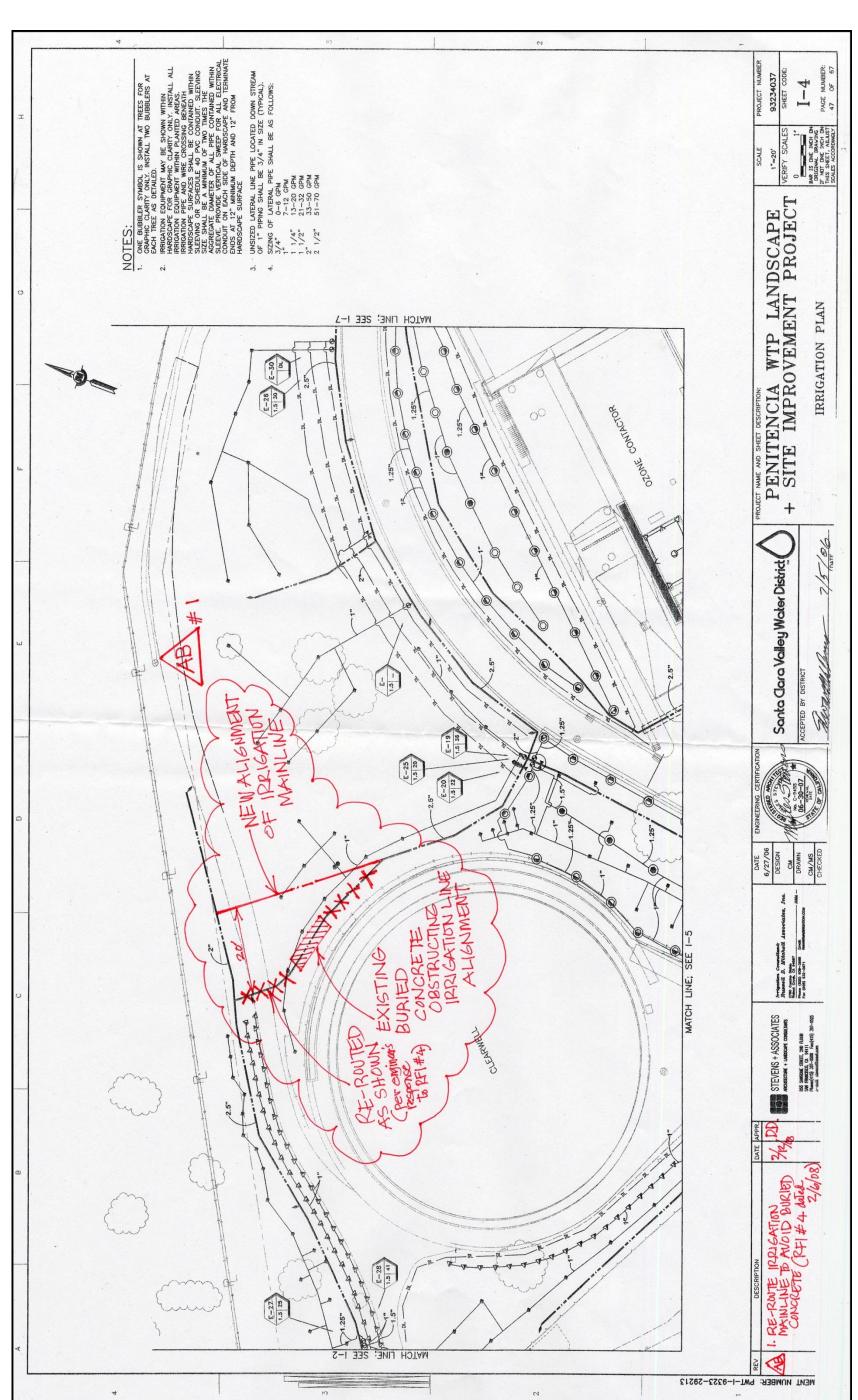


Figure 8—Contractor's Mark-Up Showing Actual Field Work

# **APPENDIX C**

Migratory Bird Permit Memorandum Solid Materials Management Report

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# United States Department of the Interior

# FISH AND WILDLIFE SERVICE Washington, Washington, D C 20240

MBPM-2

Date: APR 15, 2003

# MIGRATORY BIRD PERMIT MEMORANDUM

**SUBJECT:** Nest Destruction

**PURPOSE:** The purpose of the memorandum is to clarify the application of the Migratory Bird Treaty Act (MBTA) to migratory bird nest destruction, and to provide guidance for advising the public regarding this issue.

**POLICY:** The MBTA does not contain any prohibition that applies to the destruction of a migratory bird nest alone (without birds or eggs), provided that no possession occurs during the destruction. To minimize MBTA violations, Service employees should make every effort to inform the public of how to minimize the risk of taking migratory bird species whose nesting behaviors make it difficult to determine occupancy status or continuing nest dependency.

The MBTA specificallyprotects migratory bird nests from possession, sale, purchase, barter, transport, import, and export, and take. The other prohibitions of the MBTA-capture, pursue, hunt, and kill—are inapplicable to nests. The regulatory definition of take, as defined by 50 CFR 10.12, means to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attemptursue hunt, shoot, wound, kill, trap, capture, or collect. Only collect applies to nests.

While it is illegal to collect, possess, and by any means transfer possession of any migratory bird nest, the MBTA does not contain any prohibition that applies to the destruction of a bird nest alone (without birds or eggs), provided that no possession occurs during the destruction. The MBTA does not authorize the Service to issue permits in situations in which the prohibitions of the Act do not apply, such as the destruction of unoccupied nests. (Some unoccupied nests are legally protected by statutes other than the MBTA, including nests of threatened and endangered migratory bird species and bald and golden eagles, within certain parameters.)

However, the public should be made aware that, while destruction of a nest by itself is not prohibited under the MBTA, nest destruction that results in the unpermitted take of migratory birds or their eggs, is illegal and fully prosecutable under the MBTA.

Due to the biological and behavioral characteristics of some migratory bird species, destruction of their nests entails an elevated degree of risk of violating the MBTA. For example, colonial nesting birds are highly vulnerable to disturbance; the destruction of unoccupied nests during or near the nesting season could result in a significant level of take. Another example involves

ground nesting species such as burrowing owls and bank swallows, which nest in cavities in the ground, making it difficult to detect whether or not their nests are occupied by eggs or nestlings or are otherwise still essential to the survival of the juvenile birds. The Service should make every effort to raise public awareness regarding the possible presence of birds and the risk of violating the MBTA, the Endangered Species Act (ESA), and the Bald and Golden Eagle Protection Act (BGEPA), and should inform the public of factors that will help minimize the likelihood that take would occur should nests be destroyed (i.e., when active nesting season normally occurs).

The Service should also take care to discern that persons who request MBTA permits for nest destructionare not targeting nests of endangered or threatened species or bald or golden eagles, so that the public can be made aware of the prohibitions of the ESA and the BGEPA against nest destruction.

In situations where it is necessary (i.e., for public safety) to remove (destroy) a nest that is occupied by eggs or nestlings or is otherwise still essential to the survival of a juvenile bird, and a permit is available pursuant to **50** CFR parts 13 and 21, the Service may issue a permit to take individual birds.

The Williams

# Santa Clara Valley Water District

# SOLID MATERIALS MANAGEMENT REPORT

Contract Number: Contractor Name: Street Address:		December of (month one)				
Contractor Name: Street Address:		Reporting period (month and year):	Ė			
Street Address:		Phone Number:		FAX Number:	nber:	
		City, State, and Zip:		_		
Preparer's Name (please print):		Signature:			Date:	
A. Construction and Demolition Waste Management Report  Note 1: Earth and rock material, ground water, and construction and demolition waste material that contains contaminated or hazardous materials shall not be reported as either waste material diverted from or disposed to landfill. See specifications for project-specific list of construction and demolition waste materials.  Note 2: Condition and English for Loads taken for disposal in and loads taken for recovery/recycling.  Note 3: If no minimum diversion rate is specified, contractor has the option of reporting material quantity by weight (ton) or volume (cubic yard).	Ste Management Report zion and demolition waste material that confrontential management for disposal in landfill and loads taken for has the option of reporting material quant has the option of reporting material quant	ntains contaminated or hazardous materia ials. recovery/recycling.	Is shall not be reported &	ıs either waste material	diverted from or dis	posed to
Name and Address of Recycling or Disposal Facility	Type of Material Enter letter as follows: A assphalt C = concrete M = metal D = mixed debris W = wood/cleared vegetation O = other (described) See Note 1.	Type of Activity Enter number as follows: 1 = source-separated materials recycling 2 = on-site reuse 3 = mixed debris recycling 4 = reuse of salvageable items 5 = disposal at landfill or transfer station 6 = other (described)	Quantity of Material Taken to Landfill (ton) See Notes 2 and 3.	Quantity of Material Diverted From Landfill (ton) See Notes 2 and 3.	Total Material Generated (ton) See Note 3.	Material Diversion Rate (%)
		Total Quantity Taken to Landfill (ton)				
		Total Quantity Diverted from Landfill (ton)				
		Total Material Generated (ton)				
		Total Material Diversion Rate (%)				
B. Post-Consumer Recycled Content Report	nt Report  post-consumer recycled material content					
Material/Product Description	Manufacturer (Name, Address, and Phone Number)	Post-Consumer Recycled Content Required per Contract (%)	sycled Content ontract (%)	Certified Post-	Certified Post-Consumer Recycled Content (%) See Note 1.	Content (%)
Specification writer to list material equipment specified to be furnished/installed which must contain a minimum specified percentage of post-consumer recycled material	(Contractor to complete)	Specification wn minimum % con	th material/product, the umer recycled material	(Contractor to complete)	lete)	
Contractor Certification: Leertify under penalty of perjury that the information provided in this form is complete and accurate.	nat the information provided in this form is		I have reviewed the information submitted in this report for completeness.	in this report for compl	eteness.	
SIGNATURE:	DATE OF REPORT:	ENGINEER SIGNATURE	TURE:		DATE:	
PRINT NAME AND TITLE:		PRINT NAME:				

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# **APPENDIX D**

Plan Set for the Construction of Santa Teresa Water Treatment Plant Air Wash Pipeline Replacement Project

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# MAP AND CONSTRUCTION PLAN

FOR

# SANTA TERESA WATER TREATMENT PLANT

AIR WASH PIPELINE REPLACEMENT PROJECT

7011 GREYSTONE LANE SAN JOSE, CA 95120

SANTA CLARA VALLEY WATER DISTRICT



APPROVED BY:

& muound Cy-u 2020-06-01 EMMANUEL ARYEE, P.E. CAPITAL ENGINEERING MANAGER

PIPELINES PROJECT DELIVERY UNIT SANTA CLARA VALLEY WATER DISTRICT

dech Milah 2020-06-01 HEATH MCMAHON, P.E. DATE DEPUTY OPERATING OFFICER WATER UTILITY CAPITAL DIVISION

Joon 2020-06-01 AARON BAKER, P.E.

DEPUTY OPERATING OFFICER RAW WATER OPERATIONS DIVISION SANTA CLARA VALLEY WATER DISTRICT

SANTA CLARA VALLEY WATER DISTRICT

ACCEPTED BY:

2020-06-01 BHAVANI YERRAPOTO DEPUTY OPERATING OFFICER

TREATED WATER OPERATIONS & MAINTENANCE DIVISION SANTA CLARA VALLEY WATER DISTRICT

C-0662 PROJECT NUMBER 93764004

SHEET CODE:

G - 01

Attachment 4 SHEET NUMBER:

**LOCATION MAP** 

SCALE: 1" = 5,000'

SITE MAP SCALE: 1" = 250'

**GENERAL NOTES** 

- ALL EXISTING FACILITIES, STRUCTURES, TREES, FENCES, LANDSCAPING, ETC., DESIGNATED "EXIST" OR SHOWN EXISTING (DASHED OR SCREENED LINES) ARE TO REMAIN. EXISTING UTILITIES SHALL BE MAINTAINED OPERATIONAL AT ALL TIMES. ONLY THOSE SPECIFICALLY DESIGNATED FOR REMOVAL AS SHOWN ON THE DRAWINGS, OR AS DIRECTED BY THE ENGINEER SHALL BE REMOVED.
- PRIOR TO PERFORMING ANY WORK IN THE VICINITY OF EXISTING UNDERGROUND UTILITIES, THE CONTRACTOR SHALL VERIFY THE LOCATIONS AND DEPTHS AND TAKE PROPER PRECAUTIONS TO AVOID ANY DAMAGE TO THEM. CALL UNDERGROUND SERVICE ALERT AT (800) 642–2444 AT LEAST 48 HOURS IN ADVANCE FOR LOCATION.
- 3. THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE STATE WATER RESOURCES CONTROL BOARD FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
- WHERE THE WORK IS DEPENDENT UPON THE DIMENSIONS OF EXISTING FACILITIES, THE CONTRACTOR SHALL VERIFY THE DIMENSIONS IN THE FIELD PRIOR TO FABRICATION AND CONSTRUCTION.
- THE EXISTING UNDERGROUND UTILITIES AND PIPELINES ARE SHOWN AT APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS OF ALL EXISTING UTILITIES AND PIPELINES BEFORE COMMENCING WORK. THE CONTRACTOR SH. BE SOLELY RESPONSIBLE FOR DAMAGE WHICH IS CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE UNDERGROUND UTILITIES AND PIPELINE PRIOR TO COMMENCING WORK.
- 6. CONTRACTOR SHALL PROTECT ALL EXISTING PIPES, DUCTS AND EQUIPMENT IN THE AREAS WHERE WORK IS TO BE PERFORMED. ANY DAMAGE SHALL BE REPAIRED OR REPLACED TO THE AGENCY'S SATISFACTION AT THE CONTRACTOR'S COST.
- 7. ALL EXISTING SURFACES DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE RESTORED AT THE CONTRACTOR'S EXPENSE.
- WHEN EQUIPMENT AND/OR PIPING IS TO BE DEMOLISHED BY THE CONTRACT, THE CONTRACTOR SHALL REMOVE ALL ACCESSORY ITEMS, ASSOCIATED BOLTS, SUPPORTS, AND CONCRETE PADS AS WELL, UNLESS OTHERWISE SHOWN. IN ADDITION, ALL PROTRUDING ITEMS SHALL BE GROUND SMOOTH AND PIPES PLUGGED (OR CAPPED). ALL SURFACES AFTER REMOVAL SHALL BE FINISHED TO MATCH SURROUNDING AREAS.
- 9. ALL ELECTRICAL WORK AND MATERIALS SHALL CONFORM IN EVERY ASPECT TO THE LATEST SANTA CLARA COUNTY BUILDING CODE AND ALL APPLICABLE SUPPLEMENTS, EXCEPT WHERE EXCEEDED IN PLANS AND SPECIFICATIONS.
- 10. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, COUNTY AND LOCAL LAWS, AND REGULATIONS WITH RESPECT TO SAFETY, WORKING HOURS, NOISE, AIR POLLUTION AND SANITARY CONDITIONS.
- 11. CONTRACTOR SHALL CLOSE ALL ACCESS GATES IMMEDIATELY AFTER USE.
- 12. CONTRACTOR SHALL BE AWARE THAT MINOR DIFFERENCES BETWEEN EXISTING AND REPLACEMENT PARTS AND COMPONENTS MAY OCCUR AND SHALL BE PREPARED TO MODIFY ASSEMBLY, AS NECESSARY, FOR FIT.
- 13. CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR, AND DISPOSE OF, ALL REMOVED PARTS AND MATERIALS THAT ARE NOT TO BE REINSTALLED.

≥										
S	REV	DESCRIPTION	DATE APF	PR REFERENCE INFORMATION AND NOTES	DATE	ENGINEERING CERTIFICATION	SANTA CLARA VALLEY WATER DISTRICT	PROJECT NAME AND SHEET DESCRIPTION:	SCALE	PROJECT NUMBER
BER					5/31/2019 DESIGN	PROFESSION A PARTY A P		STWTP AIR WASH PIPELINE	AS SHOWN	93764004
Š					A. SAINI	No. 59383		REPLACEMENT PROJECT	VERIFY SCALES	SHEET CODE:
Ę					DRAWN	Comount Cont				G - 02
Š					M. KOST CHECKED	CIVIL OF CALIFORNIE		SITE MAP, DRAWING INDEX,	BAR IS ONE INCH ON ORIGINAL DRAWING	
ĕ					E. ARYEE	PROJECT ENGINEER DATE	1	AND GENERAL NOTES	Attachen inchan scales accorpingly	2 OF 26

DRAWING INDEX

SITE MAP, DRAWING INDEX, AND GENERAL NOTES

STWTP PLANT PROCESS AND FLOW SCHEMATIC

DEMOLITION SITE PLAN
DEMOLITION WEST FILTERS AND WEST FILTER GALLERY

DEMOLITION EAST FILTERS AND EAST FILTER GALLERY

SHEET NUMBER

1 OF 26

2 OF 26

3 OF 26

4 OF 26

5 OF 26

8 OF 26

10 OF 26

11 OF 26

12 OF 26

13 OF 26

14 OF 26 15 OF 26

16 OF 26

17 OF 26 18 OF 26

19 OF 26

20 OF 26

21 OF 26

22 OF 26

23 OF 26

24 OF 26

25 OF 26

26 OF 26

**DESCRIPTION** 

**GENERAL** LOCATION MAP AND TITLE SHEET

ABBREVIATIONS

LEGENDS AND SYMBOLS

**DEMOLITION** 

CIVIL

**MECHANICAL** WEST FILTERS AND FILTER GALLERY

EAST FILTERS AND FILTER GALLERY

BLOWER ROOM PIPE ACCESS DETAIL

FILTER GALLERY PIPE ACCESS DETAIL

STANDARD PIPE EXCAVATION DETAILS

MISCELLANEOUS DETAILS

STANDARD PIPING DETAILS I

REFERENCE

BURIED AIR WASH PIPE ACCESS DETAILS

AIR WASH PIPING DETAILS AND SECTIONS

STANDARD CORROSION CONTROL DETAILS

REFERENCE I YARD PIPING PLAN 1 OF 3

REFERENCE II YARD PIPING PLAN 2 OF 3

REFERENCE III YARD PIPING PLAN 3 OF 3

WEST AND EAST FILTER GALLERY SECTIONS

WEST AND EAST FILTER GALLERY SECTION PHOTOS I WEST AND EAST FILTER GALLERY SECTION PHOTOS II

SITE PLAN

GENERAL SITE PLAN

SHEET CODE

G-02

G-03

G-04 G-05

D-02

D-03

C-01

M-02 M-03

M-04 M-05

M-06

M-07 M-08

M-09

M-10

M-11

M-12

R-03

R-03

# **ABBREVIATIONS**

AAM	- AQUEOUS AMMONIA	Ε	- EAST	MAINT	- MAINTENANCE	s	- SLOPE
ABM	- AIR BLOWN MORTAR	EF	- EACH FACE	MAX	- MAXIMUM	SA	- SULFURIC ACID
ABS	<ul> <li>ACRYLONITRILE—BUTADIENCE—STYRENE</li> </ul>	ELEC	- ELECTRICAL	MH	- MANHOLE	SAC	- SAMPLE COAGULATED WATER
AC	- ASPHALT CONCRETE	•	V — ELEVATION	MECH	- MECHANICAL	SAF	- SAMPLE FILTERED WATER
AB	- ANCHOR BOLT OR AGGREGATE BASE	EM	- EMERGENCY	MI	- MIXER	SAM	- SAMPLE
AIR	- AIR	EMBED	- EMBEDMENT	MIN	- MINIMUM	SAR	- SAMPLE RAW WATER
AISI	- AMERICAN IRON & STEEL INSTITUTE	EP	- EDGE OF PAVEMENT	MON	- MONUMENT	SAS	- SAMPLE SETTLED WATER
ALIGN	- ALIGNMENT	EQ	- EQUILIZATION/EQUAL	MOV MPT	- MOTOR OPERATED VALVE	SAT	- SAMPLE TREATED WATER
ALUM	- ALUMINUM	ESEW	- EMERGENCY SHOWER/EYEWASH	MPI	- MALE PIPE THREAD	SC	- SPARE CHEMICAL
AMP	- AMPERES	EW	- EACH WAY			SCF	- SAMPLE COMBINED FILTER WATER
	- ANIONIC POLYMER/NONIONIC POLYMER	EXIST	- EXISTING			SCCP	- STEEL CEMENT MORTAR COAT AND LINED PIPE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	EXP	- EXPANSION	N	<ul> <li>NITROGEN, NORTH</li> </ul>	SCHED	- SCHEDULE
ARV	<ul> <li>APPROXIMATELY</li> <li>AIR RELEASE VALVE</li> </ul>			N/A	- NOT APPLICABLE	SCVWD	- SANTA CLARA VALLEY WATER DISTRICT - STORM DRAIN
ASA	- AMERICAN SOCIETY FOR TESTING MATERIALS			NAD	- NORTH AMERICAN DATUM	SD SE	- SOUTHEAST
ASTM	- AMERICAN STANDARD ASSOCIATION	EC /1 A	EERDIC CHI ORIDE (LIQUID ALLIM	NC	- NORMALLY CLOSED	SEC	- SECTION
AW	- FILTER AIRWASH, APPLIED WATER	FC/LA FCA	<ul> <li>FERRIC CHLORIDE/LIQUID ALUM</li> <li>FLANGED COUPLING ADAPTER</li> </ul>	NE	- NORTHEAST	SHT	- SHEET
AWG	- AMERICAN WIRE GAGE	FCS	- FERRIC CHLORDE SOLUTION	NEMA	- NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION	SIM	- SIMILAR
AWWA	- AMERICAN WATER WORKS ASSOCIATION	FD	- FLOOR DRAIN, CHEMICAL FEEDER	NG	- NATURAL GAS	SJMW	- SAN JOSE MUNICIPAL WATER
AHHA	- AMERICAN WATER WORKS ASSOCIATION	FF	- FINISH FLOOR	NGVD NIC	- NORTH AMERICAN VERTICAL DATUM	SJWC	- SAN JOSE WATER COMPANY
BA	- BACKWASH AIR	FH	- FIRE HYDRANT		- NOT IN CONTRACT	SLG/SL	- SLUDGE
BFP	- BACKFLOW PREVENTER	FI	- FLOW INDICATOR	NO NP	NUMBER, NORMALLY OPEN     NONIONIC POLYMER	SLD	- SLUDGE DECANT
ВМ	- BENCH MARK/BEAM	FIT	- FLOW INDICATOR WITH TRANSMITTER	NTS	- NOT TO SCALE	SPECS	- SPECIFICATIONS
BMP	- BEST MANAGEMENT PRACTICES	FLG	- FLANGE	NW	- NORTHWEST	SQ	- SQUARE, SQUARE UNITS
BOP	- BOTTOM OF PIPE	FRP	- FIBERGLASS REINFORCED PLASTIC	,		SS	- SANITARY SEWER
BOT	- BOTTOM	FS	- FLOOR SINK	oc	- ON CENTER	s/s	- SIDE SHELL
BR	- BRASS	FSA	- FLUOROSILICIC ACID	OCL	- SODIUM HYPOCHLORITE		T - STAINLESS STEEL
BW	- BACKWASH	FSL	- FLOW SWITCH LEVEL	OD	- OUTSIDE DIAMETER	ST	- STREET
5	B/O/(II/O/)	FT	- FEET	OF	- OUTSIDE FACE, OVERFLOW	STA	- STATION
С	- CHANNEL	FTW	- FILTER TO WASTE	ОН	- OVERHEAD	STD	- STANDARD
CA	- CLEAN AIR	FTWR	- FILTER TO WASTE RETURN	OP	- ORTHOPHOSPHATE	STL	- STEEL
	- CURB AND GUTTER	FW	- FILTERED WATER	OPNG	- OPENING	SW	- SOUTHWEST, SETTLED WATER
Ģ. T.	- CENTERLINE			OQA	- OZONE QUENCHING AGENT	SYM	- SYMMETRICAL
СВ	- CATCH BASIN (INLET)			ow	- OZONATED WATER		
cc	- CEMENT COAT	GA	- GAGE	oz	- OZONE	T	- TELEPHONE, TOP
CCTL	- CORROSION CONTROL TEST LEADS	GALV	<ul> <li>GALVANIZED</li> </ul>			t	- THICKNESS OF PLATE OR DIMENSION OF WELD
CCP	- CONCRETE CYLINDER PIPE	GB	- GRADE BREAK			Т & В	- TOP AND BOTTOM
CD	- CHEMICAL DRAIN			PA	- PLANT AIR	TC	- TOP OF CURB
CDF	- CONTROLLED DENSITY FILL			PAC	- POWDERED ACTIVATED CARBON	TEL	- TELEPHONE
CFM	- CUBIC FEET PER MINUTE	HG	<ul> <li>HOT—DIPPED GALVANIZED</li> </ul>	PL	- PROPERTY LINE, PLATE	TG	- TOP OF GRATE
CHEM	- CHEMICAL	HORIZ	<ul> <li>HORIZONTAL</li> </ul>	PCC	- PORTLAND CEMENT CONCRETE	THD	- THREADED
CI	- CAST IRON	HP	<ul> <li>HORSEPOWER</li> </ul>	PCCP	- PRESTRESSED CONCRETE CYLINDER PIPE	THK	- THICK
CIP	- CAST IRON PIPE, CAST IN PLACE			PE	- PLAIN END, POLYETHYLENE	TOB	- TOP OF BANK
CL	<ul> <li>CLEARANCE, CHLORINE (LIQUID OR GAS), CENTERLINE</li> </ul>			PEA	- ANIONIC POLYMER	TOP	- TOP OF PIPE
CLR	- CLEAR	ID	- INSIDE DIAMETER	PEC	- CATIONIC POLYMER	TRANS	- TRANSFORMER
CLS	- CHLORINE SOLUTION	IF "	- INSIDE FACE	PEN	- NONIONIC POLYMER	TYP	- TYPICAL
CMC	- CEMENT MORTAR COAT	IL IN	- INDUCTIVE LOOP - INCH	PG&E	- PACIFIC GAS AND ELECTRIC	TW	- TREATED WATER
CML	- CEMENT MORTAR LINE	INSUL	- INCH - INSULATION	PHA	- PHOSPHORIC ACID		
CMP	- CORRUGATED METAL PIPE	INV	- INVERT	PI .	- PRESSURE INDICATOR		
co	- CLEAN OUT	IP.	- IRON PIPE		- PLATE	UG	- UNDERGROUND
CONC	- CONCRETE	iPS	- IRON PIPE SIZE	PNL	- PANEL	UL	- UNDERWRITERS LABORATORIES
COND	- CONDUIT	IRR	- IRRIGATION	РО	- PLANT OVERFLOW	UON	- UNLESS OTHERWISE NOTED
CONT	- CONTINUOUS	*****		PP	- POTASSIUM PERMANGANATE	USGS	- UNITED STATES GEOLOGICAL SURVEY
COTG	- CLEAN OUT TO GRADE			PRESS	- PRESSURE	USC	- UNIVERSITY OF SOUTHERN CALIFORNIA
CP	- CEMENT PIPE, CATIONIC POLYMER	JT	- JOINT TRENCH, JOINT	PROP	- PROPOSED	UW	- UTILITY WATER (SEE NOTE 1)
CPLG	- COUPLING	JB	- JUNCTION BOX	PSI PT	POUND PER SQUARE INCH     PRESSURE TRANSMITTER	V	- VOLTACE
CPVC	- CHLORINATED POLYVINYL CHLORIDE			PT PVC		V VAC	VOLTAGE     VOLTAGE ALTERNATING CURRENT
CS	- CAUSTIC SODA/CARBON STEEL			PVC	- POLYVINYL CHLORIDE - POLYVINYL CHLORIDE HOSE	VERT	- VOLIAGE ALTERNATING CURRENT - VERTICAL
CSP	- CORRUGATED STEEL PIPE	ΚV	- KILOVOLT		- POLITYINTE CHEORIDE HOSE - PAVEMENT	VS	- VERTICAL - VARIABLE SPEED
CTS	- CALCIUM THIOSULFATE		· · · · · · · · · · · · · · · · · · ·	PW	- PLANT WATER (SEE NOTE 1), PUMPING WELL	VT VT	- VENT
	- CUBIC FEET			i. sa	. S MAILN (SEE NOTE 1), FOMFING WELL	VTR	- VENT TO ROOF
CYL	- CYLINDER - CAST-IN-PLACE PIPE	L	- ANGLE, LENGTH			VIF	- VERIFY IN FIELD
CWW	- CAST-IN-PLACE PIPE - CLARIFIED WASHWATER	LA	- LIQUID ALUM	RCB	- REINFORCED CONCRETE BOX	¥11	
C1111	ODANI IED MADIMATEN	LCP	- LOCAL CONTROL PANEL		- REINFORCED CONCRETE BOX - RECIRCULATION		
D	- DRAIN	LE	- LEVEL SENSOR, LEFT END	RECIRC RCP	- REINFORCED CONCRETE PIPE	w	- WATER
DC	- DRAIN - DOUBLE CONTAINED	LF	- LINEAL FEET		- REINFORCED CONCRETE PIPE - REINFORCING BAR	ww	- WASH WATER
DET	- DOUBLE CONTAINED - DETAIL	LIT	- LEVEL INDICATOR TRANSMITTER	RED RED	- REDUCER	WWF	- WELDED WIRE FABRIC
DBL	- DOUBLE	LOS	- LOCK-OUT-STOP	REINF	- REDUCER - REINFORCED	wwR	- WASH WATER RETURN
DGV	- DEGASSING VALVE	LOX	<ul> <li>LIQUID OXYGEN</li> </ul>	REQ'D	- REQUIRED	w/	- WITH
DIA	- DIAMETER	LT	- LEFT	RM	- ROOM	w/o	- WITHOUT
DIP	- DUCTILE IRON PIPE			RP.	- REDUCED PRESSURE	WWROF	- WASH WATER RECYCLE OVERFLOW
DW	- DOMESTIC WATER			RT	- RIGHT		<del></del>
DWG	- DRAWING			RW	- RAW WATER	X-ING	- CROSSING
DWR	- DEPARTMENT OF WATER RESOURCES					Λ 1113	

NOTE

ANDATCENTERLINEDIAMETERPROPERTY LINE

1. PW AND UW USED INTERCHANGEABLY.

REV	DESCRIPTION DATE APP	R REFERENCE INFORMATION AND NOTES DATE	ENGINEERING CERTIFICATION S	SANTA CLARA VALLEY WATER DISTRICT	PROJECT NAME AND SHEET DESCRIPTION:	SCALE	PROJECT NUMBER
BER		5/31/2019 DESIGN	PROFESSIONAL APPLICATION OF THE PROPERTY OF TH		STWTP AIR WASH PIPELINE	AS SHOWN	93764004
NOM		A. SAINI	No. 59383		REPLACEMENT PROJECT	VERIFY SCALES	SHEET CODE:
E		DRAWN	Janam Cin				G-03
Ü		M. KOST CHECKED	OF CALIFORNIE			BAR IS ONE INCH ON ORIGINAL DRAWING	
8 B		E. ARYEE	PROJECT ENGINEER DATE		ABBREVIATIONS	Attachen, netoen scales accordingly	3 OF 26

CHECKED

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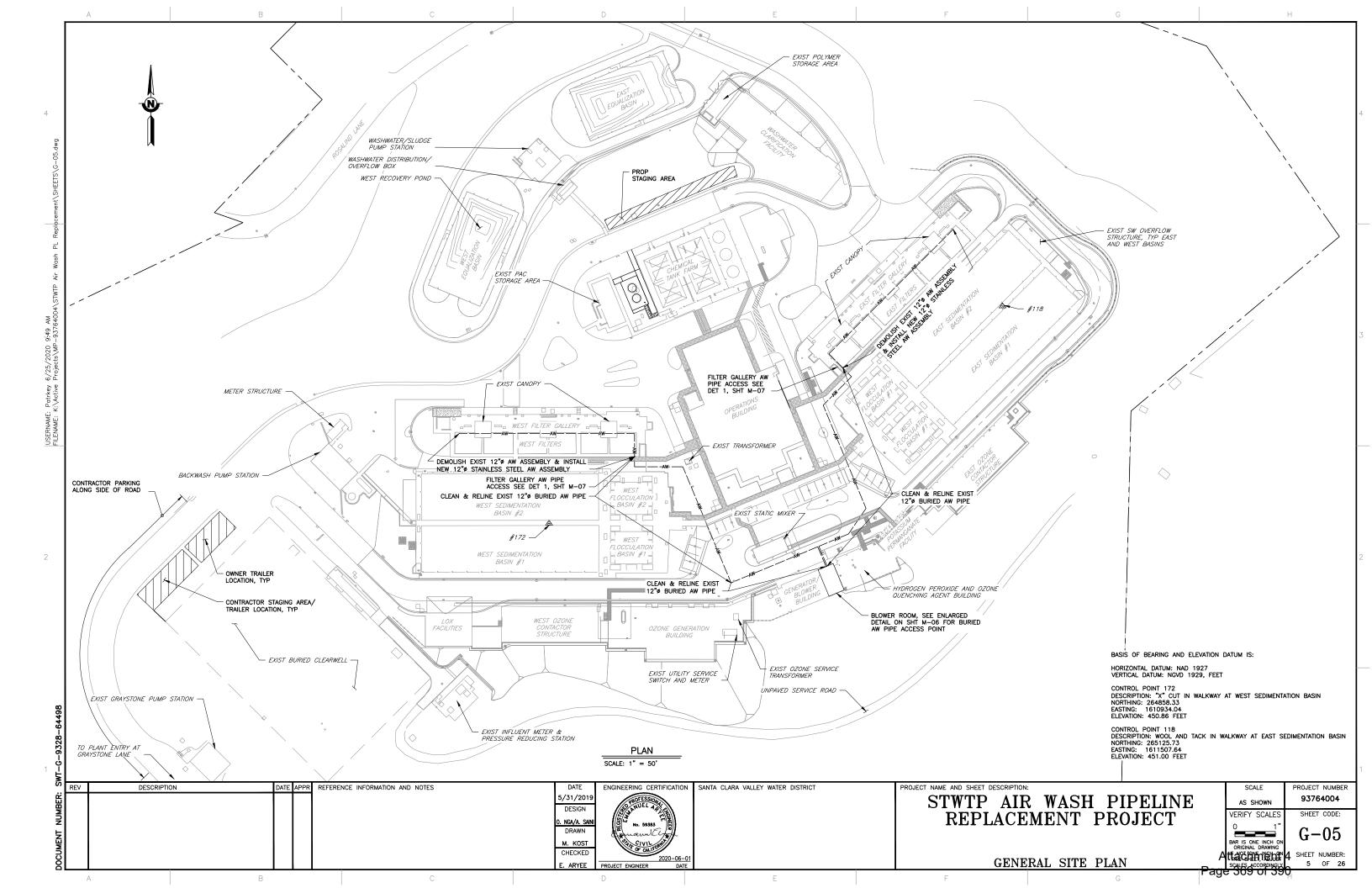
PROJECT ENGINEER

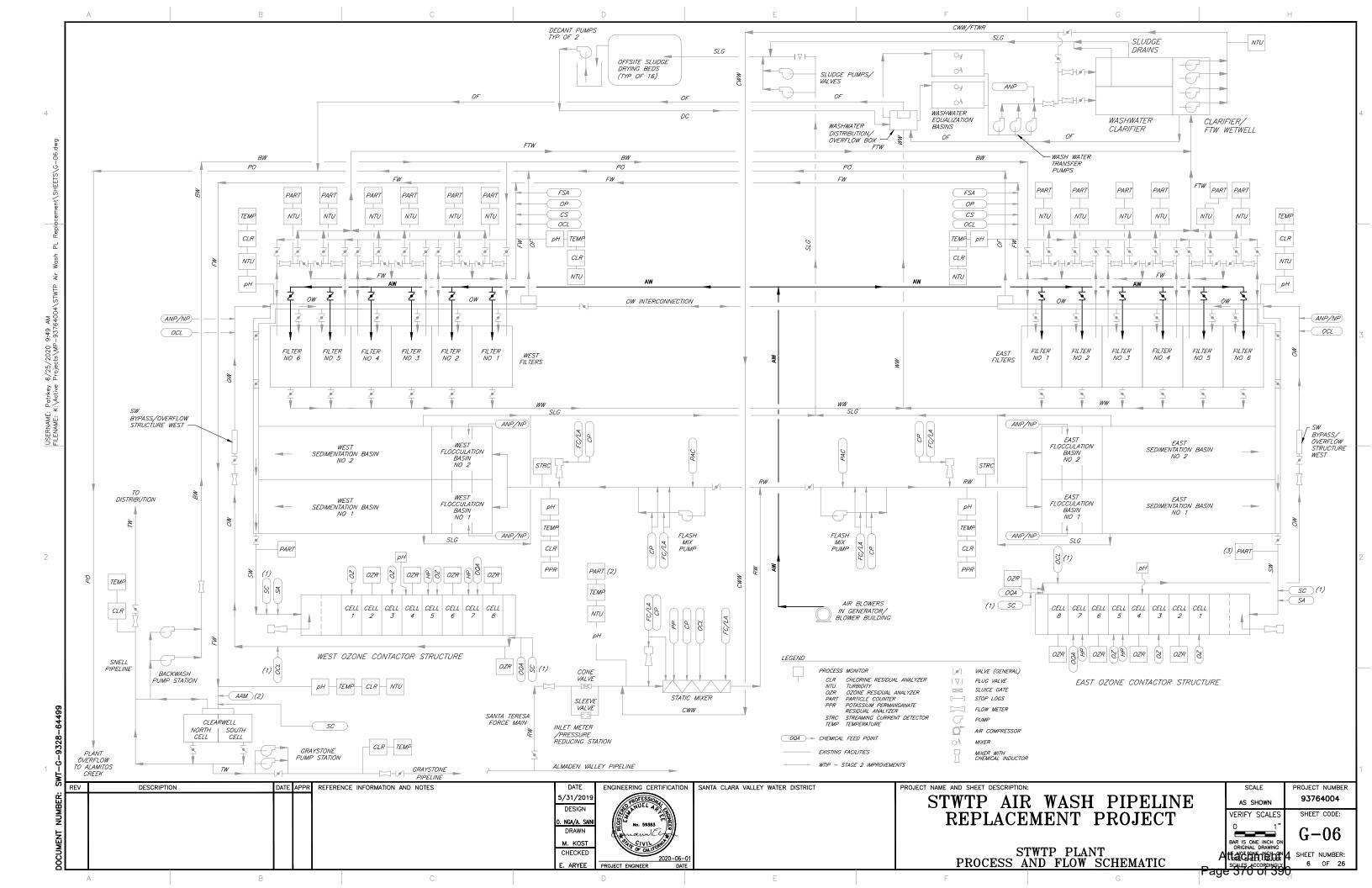
2020-06-0

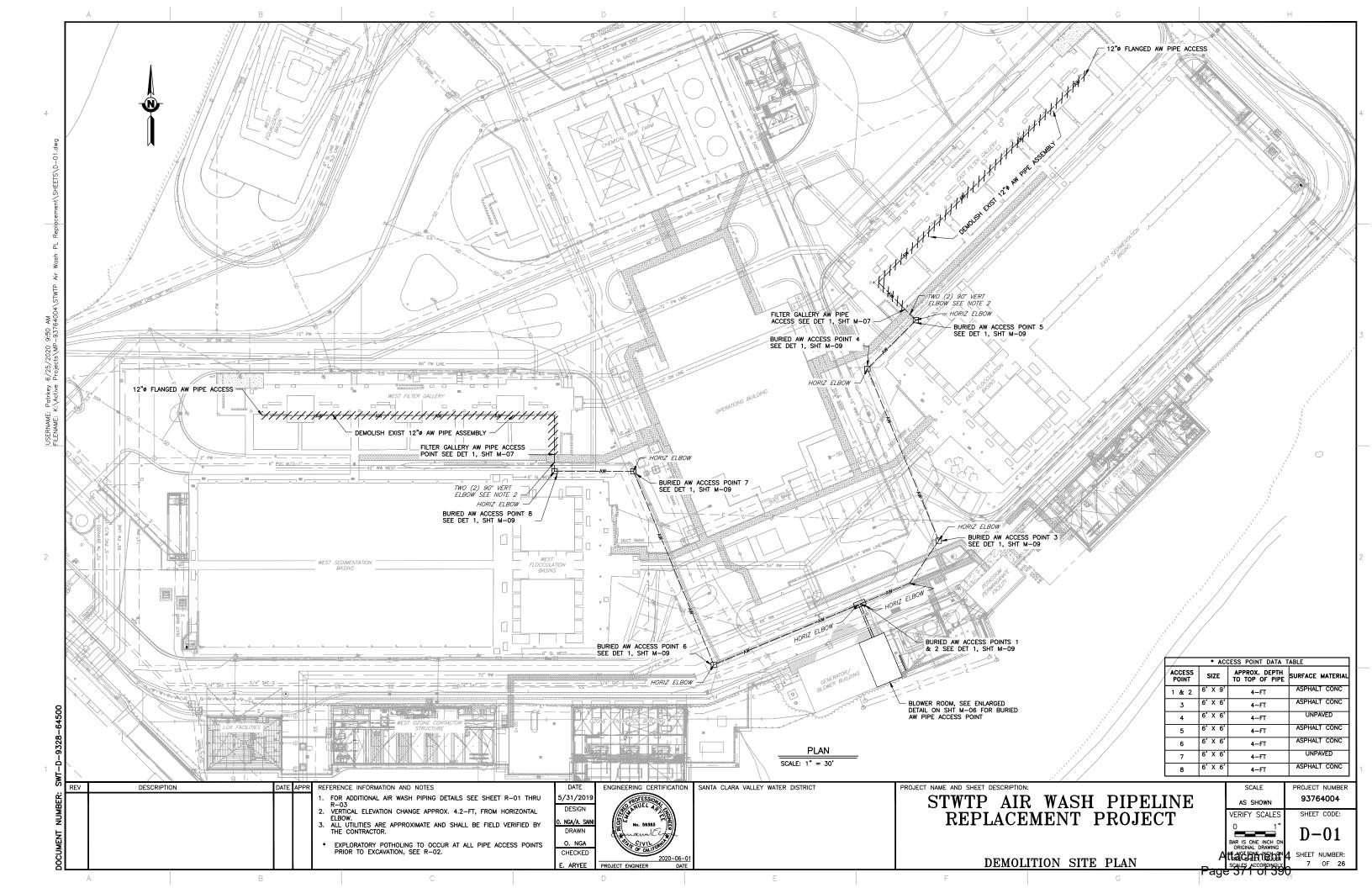
Patrkey 6/25/2020 949

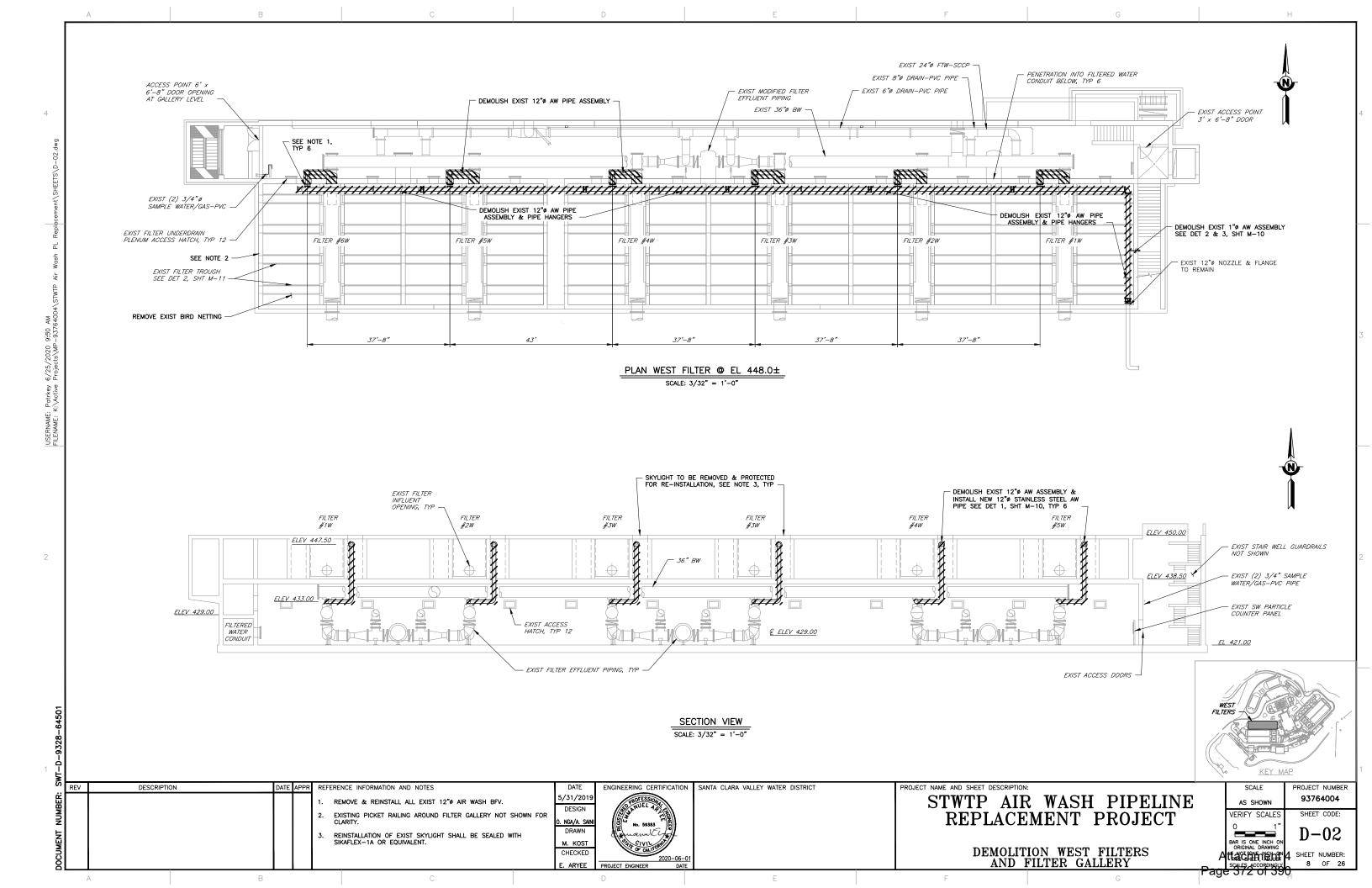
LEGENDS AND SYMBOLS

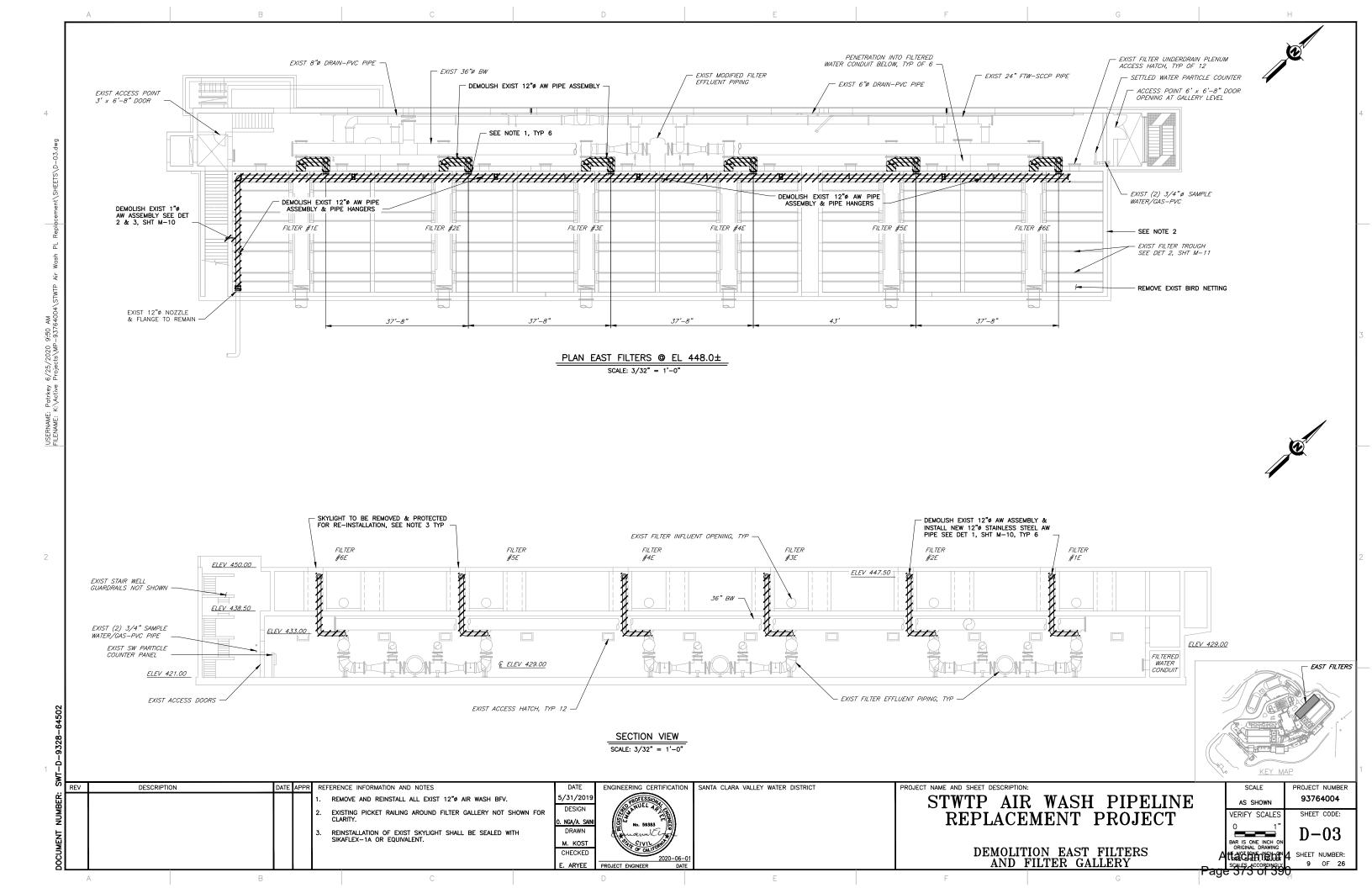
SHEET CODE: G-04AR IS ONE INCH ORIGINAL DRAWIN **adentalsat** SHEET NUMBER: 4 OF 26

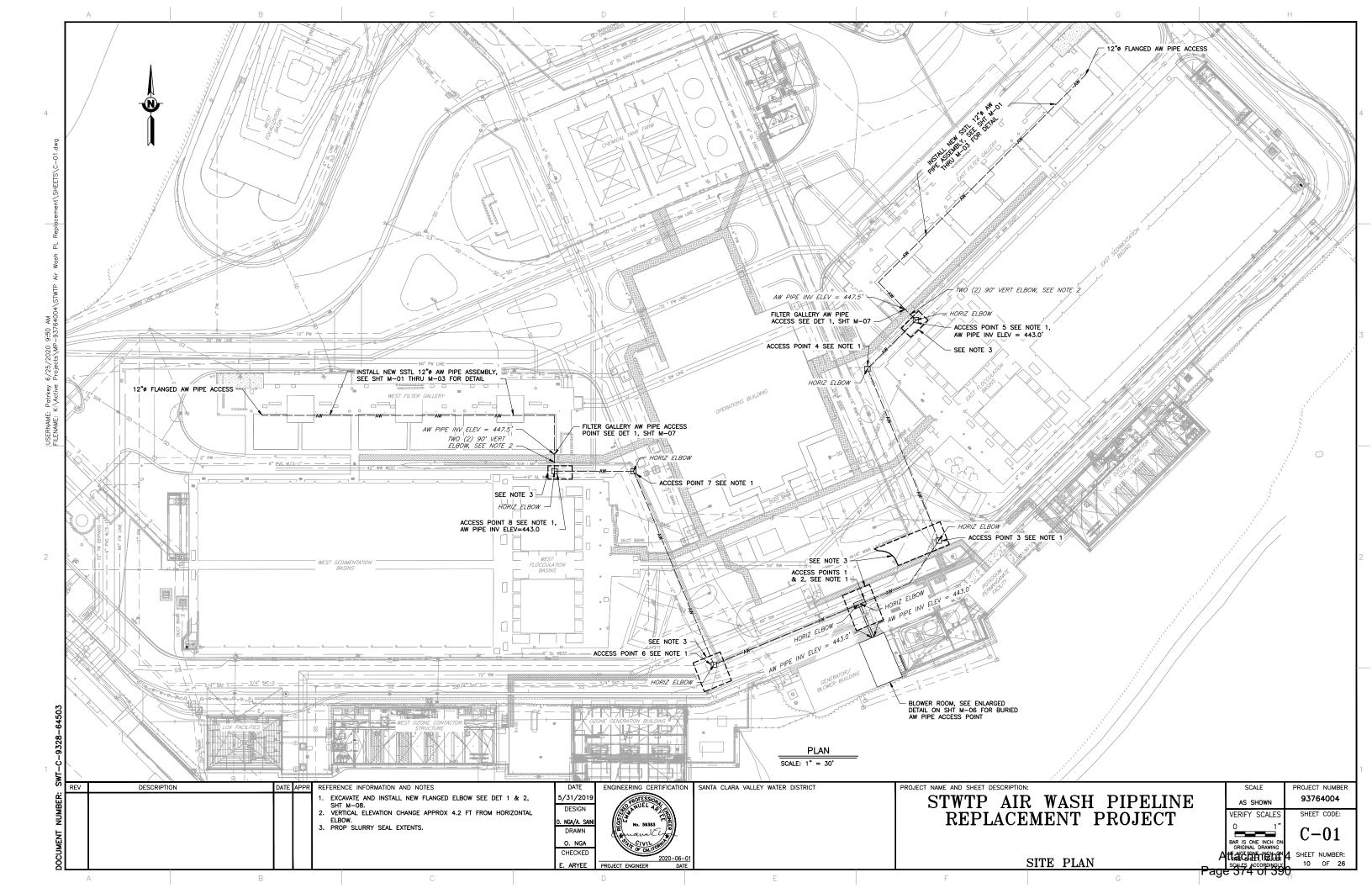


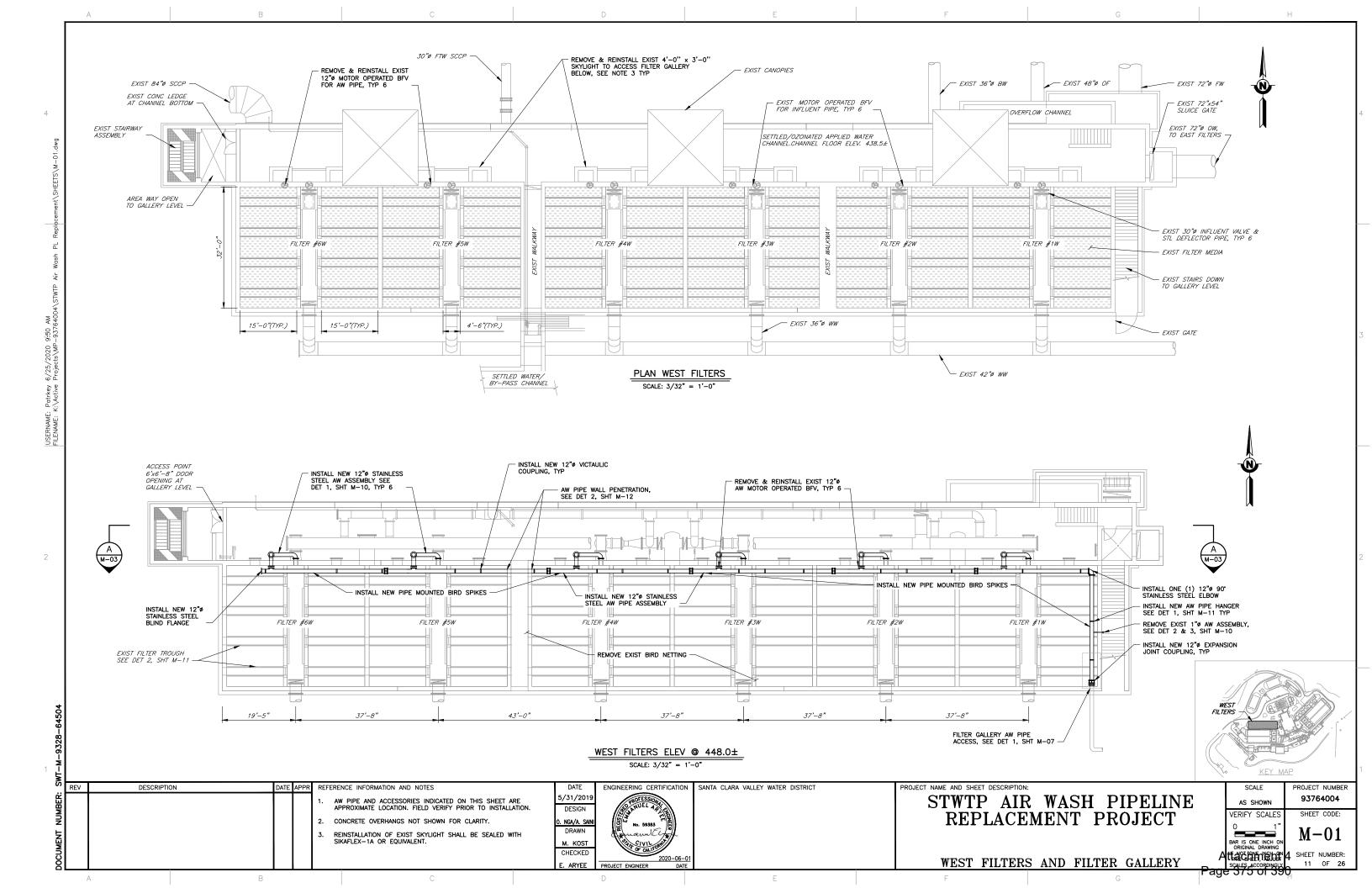


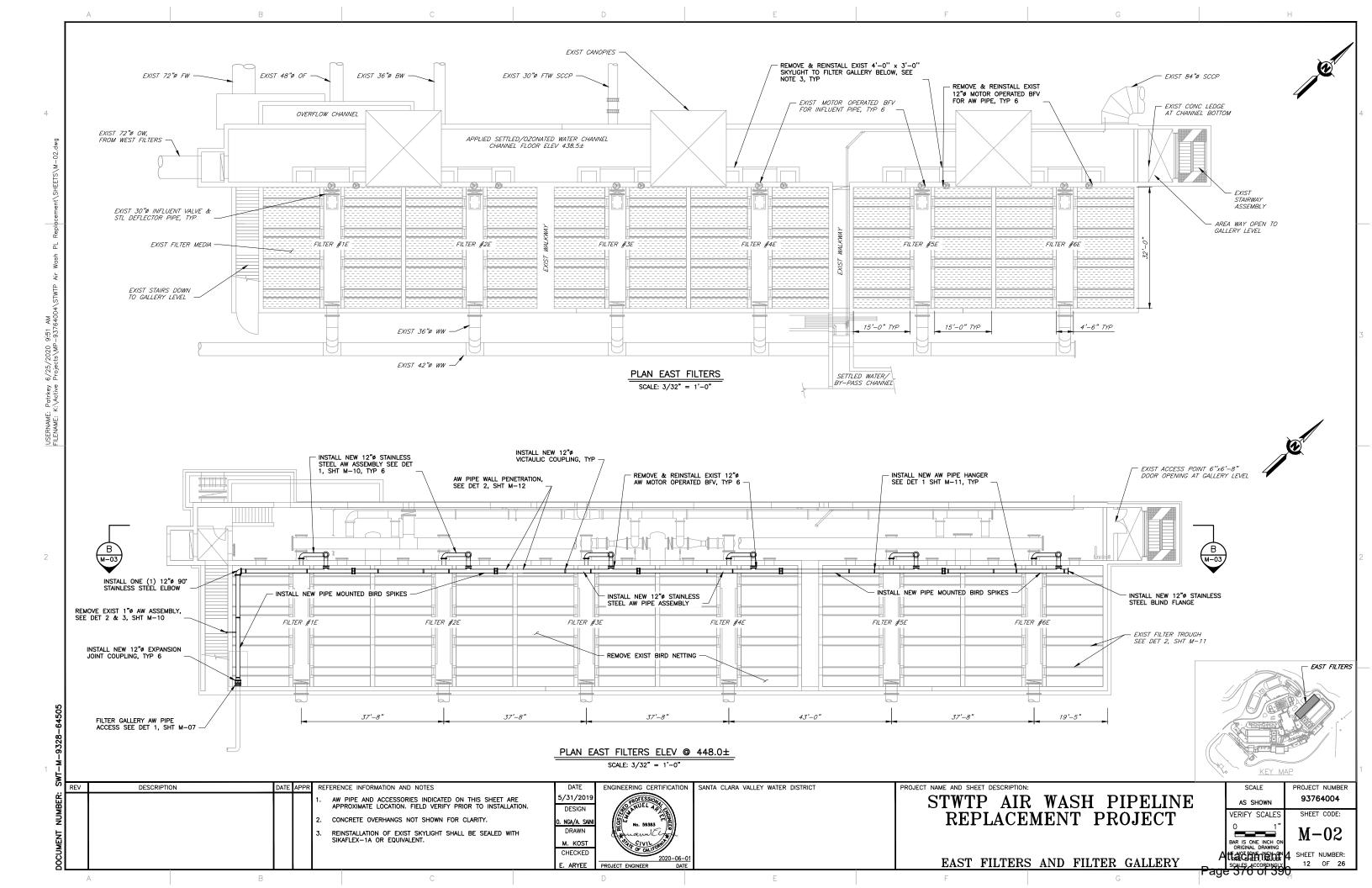


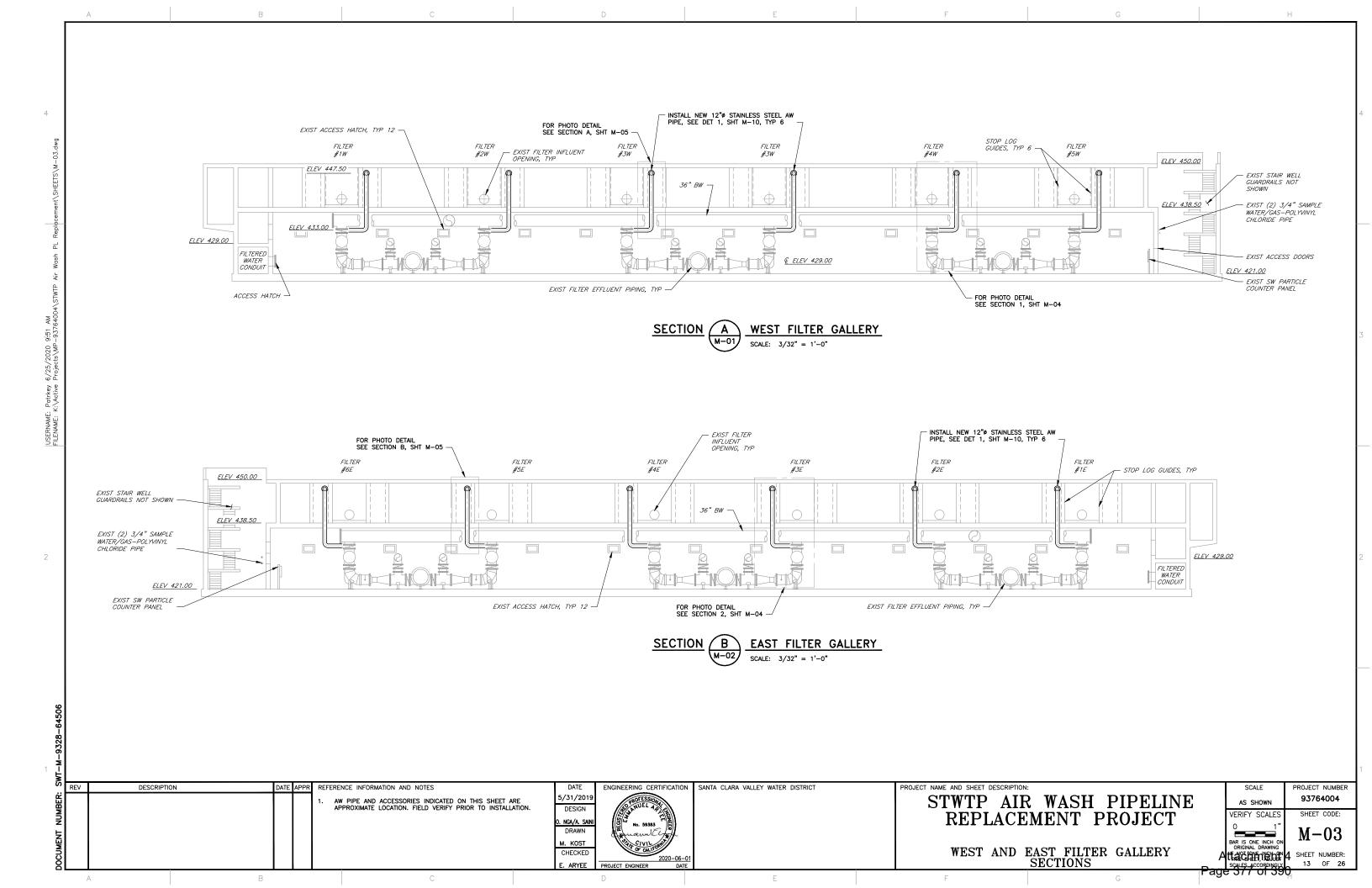












INSTALL NEW 12"Ø STAINLESS STEEL AW PIPE

SEE SECTION A, SHT M-05 FOR SKYLIGHT SECTION VIEW -

INSTALL NEW AW HARDWARE & GASKETS

INSTALL NEW 12" STAINLESS STEEL FLANGED SPOOL PIECE, SEE WALL PENETRATION DET 2, SHT M-12

WEST FILTER GALLERY SECTION SCALE: NTS





DESCRIPTION REFERENCE INFORMATION AND NOTES ENGINEERING CERTIFICATION SANTA CLARA VALLEY WATER DISTRICT SCALE STWTP AIR WASH PIPELINE 5/31/2019 93764004 AS SHOWN DESIGN REPLACEMENT PROJECT VERIFY SCALES DRAWN BAR IS ONE INCH ON ORIGINAL DRAWING M-04WEST AND EAST FILTER GALLERY SECTION PHOTOS I SHEET NUMBER: 14 OF 26

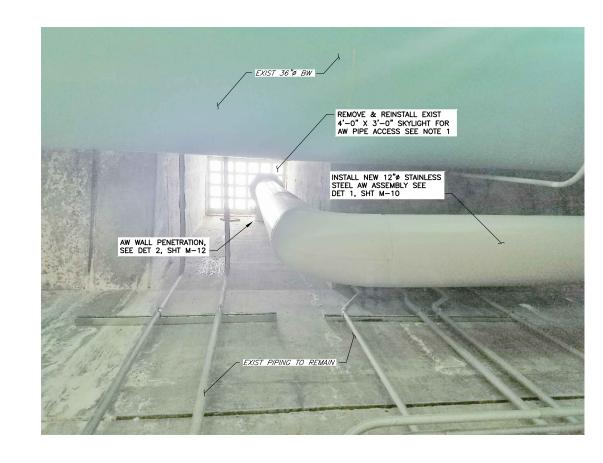
EXIST 36"Ø BW -

INSTALL NEW 12"Ø STAINLESS STEEL AW ASSEMBLY SEE DET 1, SHT M-10



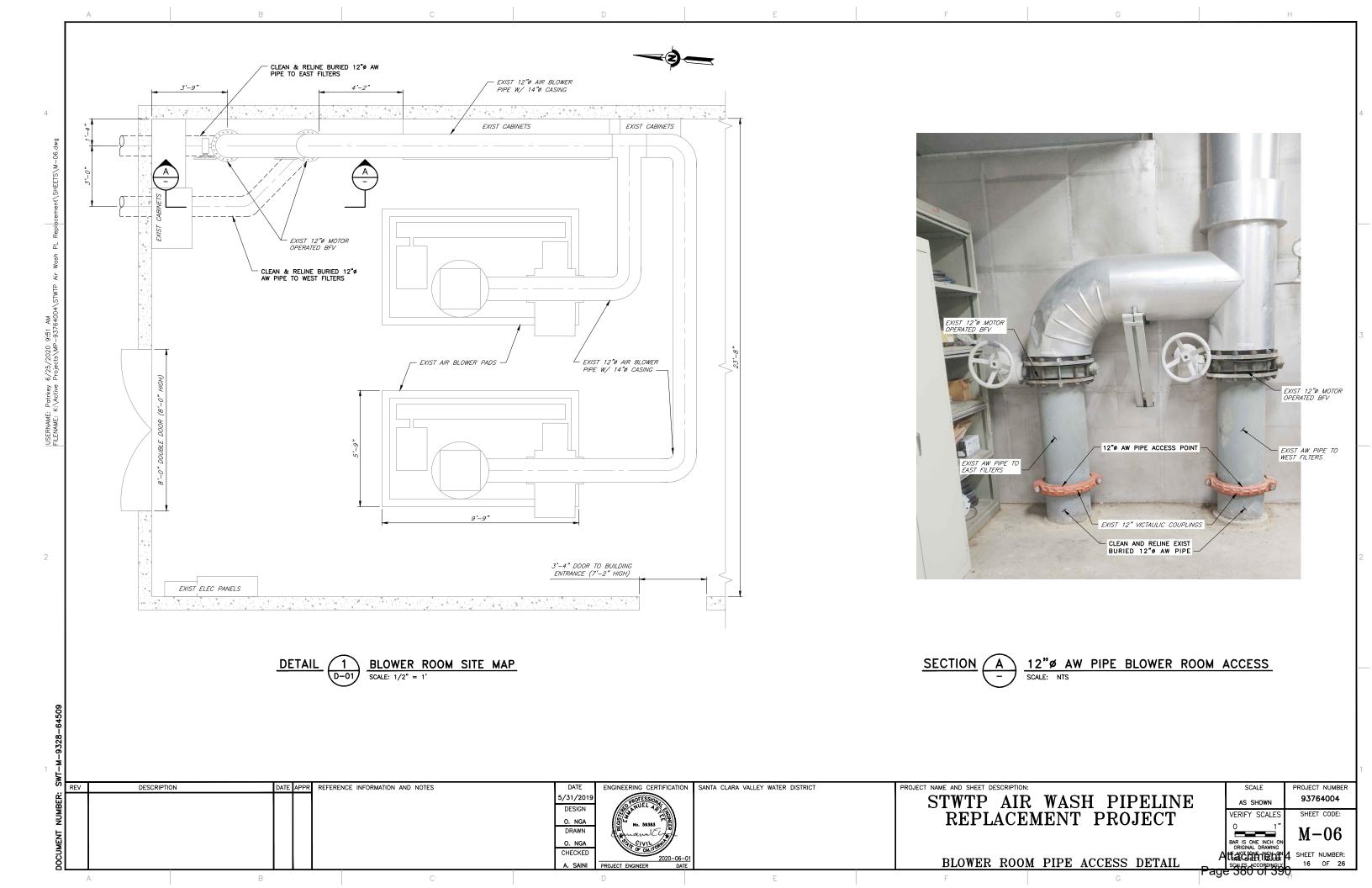
REMOVE & REINSTALL EXIST 4'-0" X 3'-0" SKYLIGHT FOR AW PIPE ACCESS SEE NOTE 1

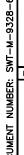
AW WALL PENETRATION, SEE DET 2, SHT M-12



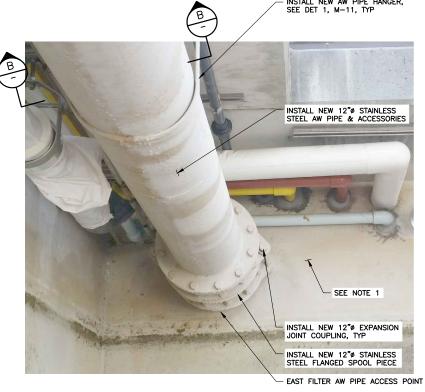


D	ATE APF	R REFERENCE INFORMATION AND NOTES	DATE	ENGINEERING CERTIFICATION	SANTA CLARA VALLEY WATER DISTRICT	PROJECT NAME AND SHEET DESCRIPTION:	SCALE	PROJECT NUMBER
		REINSTALLATION OF EXIST SKYLIGHT SHALL BE SEALED WITH     SIKAFLEX-1A OR EQUIVALENT.	5/31/2019 DESIGN	PROFESSIONAL PROFE		STWTP AIR WASH PIPELINE	AS SHOWN	93764004
			O NGA			REPLACEMENT PROJECT	VERIFY SCALES	SHEET CODE:
			DRAWN	No. 59383			0 1"	M-05
			O. NGA CHECKED	CIVIL OF CALIFORNIE		WEST AND EAST FILTER GALLERY	BAR IS ONE INCH ON ORIGINAL DRAWING	
				2020-06-01		CECTION DILOTOC II	SCALES ACCORDINGLY	4 SHEET NUMBER: 15 OF 26

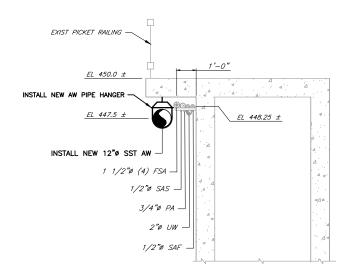




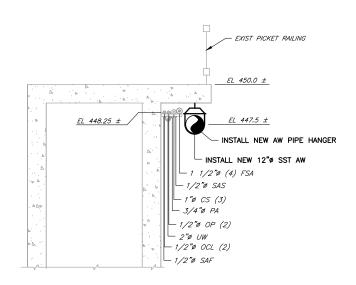




DETAIL 12"ø AW PIPE WEST FILTER ACCESS\* SCALE: NTS



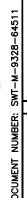




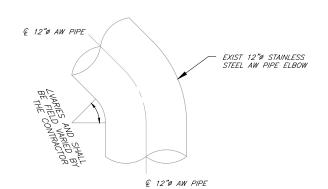


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ν <sub>RE</sub>	EV DESCRIPTION	DATE AP	PPR REFERENCE INFORMATION AND NOTES	DATE ENGINEERING CERTIFICATION	N SANTA CLARA VALLEY WATER DISTRICT	PROJECT NAME AND SHEET DESCRIPTION:		SCALE	PROJECT NUMBER
BER			SCAFFOLDING MAY BE REQUIRED TO COMPLETE WORK INSIDE THE FILTER GALLERY.	DESIGN PROFESSIONAL AND LANGE TO THE		STWTP AIR	WASH PIPELINE	AS SHOWN	93764004
<u>S</u>			* 10"1 AW DIDE FACT FILTED ACCECC (ODDOCITE HAND CIDE) NOT			REPLACE	MENT PROJECT	VERIFY SCALES	SHEET CODE:
Z			* 12"ø AW PIPE EAST FILTER ACCESS (OPPOSITE HAND SIDE) NOT SHOWN	O. NGA  DRAWN  DRAWN  DRAWN		WEI LACE	MENT TROJECT	0 1"	M-07
핕				O. NGA				BAR IS ONE INCH ON ORIGINAL DRAWING	$\mathbf{M} - 0 7$
ਹੀ				O. NGA  CHECKED  CHECKED  CIVIL  OF CALIFORNIA  2020-06-	01		T DIDD LOODGO DEMLIT	Attaccine promise of the composition of the composi	SHEET NUMBER:
8L				E. ARYEE PROJECT ENGINEER DATE		FILTER GALLER	Y PIPE ACCESS DETAIL ,	SCALES ACCORDINGLY	17 OF 26
	A	В	С	D	F	F	G	age so i oi sa	1

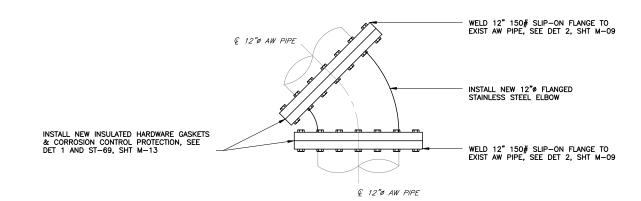


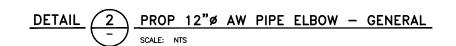


DESCRIPTION



EXIST 12"Ø AW PIPE ELBOW - GENERAL DETAIL





ENGINEERING CERTIFICATION

PROJECT ENGINEER

2020-06-0

5/31/2019

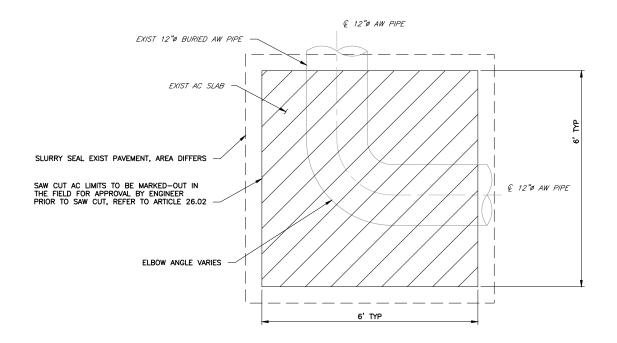
DESIGN

DRAWN

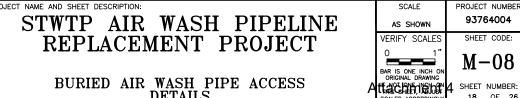
CHECKED

SANTA CLARA VALLEY WATER DISTRICT

REFERENCE INFORMATION AND NOTES

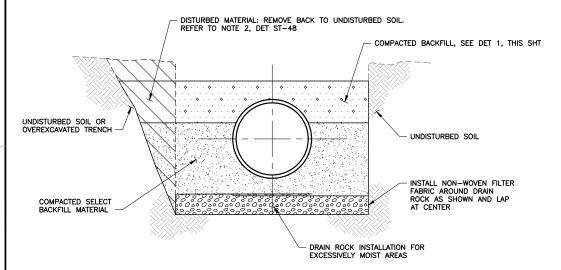




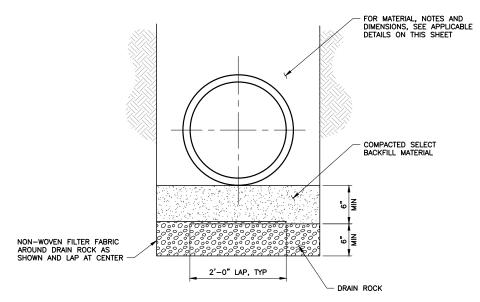


18 OF 26

BURIED AIR WASH PIPE ACCESS DETAILS



# OVEREXCAVATION OR CAVE-IN CORRECTIVE PROCEDURE



**DRAIN ROCK INSTALLATION** 

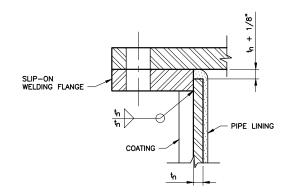
DETAIL D-01

TRENCH EXCAVATION AND BACKFILL SCALE: NTS

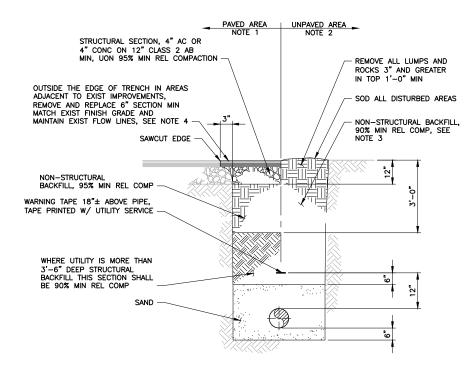
- PAY LIMIT LINES INDICATE BOUNDARIES FOR CALCULATION OF QUANTITIES OF PAVEMENT REMOVAL AND REPLACEMENT AND OF TRENCH EXCAVATION AND BACKFILL. TRENCHING SHALL CONFORM TO SAFETY REQUIREMENTS REGARDLESS OF PAY LIMITS SHOWN.
   ALL OVEREXCAVATION OR DISTURBED NATIVE MATERIAL SHALL BE REMOVED FROM THE TRENCH AND BACKFILLED WITH THE SAME MATERIAL AS REQUIRED FOR TRENCH BACKFILL FOR THE DESIGNATED DEPTHS.
   ALL EXISTING FACILITIES DAMAGED BY THE CONTRACTOR SHALL BE RESTORED IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITY WITH JURISDICTION. REFER ALSO TO SPECIFICATIONS.
   SELECT BACKFILL MATERIAL MAY BE USED AS AN ALTERNATIVE TO TYPE "A" AND TYPE "B" BACKFILL.
   IF UNSUITABLE MATERIAL IS ENCOUNTERED, AS DEFINED IN THE SPECIFICATIONS, OVEREXCAVATE AND REPLACE WITH SUITABLE MATERIAL.
   MINIMUM TRENCH WIDTH SHALL BE AS SHOWN. VARIATION OF THE TRENCH DIMENSIONS OR CONFIGURATION FROM THOSE SHOWN ON THE DRAWINGS MAY RESULT IN A CHANGE IN THE PIPE DESIGN. SEE SPECIFICATIONS.
   FOR SOIL CEMENT BEDDING ALTERNATE, SEE DET ST-50.
   EXISTING ROAD STRUCTURAL SECTIONS VARY. FOR ADDITIONAL INFORMATION SEE SPECIFICATIONS.



# TRENCH EXCAVATION AND BACKFILL NOTES

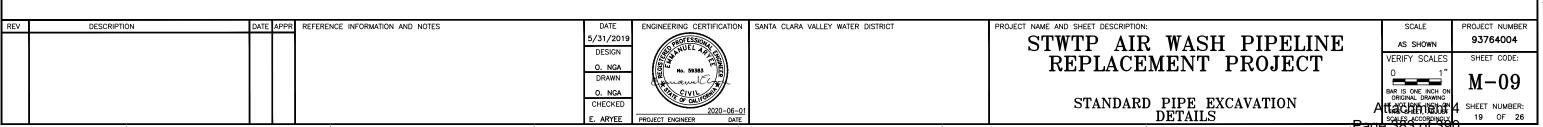


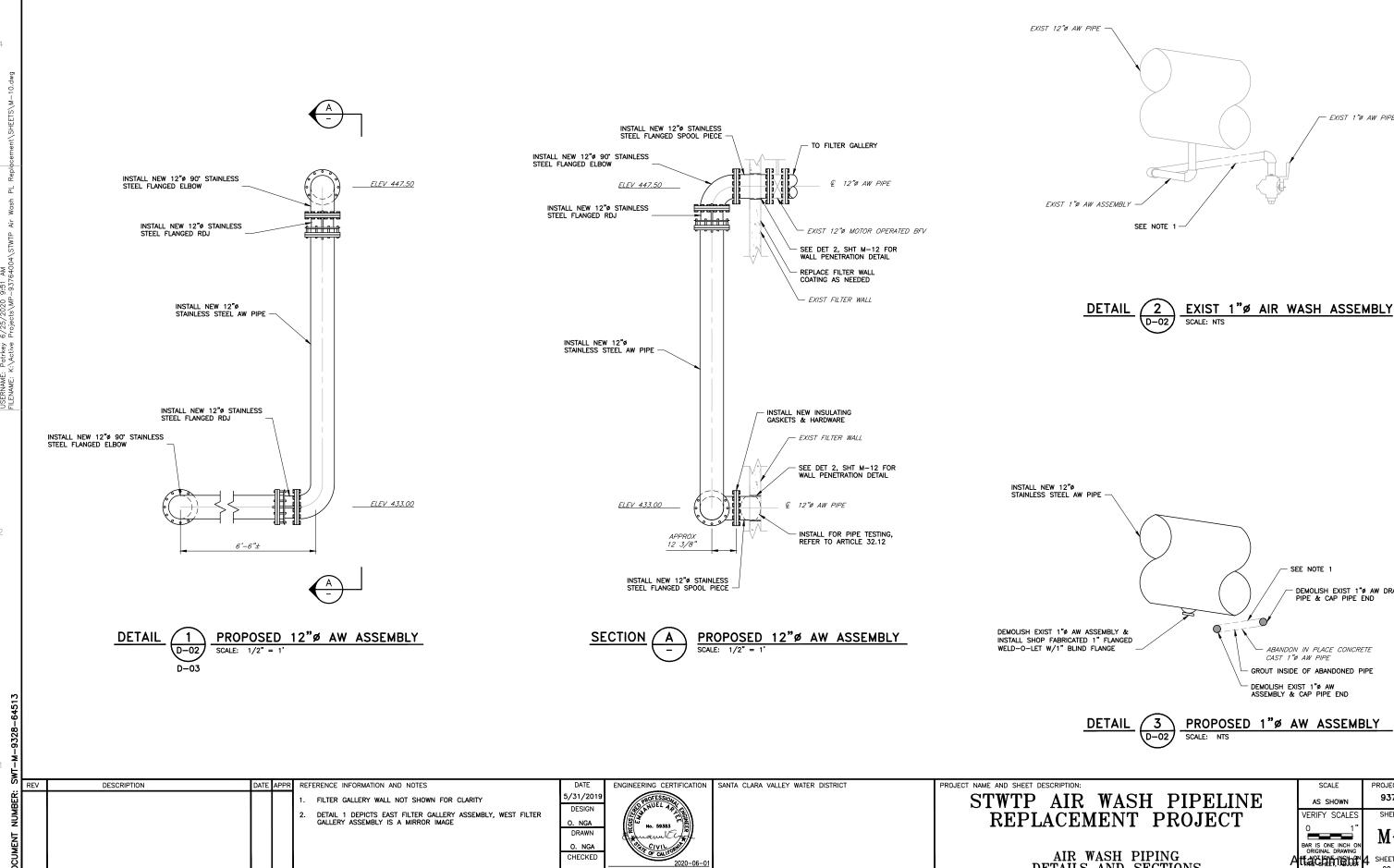




- STRUCTURAL AREAS INCLUDE BUT ARE NOT LIMITED TO AREAS TO RECEIVE AC OR CONC PAVEMENT SECTION, ALL SLAB-ON-GRADES, CURBS & GUTTERS, STRUCTURAL IMPROVEMENTS, & WITHIN 3' OF SUCH IMPROVEMENTS.
- NON-STRUCTURAL AREAS INCLUDE AREAS TO BE LANDSCAPED OR NOT OTHERWISE REQUIRED TO BE IMPROVED.
- 3. NON-STRUCTURAL BACKFILL MATERIAL FROM EXCAVATION, FREE FROM STONES, LUMPS EXCEEDING 3" OR GREATEST DIMENSION, VEGETABLE MATTER OR UNSATISFACTORY MATERIAL.
- 4. WHERE PAVEMENT HAS BEEN UNDERMINED, SAWCUT & REMOVE PAVEMENT TO PROVIDE 6" MIN OF UNDISTURBED BASE SECTION. IF THE EDGE OF THE TRENCH FALLS WITHIN 3' OF THE GUTTER, THE ENTIRE PAVEMENT SHALL BE REMOVED.
- 5. REFER TO ARTICLE 24.16 FOR SHORING AND BRACING REQUIREMENTS.







EXIST 1"Ø AW PIPE DRAIN

DEMOLISH EXIST 1"Ø AW DRAIN PIPE & CAP PIPE END

─ ABANDON IN PLACE CONCRETE CAST 1"Ø AW PIPE

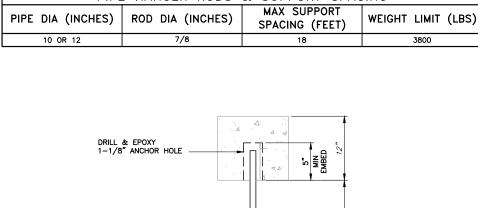
GROUT INSIDE OF ABANDONED PIPE

DEMOLISH EXIST 1"Ø AW ASSEMBLY & CAP PIPE END

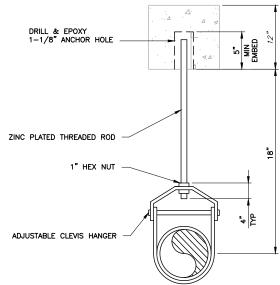
93764004 AS SHOWN VERIFY SCALES SHEET CODE: M-10BAR IS ONE INCH ( ORIGINAL DRAWING AIR WASH PIPING DETAILS AND SECTIONS Attachienena 4 SHEET NUMBER: 20 OF 26

PROJECT ENGINEER

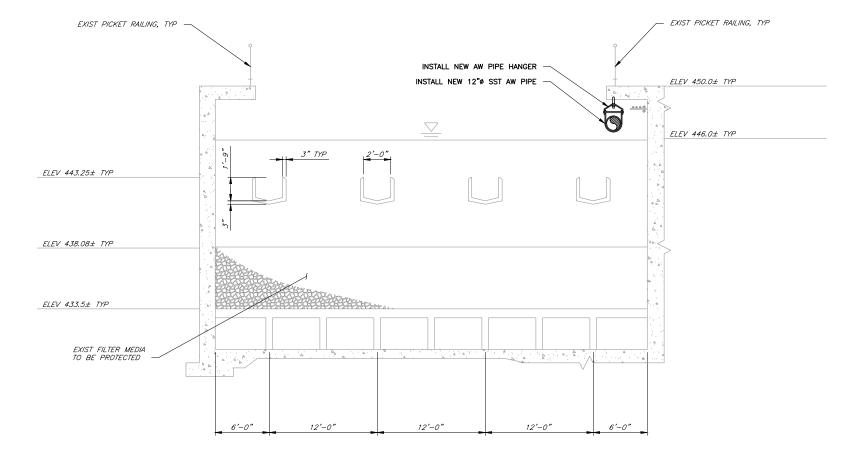
SCALE



PIPE HANGER RODS & SUPPORT SPACING









REV	DESCRIPTION	DATE	APPR	REFERENCE INFORMATION AND NOTES	DATE	ENGINEERING CERTIFICATION	SANTA CLARA VALLEY WATER DISTRICT	PROJECT NAME AND SHEET DESCRIPTION:
				(*) DENOTES PIPES AT WEST FILTERS ONLY, WEST FILTERS ARE SHOWN EAST FILTERS ARE THE OPPOSITE HAND OF DETAIL.	5/31/2019 DESIGN O. NGA DRAWN O. NGA CHECKED	Mo. 59383		STWTP AIR WASH P REPLACEMENT PR
					E. ARYEE	2020-06-01 PROJECT ENGINEER DATE		MISCELLANEOUS DETA

PIPELINE PROJECT

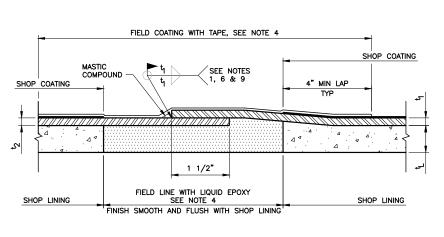
SCALE 93764004 AS SHOWN VERIFY SCALES SHEET CODE: BAR IS ONE INCH ON ORIGINAL DRAWING M-11

MISCELLANEOUS DETAILS

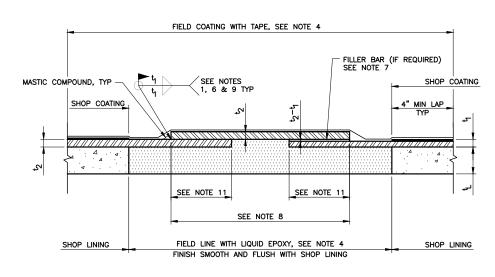
SHEET NUMBER: 21 OF 26



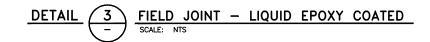




# LAP WELD



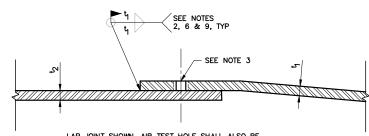
# **BUTT STRAP**



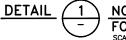
# REMOVE AND REINSTALL NON-SHRINK EPOXY GROUT, TYP REMOVE AND REINSTALL EXPANDABLE FOAM CONCRETE SLAB 4" PIPE AND SMALLER 1/4" STL PLATE SEEP RING, 3/16 6" PIPE AND LARGER 3/8" STL PLATE SEEP RING — 1 1/2" MIN 3/16 SCHEDULE 40 STL PIPE SLEEVE HOT DIP GALV AFTER FABRICATION 12"ø AW PIPE

## **DETAIL** PIPE PENETRATION THRU CONCRETE FILTER WALL SCALE: NTS

- PIPE SIZES LESS THAN 36", SINGLE WELDS SHALL BE PLACED OUTSIDE OF THE PIPE.
- 2. DOUBLE WELD JOINTS MAY BE REQUIRED IN TENSION ANCHORAGE AREAS.
- BEFORE WELDING, DRILL AND TAP 1/4" IPS HOLES (2 EQUALLY SPACED) FOR ALL DOUBLE WELDED JOINTS. PLUG WELD AFTER COMPLETION OF AIR TESTING.
- 4. FIELD APPLIED COATING AND LINING SHALL BE APPLIED ONLY AFTER EACH JOINT IS ASSEMBLED, WELDED, CLEANED, INSPECTED AND TESTED.
- 5. FIELD COATING SHALL BE REINFORCED WITH 2"x 4"x 13 GAUGE GALVANIZED SELF—FURRING WELDED WIRE FABRIC. LAP END 3" MINIMUM AND TACK WELD TO STEEL PIPE.
- 6.  $t_1$  AND  $t_2$  THICKNESS OF STEEL PIPE.  $(t_2 \ge t_1)$
- 7. WHERE FILLER BAR IS REQUIRED, DOUBLE WELD AND PROVIDE AIR TEST HOLES FOR PIPE SIZES GREATER THAN OR EQUAL TO 36".
- 8. MINIMUM BUTT STRAP WIDTH IS: A. 4" FOR PIPE SIZES LESS THAN 36" MAXIMUM BUTT STRAP WIDTH IS 21".
- 9. WELD SIZE SHOWN BY LETTER DESIGNATION IS FOR REFERENCE ONLY. THE ACTUAL WELD SIZE SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
- 10. UNLESS OTHERWISE INDICATED, PIPE LINING THICKNESS,  $\mathbf{t_c}$  AND PIPE COATING THICKNESS,  $\mathbf{t_c}$  , SHALL CONFORM TO AWWA STANDARDS.
- 11. FOR PIPE SIZES LESS THAN 36", MINIMUM LAP IS 1".



LAP JOINT SHOWN, AIR TEST HOLE SHALL ALSO BE PROVIDED AT ALL DOUBLE WELD BUTT STRAP JOINTS. LINING AND COATING NOT SHOWN, SEE NOTE 4.



NOTES AND AIR TEST HOLE FOR DOUBLE WELD JOINT SCALE: NTS

DESCRIPTION	DATE	APPR	REFERENCE INFORMATION AND NOTES	DATE	ENGINEERING CERTIFICATION	SANTA CLARA VALLEY WATER DISTRICT	PROJECT NAME AND SHEET DESCRIPTION:
				5/31/2019 DESIGN O. NGA DRAWN M. KOST CHECKED	PROFESSIONA STATULE AND STATULE AND STATU		STWTP AIR WASH PIPELINE REPLACEMENT PROJECT
			1		2020-06-01		STANDARD PIPING DETAILS I

PROJECT ENGINEER

STANDARD PIPING DETAILS I

93764004 VERIFY SCALES SHEET CODE: BAR IS ONE INCH ( ORIGINAL DRAWING Attachienena 4 SHEET NUMBER: 22 OF 26

SCALE

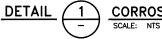
PLANGE, BOLTS AND NUTS.

B. WAX TAPE WRAPPED WITH ONE (1") INCH OVERLAP ON PREVIOUSLY PRIMED SURFACES.

C. PLASTIC WRAPPER APPLIED OVER WAX TAPE.

WAX TAPE COATING SHALL OVERLAP PIPE COATING A MINIMUM OF FOUR (4") INCHES.

# **BURIED FLANGE INSULATING JOINT**



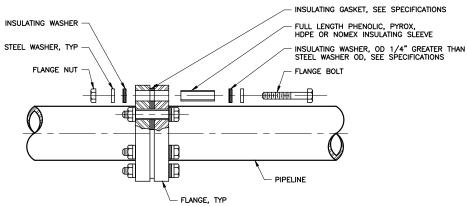
CORROSION CONTROL PROTECTION

- INSTALL INSULATING JOINTS AT THE LOCATIONS SHOWN ON THE DRAWINGS AND AS REQUIRED BY THE SPECIFICATIONS.
   ALL BOLT HOLES SHALL BE REAMED AFTER FITTING FLANGES TOGETHER BUT BEFORE INSERTING INSULATING SLEEVES.
   APPLY 3 PART WAX TAPE COATING SYSTEM. SEE NOTE 1, DET ST-68.

- AFPLT 9 ART WAX IMPE COMING STSIEM. SEE NOTE: 1, DET 31-86.
   TAPES TO LAP OVER ON VALVE BODY OR FITTING A MINIMUM OF 4".
   INSULATING WASHERS ARE REQUIRED ON BOTH SIDES OF ALL BURIED FLANGED INSULATING JOINTS.
   INSTALL TEST LEADS AS REQUIRED AND BRING LEADS TO TEST STATION AS SHOWN ON DETS ST-77 THRU ST-79.
   FOR PIPE INSTALLATION WITH SOIL—CEMENT BEDDING, INSTALL REFERENCE ELECTRODE IN NATIVE MATERIAL.
- ST-69A TYP

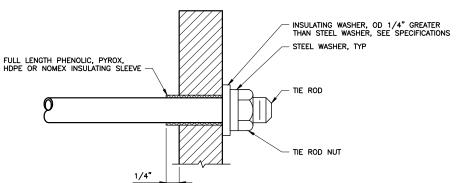
MISCELLANEOUS CORROSION CONTROL NOTES

SCALE: NTS



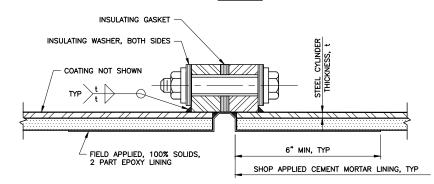
- FOR BURIED INSTALLATIONS, INSTALL WAX TAPE COATING, SEE DET ST-68.
   DO NOT COAT OR SPRAY INSULATING COMPONENTS WITH GREASE.
   POLYETHYLENE AND MYLAR INSULATING SLEEVES ARE NOT ACCEPTABLE AND WILL BE REJECTED.
   SEE FIELD LINING AT FLANGED INSULATING JOINT.

# **FLANGED**



- FOR BURIED INSTALLATIONS, INSTALL WAX TAPE COATING, SEE BURIED FLANGE INSULATING JOINT, DET ST-68.
   DO NOT COAT OR SPRAY INSULATING COMPONENTS WITH GREASE.
   POLYETHYLENE AND MYLAR INSULATING SLEEVES ARE NOT ACCEPTABLE AND WILL BE REJECTED.
   SEE BELOW FOR FIELD LINING AT FLANGED INSULATING JOINT.

# TIE ROD



# FIELD LINING AT FLANGED



DESCRIPTION	DATE APPR	REFERENCE INFORMATION AND NOTES	DATE	ENGINEERING CERTIFICATION	SANTA CLARA VALLEY WATER DISTRICT	PROJECT NAME AND SHEET DESCRIPTION:
			5/31/2019 DESIGN O. NGA DRAWN	PROFESSION NO. 59383		STWTP AIR WASH PIPELINE REPLACEMENT PROJECT

STANDARD CORROSION CONTROL DETAILS

BAR IS ONE INCH ORIGINAL DRAWING

SHEET NUMBER:

CHECKED

PROJECT ENGINEER

2020-06-0

4#################

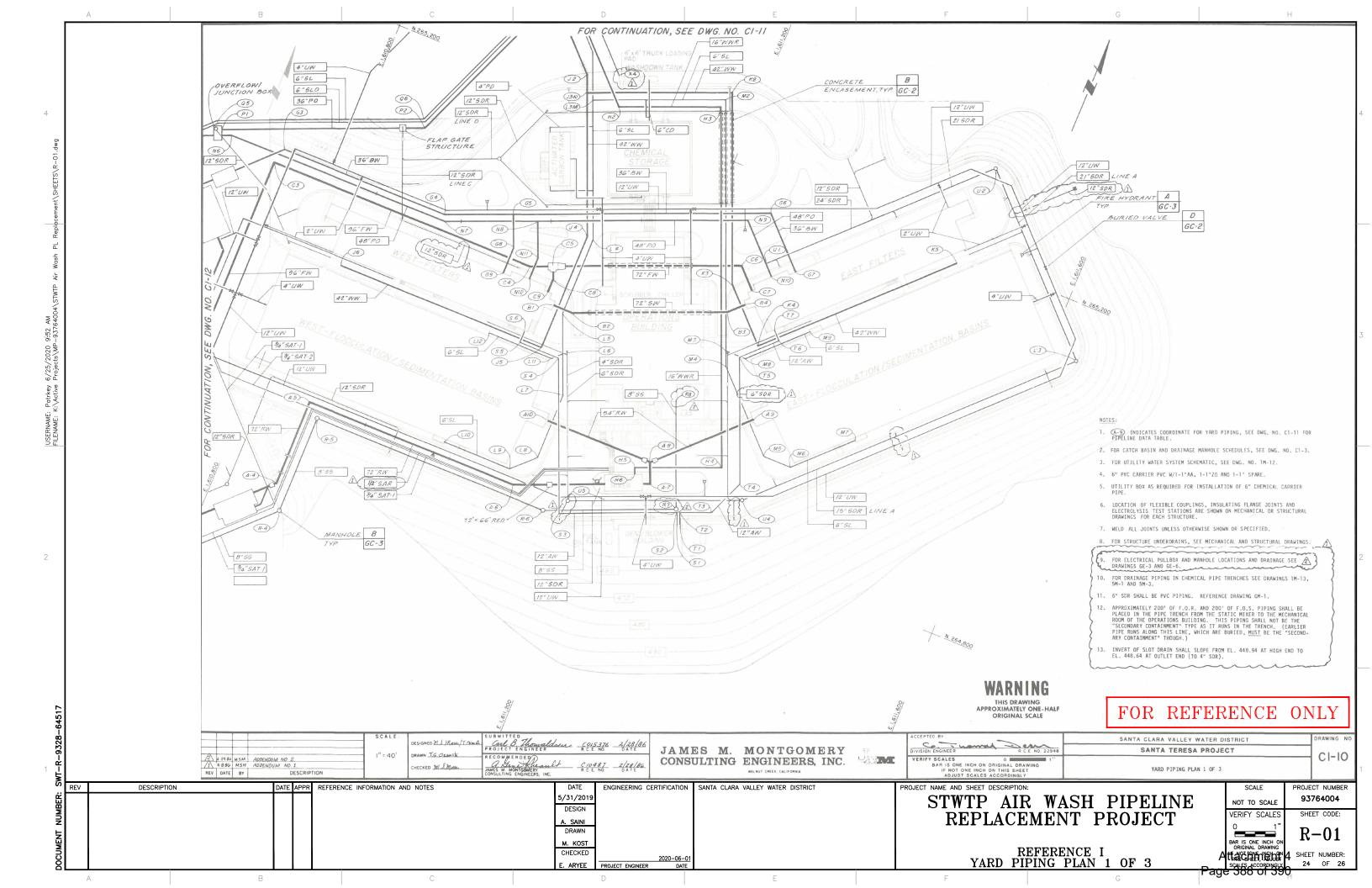
SCALE

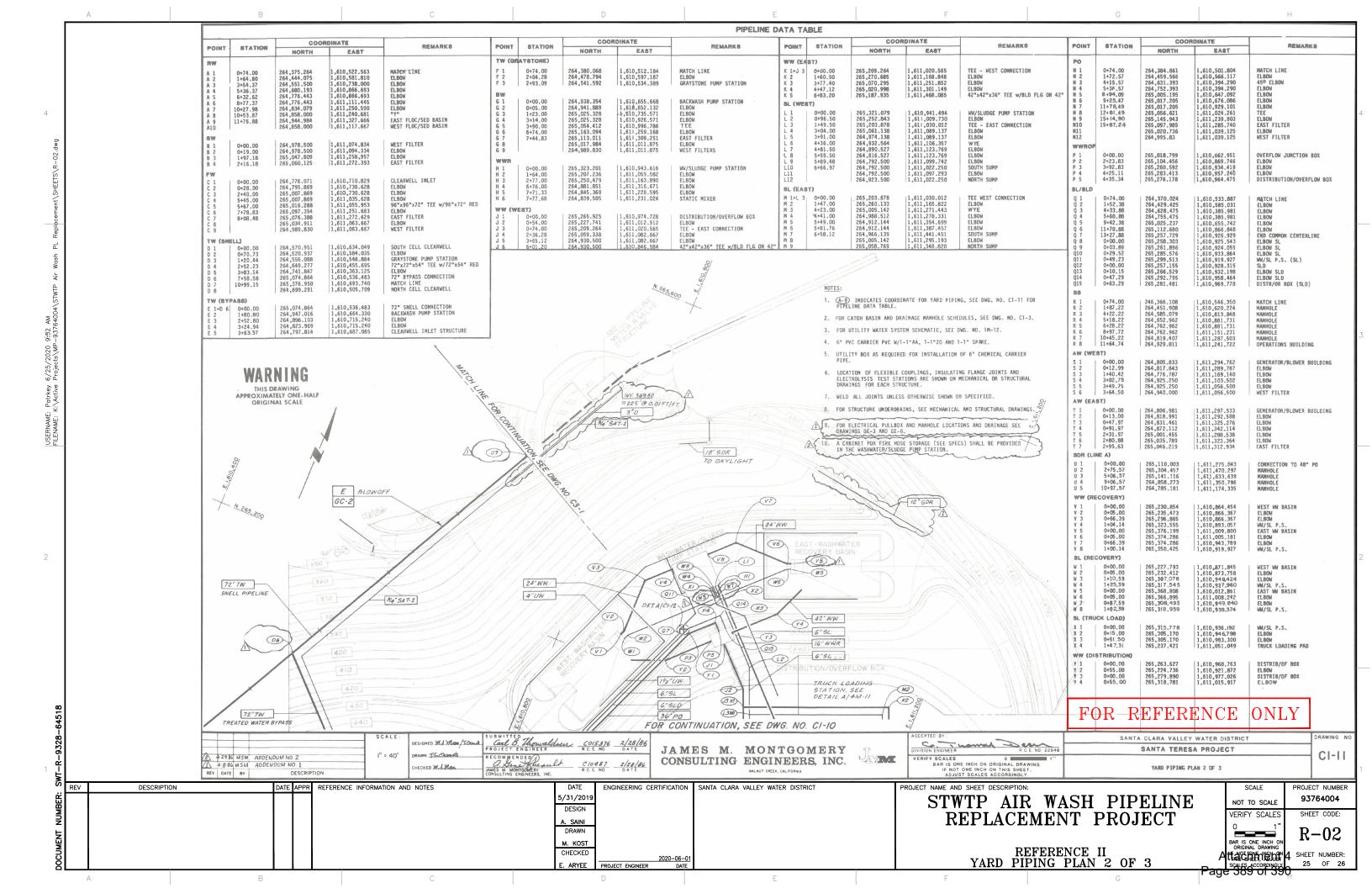
VERIFY SCALES

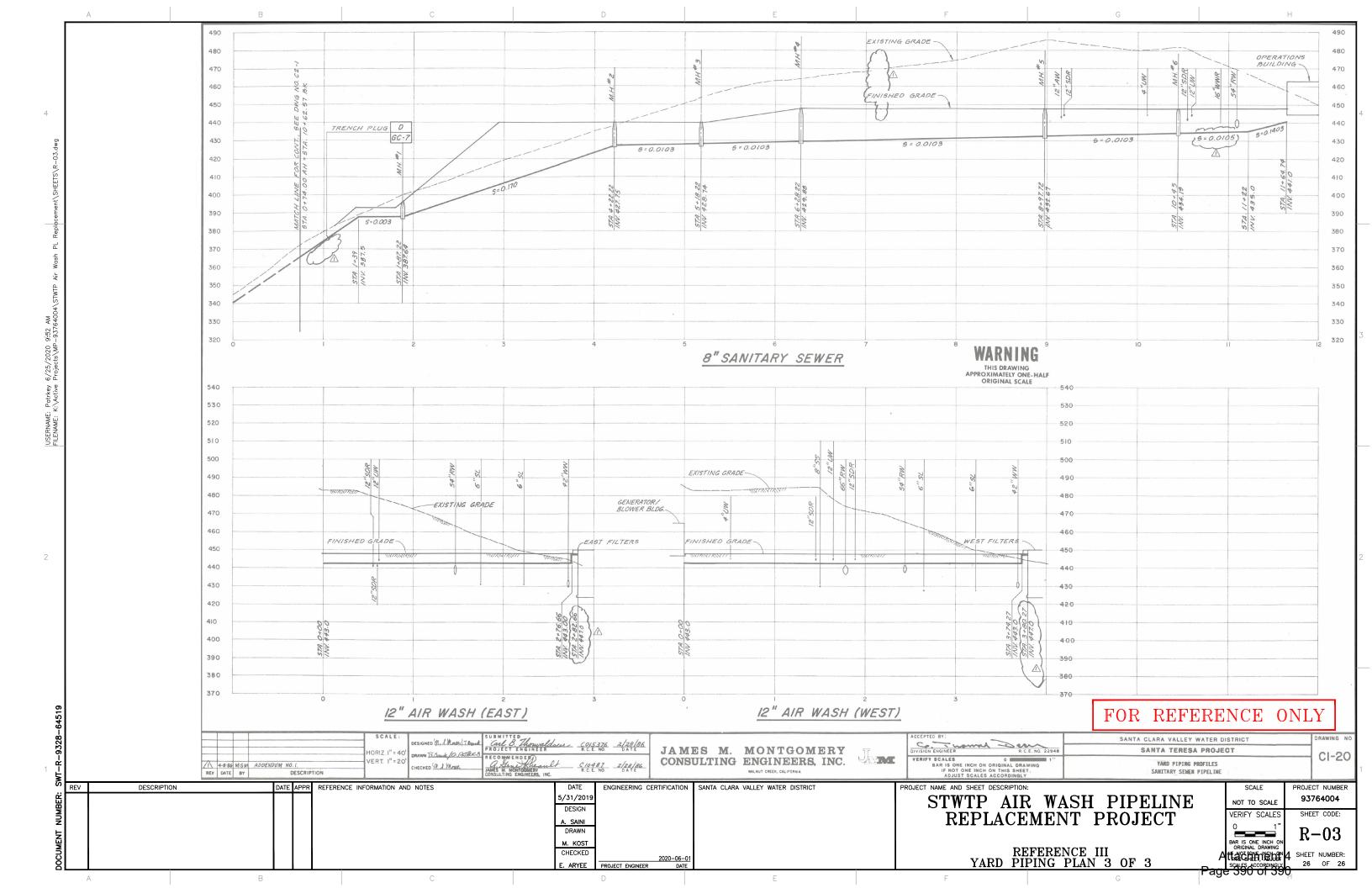
24 OF 26

93764004

SHEET CODE:







#### Santa Clara Valley Water District



File No.: 20-0499 Agenda Date: 7/28/2020

Item No.: 3.2.

#### **BOARD AGENDA MEMORANDUM**

#### SUBJECT:

Approve Notice of Completion of Contract and Acceptance of Work for the Almaden Valley Pipeline Emergency Response Project, Kiewit Infrastructure West Co., Contractor, Project No. 95084002, Contract No. C0657 (San Jose) (District 7).

#### RECOMMENDATION:

- A. Accept the work on the Almaden Valley Pipeline Emergency Response Project, Kiewit Infrastructure West Co., Contractor, Project No. 95084002, Contract No. C0657 as complete; and
- B. Direct the Clerk of the Board to sign the Notice of Completion of Contract and Acceptance of Work and submit for recording to the Santa Clara County Clerk-Recorder.

#### SUMMARY:

The construction contractor, Kiewit Infrastructure West Co., has completed the Almaden Valley Pipeline Emergency Response Project (Project). The construction contract was awarded by the Chief Executive Officer (CEO) on January 27, 2020 pursuant to an emergency declaration in accordance with Public Contract Code §22050. The contract was awarded in the amount of \$1,866,210 and the final contract amount is \$1,345,962.60. Subject to any withholds required by law or the contract, acceptance of the work by the Board will allow for the release of \$67,298.13 in retention to the contractor.

#### Project Background

As part of the 10-Year Pipeline Inspection and Rehabilitation Program, Almaden Valley Pipeline (AVP) inspection activities were performed in 2007, 2008, 2011 and 2017. In November 2017, several significantly distressed Prestressed Concrete Cylinder Pipe (PCCP) sections were identified on AVP between Santa Teresa Force Main and Calero Reservoir. On December 5, 2017 the CEO declared that the condition of AVP constituted an emergency condition as the pipeline could not be safety returned back into operation until the distressed pipe segments were repaired. Distressed pipe segments were repaired by applying multiple layers of carbon fiber to the inside surface of distressed pipes and AVP was returned to full operation in late March 2018.

An Acoustic Fiber Optic (AFO) monitoring system for AVP was installed and brought on-line in March 2018 in order to continuously monitor for events that correlate to additional distress of PCCP

File No.: 20-0499 Agenda Date: 7/28/2020

Item No.: 3.2.

sections. The AFO system has detected numerous events since it was put into service. Staff reviewed this data in combination with other pipeline records to analyze changes in failure risk and remaining service life. Results of this analysis indicated a section of the AVP was significantly distressed and at risk of imminent structural failure. In December 2019, the affected portion of AVP was out of service as part of a rehabilitation project on the adjacent Cross Valley Pipeline. Based on the distressed section of PCCP, Valley Water could not return AVP to a safe and reliable service unless repairs were performed. Failure to return AVP to service posed a significant risk to Valley Water's contractual obligation for water delivery and ability to provide sufficient water to meet minimum water supply demands.

Consequently, on December 23, 2019, the CEO declared that the condition of the AVP pipeline segments constituted an emergency condition, pursuant to California Public Contract Code §22050, which enabled expedited procurement of necessary construction contract services, and other public works and non-professional services, supplies and essential equipment, without a competitive procurement process, in order to attend to the emergency condition. According to Public Contract Code §22050, in order for the emergency action to remain in place, the Board must determine, by four-fifths vote at every regularly scheduled Board meeting until the emergency action is terminated, that there is a need to continue the emergency action.

The objective of the Project was to repair the distressed section of PCCP and restore the pipeline to a safe and reliable service to meet minimum water supply demands as part of the Valley Water contractual obligations.

The Project included rehabilitation of five (5) pipe segments that are 78 inches in diameter that convey raw water to Valley Water's treatment plants and to groundwater recharge facilities. Pipe sections were repaired by applying multiple layers of reinforced carbon fiber to the inside surface of the distressed pipes. Rehabilitation of the five (5) pipe segments on the AVP are complete and the pipeline was returned to full operation.

#### **Previous Board Actions**

On January 14, 2020, the Board voted to continue the emergency action declared by the CEO on December 23, 2019, pursuant to California Public Contract Code §22050, to repair the AVP. Subsequently, the emergency action declaration was continued by the Board on January 28, 2020, February 11, 2020, and February 25, 2020.

#### **Contract Change Orders**

One (1) contract change order for a total reduction of <\$520,247.40> was executed for this contract to credit the balance of not-to exceed amounts from original bid items. The original contract amount anticipated the repair of six pipe segments, however only 5 pipe segments required repair after further internal inspection was performed. The reduced number of repairs required also affected other support work, resulting in a reduction in overall cost. Final costs were determined on a force account basis for actual work performed.

**File No.:** 20-0499 **Agenda Date:** 7/28/2020

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Table 1 presents a summary of the construction contract amounts.

TABLE 1. SUMMARY OF CONSTRUCTION CONTRACT AMOUNTS

	Contract Amount
Original Contract	\$1,866,210.00
Change Order No. 1 (staff approved)	<\$520,247.40>
Final Contract Amount	\$1,345,962.60

#### Acceptance of the Work and Recording Notice of Completion of Contract

The California Civil Code allows an owner or agent to execute a Notice of Completion of Contract after acceptance of the work by the Board. The Notice of Completion of Contract and Acceptance of Work is included in Attachment 1. The Designated Engineer has determined that the work has been completed, to the best of his knowledge, in accordance with the plans and specifications, and recommends acceptance. The Designated Engineer's recommendation of construction acceptance is included in Attachment 2. The Project Completion Letter is included as Attachment 3. Photos of the completed Project are included in Attachment 4.

#### **Construction Contract Retention**

California law requires Valley Water to release contract retention in accordance with certain time frames, which will commence once the Notice of Completion is recorded. Interest payment on retention due to the contractor may be avoided by meeting the requisite deadlines.

Valley Water is currently withholding retention funds totaling five percent (5%) of the contract (\$67,298.13) in accordance with the Public Contract Code. Per the construction Contract Documents, Valley Water is required to release retention funds associated with the contract 35 days after recording the Notice of Completion of Contract and Acceptance of Work, subject to any withholds required by law or the contract.

#### Project Expenditures

As indicated in the Summary of Construction Contract Amounts (Table 1), the original contract amount of \$1,866,210.00 has been decreased by \$520,247.40 to \$1,345,962.60, a decrease of approximately 28 percent (28%).

#### FINANCIAL IMPACT:

Total financial costs were detailed in previous sections of the agenda memorandum. The Project has been completed and no additional funding is recommended.

**File No.:** 20-0499 **Agenda Date:** 7/28/2020

Item No.: 3.2.

#### CEQA:

The recommended action does not constitute a project under CEQA because it does not have a potential for resulting in direct or reasonably foreseeable indirect physical change in the environment.

#### ATTACHMENTS:

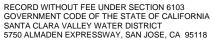
Attachment 1: Notice of Completion and Acceptance of Work

Attachment 2: Construction Contract Acceptance

Attachment 3: Project Completion Letter Attachment 4: Construction Summary

#### **UNCLASSIFIED MANAGER:**

Aaron Baker, 408-630-2135





Recording Requested by: Michele L. King, Clerk, Board of Directors When Recorded, Mail to: Michele L. King, Clerk, Board of Directors Santa Clara Valley Water District 5750 Almaden Expressway San Jose, CA 95118-3686 NOTICE OF COMPLETION OF CONTRACT AND ACCEPTANCE OF WORK NOTICE IS HEREBY GIVEN by order of the Board of Directors of Santa Clara Valley Water District, State of California, pursuant to law, that work to be performed under the contract heretofore made and executed by and between Santa Clara Valley Water District, as Owner therein, and Kiewit Infrastructure West Co., 4650 Business Center Drive Fairfield, CA 94534 as Contractor therein, bearing the date January 16, 2020 for the construction of Almaden Valley Pipeline Emergency Response Project, Contract No. C0657, and Project No. 95084002 and appurtenant facilities upon lands of said District known as Almaden Valley Pipeline situated in the County of Santa Clara, State of California, was completed as called for and in the manner designated by the plans and specifications, by the said Contractor, and the said work was accepted by the said District Board of Directors on behalf of said District on July 28, 2020. That upon said contract, Travelers Casualty and Surety Company of America, 3555 Farnam St. Omaha, NE 68131 (Bond No. 107166902) was surety on the bond given by said Kiewit Infrastructure West Co. the said Contractor, as required by law; That the title of said District to the real property upon which said work and contract was performed is that of Fee and: That the address of said District is 5750 Almaden Expressway, San Jose, California 95118. IN WITNESS WHEREOF, pursuant to the order of the Board of Directors made and given on July 28, 2020 authorizing and directing the execution of this instrument, the said District has caused these presents to be executed in its name, authenticated by the signature of the Clerk of the said Board of Directors on July 28, 2020. Clerk. Board of Directors Santa Clara Valley Water District I, the undersigned, say that I am Clerk of the Board of Directors of the Santa Clara Valley Water District; that I make this declaration on its behalf; that said District is the owner of the real property interest described in the foregoing Notice; that declarant has read the foregoing Notice and knows the contents thereof, and the same is true of my own knowledge. I declare under penalty of perjury that the foregoing is true and correct. Executed on July 28, 2020, at San Jose, California. Clerk, Board of Directors Santa Clara Valley Water District

#### SANTA CLARA VALLEY WATER DISTRICT

#### RECOMMENDATION OF CONSTRUCTION CONTRACT ACCEPTANCE

In accordance with **Article 9.14, Final Inspection of Work**, of the contract specifications, a final inspection was conducted on February 4, 2020, for the Almaden Valley Pipeline Emergency Response Project, Contract No. C0657, Project No. 95084002. The Project Completion Letter dated June 1, 2020 indicates that the work was completed in accordance with the requirements of the contract.

It is recommended that the work under this contract be accepted by the District.

Recommended By:		
Docusigned by: Alex Masic	6/5/2020	
Alen Masic, P.E.	Date	
Senior Civil Engineer		
Designated Engineer's Representative		
Concurrence:		
DocuSigned by:		
laron Baker	6/5/2020	
Aaron Baker, P.E.	Date	
Deputy Operating Officer		
Raw Water Operations and Maintenance Division		



June 1, 2020

Ethan Brand Kiewit Infrastructure West Co. 4650 Business Center Drive Fairfield, CA 94534

Subject: Almaden Valley Pipeline Emergency Response

Contract No. C0657, Project No. 95084002

**Project Completion Letter** 

Dear Mr. Brand:

The Santa Clara Valley Water District (Valley Water) is in receipt of the Project Completion Certification, dated May 27, 2020, from Kiewit Infrastructure West Co. All work has been completed as attested to by Valley Water and all required closeout documents have been received.

In accordance with **Article 11.01.05 Project Completion**, this serves as the Project Completion Letter for the subject contract and established the completion of the project.

Therefore, in accordance with **Article 11.01.06 Acceptance of Work,** I will recommend that the Valley Water Board of Directors formally accept the work of this contract.

If you have any questions, contact me at the Santa Teresa Blvd Office, (408) 630-2452 or email at amasic@valleywater.org.

Sincerely,

Alen Masic, P.E. Senior Civil Engineer Construction Services Unit

cc: J. Jenkins, K. Jessop, M. Salib, N. Bullock, A. Trinh, C. Ruiz, A. Masic, T. Bramer, Contract File am:am 657

Attachment 3 Page 1 of 1



# Valley Water

Clean Water • Healthy Environment • Flood Protection

Valley Water PPT Template Version Release v.2.02

# Almaden Valley Pipeline Emergency Response Project

Notice of Completion of Construction Contract Project No. 95084002, Contract No. C0657



## **Presentation Topics**

3

- Project Objective and Location
- Project Construction Costs
- Construction Photos



# **Project Objective**

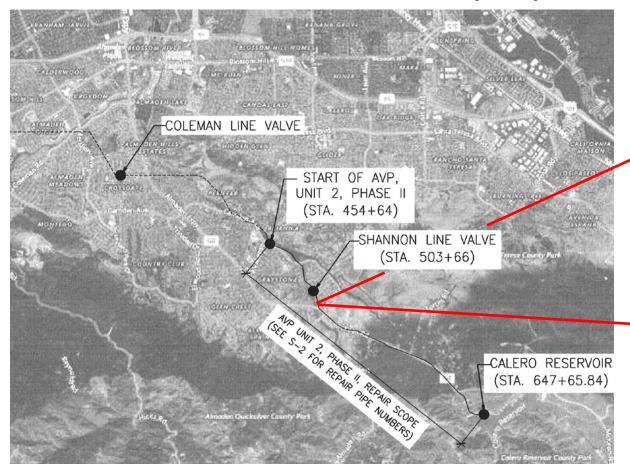
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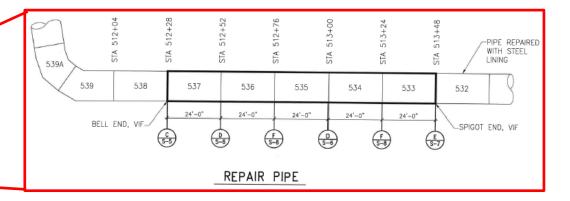
- The objective of the Almaden Valley Pipeline Emergency Response Project is to repair five(5) distressed sections of Prestressed Concrete Cylinder Pipe (PCCP) that were discovered on Almaden Valley Pipeline.
- Distressed PCCP sections were repaired by applying multiple layers of reinforced carbon fiber to the inside surface of the pipe.



# **Project Location**

### Almaden Valley Pipeline – Santa Clara County







## **Presentation Topics**

6

- Project Objective and Location
- Project Construction Costs
- Construction Photos



# **Project Costs**

- Construction:
  - \$1,866,210.00 Contract Award Amount
  - <\$520,247.20> Contract Change Orders
  - \$1,345,962.60 Final Contract Amount (27.9% decrease)



## **Presentation Topics**

8

- Project Objective and Location
- Project Construction Costs
- Construction Photos





Dehumidifier and heater for installation of carbon fiber.





Installation of Carbon Fiber and Thickened Epoxy







Hoop and Longitudinal Layer of Carbon Fiber





Termination ring at joint of repaired pipe



Epoxy mortar covering termination ring











# Valley Water

Clean Water • Healthy Environment • Flood Protection

#### Santa Clara Valley Water District



File No.: 20-0552 Agenda Date: 7/28/2020

Item No.: 3.3.

#### **BOARD AGENDA MEMORANDUM**

#### SUBJECT:

Adopt Recommended Positions on State Legislation: AB 2060 (Holden) Drinking Water Fixtures and Plumbing Lead Content; and Other Legislation Which May Require Urgent Consideration for a Position by the Board.

#### RECOMMENDATION:

Adopt a Position of "Support" on: AB 2060 (Holden) Drinking Water Fixtures and Plumbing Lead Content.

#### SUMMARY:

AB 2060 (Holden) Drinking Water Fixtures and Plumbing Lead Content (A-06-04-2020) Position Recommendation: Support Priority: 3

Current law defines "lead free" as not containing more than 0.2% lead in water-touching pipes used for manufacturing, industrial processing, or dispensing water for human consumption and no more than a weighted average of 0.25% lead when referring to wetted surfaces of pipes, pipe fittings, plumbing fittings, and fixtures. This definition considers only the physical makeup of the items used for plumbing drinking water for human consumption, but not the potential for leaching of lead that may occur. This bill would amend the definition of "lead free" to require endpoint devices used for the human consumption of drinking water, such as faucets and fixtures, to not *leach* more than one microgram of lead (µg/L), until NSF International adopts a more stringent standard.

In addition, AB 2060 would allow the Department of Toxic Substances Control, which is currently charged by law to regulate lead content in plumbing items, to base the compliance of endpoint devices upon documentation developed by an American National Standards Institute (ANSI) certified third party.

#### Importance to Valley Water

Although Valley Water is not a water retailer, we treat and provide safe drinking water for human consumption. It is important that the public trusts that the drinking water they receive is safe and that the plumbing systems used for conveyance are free from contaminants that

File No.: 20-0552 Agenda Date: 7/28/2020

Item No.: 3.3.

could degrade the quality of treated water provided by public water systems.

A report released on April 25, 2018, by NSF International indicated that of the 692 plumbing products tested, including approximately 500 faucets, 73 percent leached one microgram or less of lead. This indicated that hundreds of products on the market could potentially leach harmful levels of lead, especially during the first few weeks of installation.

Lead is a carcinogen that harms organs in people of all ages, and it is also a neurotoxin that damages the brains and central nervous systems of young children. Even with water pipes that have lower lead content, faucets and fixtures that can still leach harmful levels of lead pose a danger to the community. While there have been several new requirements to test drinking water for lead and to replace lead-containing plumbing in schools and childcare centers, replacing the items with potentially lead-leaching fixtures is counterproductive. Newly enacted lead reduction efforts make AB 2060 timely for reducing the potential for continued lead contamination.

Staff recommends that the Board adopt a position of "Support" on AB 2060.

#### Pros

- Reduces a potential source of lead contamination in drinking water.
- May reduce health risks associated with lead in drinking water.

#### Cons

 May increase costs of production for plumbing fixture manufacturers and the purchasers of new plumbing fixtures.

#### FINANCIAL IMPACT:

There is no financial impact associated with this item.

#### CEQA:

The recommended action does not constitute a project under CEQA because it does not have a potential for resulting in direct or reasonably foreseeable indirect physical change in the environment.

#### ATTACHMENTS:

None

#### **UNCLASSIFIED MANAGER:**

**Agenda Date:** 7/28/2020 **Item No.:** 3.3. File No.: 20-0552

Rachael Gibson, 408-630-2884

#### Santa Clara Valley Water District



File No.: 20-0114 Agenda Date: 7/28/2020

**Item No.:** 3.4.

#### **BOARD AGENDA MEMORANDUM**

#### SUBJECT:

Adopt Recommended Positions on Federal Legislation: H.R. 7073 (Garamendi) Special Districts Provide Essential Services Act; S. 3811 (Feinstein) Restoration of Essential Conveyance Act; and Other Legislation That May Require Urgent Consideration for a Position by the Board.

#### RECOMMENDATION:

- A. Adopt a position of "Support" on H.R. 7073 (Garamendi) Special Districts Provide Essential Services Act; and
- B. Adopt a position of "Support" on S. 3811 (Feinstein) Restoration of Essential Conveyance Act.

#### SUMMARY:

A. H.R. 7073 (Garamendi) - Special Districts Provide Essential Services Act Recommendation: Support Priority Recommendation: 2

This bill would make special districts eligible for future federal assistance that Congress provides in response to the COVID-19 pandemic. Under two previously-passed bills, the Families First Coronavirus Relief Act (H.R. 6201) and the Coronavirus Aid, Relief, and Economic Security (CARES) Act (H.R. 748), special districts were specifically excluded from receiving direct federal assistance for which states and local governments were eligible. This bill would make special districts eligible for any future federal assistance related to COVID-19 that is provided to state, county, and local governments.

#### Status:

The bill was introduced in the House on June 1, 2020, and was referred to the Committee on Oversight and Reform, in addition to the Committee on Financial Services. Representatives Jimmy Panetta (CA-20) and Ro Khanna (CA-17) are original cosponsors.

#### Importance to Valley Water:

This bill would make special districts, such as Valley Water, eligible for any future federal assistance related to COVID-19. While Valley Water has had to make tough financial decisions in light of the pandemic, including delaying non-essential but nonetheless important projects and programs to future years, Valley Water has been in a better financial position than some other jurisdictions. Nevertheless, financial assistance for Valley Water would help bring much-needed economic stimulus

File No.: 20-0114 Agenda Date: 7/28/2020

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to our region.

#### Pros:

• The bill would provide a source of new funding that could help Valley Water mitigate additional COVID-related financial impacts and bring additional economic assistance to our region.

#### Cons:

None identified at this time.

### B. S. 3811 (Feinstein) - Restoration of Essential Conveyance Act Recommendation: Support

**Priority: 2** 

This bill would authorize \$400 million to accelerate and complete repairs to the Delta-Mendota Canal and California Aqueduct, and it would also authorize \$200 million to accelerate and complete repairs to the Friant-Kern Canal. All three of these facilities are operating below capacity due to significant subsidence.

The bill also authorizes an additional \$200 million to implement the San Joaquin River Restoration Settlement, on top of the \$250 million in federal funding that was originally authorized under the San Joaquin River Restoration Settlement Act of 2009 (plus funding to be paid by Friant Division contractors and the State). The settlement agreement, reached in 2006 between the U.S. Departments of the Interior and Commerce, the Natural Resources Defense Council, and the Friant Division contractors, sets terms to further the dual goals of restoring and maintaining the fish populations in the San Joaquin River below Friant Dam, and minimizing or avoiding any resulting adverse water supply impacts to Friant Division contractors.

This bill is a companion to legislation introduced in the House by Congressman TJ Cox (H.R. 5316, the Move Water Now Act) and Congressman Jim Costa (H.R. 5752, the Conveyance Capacity Correction Act), both of which the Board supported earlier in 2020.

#### Status:

The bill was introduced in the Senate on May 21, 2020, and was referred to the Committee on Energy and Natural Resources.

#### Importance to Valley Water:

The Delta-Mendota Canal and California Aqueduct are two conveyance facilities critical to delivering imported water to San Luis Reservoir. The Delta-Mendota Canal, built in 1951, is a 117-mile canal that carries water from the Sacramento-San Joaquin Delta southward, emptying in the San Joaquin River near the city of Mendota. Along the way, water is pumped into San Luis Reservoir where it is accessed by Central Valley Project (CVP) contractors, including Valley Water. The California Aqueduct, built in 1963, is a more than 400-mile long system of canals, pipelines, and tunnels that is the central means of conveyance for the State Water Project (SWP). The Aqueduct carries water from the Delta southward, emptying in Lake Cachuma in Santa Barbara County.

These conveyance facilities are an essential component of transporting both CVP and SWP water to

**File No.:** 20-0114 **Agenda Date:** 7/28/2020

Item No.: 3.4.

the San Luis Reservoir, which Valley Water then imports into Santa Clara County, and both facilities are operating below capacity due to significant subsidence. An infusion of federal funding would help make repairs to these critical facilities to restore carrying capacity.

Finally, repairing the Friant-Kern Canal is a worthy goal, helping to improve the reliability of conveyance of water throughout the CVP system, which benefits Valley Water. The additional authorization for funding to implement the San Joaquin River Restoration Settlement Act would also help relieve funding pressure for Delta-related activities (once funding is appropriated), helping to move the Delta Conveyance Project forward.

#### Pros:

- Authorizes funding for the much-needed repair and restoration of the Delta-Mendota Canal, which transports CVP water to San Luis Reservoir, and the California Aqueduct, which transports both CVP and SWP water to San Luis Reservoir.
- Funding to repair the Friant-Kern Canal would help improve the reliability of conveyance of water throughout the CVP system, benefitting Valley Water.
- Additional federal funding for implementing the San Joaquin River Restoration Settlement Act would, if appropriated, free up additional funding for Delta conveyance and other Delta-related activities.

#### Cons:

None identified at this time.

#### FINANCIAL IMPACT:

There is no financial impact associated with this item.

#### CEQA:

The recommended action does not constitute a project under CEQA because it does not have a potential for resulting in direct or reasonably foreseeable indirect physical change in the environment.

#### ATTACHMENTS:

None

#### **UNCLASSIFIED MANAGER:**

Rachael Gibson, 408-630-2884

#### Santa Clara Valley Water District



File No.: 20-0528 Agenda Date: 7/28/2020

Item No.: 3.5.

#### **BOARD AGENDA MEMORANDUM**

#### SUBJECT:

Accept the Work as Complete and Direct the Clerk to File the Notice of Completion of Contract and Acceptance of Work for the Lower Silver Creek Flood Protection and Creek Restoration Project at the Dobern Bridge Crossing (Plant Establishment Maintenance Phase - Stage 2), Gordon N. Ball, Inc., Contractor, Project No. 40264008, Contract No. C0618 (San Jose) (District 6).

#### RECOMMENDATION:

- A. Accept the work on the Lower Silver Creek Flood Protection and Creek Restoration Project at the Dobern Bridge Crossing, Plant Establishment Maintenance Phase Stage 2, Gordon N. Ball, Inc., Contractor, Project No. 40264008, Contract No. C0618 as complete; and
- B. Direct the Clerk of the Board to sign the Notice of Completion of Contract and Acceptance of Work and submit for recording to the Santa Clara County Clerk Recorder.

#### SUMMARY:

The Construction Contractor, Gordon N. Ball, Inc., has completed the Plant Establishment Maintenance Phase (Stage 2) for the Lower Silver Creek Flood Protection and Creek Restoration Project at the Dobern Bridge Crossing (Project). The construction contract was awarded in the amount of \$2,995,174.50 and the final contract amount is \$3,249,405.89. Subject to any withholds required by law or the contract, acceptance of the work by the Board will allow for the release of \$7.684.87 in retention to the contractor.

#### Project Background

The objective of the Lower Silver Creek Flood Protection and Creek Restoration Project was to convey the 1 percent chance flood flows and improve stream habitat values. The Dobern Bridge Crossing is located within Reach 4, which is the first segment of the Lower Silver Creek, Reaches 4-6 Project that Valley Water constructed in partnership with the Natural Resources Conservation Service. The Dobern Bridge Crossing project was implemented to raise the existing Dobern pedestrian bridge, re-establish pedestrian access ramps to the bridge in compliance with the Americans with Disabilities Act, and construct approximately 300-feet of channel improvements and floodwalls at the Dobern Bridge area.

The contractor completed the project's construction phase (Stage 1) in January 2017 and the Board accepted that portion of the contract on May 23, 2017. Stage 2 of the work consisted of maintaining

File No.: 20-0528 Agenda Date: 7/28/2020

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the plants installed during Stage 1 for a three-year period, which commenced in January 2017. The contractor completed Stage 2 in January 2020. This Board action is only for acceptance of the Plant Establishment Maintenance Phase (Stage 2).

#### **Previous Board Actions**

On May 10, 2016, the Board adopted the plans and specifications and authorized advertisement for bids for the construction of the Lower Silver Creek Flood Protection and Creek Restoration Project at the Dobern Bridge Crossing.

On June 14, 2016, the Board awarded the subject contract to Gordon N. Ball, Inc., in the amount of \$2,995,174.50 and approved a contingency fund of \$300,000. The Board authorized the Chief Executive Officer (CEO) or designee to approve individual change orders up to the total amount of the contingency, with the Unit Manager and Deputy Operating Officer to approve individual changes up to \$50,000 and \$200,000, respectively.

On May 23, 2017, the Board accepted the Construction Phase (Stage 1) of the contract.

#### **Contract Change Orders**

During the previously accepted construction phase of the Project, a total of five (5) contract change orders totaling an increase in the amount of \$151,291.99 were executed to address various unforeseen site conditions, quantity adjustments, Valley Water-requested changes to benefit the Project, and credits to the contract.

During the Plant Establishment Maintenance Phase, three (3) change orders were executed which resulted in an increase in the amount of \$102,939.40. These change orders were for additional work required to repair a floodwall notch, driveway and maintenance access road, install new bollards, repair a water mainline, and for quantity adjustments based on actual field quantities.

The final contract amount is \$3,249,405.89 which includes a net total increase of \$254,231.39 in contract changes, both additive and deductive, from Stage 1 and Stage 2 work, within the Board-approved contingency fund.

Table 1 presents a summary of the construction contract and contingency amounts.

### TABLE 1. SUMMARY OF CONSTRUCTION CONTRACT AND CONTINGENCY AMOUNTS

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	Contract Amount	Contingency Amount
Original Contract	\$2,995,174.50	\$300,000.00
Change Order No. 1 through 5 (Construction Phase, accepted by the Board on May 23, 2017)	\$151,291.99	<\$151,291.99>
Change Order No. 6 (Staff Approved)	\$51,548.30	<\$51,548.30>
Change Order No. 7 (Staff Approved)	\$52,349.10	<\$52,349.10>
Change Order No. 8 (Staff Approved)	<\$958.00>	\$958.00
Final Contract Amount and Remaining Contingency	\$3,249,405.89	\$45,768.61

### Acceptance of the Work and Recording Notice of Completion Contract

The California Civil Code allows an owner or its agent to execute a Notice of Completion of Contract Acceptance of the work by the Board. The Notice of Completion of the Contract and Acceptance of all work is included in Attachment 1. The Designated Engineer has determined that the work has been completed, to the best of his knowledge, in accordance with the plans and specifications, and recommends acceptance. The Designated Engineer's recommendation of construction acceptance is included in Attachment 2. The Project Completion Letter is included as Attachment 3. Photos of the completed Project are included in Attachment 4.

### **Construction Contract Retention**

California law requires Valley Water to release contract retention in accordance with certain time frames, which will commence once the Notice of Completion is recorded. Interest payment on retention due to the contractor may be avoided by meeting the requisite deadlines.

Valley Water is currently withholding retention funds totaling five percent (5%) of the contract items associated with Stage 2 (\$7,684.87) in accordance with the Public Contract Code. Per the construction contract documents, Valley Water is required to release retention funds associated with the contract 35 days after recording the Notice of Completion of Contract and Acceptance of Work, subject to any withholds required by law or the contract.

Recording a Notice of Completion is recommended for the Stage 2 work.

### **Project Expenditures**

As indicated in the Summary of Construction Contract and Contingency Amounts (Table 1), the original contract amount of \$2,995,174.50 has been increased by \$254,231.39 to \$3,249,405.89, an

File No.: 20-0528 Agenda Date: 7/28/2020

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increase of approximately 8.5 percent.

### FINANCIAL IMPACT:

This Project (Project No. 40264008, Lower Silver Creek Flood Protection and Creek Restoration Project at the Dobern Bridge Crossing) is included in the Five-Year 2021-25 Capital Improvement Program and the remaining cost of this Project is included in the board-adopted FY2020-21 Budget. No additional funding is recommended.

### CEQA:

The recommended action does not constitute a project under CEQA because it does not have a potential for resulting in direct or reasonably foreseeable indirect physical change in the environment.

### **ATTACHMENTS**:

Attachment 1: Notice of Completion

Attachment 2: Construction Contract Acceptance

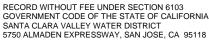
Attachment 3: Project Completion Letter

Attachment 4: Construction Photos

Attachment 5: Project Delivery Process Chart

### **UNCLASSIFIED MANAGER:**

Heath McMahon, 408-630-3126





Recording Requested by: Michele L. King, Clerk, Board of Directors When Recorded, Mail to: Michele L. King, Clerk, Board of Directors Santa Clara Valley Water District 5750 Almaden Expressway San Jose, CA 95118-3686 Plant Establishment Maintenance Phase (Stage 2) NOTICE OF COMPLETION OF CONTRACT AND ACCEPTANCE OF WORK NOTICE IS HEREBY GIVEN by order of the Board of Directors of Santa Clara Valley Water District, State of California, pursuant to law, that work to be performed under the contract heretofore made and executed by and between Santa Clara Valley Water District, as Owner therein, and Gordon N. Ball, Inc., 333 Camille Avenue, Alamo, CA 94507 as Contractor therein, bearing the date June 14, 2016 for the construction of Lower Silver Creek Flood Protection and Creek Restoration Project at the Dobern Bridge Crossing (Plant Establishment Maintenance Phase, Stage 2), Contract No. C0618, Project No. 40264008 and appurtenant facilities upon lands of said District known as Lower Silver Creek Flood Protection and Creek Restoration Project at the Dobern Bridge Crossing situated in the County of Santa Clara, State of California, was completed as called for and in the manner designated by the plans and specifications, by the said Contractor, and the said work was accepted by the said District Board of Directors on behalf of said District on July 28, 2020. That upon said contract, Travelers Casualty and Surety Company of America, 100 California Street, Suite 300, San Francisco, CA 94111 (Bond No. 106483516) was surety on the bond given by said Gordon N. Ball, Inc. the said Contractor, as required by law; That the title of said District to the real property upon which said work and contract was performed is that of Fee and; That the address of said District is 5750 Almaden Expressway, San Jose, California 95118. IN WITNESS WHEREOF, pursuant to the order of the Board of Directors made and given on July 28, 2020 authorizing and directing the execution of this instrument, the said District has caused these presents to be executed in its name, authenticated by the signature of the Clerk of the said Board of Directors on July 28, 2020. Clerk, Board of Directors Santa Clara Valley Water District I, the undersigned, say that I am Clerk of the Board of Directors of the Santa Clara Valley Water District; that I make this declaration on its behalf; that said District is the owner of the real property interest described in the foregoing Notice: that declarant has read the foregoing Notice and knows the contents thereof, and the same is true of my own knowledge. I declare under penalty of perjury that the foregoing is true and correct. Executed on July 28, 2020, at San Jose, California. Clerk. Board of Directors Santa Clara Valley Water District

FC 68A (01/29/2020)

Attachment 1

Page 1 of 1

#### SANTA CLARA VALLEY WATER DISTRICT

### RECOMMENDATION OF CONSTRUCTION CONTRACT ACCEPTANCE

In accordance with **Article 9.10, Final Inspection and Acceptance of Work**, of the contract specifications, a final inspection was conducted on December 17, 2019, for the Plant Establishment Maintenance Phase (Stage 2) of the Lower Silver Creek Flood Protection and Creek Restoration Project, Contract No. C0618, Project No. 40264008. The Project Completion Letter for the Plant Establishment Maintenance Phase (Stage 2) dated January 30, 2020 indicates that the work was completed in accordance with the requirements of the contract.

It is recommended that the work under this contract be accepted by the District.

Recommended By:	
DocuSigned by:	
tim Bramer	6/30/2020
Timothy M. Bramer, P.E.	Date
Engineering Unit Manager	
Designated Engineer's Representative	
Concurrence:	
DocuSigned by:	
de l'ilabe	7/1/2020
Heath McMahon, P.E.	Date
Deputy Operating Officer	
Water Utility Capital Division	



January 30, 2020

Mr. Sai Manthena Gordon N. Ball, Inc. 333 Camille Avenue Alamo, CA 94507

Subject:

Lower Silver Creek Flood Protection and Creek Restoration Project at the Dobern Bridge

Crossing, Contract No. C0618, Project No. 40264008

**Plant Establishment Phase Project Completion** 

Dear Mr. Manthena:

The Santa Clara Valley Water District (Valley Water) is in receipt of Gordon N. Ball, Inc.'s Project Completion Certification dated January 29, 2020 for the Plant Establishment Phase of the Project. All work has been completed as attested to by Valley Water staff and all required closeout documents have been received.

This correspondence services as the Project Completion letter per Article 21.01.05. Project Completion of the contract specifications. In accordance with Article 21.01.06. Acceptance of Work I will recommend that the Valley Water Board of Directors formally accept the Plant Establishment Phase portion of the work of this contract.

Questions related to this matter can be directed to me at (408) 630-3742, or by email at gohea@valleywater.org.

Sincerely,

Gary Ohea, P.E.

**Construction Manager** 

Construction Services Unit

S. Ferranti, P. Stanton, J. Luna, M. Rivera, T. Bramer, Contract File CC:

# Lower Silver Creek Flood Protection and Creek Restoration Project at the Dobern Bridge Crossing

Project No. 40264008, Contract No. C0618







Dobern Bridge - Looking Downstream





Dobern Bridge - Looking Upstream







Future Trail - Looking East

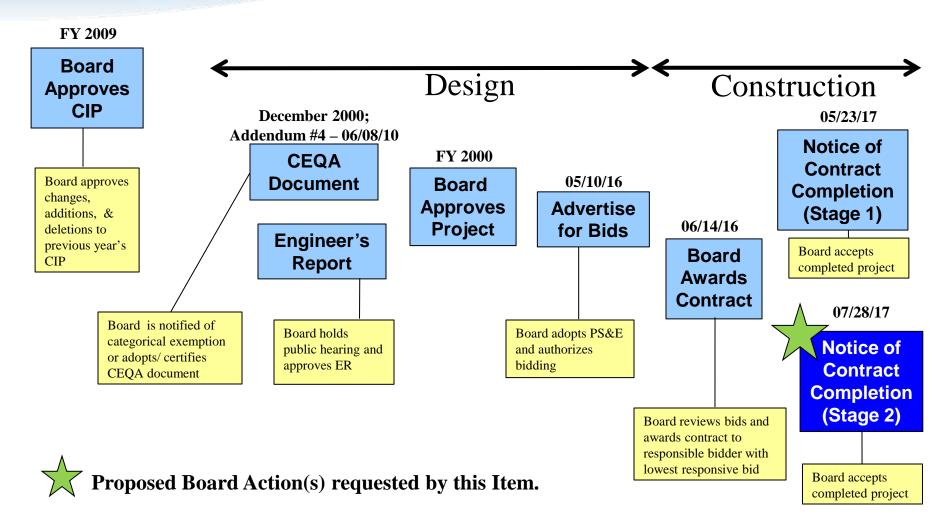


Future Trail - Looking West



## Project Delivery Process

Lower Silver Creek Flood Protection and Creek Restoration Project at the Dobern Bridge Crossing, Contract No. C0618, Project No. 40264008



F75103a Project Delivery Process Chart for Board Agenda Items Revision: C

Effective Date: 11/25/2014

### Santa Clara Valley Water District



File No.: 20-0551 Agenda Date: 7/28/2020

Item No.: 3.6.

### **BOARD AGENDA MEMORANDUM**

#### SUBJECT:

Approve Amendment of Fiscal Year 2021 Salary Table.

#### RECOMMENDATION:

Approve an amendment to the Fiscal Year 2021 Salary Table.

#### SUMMARY:

Valley Water is requesting Board Approval of the amended Fiscal Year 2021 Employee Salary Schedule. The amended Salary Schedule includes the classifications of Assistant Chief Executive Officer and Purchasing and Contracts Manager. These classifications were not included in the previous Salary Schedule approved by the Board on June 9, 2020 through Resolution 20-58.

### FINANCIAL IMPACT:

There is no change to the financial impact. As previously noted in Board Agenda Memo 20-0463 and approved through Resolution 20-58, the estimated cost of the 4% salary increase to staff represented by Valley Water's three bargaining groups and Executive employees is approximately \$4,151,899.83. This assumes that the BAOs shall also receive a 4% increase.

### CEQA:

The recommended action does not constitute a project under CEQA because it does not have the potential for resulting in direct or reasonably foreseeable indirect physical change in the environment.

### ATTACHMENTS:

Attachment 1: Amended FY21 Employee Salary Schedule

### **UNCLASSIFIED MANAGER:**

Anna Noriega, 408-630-3089

Page No. 1 Run Date 06/26/2020 Run Time 10:40:11

CEO = BAO Effective Date: 06/15/2020 COB = BAO Effective Date: 06/15/2020 DCL = BAO Effective Date: 06/15/2020 MMR = CLAS Effective Date: 06/15/2020 EA = EAPR Effective Date: 06/15/2020 ES = ESPR Effective Date: 06/15/2020 UNC = UNCL Effective Date: 06/15/2020	4.0% F 4.0% F 4.0% F 4.0% F	TLAT – TLAT – TLAT – TLAT – TLAT –	Distr Distr Distr Distr Distr	cictwide cic											
Class Title	All	Fil	l Clas	SS		Sal	Min-Pt								
	Pos	Pos	* Code	e EEO O	r bu	Rng Freq	Step1	Step2	Step3	Step4	Step5	Step6	Step7	Mid-Pt	Max-Pt
Accountant I	1	1	VA1	2.3 Y	EA	145 HR BW MO YR	41.08 3,286.40 7,120.53 85,446.40	3,455.20 7,486.27	45.34 3,627.20 7,858.93 94,307.20	47.63 3,810.40 8,255.87 99,070.40	4,004.80 8,677.07	51.31 4,104.80 8,893.73 106,724.80	52.57 4,205.60 9,112.13		
Accountant II	6	6	VA5	2.3 Y	EA	151 HR	47.63		52.57	55.23	58.04	59.53	60.99		·····
						BW	3,810.40	4,004.80	4,205.60	4,418.40	4,643.20	4,762.40	4,879.20		
						MO	8,255.87	8,677.07	9,112.13	9,573.20		10,318.53	10,571.60		
						YR			109,345.60						
Accounting Systems Analyst	1	1	VA8	2.3 Y	EA	155 HR	52.57	55.23	58.04	60.99	64.07	65.68	67.29		
						BW MO	4,205.60		4,643.20	4,879.20 10,571.60		5,254.40	5,383.20		
						MO VD	9,112.13	9,573.20	10,060.27 120,723.20			_	11,663.60		
Accounting Tech	6	6	VC5	6.1 Y	FΑ	141 HR	37.21	39.08	41.08	43.19	45.34	46.48	47.63		
11000 0110 11119 1 2 011	· ·	ŭ	• • • •	0.1		BW	2,976.80		3,286.40	3,455.20		3,718.40	3,810.40		
						MO	6,449.73	6,773.87	7,120.53	7,486.27	7,858.93	8,056.53	8,255.87		
						YR	77,396.80		85,446.40	89,835.20	94,307.20	96,678.40	99,070.40		
Administrative Assistant	11	11	TJ5	6.1 Y	EA	139 HR	35.44	37.21	39.08	41.08	43.19	44.25	45.34		
						BW	2,835.20	2,976.80	3,126.40	3,286.40	3,455.20	3,540.00	3,627.20		
						MO	6,142.93	6,449.73	6,773.87	7,120.53	7,486.27	7,670.00	7,858.93		
						YR	73,715.20		81,286.40	85,446.40	89,835.20	92,040.00	94,307.20		
ASM-Civic Engagement Manager	1	1	MA1	1.2	MMA	145 HR	71.61	75.19	78.95	82.91	87.05	89.22	91.46		
						BW	5,728.80		6,316.00	6,632.80	6,964.00	7,137.60	7,316.80		
						MO	12,412.40			14,371.07			15,853.07		
7 CM Communications Manager	1	1	MA1	1.2	1,41,47	14F IID			164,216.00						
ASM-Communications Manager	Т	Τ	MAI	1.2	IvIIvI	. 145 HR BW	71.61 5,728.80	75.19 6,015.20	78.95 6,316.00	82.91 6,632.80	87.05 6,964.00	89.22 7,137.60	91.46 7,316.80		
						MO.			13,684.67			_			
						YR			164,216.00						
ASM-Construct Proc & Contracts Mgr	1	0	MΔ1	1.2	MΜΔ	145 HR	71.61			82.91			91.46		
1151. Combetace 1100 a conclued figt	_	J	. 11.7.7.	<b>.</b> . 4	11117	BW	5,728.80						7,316.80		
						MO			13,684.67			_			
						_			164,216.00						

Class Title			Clas		Sal T BU Rng Freg	Min-Pt Step1	Step2	Step3	Step4	Step5	Step6	Step7	Mid-Pt	Max-Pt
	100	100	couc		1 20 1019 1109	50021	50002	50053	50001	5000	50000	<u> </u>	111010	11421 1 0
ASM-Emergency and Security Manager	1	1	MA1	1.2	MMA 145 HR	71.61	75.19	78.95	82.91	87.05	89.22	91.46		
					BW	5,728.80	6,015.20	6,316.00	6,632.80	6,964.00	7,137.60	7,316.80		
					MO	12,412.40	13,032.93	13,684.67	14,371.07	15,088.67	15,464.80	15,853.07		
					YR		156,395.20	164,216.00		181,064.00	185,577.60	190,236.80		
ASM-Employment Services Manager	2	1	MA1	1.2	MMA 145 HR	71.61	75.19	78.95	82.91	87.05	89.22	91.46		
					BW	5,728.80	6,015.20	6,316.00	6,632.80	6,964.00	7,137.60	7,316.80		
					MO	12,412.40	13,032.93	13,684.67	14,371.07	15,088.67	15,464.80	15,853.07		
					YR	148,948.80	156,395.20	164,216.00	172,452.80	181,064.00	185,577.60	190,236.80		
ASM-Envir Health & Safety Manager	1	1	MA1	1.2	MMA 145 HR	71.61	75.19	78.95	82.91	87.05	89.22	91.46		
					BW	5,728.80	6,015.20	6,316.00	6,632.80	6,964.00	7,137.60	7,316.80		
					MO	12,412.40	13,032.93	13,684.67	14,371.07	15,088.67	15,464.80	15,853.07		
					YR	148,948.80	156,395.20	164,216.00	172,452.80	181,064.00	185,577.60	190,236.80		
ASM-Purchasing & Contracts Mgr	1	0	MA1	1.2	MMA 145 HR	71.61	75.19	78.95	82.91	87.05	89.22	91.46		
					BW	5,728.80	6,015.20	6,316.00	6,632.80	6,964.00	7,137.60	7,316.80		
					MO	12,412.40	13,032.93	13,684.67	14,371.07	15,088.67	15,464.80	15,853.07		
					YR	148,948.80	156,395.20	164,216.00	172,452.80	181,064.00	185,577.60	190,236.80		
ASM-Real Estate Services Manager	1	1	MA1	1.2	MMA 145 HR	71.61	75.19	78.95	82.91	87.05	89.22	91.46		
					BW	5,728.80	6,015.20	6,316.00	6,632.80	6,964.00	7,137.60	7,316.80		
					MO	12,412.40	13,032.93	13,684.67	14,371.07	15,088.67	15,464.80	15,853.07		
					YR	148,948.80	156,395.20	164,216.00	172,452.80	181,064.00	185,577.60	190,236.80		
ASM-Risk Manager	1	1	MA1	1.2	MMA 145 HR	71.61	75.19	78.95	82.91	87.05	89.22	91.46		
					BW	5,728.80	6,015.20	6,316.00	6,632.80	6,964.00	7,137.60	7,316.80		
					MO	12,412.40	13,032.93	13,684.67	14,371.07	15,088.67	15,464.80	15,853.07		
					YR	148,948.80	156,395.20	164,216.00	172,452.80	181,064.00	185,577.60	190,236.80		
ASM-Watersheds Bus Pln & Anlys Mgr	1	1	MA1	1.2	MMA 145 HR	71.61	75.19	78.95	82.91	87.05	89.22	91.46		
					BW	5,728.80	6,015.20	6,316.00	6,632.80	6,964.00	7,137.60	7,316.80		
					MO	12,412.40	13,032.93	13,684.67	14,371.07	15,088.67	15,464.80	15,853.07		
					YR	148,948.80	156,395.20	164,216.00	172,452.80	181,064.00	185,577.60	190,236.80		
Assist Biologist I	2	0	LJ1	2.2 Y	EA 149 HR	45.34	47.63	50.06	52.57	55.23	56.61	58.04		
					BW	3,627.20	3,810.40	4,004.80	4,205.60	4,418.40	4,528.80	4,643.20		
					MO	7,858.93	8,255.87	8,677.07	9,112.13	9,573.20	9,812.40	10,060.27		
					YR	94,307.20	99,070.40	104,124.80	109,345.60	114,878.40	117,748.80	120,723.20		
Assist Biologist II	2	2	LJ3	2.2 Y	EA 152 HR	48.85	51.31	53.93	56.61	59.53	60.99	62.49		
					BW	3,908.00	4,104.80	4,314.40	4,528.80	4,762.40	4,879.20	4,999.20		
					MO						10,571.60			
					YR	101,608.00								
Assist Chief Executive Officer	0	0	AA6	1.1	UNC ACE HR	147.03							159.05	171.07
					BW	11,762.40							12,724.00	13,685.60
					MO	25,485.20							27,568.67	
					YR	305,822.40							330,824.00	

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Assist Deputy Clerk I	0	0	TG1	6.1 Y	EA	139 HR	35.44	37.21	39.08	41.08	43.19	44.25	45.34		
						BW	2,835.20	2,976.80	3,126.40	3,286.40	3,455.20	3,540.00	3,627.20		
						MO	6,142.93	6,449.73	6,773.87	7,120.53	7,486.27	7,670.00	7,858.93		
						YR	73,715.20	77,396.80	81,286.40		89,835.20		94,307.20		·
Assist Deputy Clerk II	5	4	TG5	6.1 Y	EA	143 HR	39.08	41.08	43.19	45.34	47.63	48.85	50.06		
						BW	3,126.40	3,286.40	3,455.20		3,810.40	3,908.00 8,467.33	4,004.80		
						MO YR	6,773.87	7,120.53	7,486.27	7,858.93	8,255.87	101,608.00	8,677.07		
Assist District Counsel	3	3	AH2	1 1	TINC	ADC HR	99.93	05,440.40	09,033.20	94,307.20	99,070.40	101,000.00	104,124.00	111.95	123.97
TIBBLE DIBCLICE COMINCE	J	3	11112		0110	BW	7,994.40							8,956.00	9,917.60
						MO	17,321.20							19,404.67	
						YR	207,854.40							232,856.00	
Assist Engineer I - Civil	5	5	ED1	2.1 Y	ES	148 HR	46.40	48.73	51.20		56.51	57.93	59.37		
						BW	3,712.00	3,898.40	4,096.00		4,520.80	4,634.40	4,749.60		
						MO	8,042.67	8,446.53	8,874.67	9,325.33	9,795.07		10,290.80		
				0 1		YR						120,494.40			
Assist Engineer I - Cntrol	1	1	F.T.T	2.1 Y	ES	150 HR	48.73	51.20	53.80	56.51	59.37	60.86	62.40		
						BW	3,898.40 8,446.53	4,096.00 8,874.67	4,304.00 9,325.33		4,749.60 10,290.80	4,868.80 10,549.07	4,992.00 10,816.00		
						MO VR				•	•	126,588.80			
Assist Engineer I - Elect	3	3		2.1 Y	ES	150 HR	48.73	51.20	53.80	56.51	59.37	60.86	62.40		
india ingineer i fiede	3	3			20	BW	3,898.40	4,096.00	4,304.00		4,749.60	4,868.80	4,992.00		
						MO	8,446.53	8,874.67	9,325.33				10,816.00		
						YR						126,588.80			
Assist Engineer I - Mech	1	1	EN1	2.1 Y	ES	148 HR	46.40	48.73	51.20	53.80	56.51	57.93	59.37		
						BW	3,712.00	3,898.40	4,096.00		4,520.80	4,634.40	4,749.60		
						MO	8,042.67	8,446.53	8,874.67	9,325.33	9,795.07		10,290.80		
	4.0	2.5		0 1		YR						120,494.40			
Assist Engineer II - Civil	42	35	ED2	2.1 Y	ES	152 HR	51.20	53.80	56.51	59.37	62.40	63.96	65.55		
						BW MO	4,096.00 8,874.67	4,304.00 9,325.33	4,520.80		4,992.00	5,116.80 11,086.40	5,244.00		
						MO VR						133,036.80			
Assist Engineer II - Cntrol	1	0	ET2	2.1 Y	ES	154 HR	53.80	56.51	59.37	62.40	65.55	67.17	68.87		
1.62 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	_	Ū			_~	BW	4,304.00	4,520.80		4,992.00			5,509.60		
						MO	9,325.33	9,795.07				11,642.80			
						YR	111,904.00	117,540.80	123,489.60	129,792.00	136,344.00	139,713.60	143,249.60		
Assist Engineer II - Elec	0	0	EF2	2.1 Y	ES	154 HR	53.80	56.51	59.37	62.40	65.55	67.17	68.87		
						BW	4,304.00	4,520.80	4,749.60		5,244.00		5,509.60		
						MO	9,325.33	9,795.07				11,642.80			
A saint Thesis are TT 25 st				0 1	- F.C	YR 150 ***						139,713.60			<del></del>
Assist Engineer II - Mech	0	0	ĽΝΖ	∠.⊥ Y	ES	152 HR	51.20	53.80	56.51	59.37	62.40	63.96	65.55		
						BW MO	4,096.00 8,874.67	4,304.00 9,325.33	4,520.80		4,992.00	5,116.80 11,086.40	5,244.00		
						MO VR				-		133,036.80			
						11/	100,170.00	±±±,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	±±1,5±0.00	143,107.00	147,174.00	133,030.00	±30,311.00		

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Assist Engineering Geo I	0	0	EH1	2.1 Y	ES	148 HR	46.40	48.73	51.20		56.51	57.93	59.37		
						BW	3,712.00	3,898.40	4,096.00		4,520.80	4,634.40	4,749.60		
						MO	8,042.67	8,446.53	8,874.67		9,795.07		10,290.80		
Aggigt Engineering Co. II				0 1 37		YR 150 UD						120,494.40			
Assist Engineering Geo II	U	0	<b>Ŀ</b> Ħ∠	Z.1 Y	ŁS	152 HR BW	51.20 4,096.00	53.80 4,304.00	56.51 4,520.80	59.37 4,749.60	62.40 4,992.00	63.96 5,116.80	65.55 5,244.00		
						МО	8,874.67	9,325.33	9,795.07			•	11,362.00		
						YR						133,036.80			
Assist Environmental Planner I	0	0	PA1	2.3 Y	EA	149 HR	45.34	47.63	50.06		55.23	56.61	58.04		
	_	-				BW	3,627.20	3,810.40	4,004.80		4,418.40	4,528.80	4,643.20		
						MO	7,858.93	8,255.87	8,677.07		9,573.20		10,060.27		
						YR			104,124.80		114,878.40	117,748.80	120,723.20		
Assist Environmntal Planner II	2	1	PA3	2.3 Y	EA	152 HR	48.85	51.31	53.93		59.53	60.99	62.49		
						BW	3,908.00	4,104.80	4,314.40		4,762.40		4,999.20		
						MO	8,467.33	8,893.73	9,347.87			10,571.60			
7				1 1		YR		106,724.80	112,174.40	117,748.80	123,822.40	126,859.20	129,979.20		110.00
Assist Officer	-/	6	AB2	1.1	UNC	AST HR	94.96							106.98	119.00
						BW	7,596.80							8,558.40	9,520.00
						MO YR	16,459.73 197,516.80							18,543.20 222,518.40	
Assist Procurement Spec	2	1	VP2	2 3 Y	F.Δ	148 HR	44.25	46.48	48.85	51.31	53.93	55.23	56.61		<u> 247,320.00</u>
ribbibe riocarement byec	_	-	VIZ	2.5 1		BW	3,540.00	3,718.40	3,908.00		4,314.40	4,418.40	4,528.80		
						MO	7,670.00	8,056.53	8,467.33		9,347.87	9,573.20	9,812.40		
						YR	92,040.00		•		•	114,878.40			
Assist Surveyor I	0	0	CA1	3.2 Y	EA	138 HR	34.56	36.32	38.16	40.10	42.11	43.19	44.25		
						BW	2,764.80	2,905.60	3,052.80		3,368.80	3,455.20	3,540.00		
						MO	5,990.40	6,295.47	6,614.40		7,299.07	7,486.27	7,670.00		
			~			<u>YR</u>	71,884.80	75,545.60	79,372.80		87,588.80		92,040.00		
Assist Surveyor II	3	3	CA2	3.2 Y	EA	142 HR	38.16	40.10	42.11	44.25	46.48	47.63	48.85		
						BW	3,052.80	3,208.00	3,368.80		3,718.40	3,810.40	3,908.00		
						MO YR	6,614.40 79,372.80	6,950.67 83,408.00	7,299.07 87,588.80	7,670.00 92,040.00	8,056.53 96,678.40	8,255.87	8,467.33 101,608.00		
Assist Surveyor III	3	2	C 2 5	2 2 V	FΔ	146 HR	42.11	44.25	46.48		51.31	52.57	53.93		
ABBIBC Barveyor III	3		C115	J. Z I	ш21	BW		3,540.00	3,718.40				4,314.40		
						MO	7,299.07	7,670.00	8,056.53				9,347.87		
						YR	87,588.80	92,040.00				109,345.60			
Assist Water Plant Operator I	3	3	FA1	7 Y	EA	140 HR	36.32	38.16	40.10		44.25	45.34	46.48		
						BW	2,905.60	3,052.80	3,208.00		3,540.00	3,627.20	3,718.40		
						MO	6,295.47	6,614.40	6,950.67	7,299.07	7,670.00	7,858.93	8,056.53		
						YR	75,545.60	79,372.80	83,408.00		92,040.00		96,678.40		
Assist Water Plant Operator II	11	11	FA2	7 Y	EA	146 HR	42.11	44.25	46.48		51.31	52.57	53.93		
						BW	3,368.80	3,540.00	3,718.40		4,104.80	4,205.60	4,314.40		
						MO	7,299.07	7,670.00	8,056.53		8,893.73	9,112.13	9,347.87		
						YR	87,588.80	92,040.00	90,6/8.40	TUT,008.00	100,/24.80	109,345.60	$\perp \perp \perp \angle$ , $\perp /4.40$		

Class Title		Fill			n DII	Sal	Min-Pt	Q+ o 2	G+ o 2	C+ 0 1	G+ o F	Q+ a= C	C+ 0-7	M:4 D+	Ma D+
	POS	POS^	Code	EEO O.	I BU	Rng Freg	Step1	Step2	Step3	Step4	Step5	Step6	Step7	Mid-Pt	<u>Max-Pt</u>
Assist Water Res Spec I	0	0	EW1	2.2 Y	ES	148 HR	46.40	48.73	51.20	53.80	56.51	57.93	59.37		
-						BW	3,712.00	3,898.40	4,096.00	4,304.00	4,520.80	4,634.40	4,749.60		
						MO	8,042.67	8,446.53	8,874.67	9,325.33	9,795.07	•	10,290.80		
				0 0 11		YR					117,540.80				
Assist Water Res Spec II	4	4	EW2	2.2 Y	ES	152 HR	51.20	53.80	56.51	59.37	62.40	63.96	65.55		
						BW MO	4,096.00 8,874.67	4,304.00 9,325.33	4,520.80 9,795.07	4,749.60	4,992.00 10,816.00	5,116.80 11,086.40	5,244.00		
						YR					129,792.00				
Assoc Biologist	7	7	LJ5	2.2 Y	EA	155 HR	52.57	55.23	58.04	60.99	64.07	65.68	67.29		
3						BW	4,205.60	4,418.40	4,643.20	4,879.20	5,125.60	5,254.40	5,383.20		
						MO	9,112.13		10,060.27	10,571.60	11,105.47				
						YR					133,265.60				
Assoc Engineer - Civil	65	52	ED5	2.1 Y	ES	158 HR	59.37	62.40	65.55	68.87	72.35	74.13	76.01		
						BW	4,749.60	4,992.00	5,244.00	5,509.60	5,788.00	5,930.40	6,080.80		
						MO		10,816.00			12,540.67 150,488.00				
Assoc Engineer - Cntrol	7	7	 ЕТ5	2 1 Y	ES	160 HR	62.40	65.55	68.87	72.35	76.01	77.90	79.85		
	,	,	113	2.1	10	BW	4,992.00	5,244.00	5,509.60	5,788.00	6,080.80	6,232.00	6,388.00		
						MO					13,175.07				
						YR		136,344.00	143,249.60	150,488.00	158,100.80	162,032.00			
Assoc Engineer - Elect	4	4	EF3	2.1 Y	ES	160 HR	62.40	65.55	68.87	72.35	76.01	77.90	79.85		
						BW	4,992.00	5,244.00	5,509.60	5,788.00	6,080.80	6,232.00	6,388.00		
						MO		11,362.00		12,540.67			13,840.67		
Assoc Engineer - Mech		1	T-NTE	2 1 V	E.C.	158 HR	59.37	62.40	65.55	68.87	158,100.80 72.35	74.13	76.01		
ASSOC Engineer - Mech	1	Т	FMO	Z.1 I	FO	BW	4,749.60	4,992.00	5,244.00	5,509.60	5,788.00	5,930.40	6,080.80		
						MO					12,540.67				
						YR					150,488.00				
Assoc Engineering Geo	0	0	EH5	2.1 Y	ES	158 HR	59.37	62.40	65.55	68.87	72.35	74.13	76.01		
						BW	4,749.60	4,992.00	5,244.00	5,509.60	5,788.00	5,930.40	6,080.80		
						MO		10,816.00		•	12,540.67	•	•		
						YR					150,488.00				
Assoc Environmental Planner	6	5	PA5	2.3 Y	ĿΆ	155 HR	52.57	55.23	58.04	60.99	64.07	65.68	67.29		
						BW	9,112.13	4,418.40			5,125.60		5,383.20		
						MO YR	109,345.60				11,105.47				
Assoc Real Estate Agent	2.	1	RA5	2.3 Y	ΕA	154 HR	51.31	53.93	56.61	59.53	62.49	64.07	65.68		
	_	_	1.1.10			BW	4,104.80	4,314.40	4,528.80	4,762.40	4,999.20	5,125.60	5,254.40		
						MO	8,893.73	9,347.87		10,318.53					
						YR	106,724.80	112,174.40	117,748.80	123,822.40	129,979.20	133,265.60	136,614.40		
Assoc Water Res Spec	14	13	EW5	2.2 Y	ES	158 HR	59.37	62.40	65.55	68.87	72.35	74.13	76.01		
						BW	4,749.60	4,992.00	5,244.00	5,509.60		5,930.40	6,080.80		
						MO YR		10,816.00		•	12,540.67	•			
						YK	143,489.60	149,194.00	130,344.00	143,449.60	150,488.00	134,190.40	T20,TUU.8U		

Class Title			Clas Code	s EEO (	)T BU	Sal Rng Freq	Min-Pt Step1	Step2	Step3	Step4	Step5	Step6	Step7	Mid-Pt	Max-Pt
Board Support Officer	1	1	AM5	1.1	UNC	BSO HR BW MO YR	60.00 4,800.00 10,400.00 124,800.00							68.40 5,472.00 11,856.00 142,272.00	76.80 6,144.00 13,312.00
Carpenter	1	1	FX5	7 Y	Z EA	146 HR BW MO YR	42.11 3,368.80 7,299.07 87,588.80	44.25 3,540.00 7,670.00 92,040.00	46.48 3,718.40 8,056.53	48.85 3,908.00 8,467.33 101,608.00	51.31 4,104.80 8,893.73	52.57 4,205.60 9,112.13	53.93 4,314.40 9,347.87	112,272.00	135,711.00
Chemist I	0	0	LA1	2.2 \	Z EA	149 HR BW MO YR	45.34 3,627.20 7,858.93 94,307.20	47.63 3,810.40 8,255.87	50.06 4,004.80 8,677.07	52.57 4,205.60 9,112.13 109,345.60	55.23 4,418.40 9,573.20	56.61 4,528.80 9,812.40	58.04 4,643.20 10,060.27		
Chemist II	0	0	LA3	2.2 \	Z EA	152 HR BW MO YR	48.85 3,908.00 8,467.33	51.31 4,104.80 8,893.73	53.93 4,314.40 9,347.87	56.61 4,528.80 9,812.40 117,748.80	59.53 4,762.40 10,318.53	60.99 4,879.20 10,571.60	62.49 4,999.20 10,831.60		
Chemist III	6	6	LA5	2.2 Y	Z EA	155 HR BW MO YR	52.57 4,205.60 9,112.13	55.23 4,418.40 9,573.20	58.04 4,643.20 10,060.27	60.99 4,879.20	64.07 5,125.60 11,105.47	65.68 5,254.40 11,384.53	67.29 5,383.20 11,663.60		
Chief Construction Inspector	2	2	CN9	1.2 Y	Z EA	157 HR BW MO YR	55.23 4,418.40 9,573.20	58.04 4,643.20 10,060.27	60.99 4,879.20 10,571.60	64.07 5,125.60 11,105.47 133,265.60	67.29 5,383.20 11,663.60	68.98 5,518.40 11,956.53	70.74 5,659.20 12,261.60		
Chief Executive Officer	1	1	AA5	1.1	UNC	CEO HR BW MO YR	164.14 13,131.20 28,450.93 341,411.20	120,723.20	120,039.20	133,203.00	135,703.20	113,170.10	117,133.20	•	188.18 15,054.40 32,617.87
Chief Financial Officer	1	1	AB6	1.1	UNC	CFO HR BW MO YR	106.98 8,558.40 18,543.20 222,518.40							121.92 9,753.60	136.85 10,948.00 23,720.67
Chief Operating Officer	3	2	AC5	1.1	UNC	COO HR BW MO YR	121.92 9,753.60 21,132.80 253,593.60							136.23 10,898.40	150.54 12,043.20 26,093.60
Chief of External Affairs	1	1	AN5	1.1	UNC	CEA HR BW MO YR	121.92 9,753.60 21,132.80 253,593.60							136.23 10,898.40	150.54 12,043.20 26,093.60
Clerk of the Board	1	1	AF5	1.1	UNC	COB HR BW MO YR	106.98 8,558.40 18,543.20 222,518.40							121.92 9,753.60	136.85 10,948.00 23,720.67

Class Title			Clas	s EEO Ol	דום יי	Sal	Min-Pt	C+ 0m 2	Chang	Ct on 1	Chape	Ctone	C+ 077	Mid-Pt	Morr D+
	POS	POS"	Code	FEO OI	L BU	Rng Freq	Step1	Step2	Step3	Step4	Step5	Step6	Step7	MIQ-PC	<u>Max-Pt</u>
Construction Inspector I	2	2	CN1	3.2 Y	EΑ	145 HR	41.08	43.19	45.34	47.63	50.06	51.31	52.57		
-						BW	3,286.40	3,455.20	3,627.20	3,810.40	4,004.80	4,104.80	4,205.60		
						MO	7,120.53	7,486.27	7,858.93	8,255.87	8,677.07	8,893.73	9,112.13		
<del></del>						YR	85,446.40	89,835.20	94,307.20		104,124.80				
Construction Inspector II	0	0	CN2	3.1 Y	EΑ	149 HR	45.34	47.63	50.06	52.57	55.23	56.61	58.04		
						BW	3,627.20	3,810.40	4,004.80	4,205.60	4,418.40	4,528.80	4,643.20		
						MO YR	7,858.93 94,307.20	8,255.87	8,677.07	9,112.13	9,573.20 114,878.40	9,812.40	10,060.27		
Contracts Administrator I	2	2	CP1	2 3 V	F.Δ	151 HR	47.63	50.06	52.57	55.23	58.04	59.53	60.99		
Concrete naminiberator i	2	2	CLI	2.5 1	1111	BW	3,810.40	4,004.80	4,205.60	4,418.40	4,643.20	4,762.40	4,879.20		
						MO	8,255.87	8,677.07	9,112.13	9,573.20	•	10,318.53	10,571.60		
						YR		•			120,723.20	•			
Contracts Administrator II	0	0	CP5	2.3 Y	EA	155 HR	52.57	55.23	58.04	60.99	64.07	65.68	67.29		
						BW	4,205.60	4,418.40	4,643.20	4,879.20	5,125.60	5,254.40	5,383.20		
						MO	9,112.13	9,573.20	10,060.27	10,571.60		11,384.53			
Companies Combanal Marsh T				2 0 17		YR 146 HD					133,265.60				
Corrosion Control Tech I	U	0	CK1	3.2 Y	ĽΑ	146 HR	42.11	44.25	46.48	48.85	51.31 4,104.80	52.57 4,205.60	53.93 4,314.40		
						BW MO	3,368.80 7,299.07	3,540.00 7,670.00	3,718.40 8,056.53	3,908.00 8,467.33	8,893.73	9,112.13	9,347.87		
						YR	87,588.80	92,040.00			106,724.80	•			
Corrosion Control Tech II	1	1	CK5	3.2 Y	EA	150 HR	46.48	48.85	51.31	53.93	56.61	58.04	59.53		
						BW	3,718.40	3,908.00	4,104.80	4,314.40	4,528.80	4,643.20	4,762.40		
						MO	8,056.53	8,467.33	8,893.73	9,347.87	9,812.40	10,060.27	10,318.53		
						YR					117,748.80				
Data Base Administrator	1	1	XK8	2.3 Y	EΑ	160 HR	59.53	62.49	65.68	68.98	72.49	74.33	76.19		
						BW	4,762.40	4,999.20	5,254.40	5,518.40	5,799.20	5,946.40	6,095.20		
						MO YR					12,564.93				
Deputy Administrative Officer	3	3	AB4	1 1	TINC	DAO HR	106.98	129,979.20	130,014.40	143,4/0.40	150,779.20	154,000.40	130,4/3.20	121.92	136.85
Deputy Administrative Officer	3	3	ADT	⊥•⊥	OIVC	BW	8,558.40								10,948.00
						MO	18,543.20							21,132.80	·
						YR	222,518.40							253,593.60	
Deputy Clerk of the Board	1	1	TG9	6.1 Y	EA	156 HR	53.93	56.61	59.53	62.49	65.68	67.29	68.98		
						BW	4,314.40				5,254.40				
						MO	9,347.87	•			11,384.53	•			
							112,174.40	117,748.80	123,822.40	129,979.20	136,614.40	139,963.20	143,478.40		
Deputy Operating Officer	9	9	AC4	1.1	UNC	DOO HR	106.98							121.92	136.85
						BW	8,558.40							9,753.60	10,948.00
						MO YR	18,543.20 222,518.40							253,593.60	
District Counsel	1	1	AD4	1.1	IINC	DCL HR	150.66							157.15	163.64
	<u> </u>	-			5110	BW	12,052.80							12,572.00	
						MO	26,114.40							27,239.34	
							313,372.80							326,872.00	

Class Title			Clas Code		Г BU	Sal Rng Fred	Min-Pt Step1	Step2	Step3	Step4	Step5	Step6	Step7	Mid-Pt	Max-Pt
Document Specialist I	0	0				130 HR	28.37	29.81	31.31	32.90	34.56	35.44	36.32		
Document Specialist 1	U	U	101	0.2 1	ĿА	BW	2,269.60	2,384.80	2,504.80	2,632.00	2,764.80	2,835.20	2,905.60		
						MO	4,917.47	5,167.07	5,427.07	5,702.67	5,990.40	6,142.93	6,295.47		
						YR	59,009.60	62,004.80	65,124.80		71,884.80	73,715.20	75,545.60		
Document Specialist II	2	2	TC5	6.2 Y	EΑ	134 HR	31.31	32.90	34.56		38.16	39.08	40.10		
						BW MO	2,504.80 5,427.07	2,632.00 5,702.67	2,764.80 5,990.40	2,905.60 6,295.47	3,052.80 6,614.40	3,126.40 6,773.87	3,208.00 6,950.67		
						MO YR	65,124.80	68,432.00	71,884.80		79,372.80	81,286.40	83,408.00		
EGM-Asset Management Manager	1	0	ME1	1.2	MMA	149 HR	79.05	83.00	87.15	91.50	96.09	98.49	100.94		
						BW	6,324.00	6,640.00	6,972.00		7,687.20	7,879.20	8,075.20		
						MO	-	14,386.67	•	15,860.00	16,655.60		17,496.27		
EGM Comital Engineering Manager			MTI 1	1 0	1/11/17	YR						204,859.20			
EGM-Capital Engineering Manager	9	9	ME1	1.2	IvIIvI	149 HR BW	79.05 6,324.00	83.00 6,640.00	87.15 6,972.00	91.50 7,320.00	96.09 7,687.20	98.49 7,879.20	100.94 8,075.20		
						MO	13,702.00	14,386.67	15,106.00		16,655.60				
						YR	-					204,859.20			
EGM-Community Projects Review Mgr	1	1	ME1	1.2	MMA	149 HR	79.05	83.00	87.15	91.50	96.09	98.49	100.94		
						BW	6,324.00	6,640.00	6,972.00		7,687.20	7,879.20	8,075.20		
						MO	13,702.00	14,386.67	•	15,860.00	16,655.60				
ECM Congingation Manager	1	1	ME1	1.2	1/11/17	YR 140 HD					199,867.20 96.09	204,859.20	100.94		
EGM-Construction Manager	1	Т	MET	1.2	IvIIvI	149 HR BW	79.05 6,324.00	83.00 6,640.00	87.15 6,972.00		7,687.20	98.49 7,879.20	8,075.20		
						MO	-			15,860.00	16,655.60		•		
						YR	-		•			204,859.20			
EGM-Dam Safety Program Manager	1	1	ME1	1.2	MMA	149 HR	79.05	83.00	87.15	91.50	96.09	98.49	100.94		
						BW	6,324.00	6,640.00	6,972.00		7,687.20	7,879.20	8,075.20		
						MO	13,702.00	14,386.67	15,106.00		16,655.60				
EGM-Elec & Ctrl Sys Engineer Mgr	1	1	ME1	1.2	MM7	YR 149 HR	79.05	83.00	87.15		96.09	204,859.20 98.49	100.94		
EGM Elec & Cell bys Eligineer Mgr	_		МЕТ	1.2	1,11,17	BW	6,324.00	6,640.00	6,972.00		7,687.20	7,879.20	8,075.20		
						MO	13,702.00	14,386.67		15,860.00	16,655.60		•		
						YR	164,424.00	172,640.00	181,272.00	190,320.00	199,867.20	204,859.20	209,955.20		
EGM-Hydro, Hydra & Geomorph Mgr	1	1	ME1	1.2	MMA	149 HR	79.05	83.00	87.15	91.50	96.09	98.49	100.94		
						BW						7,879.20			
						MO						17,071.60 204,859.20			
EGM-Ops & Maint Eng Support Mgr	1	1	ME1	1 2	MMZ	149 HR	79.05	83.00			96.09	98.49	100.94		
Hom ops a marite Hild bappore mgr	_	_	1412 1	1.2	1.11.17	BW	6,324.00						8,075.20		
						MO						17,071.60			
						YR	164,424.00	172,640.00	181,272.00	190,320.00	199,867.20	204,859.20	209,955.20		
EGM-Pacheco Project Mgr	1	1	ME1	1.2	MMA	149 HR	79.05	83.00			96.09	98.49	100.94		
						BW	6,324.00			7,320.00		•	8,075.20		
						MO VD	•	•	•	•	•	17,071.60 204,859.20	•		
						YR	104,424.00	1/4,040.00	101,4/4.00	19U,3ZU.UU	177,001.20	<u>404,039.40</u>	407,733.40		

Class Title			l Clas * Code		T BU	Sal Rng Fred	Min-Pt Step1	Step2	Step3	Step4	Step5	Step6	Step7	Mid-Pt	Max-Pt
DOM Hailitan Maint Duning and Man							_	_	_	_	_	_			
EGM-Utility Maint Engineering Mgr	Τ	1	ME1	1.2	MMA	. 149 HR BW	79.05 6,324.00	83.00 6,640.00	87.15 6,972.00	91.50 7,320.00	96.09 7,687.20	98.49 7,879.20	100.94 8,075.20		
						MO	13,702.00					17,071.60			
						YR				190,320.00					
EGM-Water Policy & Planning Mgr	1	1	ME1	1.2	MMA	149 HR	79.05	83.00	87.15		96.09	98.49	100.94		
						BW	6,324.00	6,640.00	6,972.00	7,320.00	7,687.20	7,879.20	8,075.20		
						MO	13,702.00					17,071.60	17,496.27		
						YR				190,320.00					
EGM-Water Supply Operations Mgr	1	1	ME1	1.2	MMA	. 149 HR	79.05	83.00	87.15		96.09	98.49	100.94		
						BW	6,324.00	6,640.00	6,972.00	7,320.00	7,687.20	7,879.20	8,075.20		
						MO	13,702.00				16,655.60	17,071.60			
EGGN Land Guardina C Marriag Mars	1	1	MEG	1.2	1/11/17	<u>YR</u> . 145 HR				190,320.00					
ESSM-Land Surveying & Mapping Mgr	1	1	MEZ	1.2	MIMA	. 145 нк ВW	71.61 5,728.80	75.19 6,015.20	78.95 6,316.00		87.05 6,964.00	89.22 7,137.60	91.46 7,316.80		
						MO	12,412.40					•			
						YR				172,452.80					
Engineering Tech I	0	0	СЈ1	3.2 Y	EA	137 HR	33.73	35.44	37.21	39.08	41.08	42.11	43.19		
	_					BW	2,698.40	2,835.20	2,976.80		3,286.40	3,368.80	3,455.20		
						MO	5,846.53	6,142.93			7,120.53	7,299.07	7,486.27		
						YR	70,158.40		77,396.80			87,588.80	89,835.20		
Engineering Tech II	5	4	CJ2	3.2 Y	EA	141 HR	37.21	39.08	41.08		45.34	46.48	47.63		
						BW	2,976.80	3,126.40	3,286.40		3,627.20	3,718.40	3,810.40		
						MO	6,449.73	6,773.87	7,120.53	7,486.27	7,858.93	8,056.53	8,255.87		
The state of the Mark Tax				2 0 1		YR	77,396.80								
Engineering Tech III	5	5	CJ 5	3.2 Y	ĽΑ	145 HR	41.08	43.19	45.34		50.06	51.31	52.57		
						BW MO	3,286.40 7,120.53	3,455.20 7,486.27	3,627.20 7,858.93		4,004.80 8,677.07	4,104.80 8,893.73	4,205.60 9,112.13		
						YR	85,446.40				104,124.80				
Environm Hlth & Safety Spec I	0	0	XG1	2.2 Y	EA	151 HR	47.63	50.06	52.57	55.23	58.04	59.53	60.99		
	_					BW	3,810.40	4,004.80	4,205.60		4,643.20	4,762.40	4,879.20		
						MO	8,255.87	8,677.07	9,112.13			10,318.53			
						YR	99,070.40	104,124.80		114,878.40		123,822.40	126,859.20		
Environm Hlth & Safety Spec II	3	3	XG5	2.2 Y	EA	155 HR	52.57	55.23	58.04	60.99	64.07	65.68	67.29		
						BW		4,418.40		4,879.20					
						MO	9,112.13			10,571.60					
				2 0 7		YR				126,859.20					
Environm Hlth & Safety Tech	2	2	JD6	3.2 Y	ĿΑ	148 HR	44.25	46.48	48.85		53.93	55.23	56.61		
						BW MO	3,540.00 7,670.00	3,718.40 8,056.53			4,314.40 9,347.87	4,418.40 9,573.20	4,528.80 9,812.40		
						MO YR				106,724.80					
ESM-Envir Mitigation & Monitor Mgr	1	1	ME3	1.2	MΜΔ	148 HR	77.12	81.00	85.02		93.75	96.09	98.49		
1101110111011 0 110111001 1191	<u> </u>	-				BW	6,169.60					7,687.20			
						MO				15,471.73					
						YR				185,660.80					

Class Title	All Fi			OT BU	Sal Rng Freg	Min-Pt Step1	Step2	Step3	Step4	Step5	Step6	Step7	Mid-Pt	Max-Pt
ESM-Envir Svcs Manager-Watershed	2	2 ME	3 1.2	MMΔ	148 HR	77.12	81.00	85.02	89.26	93.75	96.09	98.49		
DEL ENVIL EVEE Hanager Macerenea			J 1.2		BW	6,169.60	6,480.00	6,801.60		7,500.00	7,687.20	7,879.20		
					MO	13,367.47	14,040.00	14,736.80	15,471.73	16,250.00	16,655.60	17,071.60		
					YR						199,867.20			
Equipment Mechanic I	0	) JG	1 7	Y EA	140 HR	36.32	38.16			44.25	45.34	46.48		
					BW	2,905.60	3,052.80	3,208.00		3,540.00	3,627.20	3,718.40		
					MO YR	6,295.47 75,545.60	6,614.40 79,372.80			7,670.00 92,040.00	7,858.93 94,307.20	8,056.53 96,678.40		
Equipment Mechanic II	5 4	l JG	5 7	V F.Δ	146 HR	42.11	44.25	46.48		51.31	52.57	53.93		
Iquipment neonanio ii	J		,		BW	3,368.80	3,540.00	3,718.40		4,104.80	4,205.60	4,314.40		
					MO	7,299.07	7,670.00	8,056.53		8,893.73	9,112.13	9,347.87		
					YR	87,588.80	92,040.00	96,678.40	101,608.00		109,345.60			
Executive Assistant	6	5 TJ	6.1	Y EA	146 HR	42.11	44.25	46.48		51.31	52.57	53.93		
					BW	3,368.80	3,540.00	3,718.40		4,104.80	4,205.60	4,314.40		
					MO	7,299.07	7,670.00	8,056.53		8,893.73	9,112.13	9,347.87		
Executive Assistant to CEO	1	L TJ	0 6 1	V E7	YR 150 HR	87,588.80 46.48	92,040.00 48.85	51.31		56.61	109,345.60 58.04	59.53		
EXECUTIVE ASSISTANT TO CEO	Ι.	L IU	0 0.1	Y ŁA	BW	3,718.40	3,908.00	4,104.80		4,528.80	4,643.20	4,762.40		
					MO	8,056.53	8,467.33			9,812.40	10,060.27	10,318.53		
					YR						120,723.20			
Facility Maintenance Admin	1	L FT	8 2.3	Y EA	159 HR	58.04	60.99	64.07		70.74	72.49	74.33		
					BW	4,643.20	4,879.20	5,125.60		5,659.20	5,799.20	5,946.40		
					MO	10,060.27	10,571.60				12,564.93	12,883.87		
					YR						150,779.20			
Facility Maintenance Tech I	0	) FT.	1 7	Y ŁA		36.32	38.16			44.25	45.34	46.48		
					BW MO	2,905.60 6,295.47	3,052.80 6,614.40	3,208.00 6,950.67		3,540.00 7,670.00	3,627.20 7,858.93	3,718.40 8,056.53		
					YR	75,545.60	79,372.80				94,307.20	96,678.40		
Facility Maintenance Tech II	6	5 FT	5 7	Y FA	144 HR	40.10	42.11	44.25		48.85	50.06	51.31		
1 4 6 1 1 4 1 4 1 4 1 4 1 4 1 4 1 4 1 4					BW	3,208.00	3,368.80	3,540.00		3,908.00	4,004.80	4,104.80		
					MO	6,950.67	7,299.07	7,670.00		8,467.33	8,677.07	8,893.73		
					YR	83,408.00	87,588.80				104,124.80			
Facility Maintenance Tech III	2	2 FT	6 7	Y EA	148 HR	44.25	46.48	48.85		53.93	55.23	56.61		
					BW		3,718.40				4,418.40	4,528.80		
					MO	7,670.00	8,056.53		8,893.73			9,812.40		
Fellowship	4	2 (2	9 2.3	V 555	<u>YR</u> 1 HR	38.46	96,6/8.40	101,608.00	106,724.80	112,1/4.40	114,878.40	11/,/48.80		
reliowship	<b>T</b> .	) CS	9 4.3	I LED	BW	0.00								
					MO	6,666.40								
					YR	79,996.80								
Field Construction Supervisor	6	JM	9 1.2	Y EA	159 HR	58.04	60.99	64.07		70.74	72.49	74.33		
					BW	4,643.20	4,879.20			5,659.20	5,799.20	5,946.40		
					MO	10,060.27					12,564.93			
					YR	120,723.20	126,859.20	133,265.60	139,963.20	147,139.20	150,779.20	154,606.40		

Class Title		Fill Pos*			ГBU	Sal Rng Freg	Min-Pt Step1	Step2	Step3	Step4	Step5	Step6	Step7	Mid-Pt	Max-Pt
Field Operations Admin		12				155 HR	52.57	55.23	58.04	_	_	65.68	67.29		
rield operacions Admin	12	12	UIVO	1.2 1	ĽA	BW	4,205.60	4,418.40	4,643.20		5,125.60	5,254.40	5,383.20		
						MO	9,112.13	9,573.20					11,663.60		
						YR	109,345.60			126,859.20		136,614.40	139,963.20		
FSM-Accounting Manager	1	1	MF1	1.2	MMA	146 HR	73.40	77.08	80.93			91.46	93.75		
						BW	5,872.00	6,166.40	6,474.40		7,137.60	7,316.80	7,500.00		
						MO YR	12,722.67	13,360.53		14,729.87 176,758.40					
FSM-Budget Manager	1	1	MF1	1.2	MΜΔ	146 HR	73.40	77.08	80.93			91.46	93.75		
IBM Baagee Manager	_	_	1711 1	<b></b>	1-11-12 1	BW	5,872.00	6,166.40	6,474.40			7,316.80	7,500.00		
						MO		13,360.53		14,729.87			•		
						YR	152,672.00	160,326.40		176,758.40		190,236.80	195,000.00		
FSM-Fin Planning & Revenue Manager	1	1	MF1	1.2	MMA	146 HR	73.40	77.08	80.93			91.46	93.75		
						BW	5,872.00	6,166.40	6,474.40		7,137.60	7,316.80	7,500.00		
						MO	12,722.67	•							
FSM-Treasury and Debt Manager	1	1	MF1	1.2	MMA	YR 146 HR	73.40	160,326.40 77.08	80.93	176,758.40 84.98		91.46	93.75		
rsm-freasury and Debt Manager	Τ.	1	MLT	1.2	IvIIvIA	BW	5,872.00	6,166.40	6,474.40		7,137.60	7,316.80	7,500.00		
						MO	12,722.67	13,360.53		14,729.87			16,250.00		
						YR		•	•	176,758.40					
Forms Tech I	0	0	TD1	6.2 Y	EΑ	138 HR	34.56	36.32	38.16	40.10	42.11	43.19	44.25		_
						BW	2,764.80	2,905.60	3,052.80	3,208.00	3,368.80	3,455.20	3,540.00		
						MO	5,990.40	6,295.47	6,614.40	6,950.67	7,299.07	7,486.27	7,670.00		
The same of the sa		1		C 1 37		YR 142 HD	71,884.80	75,545.60	79,372.80			89,835.20	92,040.00		
Forms Tech II	Ţ	Τ	TD5	6.1 Y	ĽΑ	142 HR	38.16 3,052.80	40.10 3,208.00	42.11 3,368.80	44.25 3,540.00	46.48 3,718.40	47.63 3,810.40	48.85 3,908.00		
						BW MO	6,614.40	6,950.67	7,299.07	7,670.00		8,255.87	8,467.33		
						YR	79,372.80	83,408.00	87,588.80				101,608.00		
GSM-Bus Sppt Cust Svc & Whse Mgr	1	1	MG1	1.2	MMA	143 HR	68.15	71.56	75.15	78.90		84.92	87.05		
						BW	5,452.00	5,724.80	6,012.00			6,793.60	6,964.00		
						MO	11,812.67	12,403.73	•	13,676.00	•		•		
						YR				164,112.00					
GSM-Engineering Support Manager	Ţ	0	MGI	1.2	MMA	143 HR	68.15	71.56	75.15			84.92	87.05		
						BW MO				6,312.00 13,676.00					
						VP MO	141,752.00								
GSM-Facilities and Fleet Manager	2	1	MG1	1.2	MMA	143 HR	68.15	71.56				84.92	87.05		
05.1 1 40222020 4.14 1 2000 114.14.502	_	_				BW	5,452.00						6,964.00		
						MO				13,676.00					
						YR				164,112.00		176,633.60	181,064.00		
GSM-Records & Library Manager	1	1	MG1	1.2	MMA	143 HR	68.15	71.56				84.92	87.05		
						BW	5,452.00						6,964.00		
						MO				13,676.00					
						YR	141,752.00	148,844.80	150,312.00	104,112.00	1/2,348.80	1/0,033.60	181,064.00		

Class Title	All Fill Class Pos Pos* Code EEO OT BU	Sal J Rng Fred	Min-Pt Step1	Step2	Step3	Step4	Step5	Step6	Step7	Mid-Pt	Max-Pt
Government Relations Advocate	1 1 XD8 2.3 Y EA	 158 нр	56.61	59.53	62.49	65.68	68.98	70.74	72.49		
dovernmente neracrons navocate	1 1 120 2.3 1 12	BW	4,528.80	4,762.40	4,999.20		5,518.40	5,659.20	5,799.20		
		MO	9,812.40					12,261.60	12,564.93		
		YR						147,139.20			
HVACR Mechanic	2 2 FP5 7 Y EA		47.63	50.06	52.57	55.23	58.04	59.53	60.99		
		BW	3,810.40	4,004.80	4,205.60	4,418.40	4,643.20	4,762.40	4,879.20		
		MO YR	8,255.87	8,677.07	9,112.13	9,573.20	10,060.27	10,318.53 123,822.40	10,571.60		
Heavy Equipment Operator	7 7 JN5 7 Y EA		45.34	47.63	50.06	52.57	55.23	56.61	58.04		
neavy Equipment Operator	7 7 0113 7 1 122	BW	3,627.20		4,004.80	4,205.60	4,418.40	4,528.80	4,643.20		
		MO	7,858.93	8,255.87	8,677.07	9,112.13	9,573.20	9,812.40	10,060.27		
		YR	94,307.20	99,070.40		109,345.60		117,748.80			
Human Resources Tech I	2 2 XH2 6.1 Y EA		36.32	38.16	40.10	42.11	44.25	45.34	46.48		
		BW	2,905.60	3,052.80	3,208.00	3,368.80	3,540.00	3,627.20	3,718.40		
		MO	6,295.47	6,614.40	6,950.67	7,299.07	7,670.00	7,858.93	8,056.53		
Human Resources Tech II	3 3 XH5 6.1 Y EX	YR N 144 UD	75,545.60 40.10	79,372.80 42.11	83,408.00 44.25	87,588.80 46.48	92,040.00 48.85	94,307.20 50.06	96,678.40 51.31		
Italian Resources Tech II	3 3 AII 0:1 1 EA	BW	3,208.00	3,368.80	3,540.00	3,718.40	3,908.00	4,004.80	4,104.80		
		MO	6,950.67	7,299.07	7,670.00		8,467.33	8,677.07	8,893.73		
		YR	83,408.00		92,040.00			104,124.80			
Hydrographer I	1 1 CE1 3.2 Y E	A 146 HR	42.11	44.25	46.48	48.85	51.31	52.57	53.93		
		BW	3,368.80	3,540.00	3,718.40	3,908.00	4,104.80	4,205.60	4,314.40		
		MO	7,299.07	7,670.00	8,056.53	8,467.33	8,893.73	9,112.13	9,347.87		
Hardra creambara TT	3 3 CE5 3.2 Y E2	YR	87,588.80	92,040.00 48.85	96,678.40 51.31	53.93		109,345.60			
Hydrographer II	3 3 CES 3.2 1 EA	A 150 HR BW	46.48 3,718.40	3,908.00	4,104.80		56.61 4,528.80	58.04 4,643.20	59.53 4,762.40		
		MO	8,056.53	8,467.33	8,893.73	9,347.87	9,812.40		10,318.53		
		YR						120,723.20			
IT Architect	3 3 IT9 2.1 ES	S 164 HR	68.87	72.35	76.01	79.85	83.89	85.98	88.15		
		BW	5,509.60	5,788.00	6,080.80		6,711.20	6,878.40	7,052.00		
		MO	11,937.47		13,175.07		14,540.93		15,279.33		
TUM Toursel of Market Manager	1 1 NT1 1 0 N	YR						178,838.40			
IWM-Imported Water Manager	1 1 MI1 1.2 M	MA 150 HR	81.04	85.08	89.34	93.81	98.49	100.94 8,075.20	103.48		
		МО						17,496.27			
		YR						209,955.20			
Industrial Coating Spec I	0 0 FV1 7 Y EA	A 140 HR	36.32		40.10		44.25	45.34	46.48		
		BW	2,905.60	3,052.80	3,208.00	3,368.80	3,540.00	3,627.20	3,718.40		
		MO	6,295.47	6,614.40	6,950.67	7,299.07	7,670.00	7,858.93	8,056.53		
		YR	75,545.60			87,588.80					
Industrial Coating Spec II	2 2 FV5 7 Y EA		42.11	44.25	46.48	48.85	51.31	52.57	53.93		
		B₩	3,368.80 7,299.07	3,540.00 7,670.00	3,718.40 8,056.53		4,104.80 8,893.73	4,205.60 9,112.13	4,314.40 9,347.87		
		MO YR		92,040.00				109,345.60			
	·	11/	01,300.00	74,010.00	20,010.40	±0±,000.00	100,141.00	±00,0 <del>1</del> 00	<u> </u>		

Class Title	All F Pos P				OT	BU	Sal Rng Fr	Min-Pt eq Step1	Step2	Step3	Step4	Step5	Step6	Step7	Mid-Pt	Max-Pt
Industrial Electrician I		0	FJ1	7			145 HR	41.08	43.19	45.34	47.63	50.06	51.31	52.57		
industrial Electrician i	O	U	FUI	,	1	ĽА	BW	3,286.40	3,455.20	3,627.20	3,810.40	4,004.80	4,104.80	4,205.60		
							MO	7,120.53	7,486.27	7,858.93	8,255.87	8,677.07	8,893.73	9,112.13		
							YR	85,446.40		94,307.20			106,724.80			
Industrial Electrician II	5	4	FJ5	7	Y	EΑ	151 HR	47.63	50.06	52.57	55.23	58.04	59.53	60.99		
							BW	3,810.40	4,004.80	4,205.60		4,643.20	4,762.40	4,879.20		
							MO	8,255.87	8,677.07	9,112.13	9,573.20	10,060.27		10,571.60		
TOM Inform Took Droot C Dug One More		0	MT O	1.2		1/11/17	146 UD				114,878.40					
ISM-Inform Tech Proj & Bus Opr Mgr	1	U	MTZ	1.2		IvIIvI	146 HR BW	73.40 5,872.00	77.08 6,166.40	80.93 6,474.40		89.22 7,137.60	91.46 7,316.80	93.75 7,500.00		
							MO	12,722.67			14,729.87			•		
							YR				176,758.40					
ISM-Information Technology Manager	1	1	MI2	1.2		MMA	146 HR	73.40	77.08	80.93			91.46	93.75		
							BW	5,872.00	6,166.40	6,474.40		7,137.60	7,316.80	7,500.00		
							MO	12,722.67			•			16,250.00		
							YR				176,758.40					
ISM-Sys Development & Support Mgr	1	1	MI2	1.2		MMA	146 HR	73.40	77.08	80.93		89.22	91.46	93.75		
							BW	5,872.00	6,166.40	6,474.40		7,137.60	7,316.80	7,500.00		
							MO	12,722.67		•	14,729.87 176,758.40					
Information Systems Admin	1	1	YA9	2 3	V	F.Δ	160 HR	59.53	62.49	65.68			74.33	76.19		
THIOT MACTOIL BY BEELING TAMELIT	_	_	1117	2.5	_	ш.	BW	4,762.40	4,999.20	5,254.40		5,799.20	5,946.40	6,095.20		
							MO		10,831.60		11,956.53			•		
							YR				143,478.40					
Information Systems Anlyst I	0	0	XJ1	2.3	Y	EΑ	150 HR	46.48	48.85	51.31	53.93	56.61	58.04	59.53		
							BW	3,718.40	3,908.00	4,104.80		4,528.80	4,643.20	4,762.40		
							MO	8,056.53		8,893.73		9,812.40	10,060.27	10,318.53		
Traformation Contama Andreat II		1	V T O	2 2			1 F 4 T T T T T T T T T T T T T T T T T T				112,174.40					
Information Systems Anlyst II	4	4	XU Z	2.3	ĭ	ĽА	154 HR	51.31 4,104.80	53.93 4,314.40	56.61 4,528.80	59.53 4,762.40	62.49 4,999.20	64.07 5,125.60	65.68 5,254.40		
							BW MO	8,893.73	9,347.87	9,812.40				11,384.53		
							YR				123,822.40					
Information Systems Anlyst III	6	4	XJ5	2.3	Y	ΕA	158 HR	56.61	59.53	62.49	65.68	68.98	70.74	72.49		
							BW	4,528.80	4,762.40	4,999.20	5,254.40	5,518.40	5,659.20	5,799.20		
							MO				11,384.53					
							YR				136,614.40					
Information Systems Tech I	0	0	YA1	3.2	Y	EΑ	140 HR	36.32				44.25	45.34	46.48		
							BW	2,905.60		3,208.00		3,540.00	3,627.20	3,718.40		
							MO YR	6,295.47	6,614.40 79,372.80		7,299.07	7,670.00	7,858.93	8,056.53		
Information Systems Tech II	Δ	4	<b>ΥΔ</b> 5	3 2	v		146 HR	42.11	44.25	46.48	87,588.80 48.85	92,040.00 51.31	52.57	96,678.40 53.93		
THEOTHER CTOH BY SECTION LECTION	I	ī	TAO	J . Z	1	ĽА	140 HK	3,368.80					4,205.60	4,314.40		
							MO	7,299.07					9,112.13	9,347.87		
							YR				101,608.00					

Class Title			l Clas		וזמ ייי	Sal Rng Freg	Min-Pt	Stop?	Ct on?	Ston	C+ on F	C+ on 6	C+ 027	Mid-Pt	Max Dt
	POS	POS	· code	EEO (	JI BU	Riig Freq	Step1	Step2	Step3	Step4	Step5	Step6	Step7	MIQ-PC	<u>Max-Pt</u>
Information Systems Tech III	1	1	YA4	3.2	Z EA	149 HR	45.34	47.63	50.06	52.57	55.23	56.61	58.04	Į	
-						BW	3,627.20	3,810.40	4,004.80		4,418.40	4,528.80	4,643.20	)	
						MO	7,858.93	8,255.87	8,677.07	9,112.13	9,573.20	9,812.40			
· <del></del>						YR						117,748.80			
Instrument & Controls Tech I	1	1	FM1	3.2 \	Z EA	145 HR	41.08	43.19	45.34	47.63	50.06	51.31	52.57		
						BW	3,286.40	3,455.20	3,627.20		4,004.80	4,104.80	4,205.60		
						MO	7,120.53	7,486.27	7,858.93	8,255.87	8,677.07	8,893.73	9,112.13		
Instrument & Controls Tech II	0	8	EM E	2 2 3		<u>YR</u> 151 HR	47.63	89,835.20 50.06	52.57	55.23	58.04	106,724.80 59.53	60.99		
Instrument & Controls rech in	O	0	CMJ	3.4	LEA	BW	3,810.40	4,004.80	4,205.60		4,643.20	4,762.40	4,879.20		
						MO	8,255.87	8,677.07	9,112.13	9,573.20			-		
						YR	-					123,822.40			
Inventory Control Tech I	0	0	VH1	8 7	Z EA	137 HR	33.73	35.44	37.21	39.08	41.08	42.11	43.19		
-						BW	2,698.40	2,835.20	2,976.80		3,286.40	3,368.80	3,455.20		
						MO	5,846.53	6,142.93	6,449.73	6,773.87	7,120.53	7,299.07	7,486.27	,	
						YR		73,715.20		81,286.40			89,835.20		
Inventory Control Tech II	4	3	VH5	8 7	Z EA	141 HR	37.21	39.08	41.08	43.19	45.34	46.48	47.63		
						BW	2,976.80	3,126.40	3,286.40		3,627.20	3,718.40	3,810.40		
						MO	6,449.73	6,773.87	7,120.53		7,858.93	8,056.53	8,255.87		
Johan Balatiana Offican		1	7. 1. 1. 1	1 1		YR IID		81,286.40	85,446.40	89,835.20	94,307.20	96,678.40	99,070.40		110 00
Labor Relations Officer	1	Τ	AM4	1.1	UNC	C LRM HR BW	94.96 7,596.80							106.98 8,558.40	119.00 9,520.00
						MO	16,459.73							18,543.20	
						YR	197,516.80							222,518.40	
Labor Relations Specialist I	0	0	WA1	2.3 \	Z EA	155 HR	52.57	55.23	58.04	60.99	64.07	65.68	67.29		2177320:00
	_	-				BW	4,205.60	4,418.40	4,643.20		5,125.60	5,254.40	5,383.20		
						MO	9,112.13	9,573.20			11,105.47		-		
						YR	109,345.60	114,878.40	120,723.20	126,859.20	133,265.60	136,614.40	139,963.20		
Labor Relations Specialist II	2	2	WA5	2.3	Z EA	158 HR	56.61	59.53	62.49	65.68	68.98	70.74	72.49		
						BW	4,528.80	4,762.40	4,999.20		5,518.40	5,659.20	5,799.20		
						MO		10,318.53				12,261.60			
T. D. C. D. C. Branch, T.			T 01	2 0 7		<u>YR</u>	117,748.80								
Laboratory Tech I	0	0	ГС	3.2	Z EA	139 HR	35.44	37.21	39.08	41.08	43.19	44.25	45.34		
						BW	2,835.20 6,142.93	2,976.80 6,449.73	3,126.40 6,773.87	3,286.40 7,120.53	3,455.20 7,486.27	3,540.00 7,670.00	3,627.20 7,858.93		
						MO YR	73,715.20	77,396.80		85,446.40					
Laboratory Tech II	3	3	T <sub>1</sub> G5	3.2.3	7 F.A	143 HR	39.08	41.08	43.19	45.34	47.63	48.85	50.06		
haboratory reem in	3	3	100	3.2		BW	3,126.40	3,286.40	3,455.20		3,810.40	3,908.00	4,004.80		
						MO	6,773.87	7,120.53	7,486.27	7,858.93	8,255.87	8,467.33	8,677.07		
						YR		85,446.40		94,307.20		101,608.00			
Legal Analyst I	0	0	XB1	2.3	EA	151 HR	47.63	50.06	52.57	55.23	58.04	59.53	60.99	)	
						BW	3,810.40	4,004.80	4,205.60			4,762.40	4,879.20		
						MO	8,255.87	8,677.07	9,112.13		10,060.27				
						YR	99,070.40	104,124.80	109,345.60	114,878.40	120,723.20	123,822.40	<u>126,859.20</u>		

Pos Pos * Code EEO OT BU Rng Freq   Step1   Step2   Step3   Step4   Step5   Step6   Step7   Mid-Pt	Morr Dt
BW   4,205.60   4,418.40   4,643.20   4,879.20   5,125.60   5,254.40   5,383.20	<u>Max-Pt</u>
BW   4,205.60   4,418.40   4,643.20   4,879.20   5,125.60   5,254.40   5,383.20   9,112.13   9,573.20   10,060.27   10,571.60   11,105.47   11,384.53   11,663.60   11,005.47   11,384.53   11,663.60   11,005.47   11,384.53   11,663.60   11,005.47   11,384.53   11,663.60   11,005.47   11,384.53   11,663.60   11,005.47   11,384.53   11,663.60   11,005.47   11,384.53   11,663.60   11,005.47   11,384.53   11,663.60   11,005.47   11,384.53   11,663.60   11,005.47   11,384.53   11,663.60   11,005.47   11,005.4	
YR   109,345.60   114,878.40   120,723.20   126,859.20   133,265.60   136,614.40   139,963.20	
Librarian  1 1 XF9 2.3 Y EA 150 HR 46.48 48.85 51.31 53.93 56.61 58.04 59.53  BW 3,718.40 3,908.00 4,104.80 4,314.40 4,528.80 4,643.20 4,762.40  MO 8,056.53 8,467.33 8,893.73 9,347.87 9,812.40 10,060.27 10,318.53  YR 96,678.40 101,608.00 106,724.80 112,174.40 117,748.80 120,723.20 123,822.40  Maintenance Liaison  0 0 UM6 2.2 Y EA 157 HR 55.23 58.04 60.99 64.07 67.29 68.98 70.74  BW 4,418.40 4,643.20 4,879.20 5,125.60 5,383.20 5,518.40 5,659.20  MO 9,573.20 10,060.27 10,571.60 11,105.47 11,663.60 11,956.53 12,261.60  YR 114,878.40 120,723.20 126,859.20 133,265.60 139,963.20 143,478.40 147,139.20  Maintenance Worker I 4 4 JM1 8 Y EA 137 HR 33.73 35.44 37.21 39.08 41.08 42.11 43.19	
BW 3,718.40 3,908.00 4,104.80 4,314.40 4,528.80 4,643.20 4,762.40 MO 8,056.53 8,467.33 8,893.73 9,347.87 9,812.40 10,060.27 10,318.53 YR 96,678.40 101,608.00 106,724.80 112,174.40 117,748.80 120,723.20 123,822.40  Maintenance Liaison  O UM6 2.2 Y EA 157 HR 55.23 58.04 60.99 64.07 67.29 68.98 70.74 BW 4,418.40 4,643.20 4,879.20 5,125.60 5,383.20 5,518.40 5,659.20 MO 9,573.20 10,060.27 10,571.60 11,105.47 11,663.60 11,956.53 12,261.60 YR 114,878.40 120,723.20 126,859.20 133,265.60 139,963.20 143,478.40 147,139.20  Maintenance Worker I 4 4 JM1 8 Y EA 137 HR 33.73 35.44 37.21 39.08 41.08 42.11 43.19	
MO 8,056.53 8,467.33 8,893.73 9,347.87 9,812.40 10,060.27 10,318.53 YR 96,678.40 101,608.00 106,724.80 112,174.40 117,748.80 120,723.20 123,822.40 Maintenance Liaison 0 0 UM6 2.2 Y EA 157 HR 55.23 58.04 60.99 64.07 67.29 68.98 70.74 BW 4,418.40 4,643.20 4,879.20 5,125.60 5,383.20 5,518.40 5,659.20 MO 9,573.20 10,060.27 10,571.60 11,105.47 11,663.60 11,956.53 12,261.60 YR 114,878.40 120,723.20 126,859.20 133,265.60 139,963.20 143,478.40 147,139.20 Maintenance Worker I 4 4 JM1 8 Y EA 137 HR 33.73 35.44 37.21 39.08 41.08 42.11 43.19	
YR         96,678.40         101,608.00         106,724.80         112,174.40         117,748.80         120,723.20         123,822.40           Maintenance Liaison         0         0         UM6         2.2 Y         EA         157 HR         55.23         58.04         60.99         64.07         67.29         68.98         70.74           BW         4,418.40         4,643.20         4,879.20         5,125.60         5,383.20         5,518.40         5,659.20           MO         9,573.20         10,060.27         10,571.60         11,105.47         11,663.60         11,956.53         12,261.60           YR         114,878.40         120,723.20         126,859.20         133,265.60         139,963.20         143,478.40         147,139.20           Maintenance Worker I         4         4         JM1         8         Y         EA         137 HR         33.73         35.44         37.21         39.08         41.08         42.11         43.19	
Maintenance Liaison       0       0       UM6       2.2 Y EA       157 HR       55.23       58.04       60.99       64.07       67.29       68.98       70.74         BW       4,418.40       4,643.20       4,879.20       5,125.60       5,383.20       5,518.40       5,659.20         MO       9,573.20       10,060.27       10,571.60       11,105.47       11,663.60       11,956.53       12,261.60         YR       114,878.40       120,723.20       126,859.20       133,265.60       139,963.20       143,478.40       147,139.20         Maintenance Worker I       4       4       JM1       8       Y       EA       137 HR       33.73       35.44       37.21       39.08       41.08       42.11       43.19	
BW 4,418.40 4,643.20 4,879.20 5,125.60 5,383.20 5,518.40 5,659.20  MO 9,573.20 10,060.27 10,571.60 11,105.47 11,663.60 11,956.53 12,261.60  YR 114,878.40 120,723.20 126,859.20 133,265.60 139,963.20 143,478.40 147,139.20  Maintenance Worker I 4 4 JM1 8 Y EA 137 HR 33.73 35.44 37.21 39.08 41.08 42.11 43.19	
MO 9,573.20 10,060.27 10,571.60 11,105.47 11,663.60 11,956.53 12,261.60  YR 114,878.40 120,723.20 126,859.20 133,265.60 139,963.20 143,478.40 147,139.20  Maintenance Worker I 4 4 JM1 8 Y EA 137 HR 33.73 35.44 37.21 39.08 41.08 42.11 43.19	
YR 114,878.40 120,723.20 126,859.20 133,265.60 139,963.20 143,478.40 147,139.20  Maintenance Worker I 4 4 JM1 8 Y EA 137 HR 33.73 35.44 37.21 39.08 41.08 42.11 43.19	
Maintenance Worker I 4 4 JM1 8 Y EA 137 HR 33.73 35.44 37.21 39.08 41.08 42.11 43.19	
MO 5,846.53 6,142.93 6,449.73 6,773.87 7,120.53 7,299.07 7,486.27	
YR 70,158.40 73,715.20 77,396.80 81,286.40 85,446.40 87,588.80 89,835.20	
Maintenance Worker II 10 8 JM5 8 Y EA 141 HR 37.21 39.08 41.08 43.19 45.34 46.48 47.63	
BW 2,976.80 3,126.40 3,286.40 3,455.20 3,627.20 3,718.40 3,810.40	
MO 6,449.73 6,773.87 7,120.53 7,486.27 7,858.93 8,056.53 8,255.87	
YR 77,396.80 81,286.40 85,446.40 89,835.20 94,307.20 96,678.40 99,070.40	
Maintenance Worker III 13 13 JM6 8 Y EA 145 HR 41.08 43.19 45.34 47.63 50.06 51.31 52.57	
BW 3,286.40 3,455.20 3,627.20 3,810.40 4,004.80 4,104.80 4,205.60	
MO 7,120.53 7,486.27 7,858.93 8,255.87 8,677.07 8,893.73 9,112.13 YR 85,446.40 89,835.20 94,307.20 99,070.40 104,124.80 106,724.80 109,345.60	
YR 85,446.40 89,835.20 94,307.20 99,070.40 104,124.80 106,724.80 109,345.60  Management Analyst I 8 8 XA2 2.3 Y EA 151 HR 47.63 50.06 52.57 55.23 58.04 59.53 60.99	
BW 3,810.40 4,004.80 4,205.60 4,418.40 4,643.20 4,762.40 4,879.20	
MO 8,255.87 8,677.07 9,112.13 9,573.20 10,060.27 10,318.53 10,571.60	
YR 99,070.40 104,124.80 109,345.60 114,878.40 120,723.20 123,822.40 126,859.20	
Management Analyst II 31 27 XA5 2.3 Y EA 155 HR 52.57 55.23 58.04 60.99 64.07 65.68 67.29	
BW 4,205.60 4,418.40 4,643.20 4,879.20 5,125.60 5,254.40 5,383.20	
MO 9,112.13 9,573.20 10,060.27 10,571.60 11,105.47 11,384.53 11,663.60	
YR 109,345.60 114,878.40 120,723.20 126,859.20 133,265.60 136,614.40 139,963.20	
Microbiologist I 0 0 LD1 2.2 Y EA 149 HR 45.34 47.63 50.06 52.57 55.23 56.61 58.04	
BW 3,627.20 3,810.40 4,004.80 4,205.60 4,418.40 4,528.80 4,643.20	
MO 7,858.93 8,255.87 8,677.07 9,112.13 9,573.20 9,812.40 10,060.27	
YR 94,307.20 99,070.40 104,124.80 109,345.60 114,878.40 117,748.80 120,723.20	
Microbiologist II 1 LD3 2.2 Y EA 152 HR 48.85 51.31 53.93 56.61 59.53 60.99 62.49	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
MO 8,467.33 8,893.73 9,347.87 9,812.40 10,318.53 10,571.60 10,831.60 YR 101,608.00 106,724.80 112,174.40 117,748.80 123,822.40 126,859.20 129,979.20	
Microbiologist III 1 LD5 2.2 Y EA 155 HR 52.57 55.23 58.04 60.99 64.07 65.68 67.29	
BW 4,205.60 4,418.40 4,643.20 4,879.20 5,125.60 5,254.40 5,383.20	
MO 9,112.13 9,573.20 10,060.27 10,571.60 11,105.47 11,384.53 11,663.60	
YR 109,345.60 114,878.40 120,723.20 126,859.20 133,265.60 136,614.40 139,963.20	

Class Title		Fill Pos*			T BU	Sal Rng Freg	Min-Pt Step1	Step2	Step3	Step4	Step5	Step6	Step7	Mid-Pt	Max-Pt
							_	_							
Network Architect	1	0	NT9	2.1	ES	164 HR	68.87	72.35	76.01			85.98 6,878.40	88.15 7,052.00		
						BW MO	5,509.60 11,937.47	5,788.00 12,540.67	6,080.80	13,840.67		-	15,279.33		
						YR						178,838.40	-		
Office Specialist I	0	0	TA1	6.2 Y	EA	130 HR	28.37	29.81	31.31			35.44	36.32		
						BW	2,269.60	2,384.80	2,504.80			2,835.20	2,905.60		
						MO	4,917.47	5,167.07	5,427.07		5,990.40	6,142.93	6,295.47		
						YR	59,009.60		65,124.80			73,715.20	75,545.60		
Office Specialist II	6	6	TA5	6.2 Y	EΑ	134 HR	31.31	32.90	34.56			39.08	40.10		
						BW	2,504.80	2,632.00	2,764.80			3,126.40	3,208.00		
						MO	5,427.07	5,702.67	5,990.40		6,614.40	6,773.87	6,950.67		
Operations Liaison		1	UT6	2 2 37	17.7	<u>YR</u> 157 HR	65,124.80 55.23	68,432.00 58.04	71,884.80 60.99			81,286.40 68.98	83,408.00 70.74		
Operations maison	1	Τ.	010	Z.Z I	ĿА	BW	4,418.40	4,643.20	4,879.20			5,518.40	5,659.20		
						MO	9,573.20			11,105.47		•			
						YR						143,478.40	-		
Plant/Pipe Mechanical Tech I	2	1	JA1	7 Y	EA	144 HR	40.10	42.11	44.25			50.06	51.31		
· ·						BW	3,208.00	3,368.80	3,540.00			4,004.80	4,104.80		
						MO	6,950.67	7,299.07	7,670.00		8,467.33	8,677.07	8,893.73		
						YR	83,408.00					104,124.80			
Plant/Pipe Mechanical Tech II	11	8	JA5	7 Y	EΑ	148 HR	44.25	46.48	48.85		53.93	55.23	56.61		
						BW	3,540.00	3,718.40	3,908.00			4,418.40	4,528.80		
						MO	7,670.00	8,056.53	8,467.33			9,573.20	9,812.40		
Prin Cnst Contracts Admin		0	CP9	2 2 7	T: 7\	YR 165 HR	92,040.00 67.29	70.74	74.33			114,878.40 84.07	86.18		
PITH CHSC CONCLACES AUMITH	U	U	CP3	2.3 1	ĽА	BW	5,383.20	5,659.20	5,946.40			6,725.60	6,894.40		
						MO	11,663.60					14,572.13	14,937.87		
						YR						174,865.60	-		
Procurement Specialist	1	1	VP5	2.3 Y	EA	151 HR	47.63	50.06	52.57			59.53	60.99		
-						BW	3,810.40	4,004.80	4,205.60			4,762.40	4,879.20		
						MO	8,255.87	8,677.07	9,112.13	9,573.20	10,060.27	10,318.53	10,571.60		
						YR						123,822.40			
Procurement Technician	0	0	VD1	6.1 Y	EΑ	141 HR	37.21	39.08	41.08			46.48	47.63		
						BW		3,126.40					3,810.40		
						MO	6,449.73		7,120.53		7,858.93	8,056.53	8,255.87		
Program Administrator	2.2	25	V 7 0	2 2 7	T: 7\	<u>YR</u> 159 HR		81,286.40 60.99		89,835.20 67.29			99,070.40		
Program Administrator	32	25	AAS	2.5 I	ĿА	BW	58.04 4,643.20	4,879.20	64.07 5,125.60			72.49 5,799.20	74.33 5,946.40		
						MO	10,060.27			11,663.60					
						YR						150,779.20			
Project Coordinator	1	1	XF8	2.3 Y	EA	153 HR	50.06	52.57	55.23			62.49	64.07		
-	_		-		_	BW	4,004.80	4,205.60	4,418.40			4,999.20	5,125.60		
						MO	8,677.07	9,112.13		10,060.27			11,105.47		
						YR	104,124.80	109,345.60	114,878.40	120,723.20	126,859.20	129,979.20	133,265.60		

Class Title			Clas		יי חוד	Sal Rng Freg	Min-Pt Step1	Stop?	Ston?	Step4	Step5	Step6	Step7	Mid-Pt	Max-D+
	POS	POS	Code	EEO O	1 00	Kiig Fleq	scept	Step2	Step3	Step4	<u>steps</u>	scepo	scep7	MIQ-PC	<u>Max-Pt</u>
Project Manager	2	2	EC3	2.3 Y	ES	159 HR	60.86	63.96	67.17	70.60	74.13	76.01	77.90		
						BW	4,868.80	5,116.80	5,373.60			6,080.80	6,232.00		
						MO	10,549.07				12,849.20		13,502.67		
						YR						158,100.80			
Public Info Rep I	0	0	ZA1	2.3 Y	EA	149 HR	45.34	47.63	50.06		55.23	56.61	58.04		
						BW	3,627.20	3,810.40	4,004.80			4,528.80	4,643.20		
						MO YR	7,858.93	8,255.87	8,677.07			9,812.40 117,748.80	-		
Public Info Rep II	9	8	7.A.5	2 3 V	F Δ	153 HR	50.06	52.57	55.23	58.04	60.99	62.49	64.07		
rubite into kep ii		O	ZAJ	2.5 1	ĽА	BW	4,004.80	4,205.60	4,418.40			4,999.20	5,125.60		
						MO	8,677.07	9,112.13		10,060.27		10,831.60	-		
						YR						129,979.20			
Public Info Rep III	7	7	ZA6	2.3 Y	EA	157 HR	55.23	58.04	60.99		67.29	68.98	70.74		
						BW	4,418.40	4,643.20	4,879.20			5,518.40	5,659.20		
						MO		10,060.27				11,956.53			
						YR						143,478.40			
Real Estate Agent I	0	0	RA1	2.3 Y	EΑ	144 HR	40.10	42.11	44.25			50.06	51.31		
						BW	3,208.00	3,368.80	3,540.00			4,004.80	4,104.80		
						MO	6,950.67	7,299.07	7,670.00			8,677.07 104,124.80	8,893.73		
Real Estate Agent II		2	D 7 2	2 3 V	<u>Γ</u> Λ	YR 148 HR	44.25	87,588.80 46.48	48.85		53.93	55.23	56.61		
Real Escace Agent II	2	2	ICAZ	2.5 1	ĽА	BW	3,540.00	3,718.40	3,908.00			4,418.40	4,528.80		
						MO	7,670.00	8,056.53	8,467.33			9,573.20	9,812.40		
						YR						114,878.40			
Records Mgmt Specialist I	0	0	TM1	6.1 Y	EA	135 HR	32.12	33.73	35.44	37.21	39.08	40.10	41.08		
-						BW	2,569.60	2,698.40	2,835.20			3,208.00	3,286.40		
						MO	5,567.47	5,846.53	6,142.93		6,773.87	6,950.67	7,120.53		
						YR	66,809.60	70,158.40					85,446.40		
Records Mgmt Specialist II	3	3	TM5	6.1 Y	EΑ	139 HR	35.44	37.21	39.08	41.08		44.25	45.34		
						BW	2,835.20	2,976.80	3,126.40			3,540.00	3,627.20		
						MO	6,142.93	6,449.73	6,773.87	7,120.53		7,670.00	7,858.93		
Recycled Water Facility Supv	1	1	T7 0	1 2 17	T: 7	YR 157 HR	55.23	58.04	60.99		67.29	92,040.00 68.98	70.74		
Recycled water facility Supv	Τ.	Τ.	rAo	1.Z I	ĿА	BW	4,418.40	4,643.20		5,125.60		5,518.40	5,659.20		
						MO		10,060.27				11,956.53			
						YR						143,478.40			
Reprographics Technician	0	0	TL1	6.1 Y	EA	134 HR	31.31	32.90	34.56			39.08	40.10		
						BW	2,504.80	2,632.00					3,208.00		
						MO	5,427.07	5,702.67	5,990.40	6,295.47	6,614.40	6,773.87	6,950.67		
						YR	65,124.80	68,432.00		75,545.60	79,372.80	81,286.40			
Resident Const Inspector	9	7	CN5	3.1 Y	EΑ	153 HR	50.06	52.57	55.23			62.49	64.07		
						BW	4,004.80	4,205.60				4,999.20	5,125.60		
						MO	8,677.07	9,112.13				10,831.60			
						YK	104,124.80	109,345.60	114,8/8.40	120,/23.20	120,859.20	129,979.20	133,205.60		

Class Title			. Clas		ד פון	Sal Rng Fred	Min-Pt Step1	Step2	Step3	Step4	Step5	Step6	Step7	Mid-Pt	Max-Pt
							<u> </u>	_							
Security Technician	1	1	TR5	3.1 Y	EA	145 HR	41.08	43.19	45.34				52.57		
						BW	3,286.40	3,455.20	3,627.20		4,004.80	4,104.80	4,205.60		
						MO YR	7,120.53 85,446.40	7,486.27 89,835.20	7,858.93 94,307.20	8,255.87	8,677.07	8,893.73 106,724.80	9,112.13		
Sr Accountant	3	3	VA7	2.3 Y	FΑ	155 HR	52.57	55.23	58.04	60.99		65.68	67.29		
of necoalitation	3	3	V117	2.5 1		BW	4,205.60	4,418.40	4,643.20		5,125.60	5,254.40	5,383.20		
						MO	9,112.13	9,573.20					11,663.60		
						YR		114,878.40	120,723.20	126,859.20	133,265.60	136,614.40	139,963.20		
Sr Ast District Counsel	3	3	AH3	1.1	UNC	C SDC HR	112.33							124.35	136.37
						BW	8,986.40								10,909.60
						MO	19,470.53							21,554.00	
Gr. Dielegist			T T7	2 2 37		YR 150 UD	233,646.40	60.00	64.07	67.00	70 74	70.40	74 22	258,648.00	283,649.60
Sr Biologist	6	5	LJ7	2.2 Y	ĽΑ	159 HR	58.04 4,643.20	60.99 4,879.20	64.07 5,125.60	67.29 5,383.20	70.74 5,659.20	72.49 5,799.20	74.33 5,946.40		
						BW MO	10,060.27			11,663.60					
						YR	•	•				150,779.20			
Sr Chemist	3	3	LA7	2.2 Y	EA	159 HR	58.04	60.99	64.07	67.29	70.74	72.49	74.33		
	_					BW	4,643.20	4,879.20	5,125.60		5,659.20	5,799.20	5,946.40		
						MO	10,060.27	10,571.60				-	12,883.87		
						YR		126,859.20				150,779.20	154,606.40		
Sr Cnst Contracts Admin	0	0	CP6	2.3 Y	EA	158 HR	56.61	59.53	62.49	65.68		70.74	72.49		
						BW	4,528.80	4,762.40	4,999.20			5,659.20	5,799.20		
						MO		10,318.53		11,384.53					
G., C.,,, C.,,,	1		OT. C	2 1 37		YR						147,139.20			
Sr Corrosion Control Tech	1	1	CKb	3.1 Y	ĽА	154 HR	51.31 4,104.80	53.93 4,314.40	56.61 4,528.80	59.53 4,762.40	62.49 4,999.20	64.07 5,125.60	65.68 5,254.40		
						BW MO	8,893.73	9,347.87	9,812.40			-	11,384.53		
						YR						133,265.60			
Sr Engineer	26	23	ED9	2.1	ES	164 HR	68.87	72.35	76.01	79.85	83.89	85.98	88.15		
<u> </u>						BW	5,509.60	5,788.00	6,080.80			6,878.40	7,052.00		
						MO	11,937.47	12,540.67	13,175.07			-	15,279.33		
						YR						178,838.40	183,352.00		
Sr Engineering Geo	1	1	EH9	2.1	ES	164 HR	68.87	72.35	76.01	79.85		85.98	88.15		
						BW	5,509.60			6,388.00					
						MO						14,903.20			
Co. The mine and the manufacture of the control of			O.T.C	2 1 37		<u>YR</u>						178,838.40			
Sr Engineering Tech	4	3	C0 6	3.1 Y	ĽΑ	149 HR	45.34	47.63	50.06		55.23 4,418.40	56.61 4,528.80	58.04		
						BW MO	3,627.20 7,858.93	3,810.40 8,255.87	4,004.80 8,677.07				4,643.20 10,060.27		
						YR	94,307.20					117,748.80			
Sr Environm Hlth & Safety Spec	1	1	XG9	2.2 Y	FΑ	160 HR	59.53	62.49	65.68	68.98		74.33	76.19		
	_	_				BW	4,762.40	4,999.20	5,254.40				6,095.20		
						MO		10,831.60				12,883.87			
						YR		•				154,606.40			

Class Title		Fill			T BII	Sal Rng Freg	Min-Pt Step1	Step2	Step3	Step4	Step5	Step6	Step7	Mid-Pt	Max-Pt
								_	_				<u>=</u>		
Sr Environmental Planner	4	4	PA7	2.3 Y	EΑ	159 HR	58.04	60.99	64.07	67.29		72.49	74.33		
						BW	4,643.20	4,879.20	5,125.60	5,383.20	5,659.20	5,799.20	5,946.40		
						MO	10,060.27	10,571.60	•				12,883.87		
Co. Barrian and Marilanai a		1	TO.	7 37		YR						150,779.20			
Sr Equipment Mechanic	1	1	JG6	/ Y	ĽΑ	149 HR	45.34	47.63	50.06	52.57	55.23	56.61	58.04		
						BW	3,627.20	3,810.40	4,004.80	4,205.60 9,112.13	4,418.40 9,573.20	4,528.80	4,643.20		
						MO YR	7,858.93 94,307.20	8,255.87	8,677.07			9,812.40 117,748.80	10,060.27		
Sr Human Resources Tech	0	0	VU6	2 2 V	Ε7	148 HR	44.25	46.48	48.85	51.31	53.93	55.23	56.61		
SI Hullali Resources Tech	U	U	AHO	2.3 I	ĽА		3,540.00	3,718.40	3,908.00		4,314.40	4,418.40	4,528.80		
						BW MO	7,670.00	8,056.53	8,467.33	8,893.73	9,347.87	9,573.20	9,812.40		
						YR	92,040.00		•		112,174.40		117,748.80		
Sr Hydrographer	1	1	CF6	3 2 V	ΕΛ	154 HR	51.31	53.93	56.61	59.53		64.07	65.68		
bi liyarographer	_	1	CEO	J.Z I	ĽА	BW	4,104.80	4,314.40	4,528.80			5,125.60	5,254.40		
						MO	8,893.73	9,347.87	9,812.40		10,831.60		11,384.53		
						YR	•		•			133,265.60	•		
Sr Industrial Electrician	2	2	FJ6	7 Y	F.Δ	155 HR	52.57	55.23	58.04	60.99		65.68	67.29		
DI INGGELIAI DIECCITOTAN	2	_	100	, _		BW	4,205.60	4,418.40	4,643.20		5,125.60	5,254.40	5,383.20		
						MO	9,112.13	9,573.20	•			11,384.53	11,663.60		
						YR	•	•	•	•		136,614.40	•		
Sr Information Systems Analyst	2	1	хл6	2.3 Y	EA	161 HR	60.99	64.07	67.29	70.74		76.19	78.08		
21	_	_		_,,		BW	4,879.20	5,125.60	5,383.20		5,946.40	6,095.20	6,246.40		
						MO	-	11,105.47				13,206.27	13,533.87		
						YR	•	•	•			158,475.20	-		
Sr Information Systems Tech	5	5	YA6	3.1 Y	EA	152 HR	48.85	51.31	53.93	56.61	59.53	60.99	62.49		
-						BW	3,908.00	4,104.80	4,314.40			4,879.20	4,999.20		
						MO	8,467.33	8,893.73	9,347.87	9,812.40		-	10,831.60		
						YR	101,608.00	106,724.80	112,174.40	117,748.80	123,822.40	126,859.20	129,979.20		
Sr Instrument & Controls Tech	2	2	FM6	3.1 Y	EΑ	155 HR	52.57	55.23	58.04	60.99	64.07	65.68	67.29		
						BW	4,205.60	4,418.40	4,643.20	4,879.20	5,125.60	5,254.40	5,383.20		
						MO	9,112.13	9,573.20	10,060.27	10,571.60	11,105.47	11,384.53	11,663.60		
						YR	109,345.60	114,878.40	120,723.20	126,859.20	133,265.60	136,614.40	139,963.20		
Sr Inventory Control Tech	1	1	VH6	8 Y	EΑ	145 HR	41.08	43.19	45.34	47.63	50.06	51.31	52.57		
						BW	3,286.40	3,455.20	3,627.20			4,104.80	4,205.60		
						MO	7,120.53	7,486.27	7,858.93		8,677.07	8,893.73	9,112.13		
						YR	85,446.40	89,835.20				106,724.80			
Sr Maintenance Worker	17	17	JM7	8 Y	EΑ	150 HR	46.48	48.85	51.31	53.93		58.04	59.53		
						BW	3,718.40	3,908.00	4,104.80			4,643.20	4,762.40		
						MO	8,056.53	8,467.33	8,893.73		9,812.40		10,318.53		
_ <del></del>						YR		101,608.00				<del></del>			
Sr Management Analyst	32	30	ХАб	2.3 Y	EΑ	158 HR	56.61	59.53	62.49			70.74	72.49		
						BW	4,528.80	4,762.40	4,999.20			5,659.20	5,799.20		
						MO		10,318.53				12,261.60			
						YR	<u>117,748.80</u>	123,822.40	129,979.20	136,614.40	143,478.40	147,139.20	150,779.20		

Class Title	Δll	Fill	Clas	S		Sal	Min-Pt								
					r BU	Rng Freq		Step2	Step3	Step4	Step5	Step6	Step7	Mid-Pt	Max-Pt
	0	0		0 0 ***		150	50.04	60.00	64.05	65.00	E0 E4	F0 40	E4 22		
Sr Microbiologist	2	2	LD7	2.2 Y	ĿΑ	159 HR	58.04	60.99 4,879.20	64.07 5,125.60	67.29	70.74 5,659.20	72.49 5,799.20	74.33		
						BW MO	4,643.20 10,060.27	10,571.60	11,105.47	5,383.20 11,663.60		12,564.93	5,946.40 12,883.87		
						YR	-			•		150,779.20	-		
Sr Office Specialist	11	10	ТАб	6 1 Y	F.Δ	137 HR	33.73	35.44	37.21	39.08	41.08	42.11	43.19		
DI OIIICE SPECIALISE		-0	1110	0.1		BW	2,698.40	2,835.20	2,976.80	3,126.40	3,286.40	3,368.80	3,455.20		
						MO	5,846.53	6,142.93	6,449.73	6,773.87	7,120.53	7,299.07	7,486.27		
						YR	70,158.40	73,715.20	77,396.80	81,286.40	85,446.40	87,588.80	89,835.20		
Sr Plant/Pipe Mechanical Tech	5	5	JA6	7 Y	EA	152 HR	48.85	51.31	53.93	56.61	59.53	60.99	62.49		
_						BW	3,908.00	4,104.80	4,314.40	4,528.80	4,762.40	4,879.20	4,999.20		
						MO	8,467.33	8,893.73	9,347.87	9,812.40	10,318.53	10,571.60	10,831.60		
						YR						126,859.20			
Sr Procurement Spec	3	3	VP6	2.3 Y	EΑ	155 HR	52.57	55.23	58.04	60.99	64.07	65.68	67.29		
						BW	4,205.60	4,418.40	4,643.20	4,879.20	5,125.60	5,254.40	5,383.20		
						MO	9,112.13	9,573.20	10,060.27	10,571.60	11,105.47	11,384.53	11,663.60		
<del></del>						YR						136,614.40			
Sr Procurement Technician	2	2	VD5	6.1 Y	EΑ	145 HR	41.08	43.19	45.34	47.63	50.06	51.31	52.57		
						BW	3,286.40	3,455.20	3,627.20	3,810.40	4,004.80	4,104.80	4,205.60		
						MO	7,120.53	7,486.27	7,858.93	8,255.87	8,677.07	8,893.73	9,112.13		
Co. Dona is at Management			ПСО	1 0	ПО	YR	85,446.40	89,835.20	94,307.20			106,724.80			
Sr Project Manager	5	5	EC9	1.2	ES	168 HR	76.01	79.85	83.89	88.15	92.60	94.95 7,596.00	97.32		
						BW	6,080.80	6,388.00	6,711.20	7,052.00	7,408.00	•	7,785.60		
						MO YR	13,175.07	13,840.67	14,540.93			16,458.00 197,496.00	16,868.80		
Sr Real Estate Agent	2	2	D λ 7	2 2 V	<u>Γ</u> Λ	158 HR	56.61	59.53	62.49	65.68		70.74	72.49		
SI Real Estate Agent	Z	4	IVA /	2.3 1	ĽА	BW	4,528.80	4,762.40	4,999.20	5,254.40	5,518.40	5,659.20	5,799.20		
						MO	9,812.40	10,318.53	10,831.60			12,261.60	12,564.93		
						YR						147,139.20			
Sr Reprographics Tech	1	1	TT.5	6.1 Y	ΕA	137 HR	33.73	35.44	37.21	39.08	41.08	42.11	43.19		
21 110-1103-1101	_	_		**		BW	2,698.40	2,835.20	2,976.80	3,126.40	3,286.40	3,368.80	3,455.20		
						MO	5,846.53	6,142.93	6,449.73	6,773.87	7,120.53	7,299.07	7,486.27		
						YR	70,158.40	73,715.20	77,396.80		85,446.40	87,588.80	89,835.20		
Sr Surveyor	2	2	CA6	3.1 Y	EA	150 HR	46.48	48.85	51.31	53.93	56.61	58.04	59.53		
-						BW	3,718.40	3,908.00	4,104.80	4,314.40	4,528.80	4,643.20	4,762.40		
						MO	8,056.53	8,467.33	8,893.73	9,347.87	9,812.40	10,060.27	10,318.53		
						YR	96,678.40	101,608.00		112,174.40		120,723.20	123,822.40		
Sr Telecommunications Spec	1	1	YE7	3.2 Y	EΑ	150 HR	46.48	48.85	51.31	53.93	56.61	58.04	59.53		
						BW	3,718.40	3,908.00	4,104.80		4,528.80	4,643.20	4,762.40		
						MO	8,056.53	8,467.33	8,893.73		9,812.40		10,318.53		
						YR						120,723.20			
Sr Water Conservation Spec	1	1	LT7	2.2 Y	EΑ	159 HR	58.04	60.99	64.07	67.29	70.74	72.49	74.33		
						BW	4,643.20	4,879.20	5,125.60		5,659.20	5,799.20	5,946.40		
						MO						12,564.93			
						YR	120,723.20	126,859.20	<u> 133,265.60</u>	139,963.20	147,139.20	150,779.20	154,606.40		

Class Title	All Pos 1				T BU	Sal Rng Freg	Min-Pt Step1	Step2	Step3	Step4	Step5	Step6	Step7	Mid-Pt	Max-Pt
Sr Water Measurement Tech	1	1				152 HR	48.85	51.31	53.93	56.61	59.53	60.99	62.49		
Si water measurement reen	_	_	V	J.1 1	ĽА	BW	3,908.00	4,104.80	4,314.40		4,762.40	4,879.20	4,999.20		
						MO	8,467.33	8,893.73	9,347.87	9,812.40	10,318.53	10,571.60	10,831.60		
						YR		106,724.80	112,174.40	117,748.80		126,859.20			
Sr Water Plant Operator	15	15	FA6	1.2 Y	EA	154 HR	51.31	53.93	56.61	59.53	62.49	64.07	65.68		
						BW	4,104.80	4,314.40	4,528.80		4,999.20	5,125.60	5,254.40		
						MO	8,893.73	9,347.87	9,812.40			11,105.47	11,384.53		
Sr Water Res Spec	18	16	EW6	2.2	FC	163 HR	67.17	70.60	74.13	77.90	81.87	133,265.60 83.89	85.98		
or water kes spec	10 .	LO	EWO	2.2	БO	BW	5,373.60	5,648.00	5,930.40	6,232.00	6,549.60	6,711.20	6,878.40		
						MO	11,642.80	12,237.33	12,849.20		14,190.80	14,540.93	14,903.20		
						YR						174,491.20			
Sr Water Resources Tech	2	2	FG6	3.1 Y	EA	154 HR	51.31	53.93	56.61	59.53	62.49	64.07	65.68		
						BW	4,104.80	4,314.40	4,528.80	4,762.40	4,999.20	5,125.60	5,254.40		
						MO	8,893.73	9,347.87	9,812.40			11,105.47	11,384.53		
Ob - 55 7 1	0.1	20	373 1	0 2 77		<u>YR</u> 148 HR						133,265.60			
Staff Analyst	21	20	XAI	2.3 Y	ĽΑ		44.25 3,540.00	46.48 3,718.40	48.85 3,908.00	51.31 4,104.80	53.93 4,314.40	55.23 4,418.40	56.61 4,528.80		
						BW MO	7,670.00	8,056.53	8,467.33	8,893.73	9,347.87	9,573.20	9,812.40		
						YR	92,040.00					114,878.40			
Support Services Supervisor	1	1	TA9	2.3 Y	EA	148 HR	44.25	46.48	48.85	51.31	53.93	55.23	56.61		
11						BW	3,540.00	3,718.40	3,908.00		4,314.40	4,418.40	4,528.80		
						MO	7,670.00	8,056.53	8,467.33	8,893.73	9,347.87	9,573.20	9,812.40		
<del></del>						YR	92,040.00					114,878.40			
Supv Engineering Tech	2	2	CJ9	3.1 Y	EΑ	154 HR	51.31	53.93	56.61	59.53	62.49	64.07	65.68		
						BW	4,104.80	4,314.40	4,528.80		4,999.20	5,125.60	5,254.40		
						MO	8,893.73	9,347.87	9,812.40			11,105.47 133,265.60	11,384.53		
Supv HVACR Mechanic	1	1	FD9	7 Y	F.Δ	156 HR	53.93	56.61	59.53	62.49	65.68	67.29	68.98		
Supv inviter rectioning	_	_		, _	1111	BW	4,314.40	4,528.80	4,762.40		5,254.40	5,383.20	5,518.40		
						MO	9,347.87	9,812.40	10,318.53		11,384.53	11,663.60	11,956.53		
						YR		117,748.80			136,614.40	139,963.20	143,478.40		
Supv Hydrographer	1	1	CE9	1.2 Y	EΑ	160 HR	59.53	62.49	65.68	68.98	72.49	74.33	76.19		
						BW						5,946.40			
						MO						12,883.87			
Communication Discount aires	1	1	D.T.O.	1 0 37	17.7	YR 159 HR						154,606.40			
Supv Industrial Electrician	1	Т	FU9	1.2 Y	ĽА	тээ нк BW	58.04 4,643.20	60.99 4,879.20	64.07 5,125.60	67.29 5,383.20	70.74 5,659.20	72.49 5,799.20	74.33 5,946.40		
						MO		•				12,564.93	-		
						YR						150,779.20			
Supv Instrument & Cntrols Tech	1	1	FM9	1.2 Y	EA	159 HR	58.04	60.99	64.07	67.29	70.74	72.49	74.33		
_						BW	4,643.20	4,879.20	5,125.60		5,659.20	5,799.20	5,946.40		
						MO						12,564.93			
						YR	120,723.20	126,859.20	133,265.60	139,963.20	147,139.20	150,779.20	154,606.40		

Class Title			Clas		T BU	Sal Rng Freg	Min-Pt Step1	Step2	Step3	Step4	Step5	Step6	Step7	Mid-Pt	Max-Pt
								_							
Supv Land Surveyor	2	2	EX9	2.1 Y	ES	160 HR	62.40	65.55	68.87		76.01	77.90	79.85		
						BW	4,992.00	5,244.00	5,509.60		6,080.80	6,232.00	6,388.00		
						MO YR	10,816.00		•				13,840.67		
Supv Plant/Pipe Mech Tech	2	2	.Τλ Q	1 2 V		158 HR	56.61	59.53	62.49	65.68	68.98	162,032.00 70.74	72.49		
Bupv Franc/Frpc Meen Teen	2	2	UAJ	1.2 1	LA	BW	4,528.80	4,762.40	4,999.20		5,518.40	5,659.20	5,799.20		
						MO	9,812.40	10,318.53				12,261.60	12,564.93		
						YR				•		147,139.20			
Supv Water Measurement Tech	1	1	VJ9	3.1 Y	EA	153 HR	50.06	52.57	55.23	58.04	60.99	62.49	64.07		
						BW	4,004.80	4,205.60	4,418.40		4,879.20	4,999.20	5,125.60		
						MO	8,677.07	9,112.13		10,060.27			11,105.47		
		1		1 0		YR						129,979.20			
Supv Water Resources Tech	1	Τ	FG9	1.2 Y	ĽА	160 HR	59.53	62.49	65.68	68.98	72.49	74.33	76.19		
						BW MO	4,762.40 10,318.53	4,999.20 10,831.60	5,254.40	5,518.40 11,956.53	5,799.20	5,946.40 12,883.87	6,095.20 13,206.27		
						YR		•				154,606.40	•		
Supv Well Ord Comp Inspctr	1	1	FH9	2.3 Y	EA	153 HR	50.06	52.57	55.23	58.04	60.99	62.49	64.07		
	_	_				BW	4,004.80	4,205.60	4,418.40		4,879.20	4,999.20	5,125.60		
						MO	8,677.07	9,112.13	9,573.20		10,571.60		11,105.47		
						YR						129,979.20			
Survey Party Chief	3	3	CA7	2.3 Y	EA	153 HR	50.06	52.57	55.23	58.04	60.99	62.49	64.07		
						BW	4,004.80	4,205.60	4,418.40		4,879.20	4,999.20	5,125.60		
						MO	8,677.07	9,112.13	9,573.20				11,105.47		
Systems Control Operator I	0		מים	7 7	, E.V	<u>YR</u> 146 HR		44.25				129,979.20 52.57	53.93		<del></del>
Systems Control Operator 1	U	U	FDI	/ 1	ĽА	140 HK BW	42.11 3,368.80	3,540.00	46.48 3,718.40	48.85 3,908.00	51.31 4,104.80	4,205.60	4,314.40		
						MO	7,299.07	7,670.00	8,056.53		8,893.73	9,112.13	9,347.87		
						YR	87,588.80					109,345.60			
Systems Control Operator II	0	0	FD5	7 Y	EA	150 HR	46.48	48.85	51.31	53.93	56.61	58.04	59.53		
-						BW	3,718.40	3,908.00	4,104.80		4,528.80	4,643.20	4,762.40		
						MO	8,056.53	8,467.33	8,893.73		9,812.40		10,318.53		
						YR						120,723.20			
Systems Control Operator III	6	6	FD6	7 Y	EA	154 HR	51.31	53.93	56.61	59.53	62.49	64.07	65.68		
						BW	4,104.80			4,762.40		5,125.60	5,254.40		
						MO YR	8,893.73	9,347.87				11,105.47			
Systems Control Supervisor	1	1	מתים מ	1 2 V		160 HR	59.53	62.49	65.68	68.98	72.49	133,265.60 74.33	76.19		
Systems Control Supervisor	Τ.	_	I D J	1.2 1	ĽА	BW	4,762.40	4,999.20	5,254.40		5,799.20	5,946.40	6,095.20		
						MO	10,318.53			11,956.53			13,206.27		
						YR						154,606.40			
Telecommunications Specialist	1	1	YE5	3.2 Y	EA	147 HR	43.19	45.34	47.63	50.06	52.57	53.93	55.23		
-						BW	3,455.20	3,627.20	3,810.40	4,004.80	4,205.60	4,314.40	4,418.40		
						MO	7,486.27	7,858.93	8,255.87			9,347.87	9,573.20		
						YR	89,835.20	94,307.20	99,070.40	104,124.80	109,345.60	112,174.40	114,878.40		

Class Title			Clas		דום יו	Sal Rng Freg	Min-Pt Step1	Step2	Step3	Step4	Step5	Step6	Step7	Mid-Pt	Max-Pt
	F 0 5	FUB	code		<u> </u>	ning Freq	БСЕРІ	bcepz	БСЕРЗ	50051	БСЕРЭ	Бсеро	всерт	MIQ FC	Max FC
Vegetation Program Spec I	3	3	LR2	2.3 Y	EΑ	153 HR	50.06	52.57	55.23		60.99	62.49	64.07		
						BW	4,004.80	4,205.60	4,418.40		4,879.20	4,999.20	5,125.60		
						MO YR	8,677.07	9,112.13	9,573.20		10,571.60	10,831.60	11,105.47		
Vegetation Program Spec II	3	3	LR5	2 3 V	Fλ	157 HR	55.23	58.04	60.99	120,723.20 64.07	67.29	68.98	70.74		
vegetation riogram spec ir	3	5	шсэ	2.5 1	ĽА	BW	4,418.40	4,643.20	4,879.20		5,383.20	5,518.40	5,659.20		
						MO	9,573.20	10,060.27		11,105.47	11,663.60		12,261.60		
						YR			126,859.20	133,265.60	139,963.20				
Water Conservation Spec I	0	0	LT1	2.3 Y	EΑ	149 HR	45.34	47.63	50.06		55.23	56.61	58.04		
						BW	3,627.20	3,810.40	4,004.80		4,418.40	4,528.80	4,643.20		
						MO YR	7,858.93 94,307.20	8,255.87	8,677.07	9,112.13 109,345.60		9,812.40	-		
Water Conservation Spec II	0	0	т.т.3	2 3 Y	F.Δ	152 HR	48.85	51.31	53.93		59.53	60.99	62.49		
mater compervation spec in	· ·	Ü	ш13	2.5 1		BW	3,908.00	4,104.80	4,314.40		4,762.40	4,879.20	4,999.20		
						MO	8,467.33	8,893.73	9,347.87	9,812.40		10,571.60	10,831.60		
						YR	101,608.00			117,748.80					
Water Conservation Spec III	3	2	LT5	2.3 Y	EΑ	155 HR	52.57	55.23	58.04		64.07	65.68	67.29		
						BW	4,205.60	4,418.40	4,643.20		5,125.60	5,254.40	5,383.20		
						MO	9,112.13	9,573.20	10,060.27	10,571.60 126,859.20			11,663.60		
Water Measurement Tech I	0	0	V.T1	3.2 Y	EΑ	139 HR	35.44	37.21	39.08		43.19	44.25	45.34		
	· ·	· ·		0.1		BW	2,835.20	2,976.80	3,126.40	3,286.40	3,455.20	3,540.00	3,627.20		
						MO	6,142.93	6,449.73	6,773.87	7,120.53	7,486.27	7,670.00	7,858.93		
						YR	73,715.20	77,396.80	81,286.40		89,835.20	92,040.00			
Water Measurement Tech II	0	0	VJ2	3.2 Y	EΑ	144 HR	40.10	42.11	44.25	46.48		50.06	51.31		
						BW MO	3,208.00 6,950.67	3,368.80 7,299.07	3,540.00 7,670.00	3,718.40 8,056.53	3,908.00 8,467.33	4,004.80 8,677.07	4,104.80 8,893.73		
						MO YR	83,408.00	87,588.80	92,040.00			104,124.80			
Water Measurement Tech III	4	4	VJ6	3.2 Y	EA	148 HR	44.25	46.48	48.85	51.31	53.93	55.23	56.61		
						BW	3,540.00	3,718.40	3,908.00		4,314.40	4,418.40	4,528.80		
						MO	7,670.00	8,056.53	8,467.33		9,347.87	9,573.20	9,812.40		
						YR	92,040.00			106,724.80					
Water Plant Operator	6	6	FA5	7 Y	EΑ	150 HR	46.48	48.85	51.31	53.93	56.61	58.04	59.53		
						BW MO				4,314.40 9,347.87					
						YR				112,174.40					
Water Plant Supervisor	3	3	FA9	1.2 Y	EA	161 HR	60.99	64.07	67.29		74.33	76.19	78.08		
-						BW		5,125.60					6,246.40		
						MO				12,261.60					
						YR				147,139.20					
WRM-Groundwater Management Mgr	1	1	MR1	1.2	MMZ	148 HR	77.12	81.00	85.02		93.75	96.09	98.49		
						BW MO	6,169.60 13 367 47			7,140.80 15,471.73					
						MO YR	160,409.60			-			-		
						11/	100,100.00	100,100.00	± , 0 , 0 11 . 0 0	±05,000.00			201,000.20		

Class Title	All Fill Pos Pos*		Sal T BU Rng Freq	Min-Pt Step1	Step2	Step3	Step4	Step5	Step6	Step7	Mid-Pt	Max-Pt
WRM-Laboratory Services Manager	1 1	MR1 1.2	MMA 148 HR	77.12	81.00	85.02	89.26	93.75	96.09	98.49		
			BW	6,169.60	6,480.00	6,801.60		7,500.00	7,687.20	7,879.20		
			MO	13,367.47	•		15,471.73			17,071.60		
WRM-Recycled & Purified Water Mgr	1 1	MR1 1.2	YR MMA 148 HR	77.12	168,480.00 81.00	85.02	185,660.80 89.26	93.75	96.09	98.49		
with Recycled a Parrilled Nater Mgr	± ±	11111 1.2	BW	6,169.60	6,480.00	6,801.60		7,500.00	7,687.20	7,879.20		
			MO		14,040.00		15,471.73			17,071.60		
			YR				185,660.80					
WRM-Water Quality Manager	1 1	MR1 1.2	MMA 148 HR	77.12	81.00	85.02		93.75	96.09	98.49		
			BW MO	6,169.60 13 367 47	6,480.00	6,801.60	7,140.80 15,471.73	7,500.00	7,687.20 16,655.60	7,879.20 17,071.60		
			YR				185,660.80			-		
WRM-Water Supl Pln & Conserv Mgr	1 1	MR1 1.2	MMA 148 HR	77.12	81.00	85.02		93.75	96.09	98.49		
			BW	6,169.60	6,480.00	6,801.60		7,500.00	7,687.20	7,879.20		
			MO		14,040.00		15,471.73			17,071.60		
Water Resources Tech I	0 0	FG1 3.2 Y	EA 146 HR	42.11	168,480.00 44.25	46.48	185,660.80 48.85	51.31	52.57	53.93		
Water Resources reen r	0 0	101 5.2 1	BW BW	3,368.80	3,540.00	3,718.40		4,104.80	4,205.60	4,314.40		
			MO	7,299.07	7,670.00	8,056.53		8,893.73	9,112.13	9,347.87		
			YR	87,588.80	92,040.00		101,608.00					
Water Resources Tech II	3 3	FG5 3.2 Y	EA 150 HR	46.48	48.85	51.31	53.93	56.61	58.04	59.53		
			BW MO	3,718.40 8,056.53	3,908.00 8,467.33	4,104.80 8,893.73		4,528.80 9,812.40	4,643.20 10,060.27	4,762.40 10,318.53		
			MO YR		•		112,174.40			-		
WUOM-Utility Ops & Maintenance Mgr	1 1	MU2 1.2	MMA 148 HR	77.12	81.00	85.02		93.75	96.09	98.49		
			BW	6,169.60	6,480.00	6,801.60		7,500.00	7,687.20	7,879.20		
			MO	13,367.47	•		15,471.73			17,071.60		
WUOM-Water Treatment Manager	1 1	MU2 1.2	YR MMA 148 HR	77.12	81.00	85.02	185,660.80 89.26	93.75	96.09	98.49		
WOOM-Water freatment Manager	1 1	MUZ 1.Z	MMA 140 AK BW	6,169.60	6,480.00	6,801.60		7,500.00	7,687.20	7,879.20		
			MO		14,040.00		15,471.73			-		
			YR				185,660.80					
WUOMM-Utility Maint Mgr - Distrib	1 1	MU1 1.2	MMA 145 HR	71.61	75.19	78.95		87.05	89.22	91.46		
			BW				6,632.80 14,371.07					
			MO AB				172,452.80					
WUOMM-Utility Maint Mgr -Treatment	1 1	MU1 1.2	MMA 145 HR	71.61	75.19	78.95		87.05	89.22	91.46		
<b>1</b>			BW		6,015.20		6,632.80					
			MO				14,371.07					
ETTOMO II 11 C II I I I I I I I I I I I I I I	1 1	NATT 1 0	YR 145 HR				172,452.80					
WUOMM-Well & Water Measurement Mgr	1 1	MUT 1.2	MMA 145 HR BW	71.61 5,728.80	75.19 6,015.20	78.95 6,316.00		87.05 6,964.00	89.22 7,137.60	91.46 7,316.80		
			MO MO		•		14,371.07			•		
			YR		•		172,452.80			-		

Class Title			l Clas		OT BU	Sal J Rng F	Min-Pt		Step3	Step4	Step5	Step6	Step7	Mid-Pt	Max-Pt
WSOMM-Integrated Vegetation Manager	1	1	MS1	1.2	MN	1A 144 H			77.03	80.87		87.05	89.22		
						В					6,793.60				
						M	•					•	•		
						Y	•	0 152,568.00	•	•		•	•		
WSOMM-Watershed Field Ops Manager	1	1	MS1	1.2	MN	1A 144 H					84.92				
						В									
						M	•			14,017.47		•	15,464.80		
						Y		0 152,568.00							
Welder I	0	0	JH1	7	Y EA	145 H									
						В									
						M	•				•	-			
						Y	-			99,070.40		•	•		
Welder II	2	2	JH5	7	Y EA	149 H					55.23				
						В									
						M						-	10,060.27		
						Y				•			120,723.20		
Well Ord Compliance Inspec I	0	0	FH1	2.2	Y EA	144 H									
						В									
						M						•			
						Y	-				101,608.00				
Well Ord Compliance Inspec II	3	3	FH5	2.2	Y EA	148 H									
	9	J	_ 110			В									
						M									
						Y	R 92,040.0		101,608.00		•	-			

PeopleSoft

Report ID: SCUNISAL.sqr UNIFIED SALARY REPORT Page No. 26 Run Date 06/26/2020

<u>BU</u>	<u>Class</u>	<u>All Pos</u>	<u>Fill Pos</u>
EΑ	176	569	526
ES	26	206	178
MMA	12	60	53
UNC	14	35	33
Total	228	870	790

EEO	<u>EA</u>	<u>ES</u>	<u> </u>	<u>UNC</u>	<u>Total</u>
1.1				14	14
1.2	12	1	12		25
2.1		20			20
2.2	20	4			24
2.3	50	1			52
3.1	12				12
3.2	27				27
6.1	17				17
6.2	5				5
7	26				26
8	7				7
Total	176	26	12	14	229

\* filled-position counts include IW positions The classes of Student Trainee, Student Intern and Student Intern Graduate are intentionally missing from this report because PERS values do NOT apply to these incumbents: They are only compensated only at the BASE rate.

## Legend

1.1 -Officials & Managers

1.2 -Supervisors

2.1 -Engineer/Technical Professionals

2.2 -Scientific Professionals

2.3 -Administrative Professionals

3.1 -Senior Technicians

3.2 -Technicians

6.1 -Senior Clerical

6.2 -Clerical

-Skilled Craft

-Service & Maintenance

OT Y -Yes-Eligible N -Not Eligible -Not Applicable (no position)

EA -Employee Association ES -Engineering Society MMA -Mid MAnagement Association

UNC -Unclassified

PMA Class Titles

ASM - Administrative Services Manager

EGM - Engineering Manager

ESSM - Engineering Support Services Manager

ESM - Environmental Services Manager

FSM - Financial Services Manager

GSM - General Services Manager

IWM - Imported Water Manager

ISM - Information Services Manager

WRM - Water Resources Manager

WUOMM - Water Utility Operations & Maintenance Manager

WUOM - Water Utility Operations Manager

WSOMM - Watershed Operations & Maintenance Manager

Run Time 10:40:17

## Santa Clara Valley Water District



File No.: 20-0523 Agenda Date: 7/28/2020

Item No.: 3.7.

## **BOARD AGENDA MEMORANDUM**

## SUBJECT:

Approve San Francisquito Creek Joint Powers Authority Budget for Fiscal Year 2020-2021, and Authorize Santa Clara Valley Water District Fiscal Year 2020-2021 Financial Contribution of \$308,000 (Palo Alto) (District 7).

## RECOMMENDATION:

- A. Approve the San Francisquito Creek Joint Powers Authority Fiscal Year 2020-2021 Operating Budget; and
- B. Authorize the Santa Clara Valley Water District's Fiscal Year 2020-2021 financial contribution to the San Francisquito Creek Joint Powers Authority in the amount of \$308,000.

## SUMMARY:

The District, along with five other public agencies, is a member of the San Francisquito Creek Joint Powers Authority (SFCJPA). The San Francisquito Creek JPA is funded by equal contributions from the member agencies and the SFCJPA's annual fiscal year budget is subject to each agency's approval. In 1999, Cities of East Palo Alto, Menlo Park, Palo Alto, and San Mateo County Flood Control District joined with the Santa Clara Valley Water District (Valley Water) to establish the San Francisquito Creek Joint Powers Authority to provide an environmentally sensitive, long-term watershed plan to enhance flood protection from the San Francisquito Creek. Since then, the SFCJPA's major focus has been working with the member agencies to implement flood protection projects.

Construction of the San Francisquito Creek Flood Protection Project from the Bay to Highway 101 (downstream project) was completed in May 2019. Planning and design are in progress to provide flood protection along San Francisquito Creek from Highway 101 to Middlefield Road (upstream project). The draft Environmental Impact Report (EIR) for the upstream project was released on April 22, 2019 and three public hearings were held in May and June 2019 to solicit and receive public comments. The Final EIR was certified by the SFCJPA board in September of 2019.

On May 28, 2020, the Board of Directors of the SFCJPA unanimously adopted its Fiscal Year 2020-2021 (FY21) budget identifying revenues of \$1,608,000, which includes operating revenues from State grants, interest earned, and an equal contribution of \$308,000 by each member agency. The contribution by each member agency has increased from last year's contribution amount of \$185,000 for three significant reasons: 1) increased legal costs associated with the legal challenge to the

File No.: 20-0523 Agenda Date: 7/28/2020

Item No.: 3.7.

upstream project CEQA document has significantly reduced the SFCJPA's financial reserves and there is a need to rebuild the reserves; 2) the SFCJPA FY21 budget includes a one-time expense of \$431,500, which will be split amongst all member agencies, \$400,000 to hire consultant services to perform studies related to upstream detention and \$31,500 for on-going arborist services for the upstream project, part of which has been paid through SFCJPA administrative budget; and 3) member agency contributions have not changed for two fiscal years, FY19 and FY20 and reserves are depleted. Therefore, there is a need to keep revenue in step with current and anticipated future expenses. Approval of the agenda recommendations will allow Valley Water to pay the FY21 annual contribution of \$308,000 to the SFCJPA.

## FINANCIAL IMPACT:

Valley Water's contribution as a Member Agency for FY21 is \$308,000. Adequate funds have been budgeted in FY21 for this expenditure and are available in San Francisquito Creek Flood Protection Project, San Francisco Bay to Middlefield Road Project No. 26284002.

## CEQA:

The recommended action does not constitute a project under CEQA, because it does not have the potential for resulting in direct or reasonably foreseeable indirect physical change in the environment.

## **ATTACHMENTS**:

Attachment 1: SFCJPA FY 2020-2021 Operating Budget

Attachment 2: SFCJPA Invoice

## **UNCLASSIFIED MANAGER:**

Ngoc Nguyen, 408-630-2632

## San Francisquito Creek Joint Powers Authority Approved Fiscal Year 2020 - 21 Operating Budget Approved by the SFCJPA Board 05/28/2020

DEV	ENLIES	FY20- 21 Budget
	ENUES  nber Contributions (\$308,000 each x 5)	¢1 F40 000
	nt funding: SAFER Bay project	\$1,540,000 \$15,000
	tream of Hwy. 101 project EIR legal	\$15,000 \$50,000
Inter		\$50,000
		\$3,000
Tota	l Revenues	\$1,608,000
EXP	ENSES	
	Description	Amount
	onnel	*
1	*Executive Director Salary	\$153,000
2	E.D. Transportation Allowance	\$5,000
3	Finance & Administration Mgr. Salary	\$106,668
4	Senior Project Manager Salary	\$123,480 \$110,250
5	Project Manager Salary	\$110,250
6	Employee Benefits	\$270,000
7	Membership Dues	\$8,000
8	Payroll Administration/Fees	\$3,000
9	Employer Taxes	\$50,000
0.00	Subtotal Personnel	\$829,398
10	tract Services Legal Counsel	\$150,000
11	Auditor	\$20,000
12	Project Consultants	\$50,000
12	One-time Upstream of Hwy. 101 Project expenses	\$431,500
	Subtotal Contract Services	\$651,500
Adm	inistrative	\$031,500
13	Computers/Software	\$4,000
14	Meeting Supplies	\$1,000
15	Travel/Training	\$6,500
16	Office Supplies	\$1,500
17	Telecommunication	\$8,000
18	Postage	\$175
19	Printing/Design	\$1,000
20	Website	\$5,000 \$12,000
21 22	Liability Insurance Office Lease	\$12,000 \$40,000
23	Utilities	\$40,000 \$7,500
24	Office furniture/maintenance	\$2,500 \$2,500
-	Subtotal Administrative	\$89,175
25	General Contingency	\$35,000
	Expenses	\$1,605,073

<sup>\*</sup>Executive Director Salary capped at \$153,000



## Invoice

SFCJPA.ORG

lm·oice I: FY 2020- 2021 SFCJfA CONTRIRUTJO:,.;

Invoice Date: 0S/28i2020 Due Date: 07/01/2020

A 2247

Bill To:

Valley Water 5750 Almaden Expressway San Jose, CA 95118-3686

Please mail payment to: San Frandsquito Creek Joint Powers Authority Attn: Miyko Harris-Parker 615 B Menlo Ave Menlo Park, CA 94025



San Francisquito Creek Joint	\$308,000.00
Powers Authority FY 2020 - 2021	
Member agency contribution	

Questions or comments reg:irding invoice: Phone: (650l324-1972 Email: mhparker(!'\*sfcjpa.nrg

## Santa Clara Valley Water District



File No.: 20-0588 Agenda Date: 7/28/2020

Item No.: 3.8.

## **BOARD AGENDA MEMORANDUM**

## SUBJECT:

Accept the CEO Bulletins for the Weeks of June 19 Through July 2, and July 3-16, 2020.

## RECOMMENDATION:

Accept the CEO Bulletins.

## SUMMARY:

The CEO Bulletin is a weekly communication for the CEO, to the Board of Directors, assuring compliance with Executive Limitations Policy EL-7: The BAOs inform and support the Board in its work. Further, a BAO shall: inform the Board of relevant trends, anticipated adverse media coverage, or material external and internal changes, particularly changes in the assumptions upon which any Board policy has previously been established; and report in a timely manner an actual or anticipated noncompliance with any policy of the Board.

CEO Bulletins are produced and distributed to the Board weekly as informational items, and then placed on the bimonthly, regular Board meeting agendas to allow opportunity for Board discussion on any of the matters contained therein.

## FINANCIAL IMPACT:

There is no financial impact associated with this item.

### CEQA:

The recommended action does not constitute a project under CEQA because it does not have a potential for resulting in direct or reasonably foreseeable indirect physical change in the environment.

## **ATTACHMENTS**:

Attachment 1: 070220 CEO Bulletin Attachment 2: 071620 CEO Bulletin

### **UNCLASSIFIED MANAGER:**

**Agenda Date:** 7/28/2020 **Item No.:** 3.8. File No.: 20-0588

Rick Callender, 408-630-2017

## CEO BULLETIN



To: Board of Directors

From: Norma J. Camacho, CEO

## Weeks of June 19 - July 2, 2020

**Board Executive Limitation Policy EL-7:** 

The Board Appointed Officers shall inform and support the Board in its work. Further, a BAO shall 1) inform the Board of relevant trends, anticipated adverse media coverage, or material external and internal changes, particularly changes in the assumptions upon which any Board policy has previously been established and 2) report in a timely manner an actual or anticipated noncompliance with any policy of the Board.

Item	IN THIS ISSUE
1	Coyote Creek Flood Protection Project Virtual Public Meetings Update
<u>2</u>	Delta Conveyance Project Updates
<u>3</u>	Extending Memorandum of Understanding for the Recycled Refinery Water Exchange Project
<u>4</u>	Homeless Encampment Abatements
<u>5</u>	Pacheco Reservoir Expansion Alternative of the San Luis Low Point Improvement Projects recommended to receive \$1.7 million for continued studies in FY 21 under the WIIN Act.
<u>6</u>	Palo Alto Flood Basin Tide Gate Structure Replacement Project - Virtual Public Meeting Update
<u>7</u>	Pilot A2 Water Conservation Mini-Grant Program Launches on June 29
<u>8</u>	Safe, Clean Water Grant Closeout: Bay Area Older Adults' FY19 D3 Watershed Appreciation Program
<u>9</u>	Safe, Clean Water Grant Closeout: West Valley-Mission Community College District's FY16 D3 Wildcat Creek Native Vegetation Enhancement Program

## 1. Coyote Creek Flood Protection Project Virtual Public Meetings Update

On June 17, 2020, Valley Water held the last of three virtual public meetings on the Coyote Creek Flood Protection Project. The Zoom event focused on project details relevant to communities in District 2, represented by Valley Water Director Barbara Keegan, who provided opening and closing remarks. Valley Water Vice-Chair Tony Estremera and Director Linda LeZotte also joined as attendees.

There were approximately 76 community members participating in the live event that highlighted recommended Coyote Creek Flood Protection Project alternatives, along with other project details including information on Valley Water's proposed Federal Energy Regulatory Commission (FERC) Order Compliance Project (FOCP) for the Anderson Dam Seismic Retrofit Project. Some elements of the Coyote Creek Flood Protection project are part of the FOCP—namely measures needed to

protect properties against the larger flows that will be released from the dam's new outlet tunnel. Participants were also informed of the presentation on the Engineer's Report for the Anderson Dam FOCP that was provided during the Valley Water Board of Directors Meeting on June 23, 2020.

Like the previous two virtual public meetings held on June 10 and 11, 2020, Spanish and Vietnamese interpreters were available during the Zoom event, which was livestreamed via Facebook and included various Valley Water staff who answered questions on multiple topics ranging from creek maintenance to the drawdown of Anderson Reservoir.

All three public meeting recordings are now available on Valley Water's YouTube channel and Facebook. So far, the June 17, 2020 meeting has garnered 700 views while all the meeting views to date total approximately 7,000 views. The video links along with meeting materials are available on the project webpage. Valley Water will also be updating the frequently asked questions document with responses to all the questions posed during each of the three Zoom events.

Valley Water is planning another public meeting series later this year to update the community and gather their input on the design of the Coyote Creek Flood Protection Project.

For further information, please contact Marta Lugo at (408) 630-2237.

## 2. Delta Conveyance Project Updates

All of the following updates relate to the proposed Delta Conveyance Project:

## California Environmental Quality Act (CEQA)

The California Department of Water Resources (DWR) is reviewing more than 800 comments received during the public scoping period that concluded in April 2020 and is preparing a scoping report and Draft Environmental Impact Report (EIR). DWR expects to release the Draft EIR in 2021 and project alternatives sometime prior for public review and comment.

### National Environmental Policy Act (NEPA)

On June 18, 2020, the California Department of Water Resources (DWR) submitted a permit application to the U.S. Army Corps of Engineers (USACE) pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act for the proposed Delta Conveyance Project. A Section 404 permit is required prior to construction in navigable water/waters of the U.S.. DWR submitted the application now in order to engage USACE in environmental review under NEPA in coordination with DWR's preparation of an EIR under CEQA. USACE is now expected to issue a Notice of Intent to initiate preparation of an Environmental Impact Statement, providing another opportunity for public input into scoping of the project.

On May 22, 2020, DWR received a "Statement of No Objection" letter from the Central Valley Flood Protection Board enabling DWR to engage in early consultation with USACE and the Central Valley Flood Protection Board during development of the environmental documents.

#### AB52 Tribal Consultation

DWR sent project notification letters to 121 Tribes. To date, 12 have requested consultation.

## **Environmental Justice and Disadvantaged Communities**

DWR will conduct surveys, interviews and small group briefings in the coming months to gather input on the usage and value of environmental resources in the Delta by disadvantaged communities. This information will be used to outline a draft scope of DWR's environmental justice objectives that will be available for public comment as an appendix to the Draft EIR.

## **Design and Engineering**

The Delta Conveyance Design and Construction Authority (DCA) is continuing to develop engineering and design information to help inform the environmental review process. This information is being presented to the Stakeholder Engagement Committee (SEC) to generate input and ideas that help avoid or minimize potential local effects of the project. The DCA is also reaching out to other members of the Delta community and county health and safety service providers.

More information can be found at the following website: <a href="https://water.ca.gov/deltaconveyance">https://water.ca.gov/deltaconveyance</a>.

For further information, please contact Jerry De La Piedra at (408) 630-2257.

## 3. Extending Memorandum of Understanding for the Recycled Refinery Water Exchange Project

Valley Water entered into a Memorandum of Understanding (MOU) with Central Contra Costa Sanitary District (Central San) and Contra Costa Water District (CCWD) in April 2018 to explore the possibility of the Refinery Recycled Water Exchange Project (RRWE). The RRWE is a regional potable reuse project that involves Central San providing recycled water to CCWD customers and then CCWD providing Valley Water the Central Valley Project (CVP) contract supply that would have gone to those CCWD customers.

The main tasks of the MOU are to estimate the potential yield and associated costs of the RRWE. The preliminary analysis indicates that the RRWE may provide Valley Water up to 11,000 acre-feet (AF) of water per year, on average. This additional supply could help Valley Water meet its level of service goals, especially during dry years. However, regulatory and operational uncertainties could impact the reliability of Valley Water receiving the project water.

The preliminary life-cycle costs for the exchange project are estimated to be \$2,300/AF to \$2,800/AF per year. Project costs would primarily be allocated among Central San and Valley Water. The allocation approach still needs to be negotiated under the guidance of Valley Water's Board of Directors. Since the MOU was set to expire on June 30, 2020, an amendment to the MOU was fully executed by Valley Water's CEO on June 22, 2020, to extend the MOU for one year. This extension allows the partners to complete the remaining tasks of negotiating the cost allocation and finishing the preliminary feasibility report.

For further information, please contact Jerry De La Piedra at (408) 630-2257.

## 4. Homeless Encampment Abatements

The Center for Disease Control issued guidance during the COVID-19 pandemic that homeless encampment abatements be paused, unless housing solutions are available, in an effort to reduce the spread of the virus. Valley Water conducts encampment abatements in partnership with local municipalities and largely with the City of San Jose (CSJ). The municipality is responsible for posting the sites for cleanup and for providing police and outreach services.

The City of San Jose has informed Valley Water that the CSJ Emergency Operations Center policy to suspend abatements remains in effect and is in alignment with public health guidance. Valley Homeless Healthcare and Public Health has begun COVID-19 testing at encampments of ten or more. Allowing people to remain in place is critical to contact tracing.

To address safety during the summer Stream Maintenance Program work season, Valley Water has asked for CSJ's assistance while working in areas occupied by homeless encampments. Areas of concern include Guadalupe River and Coyote Creek where popular locations are occupied by between 5-50 visible dwellings. CSJ's Housing Dept has agreed to send street outreach teams to work sites to notify people that work crews will be operating in the area and ask that they move. San Jose Police has agreed to assist with prework assessments as are Valley Water security and contract services. In the event a work area is deemed unsafe, the work activity will be postponed.

For further information, please contact Sue Tippets at (408) 630-2253

## 5. Pacheco Reservoir Expansion Alternative of the San Luis Low Point Improvement Projects recommended to receive \$1.7 million for continued studies in FY 21 under the WIIN Act.

Valley Water has been working with the Bureau of Reclamation (Reclamation) since 2018 on the San Luis Low Point Improvement Project (SLLPIP) Federal Feasibility Report which identified the Pacheco Reservoir Expansion Alternative (Pacheco) as the preferred alternative. During the past two years, both Reclamation and Valley Water have been working hard to transition the SLLPIP from CalFed Bay-Delta Authorization Act, which has been the funding mechanism from the beginning of the Project, to Water Infrastructure Improvements for the Nation (WIIN) Act of 2016, as CalFed was expiring.

On June 22, 2020, Interior Assistant Secretary for Water and Science, Timothy Perry, sent a letter to the Congressional Subcommittee on Energy and Water Development requesting \$108.7 million in funding for surface water storage projects in California, Washington, and Idaho under the WIIN Act. Included in these ten projects is the SLLPIP, which was recommended to receive \$1.7 million for continued studies in FY21 for Pacheco.

This first step in funding keeps Reclamation engaged in the Pacheco Reservoir Expansion Alternative and places the Project in line for construction funds from WIIN, its extension, or replacement programs. The Project is now eligible to receive annual funds for continued studies related to design and permitting. Reclamation will proceed with expenditure of construction funding once the Project is found to be feasible, which Valley Water and Reclamation are hoping will happen at the end of 2020. SLLPIP is eligible to receive funding for up to 25 percent of its construction costs. Congress must include SLLPIP in the annual Energy and Water Development Appropriations Act to continue to fund the projects.

For further information, please contact Christopher Hakes at (408) 630-3796.

## 6. Palo Alto Flood Basin Tide Gate Structure Replacement Project - Virtual Public Meeting Update

On June 24, 2020, Valley Water hosted a virtual public meeting on the Palo Alto Flood Basin Tide Gate Structure Replacement Project with approximately 48 community members as part of the live audience. The event was emceed by Melanie Richardson, Valley Water Chief Operating Officer of Watersheds, and featured opening remarks by Valley Water Director Gary Kremen. Palo Alto Councilmember Alison Cormack was also present for the meeting.

Streaming via Zoom and Facebook Live, Valley Water provided background on the structure's history and previous attempts to repair and address the tide gate structure's aging condition. Valley Water presented on the urgency behind the project's construction, recommended project

alternatives and how various environmental and trail impacts will be addressed as part of the project's planning and construction. Valley Water also fielded questions from community members and will be producing a frequently asked questions document that will include responses to many of the questions posed during the meeting.

The virtual public meeting recording is now available on Valley Water's YouTube channel and Facebook. As of June 26, 2020, the meeting has received 293 views. The video links along with meeting materials are available on the project web page. Valley Water is currently working on the Draft California Environmental Quality Act (CEQA) Mitigated Negative Declaration document and plan to post for public comment in Summer 2020.

For further information, please contact Marta Lugo at (408) 646-7441.

## 7. Pilot A2 Water Conservation Mini-Grant Program Launches on June 29, 2020

On June 29, 2020, Valley Water will launch its Water Conservation Mini-Grant program and begin accepting online applications for mini-grant funding of up to \$5,000 for start-up projects that help save water. The program has a total of \$100,000 in water conservation mini-grant funding available on a rolling basis through December 31, 2020 or until all available funding is awarded.

The Valley Water Board of Directors approved this pilot A2 Water Conservation mini-grant program on February 11, 2020. This grant funding is part of the Safe, Clean Water and Natural Flood Protection Program, which was approved by voters in 2012, that allows Valley Water to reinvest into the community for meaningful projects.

Projects must meet one or more criteria of helping identify potential water reduction technologies and methods; researching new and innovative technologies; and/or conducting educational or outreach opportunities related to water conservation. Projects must demonstrate matching funds of at least 25% of the total project cost (monetary or in-kind) to be eligible and may be authorized for full or partial requested funding. Projects must be completed within two years.

Valley Water is conducting outreach for this grant opportunity, including hosting virtual information sessions on July 15, 2020 and July 28, 2020; e-blasts to stakeholder lists; social media posts; and countywide NextDoor posts. More information about the grant award process, eligibility criteria, minimum qualifications and how to apply can be found at <a href="mailto:valleywater.org/grants">valleywater.org/grants</a>.

Valley Water will return to its Board at the end of the pilot with an evaluation regarding the effectiveness of the program and a recommendation on whether to continue the A2 mini-grant program in future years.

For further information, please contact Marta Lugo at (408) 646-7441.

## 8. Safe, Clean Water Grant Closeout: Bay Area Older Adults' FY19 D3 Watershed Appreciation Program

The Bay Area Older Adults (Grantee) Watershed Appreciation Program (Agreement No. A4260R) has been completed and closed out.

The Bay Area Older Adults received a \$5,000 Safe, Clean Water D3 Mini Grant for the Watershed Appreciation Program. The program agreement was executed on May 31, 2019 and was completed on November 14, 2019. Bay Area Older Adults provided outdoor educational programs for visually

impaired older adults to experience Santa Clara Valley Water District (Valley Water) watersheds firsthand. All four programs within the Watershed Education Project were completed with a total participation of 44 visually impaired older adults.

## **Key Outcomes**

- 1. Program participants increased their knowledge of the four watersheds located at the following locations: Los Alamitos Creek, Guadalupe Slough, Stevens Creek and Penitencia Creek. Pre- and post-walk surveys indicated an increase in participant knowledge of the creeks from an average of 0-22% to 78-100%, respectively.
- 2. Educational materials, such as plans and guides, were created that incorporated the senses of touch, smell, hearing and taste.

For further information, please contact Rick Callender at (408) 630-2017.

## 9. Safe, Clean Water Grant Closeout: West Valley-Mission Community College District's FY16 D3 Wildcat Creek Native Vegetation Enhancement Program

As of June 30, 2019, the West Valley College Wildcat Creek Native Vegetation Enhancement Program grant has been closed out.

The West Valley-Mission Community College District received a \$165,000 Safe, Clean Water Program D3 grant for the West Valley College Wildcat Creek Native Vegetation Enhancement Program. The agreement was executed on June 17, 2016 and the project was completed on June 30, 2019. This project was located on the West Valley College campus in Saratoga, CA.

The project removed approximately two acres of invasive, non-native vegetation, within the West Valley College campus and revegetated the area with native species propagated from a collection of native vegetation planted on campus during past native re-vegetation efforts on campus.

### Key Outcomes

- 1. 500 riparian plantings were installed in Fall 2017 and received supplemental irrigation, weeding, maintenance and monitoring through 2018. This included training personnel to perform invasive and native plant management and fieldwork in riparian woodland habitat.
- 2. Areas of 2017 invasive plant species removal were re-checked and re-treated as needed.
- 3. Created a "Stream Team" task force consisting of West Valley College administration and faculty to engage and integrate this project into their curriculum.
- 4. 72 polygon areas of invasive plants (approximately four acres) were checked in the Spring and Fall of 2018 for newly emerging/re-sprouting invasive plants.
- 5. Created a natural outdoor "classroom" and living laboratory in newly restored creek corridor that raises student and public awareness of environmental issues and restoration.
- 6. In the Spring of 2019, a walkthrough of the creek corridor was conducted to locate and map occurrences of invasive species to assist in future maintenance and monitoring.
- 7. Facilitated collaboration and received overwhelming support from City of Saratoga, neighborhood groups, local community group volunteers and West Valley College students.

For further information, please contact Marta Lugo at (408) 646-7441.

## **CEO BULLETIN**



To: Board of Directors

From: Rick L. Callender, CEO

## Weeks of July 3 – July 16, 2020

**Board Executive Limitation Policy EL-7:** 

The Board Appointed Officers shall inform and support the Board in its work. Further, a BAO shall 1) inform the Board of relevant trends, anticipated adverse media coverage, or material external and internal changes, particularly changes in the assumptions upon which any Board policy has previously been established and 2) report in a timely manner an actual or anticipated noncompliance with any policy of the Board.

Item	IN THIS ISSUE
1	Delta Conveyance Project Update
<u>2</u>	Fiscal Year 2021-2025 Capital Improvement Program
<u>3</u>	Information Technology Update
<u>4</u>	Pollution Prevention Hotline Fiscal Year 2020 Review
<u>5</u>	Rinconada Water Treatment Plant Reliability Improvement Project Safety Update
<u>6</u>	Sources of Greenhouse Gas Emissions
<u>7</u>	Valley Water partners with City of San José Public Library (Bascom Branch) to Offer a Virtual Water Conservation Workshop
<u>8</u>	Valley Water's Signage Scavenger Hunt Launches on July 16, 2020
<u>9</u>	Kremen Prepare a water rate letter similar to the one sent by CFO Darin Taylor, to be sent to the Cities and Councils within his District. I-20-0012

## 1. Delta Conveyance Project Update

Last week, the Department of Water Resources (DWR) published several new documents as a part of the Environmental Planning process on the proposed Delta Conveyance Project. Documents on Delta Conveyance Project Environmental Planning are available at: https://water.ca.gov/Programs/State-Water-Project/Delta-Conveyance/Environmental-Planning.

DWR published the Scoping Summary Report, which outlines the environmental review process that DWR is undertaking on the Delta Conveyance Project and summarizes the comments received during the public scoping period. DWR will use these comments to inform their preparation of the Environmental Impact Report and what project alternatives and environmental impacts to study further. Valley Water submitted a comment letter during this scoping period and is currently reviewing the Scoping Summary Report and other comments submitted.

In compliance with the California Environmental Quality Act, DWR adopted a Final Initial Study/Mitigated Negative Declaration approving soil collection in the Delta. These soil surveys will allow a better understanding of the region's geology in order to evaluate activities such as the Delta Conveyance Project. As a part of this effort, a Mitigation Monitoring and Reporting Plan was also adopted. The investigations are set to begin Fall 2020.

Lastly, the U.S. Army Corps of Engineers informed DWR of their intent to prepare an Environmental Impact Statement under the National Environmental Policy Act on the Delta Conveyance Project. An official Notice of Intent is forthcoming.

For further information, please contact Jerry De La Piedra at (408) 630-2257.

## 2. Fiscal Year 2021-2025 Capital Improvement Program

The Fiscal Year (FY) 2021-2025 Five-Year Capital Improvement Program (CIP) is a projection of Valley Water's capital funding for planned capital projects from FY 2020-21 through FY 2024-25. The purpose of the CIP is to document planned Valley Water work with the larger community by aligning Valley Water planning with other local agency planning efforts. The five-year rolling CIP is developed in alignment with the annual budget process.

The Draft CIP was presented to the Board February 25, 2020 Board Meeting, the Final FY2021-25 Five-Year Capital Improvement Program was approved for release on June 30, 2020 and is included in the July 10, 2020 Board Non-Agenda Packet.

For further information, please contact Melanie Richardson at (408) 630-2035.

## 3. Information Technology Update

The Information Technology (IT) Division has been working diligently to support the transition from working with technology in an office setting to working with technology in an offsite setting for Valley Water employees. We have worked to find a way to deploy computer hardware and technology in a fast and efficient manner so that Valley Water staff can work offsite with the least amount of technical issues.

During the county's shelter in place order, IT deployed various types of laptops, tablets, cell phones, wireless hot spots, and end point protections. IT integrated the use of DocuSign and Zoom to use districtwide as tools to use while complying with social distancing and to allow the least amount of workflow complications. Valley Water has embraced the use of Zoom and in just in the month of June 2020, created 1,676 meetings, using 578,205 minutes. IT also continues to provide end user support and within the month of June 2020, closed over 900 service requests and completed the modernization of our Anti-Virus and Anti-Malware platforms with an almost entirely remote workforce.

Since March 16, 2020 to date, IT has deployed the following hardware, software and tools to Valley Water employees. We will continue to strive to provide the best IT support to all divisions.

Type of Product	Quantity
Laptops:	315
Tablets:	100
Cell Phones:	117
Hot Spots:	17
Zoom Meetings Created:	5,450
Zoom Meeting Minutes:	2,107,838
Zoom Usage Participants:	48,700
DocuSign Licenses Issued:	113
TIS (Technical Infrastructure Services) IT Help Tickets Closed:	3,225
SS (Software Services) IT Help Tickets Closed:	241
End Point Protection for Computers Installed with Sophos:	1,530
End Point Protection for Computers Installed with Cortex:	1,398

For further information, please contact Mike Cook at (408) 630-2424.

### 4. Pollution Prevention Hotline Fiscal Year 2020 Review

In the mid-1990s Valley Water established a Pollution Prevention Hotline to allow the public, other local agencies, and Valley Water staff to report discharges, or illegal dumping, either directly into waterways, or that threaten waterways within Santa Clara County. In the early 2000s, the Pollution Prevention Hotline was incorporated under the Clean, Safe Creeks Program, and subsequently carried over to the current Safe, Clean Water and Natural Flood Protection Program, within Project B5 – Hazardous Material Management and Response. This project allows Valley Water to continue providing the Pollution Prevention Hotline number to report hazardous materials spills 24 hours a day, 7 days a week. For incidents that are determined to be outside of Valley Water's jurisdiction, the appropriate agencies are alerted.

During FY2020, a total of 85 calls were received on the Pollution Prevention Hotline. 41 calls came in from the general public, 29 calls were from Valley Water staff, and 15 calls originated from other local agencies. 47 of the reported incidents fell within Valley Water's jurisdiction, i.e., within fee title or easement. 31 of the incidents resulted in the creation of Access Valley Water cases to resolve dumped trash, encampment debris, and graffiti issues. Five incidents occurred at Valley Water reservoirs or waterways whereby a vehicle or watercraft was extracted from the waterbody.

For further information, please contact Tina Yoke at (408) 630-2385.

## 5. Rinconada Water Treatment Plant Reliability Improvement Project Safety Update

Valley Water is working closely with Rinconada Water Treatment Plant Reliability Improvement Project contractors and consultants to ensure that the required protective measures, as prescribed by the California Division of Occupational, Safety and Health, Cal/OSHA, are deployed for control of hazardous energy associated with the installation of new machinery and equipment. One of the requirements is to draft machine/equipment specific energy isolation procedures to safely isolate hazardous energy during servicing and maintenance work. The energy control procedures identify the type and magnitude of the hazardous energy, and the means and methods that will be used to protect employees during servicing or maintenance operations.

Valley Water began by having project consultants create a list of all applicable machines and equipment installed during phases 1 & 2 of the project. Once the list was created, Valley Water

began site visits to inspect and analyze each machine and piece of equipment identified to document requirements needed to create the procedures. The contractor supported Valley Water by attending the site walks and identifying all energy isolation points for the machines and equipment. For ease of understanding, the procedures include photographic images of energy isolation points, lists the type and magnitude of the energy source, and provides steps for safely performing the shut-down, isolation, and verification of zero energy state. Valley Water has already completed some procedures and will continue to create the remaining procedures for the identified machines and equipment. All required energy isolation procedures, associated with these phases, are targeted for completion by the end of the commissioning phase, which is expected to be in the September-October 2020 time frame.

For further information, please contact Tina Yoke at (408) 630-2385.

#### 6. Sources of Greenhouse Gas Emissions

This informational item is to provide further clarification and additional information on the sources of Greenhouse Gas (GHG) emissions discussed at the June 9, 2020 Valley Water Board meeting, regarding progress towards carbon neutrality by 2020.

The GHG emission reduction framework, originally presented to the Board on March 26, 2013, accounts for direct emissions from fuel uses from fleet, generators and refrigerants; indirect emissions from the purchase of electricity and natural gas from both Pacific Gas & Electricity and the Power and Water Resources Pooling Authority. Other indirect emissions include emissions related to conveying water from the State Water Project to Santa Clara County and emissions related to employee commutes and business travel.

The Year 2020 estimates presented to the Board did not reflect lower emissions related to reduced fuel or natural gas uses from the fleet, reduced employee commutes or business travels due to Valley Water's response to the Santa Clara County's shelter-in-place order initiated on March 16, 2020. Valley Water will update the Board on the actual Year 2020 emissions when that data becomes available.

For further information, please contact Bhavani Yerrapotu at (408) 630-2735.

## 7. Valley Water partners with City of San José Public Library (Bascom Branch) to Offer a Virtual Water Conservation Workshop

Valley Water provides year-round educational workshops and trainings to further water conservation awareness and program participation in Santa Clara County. On July 9, 2020, in partnership with the City of San José Public Library (Bascom Branch Library), Valley Water hosted its first virtual water conservation workshop, "Water Conservation in the Vegetable Garden with Valley Water!".

This workshop served as a primer on water conservation in the vegetable garden, connecting Santa Clara County residents with education and rebate information on efficient irrigation equipment, rainwater capture, and graywater use to safely get more out of their gardens with less water. Valley Water collaborated with San José Public Library to promote this event.

The workshop was recorded and will be available online at www.valleywater.org by August 1, 2020.

For further information, please contact Jerry De La Piedra at (408) 630-2257.

## 8. Valley Water's Signage Scavenger Hunt Launches on July 16, 2020

On July 16, 2020, Valley Water will launch the "Great Sign Hunt 2020" campaign, a 3-month outdoor scavenger hunt in partnership with the Silicon Valley Bicycle Coalition (SVBC), to inventory the location and condition of Valley Water signs. The scavenger hunt will encourage SVBC members and Santa Clara County residents to get outdoors and discover Valley Water signs throughout the county, with the goal of inventorying 18,000 signs. Biking and walking outdoors for exercise is allowed as an outdoor recreational activity under the current public health orders, and participants are encouraged to stay safe and follow all public health orders including social distancing and wearing a mask. The scavenger hunt is expected to run through October 15, 2020 with the duration dependent on public health orders related to the COVID-19 pandemic.

A majority of Valley Water areas that are managed by Santa Clara County Parks have reopened with updated COVID-19 signage and County parks have reported a significant increase in usership. The campaign includes expanded outreach by Valley Water and SVBC which includes e-blasts to stakeholders, targeted multilingual outreach, a promotional video and social media posts throughout the 3-month campaign.

To participate in the scavenger hunt, individuals must register for the event from the website below, sign a waiver and download the Survey123 app where they can capture and submit the photo and condition of the sign. The app will automatically record the location of the sign. There is also a real-time GIS map to track individual progress as well as grand prizes and monthly prizes to keep participants motivated.

A two-week pilot scavenger hunt was completed last Fall 2019 and participants recorded 1,521 signs. Feedback from the pilot and an expanded outreach plan was incorporated to the implementation and outreach of this 3-month scavenger hunt. Valley Water will evaluate the information collected and the data will be used for signage tracking and replacement prioritization efforts.

For more information on the Great Sign Hunt 2020, including how to register, prize information and eligibility, please visit the event page on SVBC's website: <a href="https://bikesiliconvalley.org/valley-water-great-sign-hunt-2020/">https://bikesiliconvalley.org/valley-water-great-sign-hunt-2020/</a>

For further information, please contact Marta Lugo at (408) 646-7441.

## 9. Kremen

Prepare a water rate letter similar to the one sent by CFO Darin Taylor, to be sent to the Cities and Councils within his District. I-20-0012

On June 24, 2020, Valley Water prepared and sent letters to the Mayors and Councilmembers within the Board's seven districts to announce the Board's decision not to raise water rates.

For further information, please contact Rachael Gibson at (408) 781-4739.

## Santa Clara Valley Water District



File No.: 20-0524 Agenda Date: 7/28/2020

Item No.: 3.9.

## **BOARD AGENDA MEMORANDUM**

## SUBJECT:

Approval of Minutes.

## RECOMMENDATION:

Approve the minutes.

## SUMMARY:

In accordance with the Ralph M. Brown Act, a summary of Board discussions, and details of all actions taken by the Board, during all open and public Board of Directors meetings, is transcribed and submitted to the Board for review and approval.

Upon Board approval, minutes transcripts are finalized and entered into the District's historical records archives and serve as historical records of the Board's meetings.

## FINANCIAL IMPACT:

There is no financial impact associated with this item.

## CEQA:

The recommended action does not constitute a project under CEQA because it does not have a potential for resulting in direct or reasonably foreseeable indirect physical change in the environment.

## ATTACHMENTS:

Attachment 1: 051220 Regular Meeting Minutes Attachment 2: 052220 Special Meeting Minutes Attachment 3: 052620 Regular Meeting Minutes Attachment 4: 060920 Regular Meeting Minutes Attachment 5: 061620 Special Meeting Minutes

## **UNCLASSIFIED MANAGER:**

Michele King, 408-630-2711



### **BOARD OF DIRECTORS MEETING**

## **MINUTES**

## CLOSED SESSION AND REGULAR MEETING TUESDAY, MAY 12, 2020 11:00 AM

(Paragraph numbers coincide with agenda item numbers)

## 1. CALL TO ORDER:

A Closed Session and Regular Meeting of the Santa Clara Valley Water District (Valley Water) Board of Directors was called to order in the Valley Water Headquarters Building Boardroom at 5700 Almaden Expressway, San Jose, California, at 11:00 a.m.

## 1.1 Roll Call.

Board members in attendance were Nai Hsueh and Richard Santos. Board members participating by teleconference were Tony Estremera, Barbara Keegan, Gary Kremen, Linda J. LeZotte, and John L. Varela, constituting a quorum of the Board.

Staff in attendance was M. King, Clerk, Board of Directors. Staff participating by teleconference were N. Camacho, Chief Executive Officer (CEO), S. Yamamoto, District Counsel, A. Baker, R. Callender, G. De La Piedra, R. Gibson, G. Hall, C. Kwok-Smith, H. McMahon, N. Nguyen, M. Richardson, D. Taylor, and T. Yoke.

## 2. TIME CERTAIN:

#### 11:00 AM

Chairperson Hsueh confirmed that Item 2.2 had been removed from the agenda, and that the Board would adjourn to Closed Session for considerations of Items 2.1 and 2.3.

## 2.1 CLOSED SESSION

CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION Pursuant to Government Code Section 54956.9(d)(1)
Santa Clara Valley Water District v. Century Indemnity Co., as successors to CCI Insurance Co., as successors to Insurance Company of America Santa Clara County Superior Court Case No. 115CV286500

# 2.2 ITEM REMOVED FROM AGENDA CLOSED SESSION PUBLIC EMPLOYEE PERFORMANCE EVALUATION Pursuant to Government Code Section 54957(b)(1)

Title: CEO, District Counsel and Clerk of the Board

## 2.3 CLOSED SESSION

PUBLIC EMPLOYEE APPOINTMENT

Pursuant to Government Code Section 54957(b)(1)

Title: Chief Executive Officer/General Manager

Upon return to Open Session, the same Board members, and staff were present.

### 1:00 PM

2.4 District Counsel Report on Closed Session.

Chairperson Hsueh reported that the Board met in Closed Session in regard to Items 2.1, and Item 2.3 with herself and Director Santos present, and with Directors Estremera, Keegan, Kremen, LeZotte, and Varela participating by teleconference, and gave direction to staff.

2.5 Pledge of Allegiance/National Anthem.

Chairperson Hsueh led all present in reciting the Pledge of Allegiance.

2.6 Orders of the Day.

Chairperson Hsueh confirmed that there were no changes to the Orders of the Day.

2.7 Time Open for Public Comment on any Item not on the Agenda.

Chairperson Hsueh declared time open for public comment on any item not on the agenda. There was no one present who wished to speak.

Chairperson Hsueh acknowledged receipt of, and referred to staff for response, the attached email encouraging consideration of succession planning as an integral part of the attrition and hiring freezes, from Mr. Doug Muirhead, Morgan Hill resident, identified as Handout 2.7-A, herein. Copies of the Handout were distributed to the Board and made available to the public.

2.8 Public Hearing to Consider the Santa Clara Valley Water District's Draft Fiscal Years 2021-2025 Five-Year Capital Improvement Program. (Continued from 04/29/2020).

Recommendation:

- A. Open the public hearing to receive public comments and Board feedback regarding the Santa Clara Valley Water District's Fiscal Years 2021-2025 Five-Year Capital Improvement Program; and
- B. Continue the public hearing to May 26, 2020.

Chairperson Hsueh opened the Public Hearing and the Board considered the item without a presentation.

Chairperson Hsueh declared time open for public comments and, seeing no one present who wished to speak, continued the item to the May 26, 2020 meeting.

#### 3. CONSENT CALENDAR:

Chairperson Hsueh removed Items 3.2 and 3.6 from the Consent Calendar for individual consideration.

In regard to Item 3.1, Mr. Ngoc Nguyen, Deputy Operating Officer, advised the Board that Attachment 3, Page 1, Paragraph 4, should be revised to read *In consideration for Valley Water's conveyance of the subject easement to SJWC at no cost for one dollar, in addition to the indemnity set forth herein.* 

The Board considered Consent Calendar Items 3.1, 3.3 through 3.5, and 3.7 through 3.8, under one motion.

Adopt a Resolution Authorizing Conveyance of Real Property Rights to San Jose Water Company at APN No. 404-07-033, Real Estate File No. 9417-2.1 (Campbell) (District 4).

Recommendation:

- A. Adopt the Resolution AUTHORIZING CONVEYANCE OF REAL PROPERTY RIGHTS TO THE SAN JOSE WATER COMPANY: and
- B. Authorize the Chief Executive Officer to execute the Quitclaim Deed Agreement, Real Estate File No. 9417-2.1.
- 3.3 Adopt the Resolution Proclaiming May 17-23, 2020 as National Public Works Week.

Recommendation: Adopt a Resolution PROCLAIMING MAY 17-23, 2020 AS NATIONAL PUBLIC WORKS WEEK.

3.4 Adopt Resolution Recognizing May as Asian-Pacific American Heritage Month.

Recommendation: Adopt the Resolution RECOGNIZING MAY AS ASIAN-PACIFIC AMERICAN HERITAGE MONTH.

3.5 Approve Amendment No. 3 to Agreement No. A4055F with Kadesh and Associates, LLC., for Federal Lobbying Services, Project No. 60231003, CAS File 4766, Increasing the Not-to-Exceed Fee by \$37,600, for a Total Revised Fee of \$376,000, and Extend the Agreement Term to June 30, 2020.

Recommendation: Approve Amendment No. 3 to Agreement No. A4055F with

Kadesh and Associates, LLC., for Federal Lobbying Services, to increase the not-to-exceed fee from \$338,400

by \$37,600, resulting in a total not-to-exceed fee of \$376,000, and extend the Agreement term to June 30,

2020.

3.7 Approval of Minutes.

Recommendation: Approve the minutes.

3.8 Accept the CEO Bulletin for the Week of April 24-May 7, 2020.

Recommendation: Accept the CEO Bulletin.

Motion: Approve Consent Calendar Items 3.1, 3.3 through 3.5, and

3.7 through 3.8, under one motion, as follows: adopt Resolution No. 20-21, AUTHORIZING CONVEYANCE OF REAL PROPERTY RIGHTS TO THE SAN JOSE WATER COMPANY, by roll call vote, and authorize the CEO to execute the Quitclaim Deed Agreement, Real Estate File No. 9417-2.1, as contained in Item 3.1; adopt Resolution

No. 20-23, PROCLAIMING MAY 17-23, 2020 AS

NATIONAL PUBLIC WORKS WEEK, by roll call vote, as contained in Item 3.3; adopt Resolution No. 20-24, RECOGNIZING MAY AS ASIAN-PACIFIC AMERICAN HERITAGE MONTH, by roll call vote, as contained in Item 3.4; approve Amendment No. 3 to Agreement

No. A4055F with Kadesh and Associates, LLC., for Federal Lobbying Services, increasing the not-to-exceed fee by \$37,600, for a total revised fee of \$376,000, and extend the agreement term to June 30, 2020, as contained in Item 3.5; approve the minutes, as contained in Item 3.7; and accept the CEO Bulletins, as contained in Item 3.8.

Move to Approve: Richard Santos Second: Barbara Keegan

Yeas: Tony Estremera, Nai Hsueh, Barbara Keegan, Gary

Kremen, Linda J. LeZotte, Richard Santos, John L. Varela

Nays: None Abstains: None Recuses: None Absent: None

Summary: 7 Yeas; 0 Nays; 0 Abstains; 0 Absent

Chairperson Hsueh returned the Agenda to Item 3.2.

The Board considered Item 3.2 without a staff presentation.

3.2 Adopt the Resolution Delegating Authority to Deposit and Invest Funds to the Treasurer or his or her Designee, and Approve the Board Investment Policy for Fiscal Year 2020-21.

Recommendation: A. Adopt a Resolution DELEGATING AUTHORITY TO

DEPOSIT AND INVEST FUNDS TO THE

TREASURER OR HIS OR HER DESIGNEE, during

Fiscal Year 2020-21; and

B. Approve the Board Investment Policy for Fiscal

Year 2020-21.

Motion: Adopt Resolution No. 20-22, DELEGATING AUTHORITY

TO DEPOSIT AND INVEST FUNDS TO THE

TREASURER OR HIS OR HER DESIGNEE, during Fiscal Year 2020-21; approve the Board Investment Policy for Fiscal Year 2020-21; and return with information and recommendations on inclusion of Global Sullivan Principles on Valley Water's investment policy, investment up to 1% of the portfolio in smaller banks with less than \$2 billion in total assets, and add Certificate of Deposit Account Registry Service to increase investment in local banks.

Move to Adopt: Gary Kremen Second: Richard Santos

Yeas: Tony Estremera, Nai Hsueh, Barbara Keegan, Gary

Kremen, Linda J. LeZotte, Richard Santos, John L. Varela

Nays: None Abstains: None Recuses: None Absent: None

Summary: 7 Yeas; 0 Nays; 0 Abstains; 0 Absent.

Chairperson Hsueh moved the Agenda to Item 3.6.

3.6 Sponsorship of Silicon Valley Leadership Group's 2020 Energy and Sustainability Summit in San Jose, California, for \$12,000.

Recommendation: A. Receive information on the Silicon Valley Leadership Group's 2020 Energy and Sustainability Summit; and

B. Approve the request for sponsorship in the amount of

\$12,000.

Director LeZotte expressed concern about the value of the proposed Valley Water sponsorship level, in consideration of the likelihood that the event would be held virtually instead of in-person, as the original solicitation for sponsorship initially conveyed.

Mr. Mike Mielke, Silicon Valley Leadership Group (SVLG), assured the Board that the proposed sponsorship amount remained appropriate within a virtual event environment; discussed SVLG's recent and upcoming virtual events; and provided information on SVLG's use of interactive technology to allow access to exhibits, opportunities for networking and team building exercises, showcases for sponsoring agency products and programs, and online platforms for speakers and panelists. He encouraged Valley Water's sponsorship at the proposed level, and confirmed more information on how the SVLG's 2020 Energy and Sustainability Summit could benefit Valley Water, could be provided.

Move to Approve: Linda J. LeZotte Second: Richard Santos

Yeas: Tony Estremera, Nai Hsueh, Barbara Keegan, Gary

Kremen, Linda J. LeZotte, Richard Santos, John L. Varela

Nays: None Abstains: None

Recuses: None Absent: None

Summary: 7 Yeas; 0 Nays; 0 Abstains; 0 Absent.

The Board requested that staff come back with an informational report on the success of the July 24, 2020 SVLG Summit, as a large virtual event.

#### **REGULAR AGENDA:**

### 4. BOARD OF DIRECTORS:

4.1 Receive and Discuss the Final Audit Report and Management Response for the Contract Change Order Audit Conducted by TAP International, Inc.

Recommendation: Receive and discuss the Final Audit Report, and

Management Response, for the Contract Change Order

Audit conducted by TAP International, Inc.

Ms. Denise Callahan, President and Principal Consultant, TAP International, Inc., reviewed the information on this item, per the information contained in Attachment 1.

The Board requested staff to return with a report on the status of implementation of Recommendations on Change Orders, as contained in Attachment 1.

4.2 Board Committee Reports.

None.

4.3 Proposed Future Board Member Agenda Items.

None.

## 5. WATER UTILITY ENTERPRISE:

5.1 ITEM REMOVED FROM AGENDA.

Receive an Update on the Central Valley Project Contract Conversion Process Under the Water Infrastructure Improvements for the Nation Act; Adopt a Resolution Approving Mercy Spring Repayment Contract and Authorizing the Chief Executive Officer to Execute it; and Approve and Authorize the District Counsel to File a Validation Action for the Mercy Springs Repayment Contract.

The Board noted that Item 5.1 had been removed from the agenda, and considered Items 5.2 and 5.3 without staff presentation.

5.2 Update on the Condition of the Milpitas Pipeline and Determination that the Condition of the Milpitas Pipeline Continues to Constitute an Emergency (San Jose) (District 3).

Recommendation: A. Receive an update on the Milpitas Pipeline; and

B. Determine by a four-fifths vote of the Board that there is a need to continue the emergency action declared by

the Chief Executive Officer (CEO) on March 16, 2020, pursuant to California Public Contract Code §22050, to repair the Milpitas Pipeline.

Move to Approve: Richard Santos Second: Tony Estremera

Yeas: Tony Estremera, Nai Hsueh, Barbara Keegan, Gary

Kremen, Linda J. LeZotte, Richard Santos, John L. Varela

Nays: None Abstains: None Recuses: None Absent: None

Summary: 7 Yeas; 0 Nays; 0 Abstains; 0 Absent.

Approve Consultant Agreement with Mott MacDonald Group, Inc. for Phases 2A and 2B Upper Llagas Creek Flood Protection Project, Project No. 26174052, for Construction Management Services, for a Total Not-to-Exceed Amount of \$13,019,441.19, and Authorize Consultant to Only Perform Construction Management Services Relating to Phase 2A Now, for a Total Not-to-Exceed Amount of \$6,224,747.45 (Morgan Hill) (District 1).

Recommendation: A. Approve Consultant Agreement with Mott MacDonald

Group, Inc. for Phases 2A and 2B Upper Llagas Creek Flood Protection Project (Project No. 26174052) for

Construction Management Services, Total Not-to-Exceed amount of \$13,019,441.19; and

B. Authorize the Consultant to only perform Construction Management Services relating to Phase 2A portion

now, for a Total Not-to-Exceed amount of

\$6,244,747.45, of Consultant Agreement with Mott MacDonald Group, Inc. for Phases 2A and 2B Upper Llagas Creek Flood Protection Project (Project

No. 26174052).

Move to Approve: John Varela Second: Richard Santos

Yeas: Tony Estremera, Nai Hsueh, Barbara Keegan, Gary

Kremen, Linda J. LeZotte, Richard Santos, John L. Varela

Nays: None Abstains: None Recuses: None Absent: None

Summary: 7 Yeas; 0 Nays; 0 Abstains; 0 Absent.

# 6. WATERSHEDS:

6.1 Report on Findings of the Pilot Program Using Unmanned Aerial Vehicles in Land Surveying and Mapping Activities, and Approval of Continued Use.

Recommendation: Approve continued use of Unmanned Aerial Vehicles for

land surveying and mapping activities.

Chairperson Hsueh acknowledged receipt of, and referred to staff for response, the attached email from Mr. Muirhead requesting additional information and expressing frustration on the availability of December 2018 Flight Operations Manual updates, identified as Handout 6.1-A, herein. Copies of the Handout were distributed to the Board and made available to the public.

Mr. Andrew Chafer, Supervising Land Surveyor, reviewed the information on this item, per the attached Board Agenda Memo, and per the information contained in Attachment 2.

During the presentation, the Board made the following requests of staff:

- Staff is to return to the Board with information on the cost of using Valley Water-owned and operated UAVs, versus procured vendor services for land surveying and mapping activities; and
- Staff is to make UAV data collected in highly vegetated areas available to the California Department of Forestry, for use in assisting with prevention and suppression.

Move to Approve: Richard Santos Second: John L. Varela

Yeas: Tony Estremera, Nai Hsueh, Barbara Keegan, Gary

Kremen, Linda J. LeZotte, Richard Santos, John L. Varela

Nays: None Abstains: None Recuses: None Absent: None

Summary: 7 Yeas; 0 Nays; 0 Abstains; 0 Absent.

# 7. EXTERNAL AFFAIRS:

7.1 Receive an Update on Valley Water Signage and Related Cost.

Recommendation: Receive an update on Valley Water signage efforts,

including information about the signage consultant, signage inventory, campus signage strategy, and pilot signage progress related to project legacy signs and creek

markers.

Ms. Linh Hoang, Communications Manager, reviewed the information on this item, per the attached Board Agenda Memo, and per the information contained in Attachment 1, and Handout 7.1-A.

The Board noted the information without formal action, and requested that staff return with information on ongoing project costs, including signage maintenance and replacement schedules, when the Board considers adoption of the Fiscal Year 2020-21 Budget at the May 26, 2020 meeting.

#### 8. CHIEF EXECUTIVE OFFICER:

8.1 Adopt the Resolution Authorizing the Execution and Delivery of a Tax-Exempt Tax and Revenue Anticipation Note and a Taxable Tax and Revenue Anticipation Note to Support a Commercial Paper Program and Other Short-Term Obligations, Adopt the Resolution Regarding Intention to Issue Tax-Exempt Obligations for Water Utility Enterprise, and Adopt the Resolution Regarding Intention to Issue Tax-Exempt Obligations for Safe, Clean Water Program.

Recommendation:

- A. Adopt the Resolution AUTHORIZING THE EXECUTION AND DELIVERY OF A TAX-EXEMPT TAX AND REVENUE ANTICIPATION NOTE AND A TAXABLE TAX AND REVENUE ANTICIPATION NOTE (TRANS) TO SUPPORT A COMMERCIAL PAPER PROGRAM AND OTHER SHORT-TERM OBLIGATIONS:
- B. Authorize the Chief Executive Officer, or Chief Financial Officer (in each case, including any acting, interim or otherwise appointed such officer as the case may be) to execute the TRANs, and the Certificate as to Uncollected Taxes, Income, Revenue, Cash Receipts and Other Money;
- C. Authorize the Chief Executive Officer, District Counsel, and such other chief executives of the District (in each case, including any acting, interim or otherwise appointed such officer as the case may be) to execute such other instruments, documents and papers as are necessary to carry out this Commercial Paper Program for Fiscal Year 2020-21;
- D. Authorize the District Counsel (including any acting, interim or otherwise appointed such officer as the case may be) to execute the TRANs;
- E. Adopt the Resolution Regarding INTENTION TO ISSUE TAX-EXEMPT OBLIGATIONS FOR WATER UTILITY ENTERPRISE; and
- F. Adopt the Resolution Regarding INTENTION TO ISSUE TAX-EXEMPT OBLIGATIONS FOR SAFE, CLEAN WATER AND NATURAL FLOOD PROTECTION PROGRAM.

Mr. Steve Peters, Senior Management Analyst, reviewed the information on this item, per the attached Board Agenda Memo, and advised the Board that the budget amount shown in Attachment 1, Exhibit B, is subject to change pending the Board's adoption of the Fiscal Year 2020-21 Budget at the May 26, 2020 meeting.

The Board requested that staff come back with a Work Study Session on Valley Water's long-term borrowing and investments, before the November 3, 2020, Presidential Elections.

Move to Adopt: Gary Kremen Second: Tony Estremera

Yeas: Tony Estremera, Nai Hsueh, Barbara Keegan, Gary

Kremen, Linda J. LeZotte, Richard Santos, John L. Varela

Nays: None Abstains: None Recuses: None Absent: None

Summary: 7 Yeas; 0 Nays; 0 Abstains; 0 Absent.

Chairperson Hsueh moved the Agenda to Item 9.1.

#### 9. ADMINISTRATION:

9.1 Update on COVID-19 Response.

Mr. Alex Gordon, Emergency and Security Manager, reviewed the information on Valley Water's COVID-19 response, as contained in the Office of Administrative and IT Services Update, attached herein as Handout 8.2-C. The remainder of the information contained in the Handout was reviewed with its corresponding agenda item, below.

Chairperson Hsueh returned the Agenda to Item 8.2

8.2 CEO and Chiefs' Report.

Ms. Norma Camacho, Chief executive Officer, advised the Board of Chief Operating Officer Ms. Nina Hawk's recent resignation, and discussed Ms. Hawk's accomplishments while serving Valley Water.

Mr. Garth Hall, Acting Chief Operating Officer, reported on Valley Water's efforts to release water from Anderson Reservoir in compliance with the Federal Energy Regulatory Commission's recent order.

Ms. Melanie Richardson, Chief Operating Officer, reported that Valley Water's encampment clean-up efforts had been temporarily suspended as a result of COVID-19; advised the Board of ongoing discussions with the Cities of Campbell and Santa Clara, regarding resuming encampment clean-ups in those cities; and provided an update on the Stream Maintenance Program permit renewal efforts.

Mr. Rick Callender, Chief of External Affairs, distributed and reviewed the attached Office of Communications and Office of Civic Engagement Updates, identified as Handouts 8.1-A and 8.1-B respectively, herein. Copies of the Handouts were distributed to the Board and made available to the public.

Ms. Tina Yoke, Chief Operating Officer, reviewed the Administrative and Information Technology portion of the Office of Administration and IT Services Updates, contained in Handout 8.2-C.

#### 10. DISTRICT COUNSEL:

None.

#### 11. ADJOURN:

11.1 Board Member Reports/Announcements.

Director LeZotte reported attending a Local Agency Formation Commission of Santa Clara County meeting via Zoom; various meetings with staff; and Closed Session Board meetings related to CEO recruitment.

Director Kremen reported attending a Delta Conveyance Finance Authority meeting; and discussed San Francisquito Creek Joint Powers Authority Executive Director recruitment efforts.

The Board expressed appreciation to its Clerk, Ms. Michele King, for proficiency in conducting Board meetings using Zoom, and acknowledged the dedication of Valley Water staff during the COVID-19 pandemic. They expressed regret with the resignation of Ms. Hawk, and requested that staff prepare a joint resolution with the City of Gilroy, the Santa Clara County Board of Supervisors, and the San Luis-Delta Mendota Water Authority, acknowledging the career of former Valley Water District 1 Director Sig Sanchez, in commemoration of the 100th year since his birth.

11.2 Clerk Review and Clarification of Board Requests.

Ms. King read the new Board Member Requests into the record, and advised the Board that a joint resolution commemorating Sig Sanchez in his 100th year was already being prepared.

11.3 Adjourn to Regular Meeting at 4:00 p.m., on May 26, 2020, to be called to order in compliance with the State Emergency Services Act, the Governor's Emergency Declaration related to COVID-19, and the Governor's Executive Order N-29-20.

Chairperson Hsueh adjourned the meeting at 3:30 p.m., to the 12:00 p.m. Special Meeting on May 22, 2020, to be called to order in compliance with the State Emergency Services Act, the Governor's Emergency Declaration related to COVID-19, and the Governor's Executive Order N-29-20.

Michele L. King, CMC Clerk, Board of Directors

Approved:

Date: 07/28/2020



#### **BOARD OF DIRECTORS MEETING**

# **MINUTES**

# SPECIAL CLOSED SESSION FRIDAY, MAY 22, 2020 11:45 AM

(Paragraph numbers coincide with agenda item numbers)

#### 1. CALL TO ORDER:

Due to technical difficulties, the 12:00 p.m. Special Closed Session Meeting of the Santa Clara Valley Water District (Valley Water) Board of Directors was called to order at 12:30 p.m., in the Valley Water Headquarters Building Boardroom at 5700 Almaden Expressway, San Jose, California.

#### 1.1 Roll Call.

Board members in attendance were Tony Estremera, Nai Hsueh, and Richard Santos. Board members participating by teleconference were Barbara Keegan, Gary Kremen, Linda LeZotte, and John L. Varela, constituting a quorum of the Board.

Staff in attendance was Michelle Meredith, Deputy Clerk of the Board, representing Michele L. King, Clerk, Board of Directors.

# 1.2. Pledge of Allegiance/National Anthem.

Chairperson Hsueh led all present in reciting the Pledge of Allegiance.

# 1.3. Time Open for Public Comment on any Item not on the Agenda.

Chairperson Hsueh declared time open for public comment on any item not on the agenda. There was no one present who wished to speak.

#### 2. TIME CERTAIN:

#### 12:00 PM

Chairperson Hsueh confirmed that the Board would adjourn to Closed Session for consideration of Item 2.1. Upon conclusion of Closed Session, Directors Keegan, Kremen and Varela ended their participation by teleconference and did not return.

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Upon return to Open Session, the same Board members, excluding Directors Keegan, Kremen and Varela, and staff were present.

# 2.1. CLOSED SESSION

PUBLIC EMPLOYEE APPOINTMENT

Pursuant to Government Code Section 54957(b)(1)

Title: Chief Executive Officer/General Manager

#### 3. ADJOURN:

3.1 District Counsel Report

Chairperson Hsueh reported that in regard to Item 2.1, the Board met in closed session with all members participating and gave direction to the Board Chairperson and staff.

3.2 Adjourn to the 3:00 p.m. Closed Session and 4:00 p.m. Regular Meeting, on May 26, 2020, to be called to order in compliance with the State Emergency Services Act, the Governor's Emergency Declaration related to COVID-19, and the Governor's Executive Order N-29-20.

Chairperson Hsueh adjourned the meeting at 2:30 p.m., to the 3:00 p.m. Closed Session and 4:00 p.m. Regular Meeting, on May 26, 2020, to be called to order in compliance with the State Emergency Services Act, the Governor's Emergency Declaration related to COVID-19, and the Governor's Executive Order N-29-20.

Michele L. King, CMC Clerk, Board of Directors

Approved:

Date: 07/28/2020

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#### BOARD OF DIRECTORS MEETING

# **MINUTES**

# CLOSED SESSION AND REGULAR MEETING TUESDAY, MAY 26, 2020 3:00 PM

(Paragraph numbers coincide with agenda item numbers)

#### 1. CALL TO ORDER:

A Closed Session and Regular Meeting of the Santa Clara Valley Water District (Valley Water) Board of Directors was called to order in the Valley Water Headquarters Building Boardroom at 5700 Almaden Expressway, San Jose, California, at 3:00 p.m.

#### 1.1 Roll Call.

Board members in attendance were Tony Estremera, Nai Hsueh, and Richard Santos. Board members participating by teleconference were Barbara Keegan, Linda J. LeZotte, and John L. Varela, constituting a quorum of the Board.

Director Gary Kremen joined the meeting by teleconference, as indicated below.

Staff in attendance was M. King, Clerk, Board of Directors. Staff participating by teleconference were N. Camacho, Chief Executive Officer, S. Yamamoto, District Counsel, J. Aranda, A. Baker, M. Baratz, R. Blank, R. Callender, M. Cook, G. De La Piedra, C. Hakes, G. Hall, M. Lugo, H. McMahon, M. Richardson, D. Taylor, and T. Yoke.

#### 2. TIME CERTAIN:

### 3:00 PM

Chairperson Hsueh confirmed that the Board would adjourn to Closed Session for consideration of Item 2.1.

During Closed Session, Director Kremen joined the meeting by teleconference.

Upon return to Open Session, the same Board members, including Director Kremen, and staff were present.

2.1 CLOSED SESSION
CONFERENCE WITH LEGAL COUNSEL
ANTICIPATED LITIGATION - Significant Exposure to Litigation
Pursuant to Government Code Section 54956.9(d)(2)
(One Potential Case)

#### 4:00 PM

2.2 District Counsel Report on Closed Session.

Mr. Joseph Aranda, Assistant District Counsel, reported that in regard to Item 2.1, the Board met in Closed Session with all members present, including Director Kremen, and gave direction to staff.

2.3 Pledge of Allegiance/National Anthem.

Director Estremera led all present in reciting the Pledge of Allegiance.

2.4 Orders of the Day.

Chairperson Hsueh confirmed that Item 4.1 would be considered after Item 2.5.

2.5 Time Open for Public Comment on any Item not on the Agenda.

Chairperson Hsueh declared time open for public comment on any item not on the agenda. There was no one present who wished to speak.

Chairperson Hsueh moved the agenda to Item 4.1.

4.1 Chief Executive Officer Appointment and Employment Agreement.

Recommendation: Adopt the Resolution APPOINTING ENRICO (RICK)

CALLENDER AS THE CHIEF EXECUTIVE OFFICER, A BOARD APPOINTED OFFICER OF THE SANTA CLARA

VALLEY WATER DISTRICT, AND APPROVING

EMPLOYMENT AGREEMENT.

Chairperson Hsueh reviewed the information on this item, per the attached Board Agenda Memo.

Fourteen statements expressing support for appointing Mr. Enrico (Rick) Callender as Valley Water's Chief Executive Officer were received from: Mr. Carl Davis Jr., Silicon Valley Black Chamber of Commerce Executive Director; Ms. Alice Huffman and Rev. Jethroe Moore II, San Jose Silicon Valley National Association for the Advancement of Colored People (NAACP) former and current Presidents, respectively, and Ms. Hellen Sims, San Jose Silicon Valley NAACP Chapter Second Vice President; Mr. Dan Daniels, NAACP Coastal Region Director; Ms. Sheila Stevens, Sheila Stevens Associates Chief Executive Officer; Mr. Milan Blanton, African American Community Services Agency Executive Director; Ms. Wendy Greenfield, South Bay Chapter, Jewish Voices for Peace; Mr. Rob Seeley, California Water Service (Cal Water) Community Affairs Specialist; Mr. Walter Wilson and Mr. Reginald Swirley, Silicon Valley Minority Business Consortium; Dr. Roxana Marachi, San Jose State University Associate

Professor, Elementary Education; Ms. Elizabeth Mulford, Attorney at Law (retired); and Mr. James Stanton, of undisclosed agency affiliation or residency.

Motion: Adopt Resolution No. 20-55, APPOINTING ENRICO

(RICK) CALLENDER AS THE CHIEF EXECUTIVE OFFICER, A BOARD APPOINTED OFFICER OF THE SANTA CLARA VALLEY WATER DISTRICT, AND APPROVING EMPLOYMENT AGREEMENT, by roll call

vote.

Move to Adopt: Tony Estremera Second: Richard Santos

Yeas: Tony Estremera, Gary Kremen, Richard Santos, John L.

Varela

Nays: Nai Hsueh, Barbara Keegan, Linda J. LeZotte

Abstains: None Recuses: None Absent: None

Summary: 4 Yeas; 3 Nays; 0 Abstains; 0 Absent.

Director Keegan explained that she voted in opposition to the item because she needed to vote her conscience.

Chairperson Hsueh returned the agenda to Item 2.6.

2.6 Presentation of 2019 Board Advisory Committees/Commission Accomplishments Reports.

Recommendation: Receive and approve the 2019 Accomplishments Reports

as presented by the Board's Advisory

Committees/Commission 2019 Chairs/Vice Chairs.

Ms. Glenna Brambill, Management Analyst II, reviewed the information on this item, per the attached Board Agenda Memo.

Move to Approve: Richard Santos Second: Tony Estremera

Yeas: Tony Estremera, Nai Hsueh, Barbara Keegan, Gary

Kremen, Linda J. LeZotte, Richard Santos, John L. Varela

Nays: None Abstains: None Recuses: None Absent: None

Summary: 7 Yeas; 0 Nays; 0 Abstains; 0 Absent.

2.7 Approve the Preliminary Project Description for the Anderson Dam Federal Energy Regulatory Commission Order Compliance Project, (Anderson Dam Seismic Retrofit Project, Project No. 91864005); and Find that Requirements of the Federal Energy Regulatory Commission Order Compliance Project is Consistent with Santa Clara Valley Water District Resolution No. 605 (Morgan Hill, District 1).

Recommendation: A. Approve the Preliminary Project Description for the

Anderson Dam Federal Energy Regulatory

Commission (FERC) Order Compliance Project; and

B. Find that the requirements of FERC's Order are consistent with Santa Clara Valley Water District Resolution No. 605 (Adopted June 12, 1962).

Ms. Melanie Richardson, Chief Operating Officer, and Mr. Chris Hakes, Deputy Operating Officer, reviewed the information on this item, per the attached Board Agenda Memo, and Mr. Hakes distributed and reviewed the attached materials pertaining to Best Management Practices for the Santa Clara Valley Habitat Plan, and the project's Parcels and Real Estate Needs, identified as Handout 2.7-A herein. Copies of the Handout were distributed to the Board and made available to the public.

Director Kremen requested that staff come back to the Board with discussion on the Guadalupe Coyote Resource Conservation District, as it pertains their position on Assembly Bill (AB) 3005.

Move to Approve : Richard Santos Second: Tony Estremera

Yeas: Tony Estremera, Nai Hsueh, Barbara Keegan, Gary

Kremen, Linda J. LeZotte, Richard Santos, John L. Varela

Nays: None Abstains: None Recuses: None Absent: None

Summary: 7 Yeas; 0 Nays; 0 Abstains; 0 Absent.

Chairperson Hsueh declared a brief recess and upon resuming the meeting with the same Board members and staff present, moved the Agenda to Item 3.1.

#### 3. CONSENT CALENDAR:

The Board considered Consent Calendar Items 3.1 through 3.4, under one motion; and received three comments expressing appreciation for the opportunity to serve as Water 101 Academy Ambassadors from 2020 Water Ambassadors Mr. Justin Triano, Ms. Sheila Gokey, and Ms. Brooke Schryver.

 Adopt Resolutions Expressing Appreciation to Water 101 Academy Ambassadors.

Recommendation: Adopt the Resolutions EXPRESSING APPRECIATION to

20 Water 101 Academy Ambassadors.

3.2 Adopt Recommended Positions on State Legislation: SB 1188 (Stern) The California Water Plan; and Other Legislation Which May Require Urgent Consideration for a Position by the Board.

Recommendation: Adopt a position of "Support" on: SB 1188 (Stern) The

California Water Plan.

3.3 Approve Recommended Positions on Federal Legislation: H.R. 6643 (Schneider)
 - Supporting State and Local Leaders Act; \*S. 3591 (Barrasso) - America's Water Infrastructure Act (AWIA) of 2020; and \*S. 3590 (Barrasso) - Drinking Water Infrastructure Act of 2020.

Recommendation: A. Adopt a position of "Support" on H.R. 6643 (Schneider)

- Supporting State and Local Leaders Act;

 B. \*Adopt a position of "Support and Amend" on S. 3591 (Barrasso) - America's Water Infrastructure Act (AWIA) of 2020; and

C. \*Adopt a position of "Support" on S. 3590 (Barrasso)

- Drinking Water Infrastructure Act of 2020.

3.4 Accept the CEO Bulletin for the Weeks of May 8-22, 2020.

Recommendation: Accept the CEO Bulletins.

Motion: Adopt Resolution Nos. 20-20 through 20-35,

EXPRESSING APPRECIATION to 20 Water 101 Academy Ambassadors, by roll call vote, as contained in Item 3.1; adopt a position of "Support" on: SB 1188 (Stern) The California Water Plan, as contained in Item 3.2; adopt positions of "Support" on H.R. 6643 (Schneider)

- Supporting State and Local Leaders Act, and S. 3590 (Barrasso) - Drinking Water Infrastructure Act of 2020, and a position of "Support and Amend" on S. 3591 (Barrasso) - America's Water Infrastructure Act (AWIA) of 2020, as contained in Item 3.3; and accept the CEO Bulletins, as

contained in Item 3.4.

Move to Approve: Richard Santos Second: Tony Estremera

Yeas: Tony Estremera, Nai Hsueh, Barbara Keegan, Gary

Kremen, Linda J. LeZotte, Richard Santos, John L. Varela

Nays: None Abstains: None Recuses: None Absent: None

Summary: 7 Yeas; 0 Nays; 0 Abstains; 0 Absent.

Chairperson Hsueh returned the agenda to Item 2.8.

#### 6:00 PM

2.8 Consideration of Project Labor Agreement.

Recommendation: A. Receive information from Santa Clara Valley Water

District (Valley Water) staff, and the Capital

Improvement Program (CIP) Committee, regarding how a Project Labor Agreement (PLA) may impact

Valley Water's capital projects:

B. Receive information and discuss the CIP Committee's identified potential benefits, and potential concerns;

- C. Make a determination on whether Valley Water should pursue PLA implementation;
- D. If the Board decides to proceed with a PLA, provide direction on whether Valley Water should adopt a project value threshold for use of a PLA, or should one specific pilot project be selected to test the use of a PLA; and
- E. If the Board decides to proceed with a PLA, identify negotiation parameter and provide direction regarding PLA negotiation commencement.

Mr. Michael Baratz, Labor Relations Officer, reviewed the information on this item, per the attached Board Agenda Memo.

Five statements expressing opposition to development of PLAs were received from: Mr. Eric Christen, Coalition for Fair Employment in Construction; Ms. Nicole Goehring, Associated Builders and Contractors Northern California Chapter; Mr. Joe Lubas, of undisclosed Bay Area residency; and Mr. Nick Kaspar and Mr. Ken Wong, of undisclosed agency affiliation or residency.

Sixteen statements expressing support for development of PLAs were received from: Mr. Benjamin Brown and Mr. Steve Espinosa, Bricklayers, Tilesetters and Allied Craftworkers' Local 3; Mr. Frank Biehl, Mr. David Bini, and Ms. Cherie Cabral, Santa Clara and San Benito Counties Building and Construction Trades Council; Mr. Wayd La Pearle, Santa Clara Valley Contactors' Association; Mr. Will Smith, International Brotherhood of Electrical Workers Local 332; Mr. Patrick Ahrens, representing California State Assembly member Evan Low; Mr. Neils Ash, Mr. Ryan Jones, and Mr. Clint Steele, Operating Engineers Local 3; Mr. Steven Flores and Mr. Edmundo Escarceda, UA Local 393; Ernesto Cachola, Carpet, Linoleum and Soft Tile Workers Local 12; Mr. Chad Dutton, Carpenters Local 405; and Mr. Steve Belong, Drywall Trades Local 16.

Mr. Richard Markusen, Electrical Plumbing and Roofing Contractors, expressed neither support nor opposition, and requested that if the Board does approve use of PLAs, that they insist within the negotiation process that apprentice labor from any State-approved apprenticeship program be acceptable for dispatch to jobs.

Directors Estremera, Keegan, and Santos expressed preferences for the Board to approve the use of PLAs for non-environmental, rehabilitation, or restoration types of projects that fall within the \$2 to \$3 million threshold and keep PLA Project money within Santa Clara County; and expressed support for moving forward to establish a Board Ad Hoc Committee to negotiate PLA terms and quide staff before bringing proposed PLAs back to the Board for approval.

Motion: Approve moving forward to commence PLA negotiations.

Move to Approve: Tony Estremera Second: Richard Santos

Yeas: Tony Estremera, Nai Hsueh, Barbara Keegan, Gary

Kremen, Richard Santos, John L. Varela

Nays: Linda J. LeZotte

Abstains: None Recuses: None Absent: None

Summary: 6 Yeas; 1 Nays; 0 Abstains; 0 Absent.

Director LeZotte confirmed that she voted in opposition to the item because there was no history of labor strikes or disputes on previous Valley Water projects.

Directors Keegan and LeZotte expressed interest in serving on the PLA Ad Hoc Committee; and Chairperson Hsueh confirmed that she would meet with Vice Chairperson Estremera to discuss the purpose and scope of the Committee and come back for Board approval.

2.9 Public Hearing-Annual Report Recommending Flood Control Benefit
Assessments and Resolution Setting Benefit Assessment Revenue for Fiscal
Year 2020-2021.

Recommendation:

- A. Open the annual public hearing to consider any comments regarding the Flood Control Benefit Assessments for Fiscal Year 2020-2021 (FY 2020-21);
- B. Close the Public Hearing; and
- C. Adopt the Resolution ESTABLISHING LAND USE CATEGORIES, CONFIRMING A LEVY OF BENEFIT ASSESSMENTS TO MEET DULY AUTHORIZED DEBT OBLIGATIONS FOR FY 2020-2021 IN FLOOD CONTROL ZONES OF SANTA CLARA VALLEY WATER DISTRICT, IN ACCORDANCE WITH RESOLUTION NOS. 86-54, 86-55, 86-56, 86-57, AND 90-7, AND AUTHORIZING A PROCEDURE FOR CORRECTING ASSESSMENTS.

Chairperson Hsueh opened the Public Hearing.

Mr. Anthony Mendiola, Program Administrator, reviewed the information on this item, per the attached Board Agenda Memo.

Chairperson Hsueh declared time open for public comments and, seeing no one present who wished to speak, closed the Public Hearing.

Motion: Adopt Resolution No. 20-28, ESTABLISHING LAND USE

CATEGORIES, CONFIRMING A LEVY OF BENEFIT ASSESSMENTS TO MEET DULY AUTHORIZED DEBT OBLIGATIONS FOR FY 2020-2021 IN FLOOD CONTROL ZONES OF SANTA CLARA VALLEY WATER DISTRICT, IN ACCORDANCE WITH RESOLUTION NOS. 86-54, 86-55, 86-56, 86-57, AND 90-7, AND AUTHORIZING A PROCEDURE FOR CORRECTING ASSESSMENTS, by

roll call vote.

Move to Adopt: John L. Varela Second: Richard Santos

Yeas: Tony Estremera, Nai Hsueh, Barbara Keegan, Gary

Kremen, Linda J. LeZotte, Richard Santos, John L. Varela

Nays: None Abstains: None Recuses: None Absent: None

Summary: 7 Yeas; 0 Nays; 0 Abstains; 0 Absent.

2.10 Public Hearing and Resolution Approving the Santa Clara Valley Water District's Draft Fiscal Years 2021-2025 Five-Year Capital Improvement Program (Continued from May 12, 2020).

Recommendation: A. Re-convene the public hearing from May 12, 2020 to

receive comments regarding the Santa Clara Valley Water District's Fiscal Years 2021-2025 Five-Year

Capital Improvement Program (CIP);

B. Close public hearing;

C. Direct staff to incorporate the Board approved changes to the draft FY 2021-2025 Five-Year CIP and finalize the FY 2021-2025 Five-Year CIP by June 30, 2020;

and

D. Adopt the Resolution APPROVING FISCAL YEARS 2021-2025 FIVE-YEAR CAPITAL IMPROVEMENT PROGRAM (CIP).

Chairperson Hsueh opened the Public Hearing.

Mr. Hakes reviewed the information on this item, per the attached Board Agenda Memo.

During the presentation, Director Kremen's connection to the meeting by teleconference was lost and resumed as noted below.

Chairperson Hsueh declared time open for public comments and, seeing no one present who wished to speak, closed the Public Hearing.

Motion: Approve incorporating the Board approved changes to the

draft FY 2021-2025 Five-Year CIP and finalize the FY 2021-2025 Five-Year CIP by June 30, 2020; and adopt Resolution No. 20-29, APPROVING FISCAL

YEARS 2021-2025 FIVE-YEAR CAPITAL IMPROVEMENT

PROGRAM (CIP), by roll call vote.

Move to Adopt: Tony Estremera Second: Richard Santos

Yeas: Tony Estremera, Nai Hsueh, Barbara Keegan, Linda J.

LeZotte, Richard Santos, John L. Varela

Nays: None Abstains: None Recuses: None

Absent: Gary Kremen

Summary: 6 Yeas; 0 Nays; 0 Abstains; 1 Absent.

Mr. Taylor reviewed the information Items 2.11, 2.12, and 2.13, per the attached Board Agenda Memos.

- 2.11 Safe, Clean Water and Natural Flood Protection Special Tax Summary Report and Resolution Providing for Levy of the Special Tax Rates and Authorizing a Procedure for Correcting Special Tax Amounts for Fiscal Year 2020-2021.
  - Recommendation: A. Accept the fiscal year 2020-21 Safe, Clean Water and Natural Flood Protection Special Tax Summary Report;

and

B. Adopt the Resolution PROVIDING FOR LEVY OF THE SPECIAL TAX PURSUANT TO THE SAFE, CLEAN WATER AND NATURAL FLOOD PROTECTION MEASURE IN THE COMBINED FLOOD CONTROL ZONE OF THE SANTA CLARA VALLEY WATER DISTRICT AND AUTHORIZING A PROCEDURE FOR CORRECTING SPECIAL TAX AMOUNTS FOR

FISCAL YEAR 2020-2021.

Director Kremen rejoined the meeting by teleconference.

Motion: Accept the fiscal year 2020-21 Safe, Clean Water and

Natural Flood Protection Special Tax Summary Report; and adopt Resolution No. 20-30, PROVIDING FOR LEVY OF THE SPECIAL TAX PURSUANT TO THE SAFE, CLEAN WATER AND NATURAL FLOOD PROTECTION MEASURE IN THE COMBINED FLOOD CONTROL ZONE

OF THE SANTA CLARA VALLEY WATER DISTRICT

AND AUTHORIZING A PROCEDURE FOR

CORRECTING SPECIAL TAX AMOUNTS FOR FISCAL

YEAR 2020-2021, by roll call vote.

Move to Adopt: Tony Estremera Second: Gary Kremen

Yeas: Tony Estremera, Nai Hsueh, Barbara Keegan, Gary

Kremen, Linda J. LeZotte, Richard Santos, John L. Varela

Nays: None Abstains: None Recuses: None Absent: None

Summary: 7 Yeas; 0 Nays; 0 Abstains; 0 Absent.

2.12 Adoption of Groundwater Production and Other Water Charges for Fiscal Year 2020-2021.

Recommendation: A. Adopt a Resolution DETERMINING GROUNDWATER

PRODUCTION CHARGES FOR FISCAL

YEAR 2020-2021; and

B. Adopt a Resolution DETERMINING SURFACE WATER, TREATED WATER, AND SOUTH COUNTY

RECYCLED WATER CHARGES FOR FISCAL

YEAR 2020-2021.

Motion: Adopt a Resolution No. 20-31, DETERMINING

GROUNDWATER PRODUCTION CHARGES FOR FISCAL YEAR 2020-2021, and Resolution No. 20-32, DETERMINING SURFACE WATER, TREATED WATER, AND SOUTH COUNTY RECYCLED WATER CHARGES

FOR FISCAL YEAR 2020-2021, by roll call vote.

Move to Adopt: John L. Varela Second: Tony Estremera

Yeas: Tony Estremera, Nai Hsueh, Barbara Keegan, Gary

Kremen, Linda J. LeZotte, Richard Santos, John L. Varela

Nays: None Abstains: None Recuses: None Absent: None

Summary: 7 Yeas; 0 Nays; 0 Abstains; 0 Absent.

Chairperson Hsueh confirmed that consistent with Board discussion during the May 12, 2020 meeting, she would meet with Vice Chairperson Estremera to discuss the scope and purpose of a Groundwater Production Charges and Budget Ad Hoc Committee, and would come back to the full Board for approval.

2.13 Resolutions Adopting the Fiscal Year 2020-2021 Operating and Capital Budget and Levy of Ad-Valorem Property Taxes, and Approval of Santa Clara Valley Water District Reserve Policy.

Recommendation:

- A. Discuss and adopt a Resolution APPROVING AND ADOPTING THE OPERATING AND CAPITAL BUDGET FOR FISCAL YEAR 2020-2021;
- B. Discuss and adopt a Resolution PROVIDING FOR LEVY OF AD VALOREM REAL PROPERTY TAXES IN FISCAL YEAR 2020-21 TO MEET THE COST OF ITS WATER SUPPLY CONTRACT WITH THE STATE OF CALIFORNIA: and
- C. Approve the Santa Clara Valley Water District (Valley Water) Reserve Policy.

Motion:

Adopt Resolution No. 20-33, APPROVING AND ADOPTING THE OPERATING AND CAPITAL BUDGET FOR FISCAL YEAR 2020-2021, and Resolution No. 20-34. PROVIDING FOR LEVY OF AD VALOREM REAL PROPERTY TAXES IN FISCAL YEAR 2020-21 TO MEET THE COST OF ITS WATER SUPPLY CONTRACT WITH THE STATE OF CALIFORNIA, by roll call vote; approve the Santa Clara Valley Water District Reserve Policy; and authorize the Board Chairperson to work with the Vice Chairperson to establish and come back to the full Board at a future meeting with the scope and purpose of an Ad Hoc Committee to further review the budget and implications associated with reduced property taxes, 0 percent rate increases, and the Board's request to investigate opportunities to support agencies assisting water rate payers impacted by Covid-19; and direct staff to come back with additional rate and budget discussions

Move to Adopt: Tony Estremera Second: Nai Hsueh

Yeas: Tony Estremera, Nai Hsueh, Barbara Keegan, Linda J.

LeZotte, Richard Santos, John L. Varela

Nays: Gary Kremen

mm:0615a-mn 05/26/20

in September 2020.

Abstains: None Recuses: None Absent: None

Summary: 6 Yeas; 1 Nays; 0 Abstains; 0 Absent.

Director Kremen confirmed that he voted in opposition to the item because he didn't feel enough cuts had been made to the budget to reflect the economic impacts Covid-19 has had on Valley Water and its constituents.

#### **REGULAR AGENDA:**

#### 4. BOARD OF DIRECTORS:

4.2 Board Committee Reports.

The Board noted without formal action the attached Delta Conveyance Design and Construction, and Finance, Authority meeting summaries, identified herein as Handouts 4.2-A and 4.2-B, respectively. Copies of the Handouts were distributed to the Board and made available to the public.

4.3 Proposed Future Board Member Agenda Items.

Chairperson Hsueh acknowledged Director Kremen's previous request for staff to come back with discussion on the Guadalupe Coyote Resource Conservation District, as it pertains to their position on AB 3005.

#### 5. WATER UTILITY ENTERPRISE:

### 5.1 ITEM REMOVED FROM AGENDA.

(Receive an Update on the Central Valley Project Contract Conversion Process Under the Water Infrastructure Improvements for the Nation Act; Adopt a Resolution Approving Mercy Spring Repayment Contract and Authorizing the Chief Executive Officer to Execute it; and Approve and Authorize the District Counsel to File a Validation Action for the Mercy Springs Repayment Contract.)

The Board noted that Item 5.1 had been removed from the agenda.

# 6. WATERSHEDS:

None.

#### 7. EXTERNAL AFFAIRS:

None.

# 8. CHIEF EXECUTIVE OFFICER:

8.1 Update on COVID-19 Response.

Mr. Alex Gordon, Emergency and Security Manager, reported that the countywide shelter-in-place order remained in effect, and provided a verbal update on Valley Water's Covid-19 response, including preparation efforts being made to facilitate the return of Valley Water employees to on-site workspaces.

8.2 CEO and Chiefs' Report.

Ms. Norma Camacho, Chief Executive Officer, congratulated Mr. Callender on his appointment as Chief Executive Officer, effective July 11, 2020, and discussed plans to transition the CEO role.

Mr. Garth Hall, Chief Operating Officer, provided an update on efforts to dewater Anderson Reservoir.

Mr. Callender distributed and reviewed the attached Office of Government Relations Update, identified as Handout 8.2-A herein. Copies of the Handout were distributed to the Board and made available to the public.

#### 9. ADMINISTRATION:

None.

# 10. DISTRICT COUNSEL:

None.

### 11. ADJOURN:

11.1 Board Member Reports/Announcements.

None.

11.2 Clerk Review and Clarification of Board Requests.

Ms. Michele King, Clerk, Board of Directors, confirmed that there were no new Board Member Requests.

11.3 Adjourn to Regular Meeting at 1:00 p.m., on June 9, 2020, to be called to order in compliance with the State Emergency Services Act, the Governor's Emergency Declaration related to COVID-19, and the Governor's Executive Order N-29-20.

Chairperson Hsueh adjourned the meeting at 9:00 p.m., to the Regular Meeting at 1:00 p.m., on June 9, 2020, to be called to order in compliance with the State Emergency Services Act, the Governor's Emergency Declaration related to COVID-19, and the Governor's Executive Order N-29-20.

Michele L. King, CMC Clerk, Board of Directors

Approved:

Date: 07/28/2020



#### BOARD OF DIRECTORS MEETING

# **MINUTES**

# CLOSED SESSION AND REGULAR MEETING TUESDAY, JUNE 9, 2020 12:00 PM

(Paragraph numbers coincide with agenda item numbers)

#### 1. CALL TO ORDER:

A Closed Session and Regular Meeting of the Santa Clara Valley Water District (Valley Water) Board of Directors was called to order in the Valley Water Headquarters Building Boardroom at 5700 Almaden Expressway, San Jose, California, at 12:00 p.m.

#### 1.1. Roll Call.

Board members in attendance were Tony Estremera, Nai Hsueh, and Richard Santos. Board members participating by teleconference were Barbara Keegan, Gary Kremen, Linda J. LeZotte, and John L. Varela, constituting a quorum of the Board.

Staff members in attendance were M. King, Clerk, Board of Directors. Staff participating by teleconference were N. Camacho, Chief Executive Officer (CEO),

- S. Yamamoto, District Counsel, J. Aranda, A. Baker, R. Callender,
- G. De La Piedra, A. Fulcher, R. Gibson, V. Gin, C. Hakes, G. Hall, M. Lugo,
- H. McMahon, M. Richardson, D. Taylor, S. Tippets, B. Yerrapotu, and T. Yoke.

Chairperson Hsueh confirmed that the Board would adjourn to Closed Session for consideration of Item 2.1.

#### 2. TIME CERTAIN:

#### 12:00 PM

2.1. CLOSED SESSION
CONFERENCE WITH LEGAL COUNSEL
POTENTIAL INITIATION OF LITIGATION
Pursuant to Government Code Section 54956.9(D)(4)
Two Potential Cases

# 1:00 PM

Upon return to Open Session, the same Board members and staff were present.

2.2. District Counsel Report on Closed Session.

Mr. Stan Yamamoto, District Counsel, reported that in regard to Item 2.1, the Board met in Closed Session with all members present, and gave direction to staff.

2.3. Pledge of Allegiance/National Anthem.

Director Santos led all present in reciting the Pledge of Allegiance.

2.4. Orders of the Day.

Chairperson Hsueh confirmed that there were no changes to the Orders of the Day.

2.5. Time Open for Public Comment on any Item not on the Agenda.

Seven statements expressing support for the completion of the investigation and public records request letter from Rev. Jethroe Moore II, San Jose Silicon Valley National Association for the Advancement of Colored People (NAACP), dated May 27, 2020 were received from: Ms. Alice Huffman, and Rev. Moore, San Jose Silicon Valley NAACP former and current Presidents, respectively, and Mr. Dan Daniels, NAACP Coastal Region Director; Mr. Walter Wilson, Silicon Valley Minority Business Consortium; Mr. Bob Nunez, La Raza Roundtable Co-Chairperson; Mr. Bob Pasqua, Native Voice Television; and Ms. Rose Amador, ConXion to Community Chief Executive Officer.

### 3. CONSENT CALENDAR:

Chairperson Hsueh removed Items 3.2 and 3.3 from the Consent Calendar for individual consideration, and the Board considered Consent Calendar Items 3.1 and 3.4 through 3.6, under one motion.

3.1. Adopt the Resolution Requesting and Consenting to Consolidation of Elections for November 3, 2020.

Recommendation: Adopt the Resolution REQUESTING AND CONSENTING TO CONSOLIDATION OF ELECTION.

3.4. Approve the Board of Directors' Quarterly Expense Report for the Quarter Ending March 31, 2020.

Recommendation: A. Review the Board of Directors' Quarterly Expense Report for the Quarter Ending March 31, 2020; and

B. Approve the report, if the reimbursements comply with Board Policy.

3.5. Accept the CEO Bulletin for the Weeks of May 22 Through June 4, 2020.

Recommendation: Accept the CEO Bulletin.

3.6. Approval of Minutes.

Recommendation: Approve the minutes.

Motion: Approve Consent Calendar Items 3.1 and 3.4 through 3.6,

under one motion, as follows: Adopt Resolution No. 20-56, REQUESTING AND CONSENTING TO CONSOLIDATION OF ELECTION, by roll call vote, as contained in Item 3.1; approve the Board of Directors' quarterly expense report for the quarter ending March 31, 2020, as contained in Item 3.4; accept the CEO Bulletin, as contained in Item 3.5; and approve the minutes, as contained in

Item 3.6.

Move to Approve: Richard Santos Second: Tony Estremera

Yeas: Tony Estremera, Nai Hsueh, Barbara Keegan, Gary

Kremen, Linda J. LeZotte, Richard Santos, John L. Varela

Nays: None Abstains: None Recuses: None Absent: None

Summary: 7 Yeas; 0 Nays; 0 Abstains; 0 Absent.

Chairperson Hsueh returned the Agenda to Item 3.2.

3.2. Resolution to Set a Public Hearing on the Engineer's Report and CEQA Exemption Determination for the Anderson Dam Federal Energy Regulatory Commission Order Compliance Project, Project No. 91864005 (Morgan Hill) (District 1).

Recommendation: Adopt the Resolution PROVIDING FOR THE NOTICE OF

TIME AND PLACE OF PUBLIC HEARING ON THE ENGINEER'S REPORT AND CEQA EXEMPTION DETERMINATION FOR THE ANDERSON DAM FEDERAL ENERGY REGULATORY COMMISSION ORDER COMPLIANCE PROJECT to occur on June 23, 2020, at 6:00 PM by teleconference Zoom meeting.

The Board considered Item 3.2 without a staff presentation.

Director LeZotte asked staff if they were planning on responding to the letter from Sierra Club, Handout 3.2-A. Chairperson Hsueh stated that there wouldn't be any discussion at this time because this Item's intention was to set the time and place for the public hearing. Therefore, this letter will become a part of the public record for the June 23, 2020 public hearing.

Motion: Adopt Resolution No. 20-57, PROVIDING FOR THE

NOTICE OF TIME AND PLACE OF PUBLIC HEARING

ON THE ENGINEER'S REPORT AND CEQA

EXEMPTION DETERMINATION FOR THE ANDERSON DAM FEDERAL ENERGY REGULATORY COMMISSION ORDER COMPLIANCE PROJECT, by roll call vote.

Move to Adopt: Gary Kremen Second: Tony Estremera

Yeas: Tony Estremera, Nai Hsueh, Barbara Keegan, Gary

Kremen, Linda J. LeZotte, Richard Santos, John L. Varela

Nays: None Abstains: None Recuses: None Absent: None

Summary: 7 Yeas; 0 Nays; 0 Abstains; 0 Absent.

3.3. Approve Amendment No. 1 to Agreement No. A4265G with Carpi and Clay, Inc., for Federal Representation Services, Project No. 60231003, CAS File No. 4942, Increasing the Not-to-Exceed Fee from \$112,800 by \$117,600, for a Total Revised Fee of \$230,400, and Extend the Agreement Term to June 30, 2021.

Recommendation: Approve Amendment No. 1 to Agreement No. A4265G with

Carpi and Clay, Inc., for Federal Representation Services, Project No. 60231003, CAS File No. 4942, increasing the not-to-exceed fee from \$112,800 by \$117,600, resulting in a total revised fee of \$230,400, and extend the Agreement

term to June 30, 2021.

The Board considered Item 3.3 without a staff presentation.

Director Kremen, requested that staff, in the future, consider reviewing agreements, in the post COVID-19 pandemic financial environment, in order to identify potential cost savings.

Move to Approve: Richard Santos Second: Tony Estremera

Yeas: Tony Estremera, Nai Hsueh, Barbara Keegan, Gary

Kremen, Linda J. LeZotte, Richard Santos, John L. Varela

Nays: None Abstains: None Recuses: None Absent: None

Summary: 7 Yeas; 0 Nays; 0 Abstains; 0 Absent.

Chairperson Hsueh returned the Agenda to Item 4.1.

#### **REGULAR AGENDA:**

#### 4. BOARD OF DIRECTORS:

4.1. Discuss Conducting Board and Committee Meetings in Consideration of the COVID-19 Pandemic and Current Shelter in Place Orders.

Recommendation: A. Discuss parameters for conducting Board and

Committee meetings in consideration of the COVID-19 Pandemic and current Shelter in Place Orders: and

B. Provide direction to staff.

Ms. Michele King, Clerk, Board of Directors, reviewed the information on this item, per the attached Board Agenda Memorandum.

The Board confirmed that it would continue to move forward with all regularly scheduled Board meetings; requested that staff continue to cancel Committee meetings; suggested needs to hold committee or special Board meetings, be discussed with the Board Chairperson; and requested that staff return to the Board in July 2020 for further review and discussion.

4.2. Formation of a Fiscal Year 2021 Budget Review Board Working Group and a Project Labor Agreement Board Working Group.

Recommendation: Discuss and approve the formation of a Fiscal Year 2021

Budget Review Board Working Group and a Project Labor Agreement Board Working Group, and the purposes, scopes, outcomes, completion dates and appointments, as

proposed by the Board Chair.

Chairperson Hsueh reviewed the information on this item, per the attached Board Agenda Memorandum.

Motion: Approve the formation of a Fiscal Year 2021 Budget

Review Board Working Group and a Project Labor Agreement Board Working Group, and the purposes, scopes, outcomes, completion dates and appointments, as

proposed by the Board Chair.

Move to Approve: Richard Santos Second: Tony Estremera

Yeas: Tony Estremera, Nai Hsueh, Barbara Keegan, Gary

Kremen, Linda J. LeZotte, Richard Santos, John L. Varela

Nays: None Abstains: None Recuses: None Absent: None

Summary: 7 Yeas; 0 Nays; 0 Abstains; 0 Absent.

4.3. Proposed Future Board Member Agenda Items.

Chairperson Hsueh acknowledged Director Santos' request for staff to come to the Board with a discussion on how Valley Water can continue to provide the Intern Program during the COVID-19 Pandemic.

#### 5. WATER UTILITY ENTERPRISE:

5.1. Climate Change Mitigation - Update on Progress Towards Carbon Neutrality by 2020.

Recommendation: Receive and discuss information on Valley Water's

progress towards carbon neutrality by 2020.

Ms. Bhavani Yerrapotu, Deputy Operating Officer, reviewed the information on this item, per the attached Board Agenda Memorandum.

The Board noted the information without formal action.

# 6. WATERSHEDS:

None.

# 7. EXTERNAL AFFAIRS:

None.

#### 8. CHIEF EXECUTIVE OFFICER:

8.1. Results of Solicitation of Bank Line(s) of Credit with Aggregate Stated Amount Not-To-Exceed \$200 Million.

Recommendation:

- A. Receive information regarding bank line(s) of credit solicitation:
- B. Provide staff with direction on the bank(s) with which to proceed with negotiations and execution of line(s) of credit: and
- C. \*Reserve \$20 million of the \$200 million Line of Credit capacity for local financial institutions headquartered in the Bay Area each having total assets not to exceed One Billion Dollars.

Ms. Charlene Sun, Deputy Operating Officer, reviewed the information on this item, per the attached Board Agenda Memorandum.

During the presentation, the Board made the following requests of staff:

- For the top five financial institutes that submitted proposals for the \$180M bank line(s) of credit, review their social responsibility (corporate practices) policies and return to the Board with the information; and
- For the \$20M bank line(s) of credit, expand the search to include the greater bay area (9 counties).

8.2. Discuss Potential Customer Assistance Alternatives During COVID-19 Pandemic.

Recommendation: Discuss potential customer assistance alternatives that

could be undertaken in response to the COVID-19 Pandemic and provide direction to staff as necessary.

Mr. Darin Taylor, Chief Financial Officer reviewed the information on this item, per the attached Board Agenda Memorandum, and per the information contained in Attachment 1.

During the presentation, the Board made the following request of staff:

 The Board requested staff to use options 2, 3, and 4 (Attachment 1, Page 2) because it is a less administratively burdensome way to make it available ASAP.

# 8.3. Update on COVID-19 Response.

Mr. Alex Gordon, Emergency and Security Manager, reported that the countywide shelter-in-place order remained in effect, and provided a verbal update on Valley Water's COVID-19 response, including continued preparation efforts being made to facilitate the return of Valley Water employees to on-site workspaces.

# 8.4. CEO and Chiefs' Report.

Mr. Rick Callender, Chief of External Affairs, informed the Board that the Guadalupe Coyote Resource Conservation District voted in a closed session meeting to withdraw from the Fish and Aquatic Habitat Collaborative Effort Agreement; the Youth Commission had a virtual 2020 graduation for the Water Ambassador leaders; updated the Board on AB-3005 Leroy Anderson Dam and Reservoir: permitting, and public contracting; and informed the Board of two upcoming Coyote Creek Virtual Public Meetings on June 11 and June 17, 2020.

Mr. Garth Hall, Acting Chief Operating Officer, updated the Board on the Upper Llagas Creek, and Coyote Warehouse projects.

Ms. Melanie Richardson, Chief Operating Officer, updated the Board on the Stream Maintenance Program; introduced Mr. Alec Nicholas, who was recently promoted as Unit Manager for the Watersheds Design and Construction Unit 1; and advised the Board of Ms. Rochelle Blank's recent promotion as Deputy Operating Officer for the Design and Construction Division.

#### 9. ADMINISTRATION:

9.1. Adopt the Resolution Adopting Employee Salary Schedule for Fiscal Year 2021.

Recommendation: Adopt the Resolution ADOPTING EMPLOYEE SALARY

SCHEDULE - EFFECTIVE THE BEGINNING OF PAY

PERIOD 14 FOR FISCAL YEAR 2021.

Ms. Anna Noriega, Chief People Officer, reviewed the information on this item, per the attached Board Agenda Memorandum.

Motion: Adopt the Resolution No. 20-58, ADOPTING EMPLOYEE

SALARY SCHEDULE - EFFECTIVE THE BEGINNING OF PAY PERIOD 14 FOR FISCAL YEAR 2021, by roll call

vote.

Move to Adopt: Tony Estremera Second: Barbara Keegan

Yeas: Tony Estremera, Nai Hsueh, Barbara Keegan, Linda J.

LeZotte, Richard Santos, John L. Varela

Nays: None Abstains: None Recuses: None

Absent: Gary Kremen

Summary: 6 Yeas; 0 Nays; 0 Abstains; 1 Absent.

#### 10. DISTRICT COUNSEL:

None.

#### 11. ADJOURN:

11.1. Board Member Reports/Announcements.

Director Varela reported attending San Luis Delta-Mendota Water Authority (SLDMWA) and Association of California Water Agencies virtual Board meetings.

Director Keegan reported attending an Anderson Dam Seismic Retrofit Project virtual meeting; a Santa Clara County COVID-19 Elected Officials Conference Call; a Valley Water Town Hall virtual meeting; and various virtual meetings with staff.

Director Santos reported attending the aforementioned SLDMWA virtual Board meeting; a South County Regional Wastewater Authority virtual Board meeting; an Employees Association virtual meeting; a Bay Planning Coalition virtual meeting; a virtual meeting with Sunnyvale Mayor Larry Klein and City Manager Kent Steffens; and various virtual meetings with staff.

Director LeZotte reported attending the aforementioned Anderson Dam Seismic Retrofit Project and Valley Water Town Hall virtual meetings; and various virtual meetings with staff.

Chairperson Hsueh reported attending the aforementioned virtual meeting with Sunnyvale Mayor Larry Klein and City Manager Kent Steffens and Anderson Dam Seismic Retrofit Project meetings; a Youth Commission virtual meeting; and various virtual meetings with staff.

Director Estremera reported attending the aforementioned Valley Water Town Hall virtual meeting and SCC COVID-19 Officials conference call; and a Santa Clara County Special Districts Association virtual meeting.

11.2. Clerk Review and Clarification of Board Requests.

Ms. King confirmed that there were no new Board Member Requests.

11.3. Adjourn to Special Meeting at 10:00 a.m., on June 16, 2020, to be called to order in compliance with the State Emergency Services Act, the Governor's Emergency Declaration related to COVID-19, and the Governor's Executive Order N-29-20.

Chairperson Hsueh adjourned the meeting at 4:00 p.m., to the 10:00 a.m. Special Meeting on June 16, 2020, to be called to order in compliance with the State Emergency Services Act, The Governor's Emergency Declaration related to COVID-19, and the Governor's Executive Order N-29-20.

Michele L. King, CMC Clerk/Board of Directors

Approved:

Date: 07/28/2020



#### BOARD OF DIRECTORS MEETING

# **MINUTES**

# SPECIAL MEETING TUESDAY, JUNE 16, 2020 10:00 AM

(Paragraph numbers coincide with agenda item numbers)

#### 1. CALL TO ORDER:

A Special Meeting of the Santa Clara Valley Water District (Valley Water) Board of Directors was called to order on June 16, 2020, in the Valley Water Headquarters Building Boardroom, at 5700 Almaden Expressway, San Jose, California, at 10:00 a.m.

#### 1.1 Roll Call.

Board members in attendance were Tony Estremera, Nai Hsueh, and Richard Santos. Board Members participating by teleconference were Barbara Keegan, Gary Kremen, Linda LeZotte, and John Varela, constituting a quorum of the Board.

Staff in attendance was M. King, Clerk, Board of Directors. Staff participating by teleconference were N. Camacho, Chief Executive Officer (CEO), S. Yamamoto, District Counsel, R. Callender, G. Hall, and D. Taylor.

1.2 Pledge of Allegiance/National Anthem.

Director Estremera led all present in reciting the Pledge of Allegiance.

1.3 Time Open for Public Comment on any Item not on the Agenda.

Chairperson Hsueh declared time open for public comment on any item not on the agenda. There was no one present who wished to speak.

#### 2. TIME CERTAIN:

#### 10:00 AM

2.1 Board Study Session on Scope and Timing of Purified Water Projects Construction.

mm:0618a-mn 06/16/20

Recommendation:

- A. Receive an update on status of Purified Water Program planning scope and schedule; and
- B. Provide direction to staff regarding Purified Water Program scope and schedule.

Mr. Garth Hall, Interim Chief Operating Officer, reviewed the information on this item per the attached Board Agenda Memo, and the corresponding presentation materials contained in Attachment 1 were reviewed by staff as follows: Mr. Hall reviewed Slides 1 through 16, and 23 through 27; and Mr. Darin Taylor, Chief Financial Officer, reviewed Slides 17 through 22.

Mr. Taylor advised the Board that subsequent to the preparation of today's materials, the Government Accounting Standards Board (GASB) had released GASB Rule 94, which would become effective June 2022. He explained that GASB Rule 94 required that portions of Public/Private Partnership (P3) payments not related to operations and maintenance be accounted for as debt service, and advised the Board that this would likely result in a convergence of the projected Fiscal Year 2022 - 2030 water rate increases shown between Design/Bid/Build (DBB) and P3 projects on Attachment 1, Slide 22, on the lower table, Rows 1 and 2.

During the presentation, the Board provided the following direction, and made the following requests of staff:

- Refer to the Recycled Water Committee (RWC) to discuss cost and finance assumptions, including labor and interest rate changes since last discussions were held, and staffing plans to implement a Progressive P3 Program;
- Refer to the Chairperson to prepare a letter to the Cities of San Jose and Santa Clara communicating a 90-day post-election deadline for reaching a decision on participation in Purified Water Program partnership opportunities;
- Continue moving forward to pursue Progressive P3 implementation of Purified Water Program Projects;
- Reschedule the previously cancelled South County Governance Special Meeting; and
- Prepare various South County Recycled Water Program projected rate increase scenarios based on full vs. partial partner-member participation by South County Recycled Water Authority, Santa Clara and San Benito Counties, and the Cities of Morgan Hill and Gilroy.

mm:0618a-mn 06/16/20

#### 3. ADJOURN:

3.1 Clerk Review and Clarification of Board Requests.

Ms. Michele King, Clerk, Board of Directors, confirmed that there were no new Board Member Requests.

3.2 Adjourn to 4:00 p.m. Closed Session and 6:00 p.m. Regular Meeting, on June 23, 2020, to be called to order in compliance with the State Emergency Services Act, the Governor's Emergency Declaration related to COVID-19, and the Governor's Executive Order N-29-20.

Chairperson Hsueh adjourned the meeting at 12:30 p.m., to the 4:00 p.m. Closed Session and 6:00 p.m. Regular Meeting, on June 23, 2020, to be called to order in compliance with the State Emergency Services Act, the Governor's Emergency Declaration related to COVID-19, and the Governor's Executive Order N-29-20.

Michele L. King, CMC Clerk, Board of Directors

Approved:

Date: 07/28/2020

mm:0618a-mn 06/16/20

# Santa Clara Valley Water District



File No.: 20-0617 Agenda Date: 7/28/2020

Item No.: 4.1.

#### **BOARD AGENDA MEMORANDUM**

#### SUBJECT:

Amendment of Board Governance Policy GP-6.19.1 Board Members' Code of Conduct.

#### RECOMMENDATION:

- A. Determine whether to amend Board Governance Policy GP-6.19.1. as outlined below;
- B. If the Board desires said amendment to be effective retroactively, establish a date for such amendment to have become effective; and
- C. Should the Board wish for the changes to apply to the pending Rev. Jethroe Moore complaint, the changes should be retroactive to the date of June 23, 2020, the date the Chair determined an investigation was warranted, or earlier.

# SUMMARY:

Section 6.19.1 of the Board Members' Code of Conduct provides, if the Chair or Vice Chair determines that an investigation is warranted, upon notification of the Board, District Counsel may be directed to conduct an investigation. District Counsel may select and manage an independent investigator to assist in conducting the investigation.

In order to ensure clarity and Board confidence as to any investigation conducted pursuant to Board Governance Policy GP-6.19.1, the Board may desire to utilize the services of the Board Ethics and Conduct Ad Hoc Committee (see Board Governance Policy GP-6.9.2.1) in the selection of an independent investigator. If that is the Board's desire, Board Governance Policy GP-6.19.1. should be amended in its entirety to read as follows:

If the Chair or Vice Chair determines that an investigation is warranted, upon notification of the Board, District Counsel may be directed to conduct an investigation, and District Counsel may select and manage an independent investigator to assist in conducting such investigation.

Alternatively, at the discretion of the Chair or Vice Chair, the Board's Ethics and Conduct Ad Hoc Committee (as described in Board Governance Policy GP-6.9.2) shall select an independent investigator to conduct the investigation.

If the Board determines that an immediate amendment to Board Governance Policy GP-6.19.1 is

File No.: 20-0617 Agenda Date: 7/28/2020

Item No.: 4.1.

in the public's interest, said amendment may be given retroactive effect. The Board should determine any such date for effectiveness.

#### FINANCIAL IMPACT:

There is no financial impact associated with this item.

# CEQA:

The recommended action does not constitute a project under CEQA because it does not have the potential for resulting in direct or reasonable foreseeable indirect physical change in the environment.

# **ATTACHMENTS**:

Attachment 1: Board Governance Policy GP-6.19.1

#### **UNCLASSIFIED MANAGER:**

Stan Yamamoto, 408-630-2755

If the Chair or Vice Chair determines that an investigation is warranted, upon notification of the Board, District Counsel may be directed to conduct an investigation, and District Counsel may select and manage an independent investigator to assist in conducting such investigation.

Alternatively, at the discretion of the Chair or Vice Chair, the Board's Ethics and Conduct Ad Hoc Committee (as described in Section 6.9.2 of the Board's Governance Policies) shall select an independent investigator to conduct the investigation.

## Santa Clara Valley Water District



File No.: 20-0610 Agenda Date: 7/28/2020

Item No.: 4.2.

#### **BOARD AGENDA MEMORANDUM**

#### SUBJECT:

Adopt Resolution Providing for the Compensation of the Chief Executive Officer, a Board Appointed Officer of the Santa Clara Valley Water District.

#### RECOMMENDATION:

- A. Consider and determine compensation adjustments, if any, for the Chief Executive Officer; and
- B. Adopt the Resolution PROVIDING FOR THE COMPENSATION OF THE CHIEF EXECUTIVE OFFICER, A BOARD APPOINTED OFFICER OF THE SANTA CLARA VALLEY WATER DISTRICT, and approve the Amendment to the Employment Agreement Between the Santa Clara Valley Water District and Enrico Callender, consistent with Board-approved compensation adjustments.

#### SUMMARY:

The compensation negotiated between the new Chief Executive Officer (CEO) and the Board for the appointment effective July 11, 2020, was in accordance with the FY20 Salary Schedule. The Board approved the FY21 Salary Schedule on July 9, 2020, which reflected a 4% increase across the board for all classifications including the CEO. This proposed compensation adjustment (to \$341,411.20) places the compensation at the minimum of the salary range for the CEO classification to be in alignment with the salary schedule.

Attachment 1 is a Resolution and Employment Agreement Amendment approving the proposed compensation adjustment. An updated Unclassified Benefit Summary is included as an attachment to the Employment Agreement Amendment.

#### FINANCIAL IMPACT:

The FY21 budget includes a 4% salary increase for Board Appointed Officers.

#### CEQA:

The recommended action does not constitute a project under CEQA because it does not have potential for resulting in direct or reasonably foreseeable indirect physical changes in the environment.

**Agenda Date:** 7/28/2020 **Item No.:** 4.2. File No.: 20-0610

#### **ATTACHMENTS**:

Attachment 1: Resolution and Employment Agreement Amendment

#### **UNCLASSIFIED MANAGER:**

Anna Noriega, 408-630-3089

# BOARD OF DIRECTORS SANTA CLARA VALLEY WATER DISTRICT

#### **RESOLUTION NO. 20-**

# PROVIDING FOR THE COMPENSATION OF THE CHIEF EXECUTIVE OFFICER, A BOARD APPOINTED OFFICER OF THE SANTA CLARA VALLEY WATER DISTRICT

BE IT RESOLVED, by the Board of Directors of the Santa Clara Valley Water District (Valley Water) as follows:

- 1. Prior resolutions of the Board, to the extent that they may conflict with the provisions hereof, are hereby superseded and rescinded.
- 2. The salaries, wages, compensation, and expenses provided herein shall be in full for all official services performed unless expressly otherwise provided and shall be paid on the basis of the biweekly pay period plan. Compensation shall be payable on or before the seventh (7<sup>th</sup>) calendar day after conclusion of each biweekly pay period for services rendered during the preceding biweekly pay period. All officials and employees of the Santa Clara Valley Water District shall charge, collect and pay all fees required by law to be charged, collected, and paid into the proper fund of Valley Water and no officer or employee of Valley Water shall be compensated by fees.
- 3. The total salary of the Chief Executive Officer shall be that amount approved by the Board of Directors and formulated in this paragraph. As of July 11, 2020, the Chief Executive Officer shall receive a retroactive salary adjustment for a new adjusted annual salary of \$341,411.20.
- 4. In addition to an annual salary as set forth in paragraph 3, Valley Water shall continue to assume payment of the unclassified benefits that are in effect on the effective date of approval of this Resolution.
- 5. A July 2020 Amendment to Employment Agreement Between Santa Clara Valley Water District and Enrico Callender (Exhibit-A), sets forth a formal written amendment to the original Employment Agreement with the updated annual salary. This Amendment is hereby approved and the Chair of the Board is authorized to execute this Amendment.

PASSED AND ADOPTED by the Board of Directors of Santa Clara Valley Water District by the following vote on July 28, 2020:

AYES:	Directors	
NOES:	Directors	
ABSENT:	Directors	
ABSTAIN:	Directors	SANTA CLARA VALLEY WATER DISTRICT
ATTEST: M	ICHELE L. KING, CMC	By: NAI HSUEH Chair, Board of Directors
Clerk Boar	d of Directors	

**EXHIBIT - A** 

#### JULY 2020 AMENDMENT TO EMPLOYMENT AGREEMENT BETWEEN SANTA CLARA VALLEY WATER DISTRICT AND ENRICO CALLENDER

This July 2020 Amendment to the Employment Agreement between Santa Clara Valley Water District and Enrico Callender (Amendment) is entered into effective July 28, 2020.

#### **RECITALS**

- A. Whereas, on May 26, 2020, the Santa Clara Valley Water District and Enrico Callender executed an original Employment Agreement with an effective date of July 11, 2020 (Original Agreement) for Mr. Callender's service as Chief Executive Officer with an annual salary of \$326,352.00.
- B. Whereas, on June 9, 2020, the Santa Clara Valley Water District Board of Directors approved changes to the salary table for all employees changing the minimum salary for the Chief Executive Officer position to \$341,411.20.
- C. Whereas, on July 28, 2020, the Board of Directors approved a salary increase to \$341,411.20 effective July 11, 2020, and a corresponding amendment to Employee's employment agreement.

**NOW THEREFORE,** in consideration of the mutual obligations in this Amendment and the Original Agreement, the parties agree as follows:

1. Paragraph 4 of the Original Agreement is modified to read in its entirety as follows:

#### 4. Compensation

Effective July 11, 2020, Valley Water agrees to pay Employee an annual base salary of Three Hundred Forty-One Thousand Four Hundred Eleven and 20/100 dollars (\$341,411.20) per annum payable in installments in accordance with Valley Water's usual payroll schedule. Thereafter and subject to an annual evaluation of Employee's performance and salary, the Board may, by resolution approving an amendment to this Agreement, increase Employee's salary based on merit and/or market factors. Nothing in this provision requires the Board to use a set formula or to provide a merit or other salary increase following the annual evaluation, but the Board will act in good faith in determining whether a salary adjustment is warranted. The Board will determine the amount of any salary adjustment no later than October 1 each year and shall have discretion to make any adjustment retroactive to the immediately preceding July 1.

- 2. References to "Attachment B" in the Original Agreement must be deemed to be refered to Attachment-1 to this Amendment.
- 3. All provisions of the Original Agreement, except as modified by this Amendment, remain in full force and effect, and are reaffirmed.

IN WITNESS WHEREOF, the Parties have exe first written above.	cuted this Amendment as of the day and year
By:_ Enrico Callender Chief Executive Officer	
	Attest:
By:	
Nai Hsueh	Ву:
Chair of the Board	Michele L. King, CMC
Santa Clara Valley Water District	Clerk of the Board

ATTACHMENT - 1

# VALLEY WATER Unclassified Employee Benefits

(Effective 7-1-2020)

	(Effective 7-1-2020)
BENEFIT	SUMMARY
Vacation	<ul> <li>Newly hired employees receive 224 hours (28 days/year) of prorated vacation based on date of hire. The prorated amount is vested immediately for the remainder of the fiscal year and is available for use upon approval of the employee's Appointing Authority. Starting the following fiscal year, vacation shall accrue as set forth below for current employees.</li> <li>Beginning each fiscal year, current employees receive 224 hours (28 days/year) of vacation, which is vested immediately for the entire fiscal year, and may be accumulated up to 4 times entitlement.</li> <li>Employees may elect either a cash pay-off for up to 21 days (168 hours) or have all or a portion of the cash value transferred to the Deferred Compensation Plan once each year. Elections to cash out vacation must be made in the calendar year prior to the cash out.</li> <li>Sick leave is accrued at the rate of 1 day per month (96 hours per year) with unlimited accumulation.</li> </ul>
Sick Leave	<ul> <li>Upon resignation, with 10 or more years of service with Valley Water, up to 480 hours of accrued sick leave shall be paid at 25% of the equivalent cash value.</li> <li>Upon retirement (filed for CalPERS retirement), regardless of years of service with Valley Water, sick leave may be paid out as follows:</li> </ul>
	<ul> <li>Sick leave balance up to 480 hours is paid out at 50% of the equivalent cash value. Any remaining balance above 480 hours may be converted into additional CalPERS service credit. Sick leave hours above 480 will not be paid out.</li> <li>Entire accrued sick leave balance may be converted into additional CalPERS service credit. No sick leave hours will be paid out.</li> <li>Combination of any portion (up to 480 hours) of the sick leave balance is paid out at 50% and any remaining balance may be converted into additional CalPERS service credit. Sick leave hours above 480 will not be paid out.</li> <li>Upon death, all accrued, unused sick leave will be paid at 100% of the cash value.</li> </ul>
	Any other payout of accrued sick leave upon separation of employment must be approved by the Chief Executive Officer. Any such approved payout shall not exceed 480 hours of accrued sick leave and shall be at the rate of 25% of the equivalent cash value.
Sick Leave Conservation	Sick Leave Conservation Program - Employees with a minimum of one (1) year of service who have used no more than twenty-seven (27) sick leave hours during the preceding twelve (12) month period may convert up to twenty-four (24) hours to cash. Elections to cash out sick leave must be made in the calendar year prior to the cash out.
Executive Leave & Personal Leave	24 hours of executive leave and 32 hours of prorated personal leave provided upon hire. Leave may be converted to cash or credited to the deferred compensation plan at any time during the fiscal year. Automatically paid-out if no election is made.
Bereavement Leave	3 days of bereavement leave for obligations arising from the death of a family member as defined in the At-Will Policy for Employees in the Unclassified Service. Additional time may be charged to sick leave for a total leave (3 days of bereavement leave plus sick leave) not to exceed 10 consecutive working days.
Holidays	12 designated days per calendar year.
CalPERS Retirement for Classic Members Hired Prior to 3/19/2012	California Public Employees Retirement System (CalPERS) 2.5% at 55 retirement plan with final compensation of highest 12 consecutive months. The current required employee contribution is 10.5% (8.0% for the member contribution and 2.5% towards Valley Water's CalPERS contribution. The additional amount over and above the required employee contribution will increase by 0.5% each fiscal year). Contributions are pre-tax payroll deductions.
CalPERS Retirement for Classic Members Hired On or After 3/19/2012	California Public Employees Retirement System (CalPERS) 2.0% at 60 retirement plan with final compensation of highest 36 consecutive months. The current required employee contribution is 10.5% (7.0% for the member contribution and 3.5% towards Valley Water's CalPERS contribution. The additional amount over and above the required employee contribution will increase by 0.5% each fiscal year). Contributions are pre-tax payroll deductions.
CalPERS	California Public Employees Retirement System (CalPERS) 2.0% at 62 retirement plan with final

Retirement for New	compensation of highest 36 consecutive months. Employees are required to pay 50% of the total
Members Hired On or After 1/1/2013	normal cost as determined by the annual CalPERS valuation and is subject to change each fiscal year. The current required employee contribution is 8.25% (6.75% for the member contribution and 1.5% towards Valley Water's CalPERS contribution. The additional amount over and above the required employee contribution will increase by 0.5% each fiscal year). Contributions are pre-tax payroll deductions.
Retirement Health Benefits for	Medical coverage is provided for retired employees with 10 years of continuous service with Valley Water.
Employees Hired Prior to 12/30/2006	Medical, Dental and Vision coverage is provided for retired employees and one eligible dependent with 15 or more years of continuous service with Valley Water.
	Medical, Dental and Vision coverage is provided for retired employees plus two (2) or more eligible dependents with 25 or more years of continuous service with Valley Water.
Retirement Health Benefits for Employees	Medical coverage is provided for retired employees with 10 years of continuous service with Valley Water. Medical premium cost sharing is required with the same contribution percentage as active employees and based on the medical premium amount applicable to active employees or retirees, whichever is less.
Hired on or after 12/30/2006 and Prior to 3/1/2007	Medical, Dental and Vision coverage is provided for retired employees and one eligible dependent with 15 or more years of continuous service with Valley Water. Medical premium cost sharing is required with the same contribution percentage as active employees and based on the medical premium amount applicable to active employees or retirees, whichever is less.
	Medical, Dental and Vision coverage is provided for retired employees plus two (2) or more eligible dependents with 25 or more years of continuous service with Valley Water. Medical premium cost sharing is required with the same contribution percentage as active employees and based on the medical premium amount applicable to active employees or retirees, whichever is less.
Retirement Medical Benefits for Employees	Medical coverage is provided for retired employees with 15 years of continuous service with Valley Water. Medical premium cost sharing is required with the same contribution percentage as active employees and based on the medical premium amount applicable to active employees or retirees, whichever is less.
Hired On or After 3/1/2007	Medical coverage is provided for retired employees and one eligible dependent with 20 or more years of continuous service with Valley Water. Medical premium cost sharing is required with the same contribution percentage as active employees and based on the medical premium amount applicable to active employees or retirees, whichever is less.
Hoolth Incomess	Medical, Dental, Vision Care and EAP benefits are provided by Valley Water. Employees pay 15% towards Valley Water's monthly premium cost for medical coverage. Dental, Vision Care and EAP coverage is provided by Valley Water with no monthly premium cost to the employee.
Health Insurance	Medical, Dental, Vision Care and EAP benefits are provided to all regular employees and their eligible dependents including registered same sex domestic partners, or domestic partners of the opposite sex age 62 or over, who meet the eligibility criteria. Domestic partner coverage is taxable income for federal income tax purposes.
	Valley Water employees may only receive coverage under one plan; either as single coverage or family coverage and either as the primary subscriber or as a dependent under the plan of a spouse or registered domestic partner who is a regular Valley Water employee. Eligible dependents will only be covered under one employee's medical plan.
Disability Insurance	Valley Water provides Short Term Disability (STD) equal to 66 2/3% of salary to a maximum weekly benefit of \$3,462 with a 14-day waiting period. STD may transition into Long Term Disability (LTD) after 180 days of disability and then provide 66 2/3% of salary to a maximum monthly benefit of \$15,000.
Life Insurance	Valley Water provides life insurance benefits equal to employee's annual salary up to a maximum benefit of \$100,000 with a five-year phase out in declining increments of \$10,000 per year starting with \$50,000 coverage upon retirement. The premium attributable to life insurance benefit exceeding \$50,000 is considered "imputed income" and must be reported as taxable earnings on the W-2 statement each year, as required by the IRS.
	Optional supplemental life insurance available in amounts equal to 1, 2, 3 or 4 times annual salary to a maximum benefit of \$500,000 is available at employee cost.
Other	Board Appointed Officers (BAO) are eligible for a monthly car allowance as follows: CEO & General Counsel = \$600 / Clerk of the Board =\$450. Mileage is paid for out-of-county Valley Water business in addition to monthly car allowance.
	Valley Water owned communication devices are provided, including cell phones, pagers, two-way radios, tablets, and computers. A monthly stipend for smart phones is provided.

Tuition Assistance Program – Unclassified employees with six (6) or more months of service, up to 100% reimbursement of tuition costs upon satisfactory completion of an a course to a maximum of \$2,000 per fiscal year.		
	<b>Commuter Checks</b> – Pre-tax deductions are allowed up to the IRS maximum for the purchase of Commuter Checks which can be used as payment for any public transportation or to pay for qualified vanpools.	
Deferred Compensation	Deferred compensation plan is available at employee's option, with up to \$8,000 in annual matching contributions each calendar year from Valley Water. Board Appointed Officers (BAO) are eligible for up to \$4,000 in annual matching contributions each calendar year from Valley Water.	
FlexChoice (Section 125)	<ul> <li>Health Care Spending Account – Maximum contribution up to \$2,750 for eligible medical, dental, vision and prescription expenses.</li> <li>Dependent Adult or Child Daycare – Maximum contribution \$5,000 per family or \$2,500 if you file taxes "Married Filing Separately" per calendar year.</li> </ul>	
This is a summary of benefits only. Official plan documents/agreements govern how a benefit is determined or administered.		

## Santa Clara Valley Water District



File No.: 20-0609 Agenda Date: 7/28/2020

Item No.: 4.3.

#### **BOARD AGENDA MEMORANDUM**

#### SUBJECT:

Adopt Resolution Providing for the Compensation of the District Counsel, a Board Appointed Officer of the Santa Clara Valley Water District.

#### RECOMMENDATION:

- A. Consider and determine compensation adjustments, if any, for the District Counsel; and
- B. Adopt the Resolution PROVIDING FOR THE COMPENSATION OF THE DISTRICT COUNSEL, A BOARD APPOINTED OFFICER OF THE SANTA CLARA VALLEY WATER DISTRICT, and approve the Amendment to the Employment Agreement Between the Santa Clara Valley Water District and Stanly Yamamoto, consistent with Board-approved compensation adjustments.

#### SUMMARY:

In accordance with the Employment Agreement between the Santa Clara Valley Water District and Stanly Yamamoto, District Counsel, and the Board Appointed Officer (BAO) Performance Evaluation Procedure, the Board conducts performance evaluations on at least a semiannual basis. After the completion of the annual evaluations, the Board will determine the BAOs' annual compensation adjustments, if necessary.

The Board may, by resolution approving an amendment to the employment agreement, increase the BAO's salary based on merit and/or market factors. The Board may also consider the following data in adjusting the BAO's compensation:

- 1. Individual BAO annual performance records;
- 2. Current year Consumer Price Index (CPI);
- 3. Compensation data of comparative public or private organizations;
- 4. Salary compaction with direct reports: and
- 5. Board-adopted employee salary schedules.

This item allows the Board to discuss, consider and determine compensation adjustments, if any for Mr. Yamamoto. It also allows the Board to adopt a resolution providing for a compensation adjustment and approve an amendment to the Employment Agreement, reflecting any such adjustment. After conducting an evaluation of the District Counsel, the Board is proposing a 4% annual compensation increase (to \$333,340.80).

File No.: 20-0609 Agenda Date: 7/28/2020

Item No.: 4.3.

Attachment 1 is a Resolution and Employment Agreement Amendment approving the compensation adjustment proposed by the Board. An updated Unclassified Benefits Summary is included as an attachment to the Employment Agreement Amendment.

#### FINANCIAL IMPACT:

The FY21 budget includes a 4% salary increase for Board Appointed Officers.

#### CEQA:

The recommended action does not constitute a project under CEQA because it does not have potential for resulting in direct or reasonably foreseeable indirect physical changes in the environment.

#### ATTACHMENTS:

Attachment 1: Resolution and Employment Agreement Amendment

#### **UNCLASSIFIED MANAGER:**

Anna Noriega, 408-630-3089

# BOARD OF DIRECTORS SANTA CLARA VALLEY WATER DISTRICT

#### **RESOLUTION NO. 20-**

# PROVIDING FOR THE COMPENSATION OF THE DISTRICT COUNSEL, A BOARD APPOINTED OFFICER OF THE SANTA CLARA VALLEY WATER DISTRICT

BE IT RESOLVED, by the Board of Directors of the Santa Clara Valley Water District (Valley Water) as follows:

- 1. Prior resolutions of the Board, to the extent that they may conflict with the provisions hereof, are hereby superseded and rescinded. This Resolution shall be effective July 28, 2020.
- 2. The salaries, wages, compensation, and expenses provided herein shall be in full for all official services performed unless expressly otherwise provided and shall be paid on the basis of the biweekly pay period plan. Compensation shall be payable on or before the seventh (7<sup>th</sup>) calendar day after conclusion of each biweekly pay period for services rendered during the preceding biweekly pay period. All officials and employees of the Santa Clara Valley Water District shall charge, collect and pay all fees required by law to be charged, collected, and paid into the proper fund of Valley Water and no officer or employee of Valley Water shall be compensated by fees.
- 3. The total salary of the District Counsel shall be that amount approved by the Board of Directors and formulated in this paragraph. As of June 15, 2020, the District Counselshall receive a further salary adjustment for a new adjusted annual salary of \$333,337.68.
- 4. In addition to an annual salary as set forth in paragraph 3, the Valley Watershall continue to assume payment of the unclassified benefits that are in effect on the effective date of approval of this Resolution.
- 5. A July 2020 Amendment to Employment Agreement Between Santa Clara Valley Water District and Stanly Yamamoto (Exhibit A), sets forth a formal written amendment to the original Employment Agreement with the updated annual salary. This Amendment is hereby approved, and the Chair of the Board is authorized to execute this Amendment.

PASSED AND ADOPTED by the Board of Directors of Santa Clara Valley Water District by the following vote on July 28, 2020:

AYES:	Directors	
NOES:	Directors	
ABSENT:	Directors	
ABSTAIN:	Directors	SANTA CLARA VALLEY WATER DISTRICT
ATTEST: M	ICHELE L. KING, CMC	By: NAI HSUEH Chair, Board of Directors
Clerk. Boar	d of Directors	

**EXHIBIT - A** 

#### JULY 2020 AMENDMENT TO EMPLOYMENT AGREEMENT BETWEEN SANTA CLARA VALLEY WATER DISTRICT AND STANLY YAMAMOTO

This July 2020 Amendment to the Employment Agreement between Santa Clara Valley Water District and Stanly Yamamoto (Amendment) is entered into effective July 28, 2020.

#### **RECITALS**

- A. The Santa Clara Valley Water District (District) and District Counsel Stanly Yamamoto (Employee) entered into an original employment agreement on February 1, 2010 (Original Agreement), establishing his annual salary in the amount of \$215,000.
- B. Following personnel evaluations by the Board of Directors, the District has increased this salary from time to time. On August 22, 2017, the Board of Directors approved a salary increase to \$272,480 effective July 1, 2017, and a corresponding amendment to Employee's employment agreement.
- C. On January 22, 2019, the Board of Directors approved a salary increase to \$297,440 effective June 18, 2018, and a corresponding amendment to Employee's employment agreement.
- D. On June 25, 2019, the District's Board of Directors approved a compensation adjustment for the District Counsel adjusting his annual salary to \$320,517 effective June 17, 2019.
- E. On July 28, 2020, the District's Board of Directors approved a compensation adjustment for the District Counsel adjusting his annual salary to \$333,337.68 effective June 15, 2020.
- F. The parties wish to amend the Original Agreement, to provide for the updated annual salary.

**NOW THEREFORE,** in consideration of the mutual obligations in the Original Agreement and all amendments thereto, the parties agree as follows:

- 1. This July 2020 Amendment is intended to supersede all prior amendments to the Original Agreement.
- 2. Paragraph 4 of the Original Agreement is modified to read in its entirety as follows:

#### 4. Compensation

- a) Effective June 15, 2020, District will pay Employee \$333,337.68 in salary per annum for services under this Agreement, payable in installments at the same time as other employees of the District are paid and subject to customary withholding. Thereafter and subject to an annual evaluation of Employee's performance and salary, the Board may, by resolution approving an amendment to this Agreement, increase Employee's salary on the basis of merit and/or market factors.
- b) Nothing in this provision requires the Board to use a set formula or to provide a merit or other salary increase following the annual evaluation, but the Board will act in good faith in determining whether a salary adjustment is warranted. The Board will determine the amount of any salary adjustment no later than October 1 each year, with any adjustment retroactive to the first pay period of the then current fiscal year.

- 3. References to "Attachment 1" in the Original Agreement must be deemed to be refered to Attachment-1 to this Amendment.
- 4. All provisions of the Original Agreement, except as modified by this July 2020 Amendment, remain in full force and effect and are reaffirmed.

IN WITNESS WHEREOF, the Parties have executed this Amendment as of the day and year first written above.

By:	
Stanly Yamamoto District Counsel	Attest:
By:	
Nai Hsueh Chair of the Board Santa Clara Valley Water District	By: Michele L. King, CMC Clerk of the Board

**ATTACHMENT-1** 

## **VALLEY WATER** Unclassified Employee Benefits (Effective 7-1-2020)

	(Effective 7-1-2020)	
BENEFIT	SUMMARY	
Vacation	<ul> <li>Newly hired employees receive 224 hours (28 days/year) of prorated vacation based on date of hire. The prorated amount is vested immediately for the remainder of the fiscal year and is available for use upon approval of the employee's Appointing Authority. Starting the following fiscal year, vacation shall accrue as set forth below for current employees.</li> <li>Beginning each fiscal year, current employees receive 224 hours (28 days/year) of vacation, which is vested immediately for the entire fiscal year, and may be accumulated up to 4 times entitlement.</li> <li>Employees may elect either a cash pay-off for up to 21 days (168 hours) or have all or a portion of the cash value transferred to the Deferred Compensation Plan once each year. Elections to cash out vacation must be made in the calendar year prior to the cash out.</li> <li>Sick leave is accrued at the rate of 1 day per month (96 hours per year) with unlimited accumulation.</li> </ul>	
Sick Leave	<ul> <li>Upon resignation, with 10 or more years of service with Valley Water, up to 480 hours of accrued sick leave shall be paid at 25% of the equivalent cash value.</li> <li>Upon retirement (filed for CalPERS retirement), regardless of years of service with Valley Water, sick leave may be paid out as follows:         <ul> <li>Sick leave balance up to 480 hours is paid out at 50% of the equivalent cash value. Any remaining balance above 480 hours may be converted into additional CalPERS</li> </ul> </li> </ul>	
	service credit. Sick leave hours above 480 will not be paid out.  Entire accrued sick leave balance may be converted into additional CalPERS service credit. No sick leave hours will be paid out.  Combination of any portion ( <i>up to 480 hours</i> ) of the sick leave balance is paid out at 50% and any remaining balance may be converted into additional CalPERS service credit. Sick leave hours above 480 will not be paid out.  Upon death, all accrued, unused sick leave will be paid at 100% of the cash value.	
	Any other payout of accrued sick leave upon separation of employment must be approved by the Chief Executive Officer. Any such approved payout shall not exceed 480 hours of accrued sick leave and shall be at the rate of 25% of the equivalent cash value.	
Sick Leave Conservation	Sick Leave Conservation Program - Employees with a minimum of one (1) year of service who have used no more than twenty-seven (27) sick leave hours during the preceding twelve (12) month period may convert up to twenty-four (24) hours to cash. Elections to cash out sick leave must be made in the calendar year prior to the cash out.	
Executive Leave & Personal Leave	24 hours of executive leave and 32 hours of prorated personal leave provided upon hire. Leave may be converted to cash or credited to the deferred compensation plan at any time during the fiscal year. Automatically paid-out if no election is made.	
Bereavement Leave	3 days of bereavement leave for obligations arising from the death of a family member as defined in the At-Will Policy for Employees in the Unclassified Service. Additional time may be charged to sick leave for a total leave (3 days of bereavement leave plus sick leave) not to exceed 10 consecutive working days.	
Holidays	12 designated days per calendar year.	
CalPERS Retirement for Classic Members Hired Prior to 3/19/2012	California Public Employees Retirement System (CalPERS) 2.5% at 55 retirement plan with final compensation of highest 12 consecutive months. The current required employee contribution is 10.5% (8.0% for the member contribution and 2.5% towards Valley Water's CalPERS contribution. The additional amount over and above the required employee contribution will increase by 0.5% each fiscal year). Contributions are pre-tax payroll deductions.	
CalPERS Retirement for Classic Members Hired On or After 3/19/2012	California Public Employees Retirement System (CalPERS) 2.0% at 60 retirement plan with final compensation of highest 36 consecutive months. The current required employee contribution is 10.5% (7.0% for the member contribution and 3.5% towards Valley Water's CalPERS contribution. The additional amount over and above the required employee contribution will increase by 0.5% each fiscal year). Contributions are pre-tax payroll deductions.	
CalPERS	California Public Employees Retirement System (CalPERS) 2.0% at 62 retirement plan with final	

Retirement for New Members Hired On or After 1/1/2013	compensation of highest 36 consecutive months. Employees are required to pay 50% of the total normal cost as determined by the annual CalPERS valuation and is subject to change each fiscal year. The current required employee contribution is 8.25% (6.75% for the member contribution and 1.5% towards Valley Water's CalPERS contribution. The additional amount over and above the required employee contribution will increase by 0.5% each fiscal year). Contributions are pre-tax payroll deductions.
Retirement Health	Medical coverage is provided for retired employees with 10 years of continuous service with Valley
Benefits for Employees	Water.
Hired Prior to 12/30/2006	Medical, Dental and Vision coverage is provided for retired employees and one eligible dependent with 15 or more years of continuous service with Valley Water.
	Medical, Dental and Vision coverage is provided for retired employees plus two (2) or more eligible dependents with 25 or more years of continuous service with Valley Water.
Retirement Health Benefits for Employees	Medical coverage is provided for retired employees with 10 years of continuous service with Valley Water. Medical premium cost sharing is required with the same contribution percentage as active employees and based on the medical premium amount applicable to active employees or retirees, whichever is less.
Hired on or after 12/30/2006 and Prior to 3/1/2007	Medical, Dental and Vision coverage is provided for retired employees and one eligible dependent with 15 or more years of continuous service with Valley Water. Medical premium cost sharing is required with the same contribution percentage as active employees and based on the medical premium amount applicable to active employees or retirees, whichever is less.
	Medical, Dental and Vision coverage is provided for retired employees plus two (2) or more eligible dependents with 25 or more years of continuous service with Valley Water. Medical premium cost sharing is required with the same contribution percentage as active employees and based on the medical premium amount applicable to active employees or retirees, whichever is less.
Retirement Medical Benefits for Employees	Medical coverage is provided for retired employees with 15 years of continuous service with Valley Water. Medical premium cost sharing is required with the same contribution percentage as active employees and based on the medical premium amount applicable to active employees or retirees, whichever is less.
Hired On or After 3/1/2007	Medical coverage is provided for retired employees and one eligible dependent with 20 or more years of continuous service with Valley Water. Medical premium cost sharing is required with the same contribution percentage as active employees and based on the medical premium amount applicable to active employees or retirees, whichever is less.
	Medical, Dental, Vision Care and EAP benefits are provided by Valley Water. Employees pay 15% towards Valley Water's monthly premium cost for medical coverage. Dental, Vision Care and EAP coverage is provided by Valley Water with no monthly premium cost to the employee.
Health Insurance	Medical, Dental, Vision Care and EAP benefits are provided to all regular employees and their eligible dependents including registered same sex domestic partners, or domestic partners of the opposite sex age 62 or over, who meet the eligibility criteria. Domestic partner coverage is taxable income for federal income tax purposes.
	Valley Water employees may only receive coverage under one plan; either as single coverage or family coverage and either as the primary subscriber or as a dependent under the plan of a spouse or registered domestic partner who is a regular Valley Water employee. Eligible dependents will only be covered under one employee's medical plan.
Disability Insurance	Valley Water provides Short Term Disability (STD) equal to 66 2/3% of salary to a maximum weekly benefit of \$3,462 with a 14-day waiting period. STD may transition into Long Term Disability (LTD) after 180 days of disability and then provide 66 2/3% of salary to a maximum monthly benefit of \$15,000.
Life Insurance	Valley Water provides life insurance benefits equal to employee's annual salary up to a maximum benefit of \$100,000 with a five-year phase out in declining increments of \$10,000 per year starting with \$50,000 coverage upon retirement. The premium attributable to life insurance benefit exceeding \$50,000 is considered "imputed income" and must be reported as taxable earnings on the W-2 statement each year, as required by the IRS.
	Optional supplemental life insurance available in amounts equal to 1, 2, 3 or 4 times annual salary to a maximum benefit of \$500,000 is available at employee cost.
Other	Board Appointed Officers (BAO) are eligible for a monthly car allowance as follows: CEO & General Counsel = \$600 / Clerk of the Board =\$450. Mileage is paid for out-of-county Valley Water business in addition to monthly car allowance.
	Valley Water owned communication devices are provided, including cell phones, pagers, two-way radios, tablets, and computers. A monthly stipend for smart phones is provided.

	Tuition Assistance Program – Unclassified employees with six (6) or more months of continuous
	service, up to 100% reimbursement of tuition costs upon satisfactory completion of an approved course to a maximum of \$2,000 per fiscal year.
	Commuter Checks – Pre-tax deductions are allowed up to the IRS maximum for the purchase of
	Commuter Checks which can be used as payment for any public transportation or to pay for qualified vanpools.
Deferred Compensation	Deferred compensation plan is available at employee's option, with up to \$8,000 in annual matching contributions each calendar year from Valley Water. Board Appointed Officers (BAO) are eligible for up to \$4,000 in annual matching contributions each calendar year from Valley Water.
FlexChoice Section 125)	<ul> <li>Health Care Spending Account – Maximum contribution up to \$2,750 for eligible medical, dental, vision and prescription expenses.</li> <li>Dependent Adult or Child Daycare – Maximum contribution \$5,000 per family or \$2,500 if you file taxes "Married Filing Separately" per calendar year.</li> </ul>
This is a sun	nmary of benefits only. Official plan documents/agreements govern how a benefit is determined or administered.

## Santa Clara Valley Water District



File No.: 20-0608 Agenda Date: 7/28/2020

Item No.: 4.4.

#### **BOARD AGENDA MEMORANDUM**

#### SUBJECT:

Adopt Resolution Providing for the Compensation of the Clerk of the Board, a Board Appointed Officer of the Santa Clara Valley Water District.

#### **RECOMMENDATION:**

- A. Consider and determine compensation adjustments, if any, for the Clerk of the Board; and
- B. Adopt the Resolution PROVIDING FOR THE COMPENSATION OF THE CLERK OF THE BOARD, BOARD APPOINTED OFFICER OF THE SANTA CLARA VALLEY WATER DISTRICT, and approve the Amendment to the Employment Agreement Between the Santa Clara Valley Water District and Michele L. King, consistent with Board-approved compensation adjustments.

#### SUMMARY:

In accordance with the Employment Agreement between the Santa Clara Valley Water District and Michele L. King, Clerk of the Board, and the Board Appointed Officer (BAO) Performance Evaluation Procedure, the Board conducts performance evaluations on at least a semiannual basis. After the completion of the annual evaluations, the Board determines the BAOs' annual compensation adjustments, if necessary.

The Board may, by resolution approving an amendment to the employment agreement, increase the BAO's salary based on merit and/or market factors. The Board may also consider the following data in adjusting the BAO's compensation:

- 1. Individual BAO annual performance records;
- 2. Current year Consumer Price Index (CPI);
- 3. Compensation data of comparative public or private organizations;
- 4. Salary compaction with direct reports; and
- 5. Board-adopted employee salary schedules.

This item allows the Board to discuss, consider and determine compensation adjustments, if any for Ms. King. It also allows the Board to adopt a resolution providing for a compensation adjustment and approve an amendment to the Employment Agreement, reflecting any such adjustment. After conducting an evaluation of the Clerk of the Board, the Board is proposing a 4% annual compensation increase (to \$284,648.00).

File No.: 20-0608 Agenda Date: 7/28/2020

Item No.: 4.4.

Attachment 1 is a Resolution and Employment Agreement Amendment approving the compensation adjustment proposed by the Board. An updated Unclassified Benefit Summary is included as an attachment to the Employment Agreement Amendment.

#### FINANCIAL IMPACT:

The FY21 budget includes a 4% salary increase for Board Appointed Officers.

#### CEQA:

The recommended action does not constitute a project under CEQA because it does not have potential for resulting in direct or reasonably foreseeable indirect physical changes in the environment.

#### ATTACHMENTS:

Attachment 1: Resolution and Employment Agreement Amendment

#### **UNCLASSIFIED MANAGER:**

Anna Noriega, 408-630-3089

# BOARD OF DIRECTORS SANTA CLARA VALLEY WATER DISTRICT

#### **RESOLUTION NO. 20-**

# PROVIDING FOR THE COMPENSATION OF THE CLERK OF THE BOARD, A BOARD APPOINTED OFFICER OF THE SANTA CLARA VALLEY WATER DISTRICT

BE IT RESOLVED, by the Board of Directors of the Santa Clara Valley Water District (Valley Water) as follows:

- 1. Prior resolutions of the Board, to the extent that they may conflict with the provisions hereof, are hereby superseded and rescinded.
- 2. The salaries, wages, compensation, and expenses provided herein shall be in full for all official services performed unless expressly otherwise provided and shall be paid on the basis of the biweekly pay period plan. Compensation shall be payable on or before the seventh (7<sup>th</sup>) calendar day after conclusion of each biweekly pay period for services rendered during the preceding biweekly pay period. All officials and employees of the Valley Water shall charge, collect and pay all fees required by law to be charged, collected, and paid into the proper fund of Valley Water and no officer or employee of the Valley Water shall be compensated by fees.
- 3. The total salary of the Clerk of the Board shall be that amount approved by the Board of Directors and formulated in this paragraph. As of June 15, 2020, the Clerk of the Board shall receive a retroactive salary adjustment for a new adjusted annual salary of \$284,648.00.
- 4. In addition to an annual salary as set forth in paragraph 3, Valley Water shall continue to assume payment of the unclassified benefits that are in effect on the effective date of approval of this Resolution.
- 5. A July 2020 Amendment to Employment Agreement Between Santa Clara Valley Water District and Michele L. King (Exhibit-A), sets forth a formal written amendment to the original Employment Agreement with the updated annual salary. This Amendment is hereby approved and the Chair of the Board is authorized to execute this Amendment.

PASSED AND ADOPTED by the Board of Directors of Santa Clara Valley Water District by the following vote on July 28, 2020:

AYES:	Directors	
NOES:	Directors	
ABSENT:	Directors	
ABSTAIN:	Directors	SANTA CLARA VALLEY WATER DISTRICT
ATTEST: M.	AX OVERLAND	By: NAI HSUEH Chair, Board of Directors

EXHIBIT- A

#### AMENDMENT TO EMPLOYMENT AGREEMENT BETWEEN SANTA CLARA VALLEY WATER DISTRICT AND MICHELE L. KING

This July 2020 Amendment to the Employment Agreement between Santa Clara Valley Water District and Michele L. King (Amendment) is entered into effective July 28, 2020.

#### **RECITALS**

- A. The Santa Clara Valley Water District (District) and Clerk of the Board Michele L. King (Employee) entered into an original employment agreement on August 22, 2017 (Original Agreement), establishing her annual salary in the amount \$174,720.
- B. Following personnel evaluations by the Board of Directors, the District has increased this salary from time to time. On January 22, 2019, the Board of Directors approved a salary increase to \$211,952 effective June 18, 2018, and a corresponding amendment to Employee's employment agreement.
- C. On June 25, 2019, the District's Board of Directors approved a compensation adjustment for the Clerk of the Board adjusting her annual salary to \$273,707 effective June 17, 2019.
- D. On July 24, 2020 the District's Board of Directors approved a compensation adjustment for the Clerk of the Board adjusting her annual salary to \$284,648.00 effective July 15, 2020.
- E. The parties wish to amend the Original Agreement, to provide for the updated annual salary.

**NOW THEREFORE,** in consideration of the mutual obligations in this Third Amendment, the First and Second Amendments, and the Original Agreement, the parties to this Third Amendment agree as follows:

- 1. This Amendment is intended to supersede all prior amendments to the Original Agreement.
- 2. Paragraph 4 of the Original Agreement is modified to read in its entirety as follows:

#### 4. <u>Compensation</u>

- a) Effective June 15, 2020, District will pay Employee \$284,648.00 in salary per annum for services under this Agreement, payable in installments at the same time as other employees of the District are paid and subject to customary withholding. Thereafter and subject to an annual evaluation of Employee's performance and salary, the Board may, by resolution approving an amendment to this Agreement, increase Employee's salary on the basis of merit and/or market factors.
- b) Nothing in this provision requires the Board to use a set formula or to provide a merit or other salary increase following the annual evaluation, but the Board will act in good faith in determining whether a salary adjustment is warranted. The Board will determine the amount of any salary adjustment no later than October 1 each year, with any adjustment retroactive to the first pay period of the then current fiscal year.
- 3. References to "Attachment 1" in the Original Agreement must be deemed to be references to Attachment-1 to this Amendment.

written above.	
By:	
Michele L. King Clerk of the Board	Attest:
By: Nai Hsueh	By:

Max Overland

Assistant Deputy Clerk of the Board

4. All provisions of the Original Agreement, except as modified by this Amendment, remain in full

IN WITNESS WHEREOF, the Parties have executed this Amendment as of the day and year first

force and effect and are reaffirmed.

Chair of the Board

Santa Clara Valley Water District

ATTACHMENT - 1

## **VALLEY WATER** Unclassified Employee Benefits (Effective 7-1-2020)

	(Effective 7-1-2020)
BENEFIT	SUMMARY
Vacation	<ul> <li>Newly hired employees receive 224 hours (28 days/year) of prorated vacation based on date of hire. The prorated amount is vested immediately for the remainder of the fiscal year and is available for use upon approval of the employee's Appointing Authority. Starting the following fiscal year, vacation shall accrue as set forth below for current employees.</li> <li>Beginning each fiscal year, current employees receive 224 hours (28 days/year) of vacation, which is vested immediately for the entire fiscal year, and may be accumulated up to 4 times entitlement.</li> <li>Employees may elect either a cash pay-off for up to 21 days (168 hours) or have all or a portion of the cash value transferred to the Deferred Compensation Plan once each year. Elections to cash out vacation must be made in the calendar year prior to the cash out.</li> <li>Sick leave is accrued at the rate of 1 day per month (96 hours per year) with unlimited accumulation.</li> </ul>
Sick Leave	<ul> <li>Upon resignation, with 10 or more years of service with Valley Water, up to 480 hours of accrued sick leave shall be paid at 25% of the equivalent cash value.</li> </ul>
	<ul> <li>Upon retirement (filed for CalPERS retirement), regardless of years of service with Valley Water, sick leave may be paid out as follows:         <ul> <li>Sick leave balance up to 480 hours is paid out at 50% of the equivalent cash value. Any remaining balance above 480 hours may be converted into additional CalPERS service credit. Sick leave hours above 480 will not be paid out.</li> <li>Entire accrued sick leave balance may be converted into additional CalPERS service credit. No sick leave hours will be paid out.</li> <li>Combination of any portion (up to 480 hours) of the sick leave balance is paid out at 50% and any remaining balance may be converted into additional CalPERS service credit. Sick leave hours above 480 will not be paid out.</li> </ul> </li> <li>Upon death, all accrued, unused sick leave will be paid at 100% of the cash value.</li> </ul>
	Any other payout of accrued sick leave upon separation of employment must be approved by the Chief Executive Officer. Any such approved payout shall not exceed 480 hours of accrued sick leave and shall be at the rate of 25% of the equivalent cash value.
Sick Leave Conservation	Sick Leave Conservation Program - Employees with a minimum of one (1) year of service who have used no more than twenty-seven (27) sick leave hours during the preceding twelve (12) month period may convert up to twenty-four (24) hours to cash. Elections to cash out sick leave must be made in the calendar year prior to the cash out.
Executive Leave & Personal Leave	24 hours of executive leave and 32 hours of prorated personal leave provided upon hire. Leave may be converted to cash or credited to the deferred compensation plan at any time during the fiscal year. Automatically paid-out if no election is made.
Bereavement Leave	3 days of bereavement leave for obligations arising from the death of a family member as defined in the At-Will Policy for Employees in the Unclassified Service. Additional time may be charged to sick leave for a total leave (3 days of bereavement leave plus sick leave) not to exceed 10 consecutive working days.
Holidays	12 designated days per calendar year.
CalPERS Retirement for Classic Members Hired Prior to 3/19/2012	California Public Employees Retirement System (CalPERS) 2.5% at 55 retirement plan with final compensation of highest 12 consecutive months. The current required employee contribution is 10.5% (8.0% for the member contribution and 2.5% towards Valley Water's CalPERS contribution. The additional amount over and above the required employee contribution will increase by 0.5% each fiscal year). Contributions are pre-tax payroll deductions.
CalPERS Retirement for Classic Members Hired On or After 3/19/2012	California Public Employees Retirement System (CalPERS) 2.0% at 60 retirement plan with final compensation of highest 36 consecutive months. The current required employee contribution is 10.5% (7.0% for the member contribution and 3.5% towards Valley Water's CalPERS contribution. The additional amount over and above the required employee contribution will increase by 0.5% each fiscal year). Contributions are pre-tax payroll deductions.
CalPERS	California Public Employees Retirement System (CalPERS) 2.0% at 62 retirement plan with final

Retirement for New Members Hired On or After 1/1/2013	compensation of highest 36 consecutive months. Employees are required to pay 50% of the total normal cost as determined by the annual CalPERS valuation and is subject to change each fiscal year. The current required employee contribution is 8.25% (6.75% for the member contribution and 1.5% towards Valley Water's CalPERS contribution. The additional amount over and above the required employee contribution will increase by 0.5% each fiscal year). Contributions are pre-tax payroll deductions.
Retirement Health	Medical coverage is provided for retired employees with 10 years of continuous service with Valley
Benefits for	Water.
Employees Hired Prior to 12/30/2006	Medical, Dental and Vision coverage is provided for retired employees and one eligible dependent with 15 or more years of continuous service with Valley Water.
	Medical, Dental and Vision coverage is provided for retired employees plus two (2) or more eligible dependents with 25 or more years of continuous service with Valley Water.
Retirement Health Benefits for Employees Hired on or after 12/30/2006 and Prior to 3/1/2007	Medical coverage is provided for retired employees with 10 years of continuous service with Valley Water. Medical premium cost sharing is required with the same contribution percentage as active employees and based on the medical premium amount applicable to active employees or retirees, whichever is less.
	Medical, Dental and Vision coverage is provided for retired employees and one eligible dependent with 15 or more years of continuous service with Valley Water. Medical premium cost sharing is required with the same contribution percentage as active employees and based on the medical premium amount applicable to active employees or retirees, whichever is less.
	Medical, Dental and Vision coverage is provided for retired employees plus two (2) or more eligible dependents with 25 or more years of continuous service with Valley Water. Medical premium cost sharing is required with the same contribution percentage as active employees and based on the medical premium amount applicable to active employees or retirees, whichever is less.
Retirement Medical Benefits for Employees Hired On or After 3/1/2007	Medical coverage is provided for retired employees with 15 years of continuous service with Valley Water. Medical premium cost sharing is required with the same contribution percentage as active employees and based on the medical premium amount applicable to active employees or retirees, whichever is less.
	Medical coverage is provided for retired employees and one eligible dependent with 20 or more years of continuous service with Valley Water. Medical premium cost sharing is required with the same contribution percentage as active employees and based on the medical premium amount applicable to active employees or retirees, whichever is less.
Health Insurance	Medical, Dental, Vision Care and EAP benefits are provided by Valley Water. Employees pay 15% towards Valley Water's monthly premium cost for medical coverage. Dental, Vision Care and EAP coverage is provided by Valley Water with no monthly premium cost to the employee.
	Medical, Dental, Vision Care and EAP benefits are provided to all regular employees and their eligible dependents including registered same sex domestic partners, or domestic partners of the opposite sex age 62 or over, who meet the eligibility criteria. Domestic partner coverage is taxable income for federal income tax purposes.
	Valley Water employees may only receive coverage under one plan; either as single coverage or family coverage and either as the primary subscriber or as a dependent under the plan of a spouse or registered domestic partner who is a regular Valley Water employee. Eligible dependents will only be covered under one employee's medical plan.
Disability Insurance	Valley Water provides Short Term Disability (STD) equal to 66 2/3% of salary to a maximum weekly benefit of \$3,462 with a 14-day waiting period. STD may transition into Long Term Disability (LTD) after 180 days of disability and then provide 66 2/3% of salary to a maximum monthly benefit of \$15,000.
Life Insurance	Valley Water provides life insurance benefits equal to employee's annual salary up to a maximum benefit of \$100,000 with a five-year phase out in declining increments of \$10,000 per year starting with \$50,000 coverage upon retirement. The premium attributable to life insurance benefit exceeding \$50,000 is considered "imputed income" and must be reported as taxable earnings on the W-2 statement each year, as required by the IRS.
	Optional supplemental life insurance available in amounts equal to 1, 2, 3 or 4 times annual salary to a maximum benefit of \$500,000 is available at employee cost.
Other	Board Appointed Officers (BAO) are eligible for a monthly car allowance as follows: CEO & General Counsel = \$600 / Clerk of the Board =\$450. Mileage is paid for out-of-county Valley Water business in addition to monthly car allowance.
	Valley Water owned communication devices are provided, including cell phones, pagers, two-way radios, tablets, and computers. A monthly stipend for smart phones is provided.

	Tuition Assistance Program – Unclassified employees with six (6) or more months of continuous service, up to 100% reimbursement of tuition costs upon satisfactory completion of an approved course to a maximum of \$2,000 per fiscal year.  Commuter Checks – Pre-tax deductions are allowed up to the IRS maximum for the purchase of Commuter Checks which can be used as payment for any public transportation or to pay for qualified vanpools.	
Deferred Compensation	Deferred compensation plan is available at employee's option, with up to \$8,000 in annual matching contributions each calendar year from Valley Water. Board Appointed Officers (BAO) are eligible for up to \$4,000 in annual matching contributions each calendar year from Valley Water.	
FlexChoice (Section 125)	<ul> <li>Health Care Spending Account – Maximum contribution up to \$2,750 for eligible medical, dental, vision and prescription expenses.</li> <li>Dependent Adult or Child Daycare – Maximum contribution \$5,000 per family or \$2,500 if you file taxes "Married Filing Separately" per calendar year.</li> </ul>	
This is a summary of benefits only. Official plan documents/agreements govern how a benefit is determined or administered.		

## Santa Clara Valley Water District



File No.: 20-0587 Agenda Date: 7/28/2020

Item No.: 4.5.

#### **BOARD AGENDA MEMORANDUM**

#### SUBJECT:

Discuss Conducting Board and Committee Meetings in Consideration of the COVID-19 Pandemic and Current Santa Clara County Health Officer's Risk Reduction Order.

#### RECOMMENDATION:

- A. Discuss parameters for conducting Board and Committee meetings in consideration of the COVID-19 Pandemic and current Santa Clara County Health Officer's Risk Reduction Order; and
- B. Provide direction to staff.

#### SUMMARY:

This item allows the Board to discuss the necessity of and methods to use for conducting Board and Board Committee meetings moving forward during this unprecedented time and provide clear direction to staff.

#### Background

At the June 9, 2020 Board meeting, in response to the State of California (State) and Santa Clara County's (County) then Shelter in Place Orders, the Board took the following action:

- 1. The Board would hold only the regularly scheduled monthly Board meetings for the duration of any State or County Shelter in Place Order, including any order date modifications;
- 2. Reserved ability to call for Special Board Meetings for urgent items, if needed;
- Cancelled all Board Committee meetings for the duration of any State or County Shelter in Place Order, except for those Joint Board Committees that are required to convene to meet Joint Agreement provisions; and
- 4. If a subject assigned to a Board Committee requires action prior to the Shelter in Place termination, the Committee Chair would work with the Board Chair to either schedule a Committee meeting or place the item on the Board's agenda.

Effective Monday, July 13, 2020, the Shelter in Place order is superseded by the Santa Clara County Health Officer's Risk Reduction Order (Attachment 1) which lifts the shelter in place order but still strongly discourages gatherings of any size outside of a single household, and prohibits gatherings occurring indoors unless it involves no more the 20 people or 1 person per 200 square feet of space accessible to participants in the gathering, whichever is fewer.

**File No.:** 20-0587 **Agenda Date:** 7/28/2020

Item No.: 4.5.

Currently, all Board meetings (special and regular) have successfully been conducted via video conferencing and several Board Committee meetings have taken place or are scheduled to take place via video conferencing.

#### FINANCIAL IMPACT:

Office of the Clerk of the Board has funds in the Fiscal Year 2021 Budget to support Board and Committee meetings.

#### CEQA:

The recommended action does not constitute a project under CEQA because it does not have the potential for resulting in direct or reasonably foreseeable indirect physical change in the environment.

#### **ATTACHMENTS:**

Attachment 1: SCC Health Officer Order

#### **UNCLASSIFIED MANAGER:**

Michele King, 408-630-2711

### County of Santa Clara Public Health Department

Health Officer 976 Lenzen Avenue, 2<sup>nd</sup> Floor San José, CA 95126 408.792.3798



# ORDER OF THE HEALTH OFFICER OF THE COUNTY OF SANTA CLARA ESTABLISHING MANDATORY RISK REDUCTION MEASURES APPLICABLE TO ALL ACTIVITIES AND SECTORS TO ADDRESS THE COVID-19 PANDEMIC

DATE OF ORDER: July 2, 2020

Please read this Order carefully. Violation of or failure to comply with this Order is a misdemeanor punishable by fine, imprisonment, or both. (California Health and Safety Code § 120295, et seq.; Cal. Penal Code §§ 69, 148(a)(1); Santa Clara County Ordinance Code § A1-28.)

UNDER THE AUTHORITY OF CALIFORNIA HEALTH AND SAFETY CODE SECTIONS 101040, 101085, 120175, AND SANTA CLARA COUNTY ORDINANCE CODE SECTION A18-33, THE HEALTH OFFICER OF THE COUNTY OF SANTA CLARA ("HEALTH OFFICER") ORDERS:

#### 1. Purpose and Intent.

- a. This Order supersedes the May 18, 2020 Order of the Health Officer directing all individuals to shelter in place ("Prior Order"), as amended on June 5, 2020, as of the effective date and time set forth in Section 16 below. This Order allows most activities, travel, business, and governmental functions to occur subject to specified restrictions, limitations, and conditions to limit the transmission of Novel Coronavirus Disease 2019 ("COVID-19"). COVID-19 continues, however, to pose a severe risk to residents of our County, and significant safety measures are necessary to protect against a surge in COVID-19 cases and deaths. This Order requires risk reduction measures to be in place across all business sectors and activities, ensuring necessary precautions are followed as we adapt the way we live and function in light of the ongoing threat that the virus poses. The Health Officer will continue to monitor data regarding and evolving scientific understanding of the risks posed by COVID-19 and may amend or rescind this Order based on analysis of that data and knowledge. As of the effective date and time of this Order set forth in Section 16 below, all individuals, businesses, and government agencies in the County are required to follow the provisions of this Order.
- b. The primary intent of this Order is to reduce the risk of COVID-19 transmission in the County. All provisions of this Order must be interpreted to effectuate this intent. Failure to comply with any of the provisions of this Order constitutes an imminent

Board of Supervisors: Mike Wasserman, Cindy Chavez, Dave Cortese, Susan Ellenberg, S. Joseph Simitian County Executive: Jeffrey V. Smith

- threat and menace to public health, constitutes a public nuisance, and is punishable by fine, imprisonment, or both.
- c. The efforts taken under the Health Officer's prior shelter-in-place orders slowed the virus's trajectory. While the public health emergency and threat to the County's population remain severe, the region has significantly increased its capacity to detect cases, contain spread, and treat infected patients through widespread testing; greatly expanded its case investigation and contact tracing program and workforce; and expanded hospital resources and capacity.
- d. At the same time, across the region and the rest of the State, there has been a significant and rapid reopening of businesses and activities, accompanied by an increase in cases and hospitalizations, which carry risks to County residents and resources. As we continue to evolve our strategies for protecting residents of the County from COVID-19, we must take into account both the trajectory of the virus in the County and across the region, and also the reality that under the Prior Order, the vast majority of businesses and many activities were allowed to open with restrictions and limitations in place. Further, many of the businesses and activities that remained closed in our County were open elsewhere, and our residents were traveling to other jurisdictions to engage in those activities or engaging in them here in the County without following proper precautions. To protect the community from COVID-19, we must ensure that when people engage in activities they are doing so as safely as possible.
- e. In light of all these circumstances, it is appropriate to allow most activity, travel, and business operations to resume, but subject to significant conditions and limitations to reduce the risk of COVID-19 transmission, prevent serious illness and death, and ensure that healthcare resources and capacity remain sufficient to meet the needs of the population.
- f. The restrictions set forth in this Order are based on evidence of continued significant community transmission of COVID-19 within the County; scientific evidence and best practices regarding the most effective approaches to slow the transmission of communicable diseases generally and COVID-19 specifically; evidence that the age, condition, and health of a significant portion of the population of the County places it at risk for serious health complications, including death, from COVID-19; and further evidence that others, including younger and otherwise healthy people, are also at risk for serious negative outcomes and can also spread COVID-19 to more vulnerable people. Because even people without symptoms can transmit the infection, and because evidence shows the infection is easily spread, direct or indirect interpersonal interactions can result in preventable transmission of the virus.

Order of the County Health Officer Establishing Risk Reduction Measures To Contain COVID-19 (Issued July 2, 2020)

- g. The scientific evidence shows that, at this stage of the pandemic, it remains essential to maintain limitations and conditions to slow virus transmission to help: (a) protect the most vulnerable; (b) prevent the health care system from being overwhelmed; (c) prevent long-term chronic health conditions associated with COVID-19, such as cardiovascular, kidney, and respiratory damage and loss of limbs from blood clotting; and (d) prevent deaths. These limitations and conditions are necessary to slow the spread of the COVID-19 disease, preserving health care capacity in the County and advancing toward a point in the current public health emergency where transmission can be controlled.
- 2. **Applicability.** All individuals, businesses, and other entities in the County are ordered to comply with the applicable provisions of this Order. For clarity, individuals who do not currently reside in the County must comply with all applicable requirements of the Order when they are in the County. Governmental entities are urged to follow the requirements of this Order applicable to businesses, but governmental entities and their contractors are not required follow these requirements to the extent that such requirements would impede or interfere with an essential governmental function, as determined by the governmental entity, unless otherwise specifically directed by the Health Officer.

#### 3. Incorporation of Emergency Proclamations and State Orders.

- a. This Order is issued in accordance with, and incorporates by reference, the March 4, 2020 Proclamation of a State of Emergency issued by Governor Gavin Newsom; the February 3, 2020 Proclamation by the Director of Emergency Services Declaring the Existence of a Local Emergency in the County; the February 3, 2020 Declaration of Local Health Emergency Regarding Novel Coronavirus 2019 (COVID-19) issued by the Health Officer; the February 10, 2020 Resolution of the Board of Supervisors of the County of Santa Clara Ratifying and Extending the Declaration of a Local Health Emergency; and the February 10, 2020 Resolution of the Board of Supervisors of the County of Santa Clara Ratifying and Extending the Proclamation of a Local Emergency.
- b. This Order is also issued in light of the March 19, 2020 Order of the State Public Health Officer (the "State Shelter Order"), which set baseline statewide restrictions on non-residential business activities, effective until further notice; the Governor's March 19, 2020 Executive Order N-33-20 directing California residents to follow the State Shelter Order; the Governor's May 4, 2020 Executive Order N-60-20; and the May 7, 2020 Order of the State Public Health officer allowing local jurisdictions to begin phased reopening. The May 4, 2020 Executive Order and May 7, 2020 Order of the State Public Health Officer expressly acknowledge that local health officers have authority to establish and implement public health measures within their respective

jurisdictions that are more restrictive than those implemented by the State Public Health Officer.

- 4. **Obligation to Follow Stricter Order.** Where a conflict exists between this Order and any order issued by the State Public Health Officer or the Governor related to the COVID-19 pandemic, the most restrictive provision controls. For clarity, all individuals and entities must comply with the State Shelter Order, any mandatory guidance issued by the California Department of Public Health, any mandatory orders of the Governor, or any other mandatory provision of State law to the extent it is stricter than any provision of this Order. Consistent with California Health and Safety Code section 131080 and the Health Officer Practice Guide for Communicable Disease Control in California, except where the State Health Officer may issue an order expressly directed at this Order and based on a finding that a provision of this Order constitutes a menace to public health, any more restrictive measures in this Order continue to apply and control in this County. In addition, to the extent any federal guidelines allow activities that are not allowed by this Order, this Order controls and those activities are not allowed.
- 5. **Obligation to Follow Health Officer Directives and Mandatory State Guidance.** In addition to complying with all provisions of this Order, all individuals and entities, including all businesses and governmental entities, must also follow any applicable directives issued by the County Health Officer and any applicable "COVID-19 Industry Guidance" issued by the California Department of Public Health, available at <a href="https://covid19.ca.gov/industry-guidance/">https://covid19.ca.gov/industry-guidance/</a>. To the extent that provisions in the directives of the County Health Officer and the guidance of the State Health Officer conflict, the more restrictive provisions apply.

#### 6. **Definitions.**

- a. For purposes of this Order, a "business" includes any for-profit, non-profit, or educational entity, whether a corporate entity, organization, partnership, or sole proprietorship, and regardless of the nature of the service, the function it performs, or its corporate or entity structure. For clarity, "business" also includes a for-profit, non-profit, or educational entity performing services or functions under contract with a governmental agency.
- b. For purposes of this Order, "personnel" means the following individuals who provide goods or services or perform operations associated with a business in the County: employees; contractors and sub-contractors (such as those who sell goods or perform services onsite or who deliver goods for the business); independent contractors (such as "gig workers" who perform work via the business's application or other online interface); vendors who are permitted to sell goods onsite; volunteers; and other individuals who regularly provide services onsite at the request of the business.

- c. For purposes of this Order, a "gathering" is any indoor or outdoor event, assembly, meeting, or convening that brings together people from separate households in a coordinated fashion. The limitations on gatherings set forth in this Order apply to gatherings for any purpose, including for economic, social, religious, cultural, or other purposes such as, by way of example and not limitation, a conference, worship service, performance, or party. For clarity, a gathering does not include normal operations in: classrooms; areas where people may be in transit; or settings in which people are in the same general space at the same time but engaged in separate activities, including, by way of example, medical offices, hospitals, or business environments like offices, stores, and restaurants where people may be working, shopping, or eating in the same general area but are not gathering together in an organized fashion. A gathering also does not include internal meetings exclusively involving personnel of a single business because those activities are subject to separate provisions of this Order and Health Officer directives.
- 7. **Staying Home Is the Best Way to Reduce Risk.** All people are strongly reminded that continuing to stay home as much as possible is the best way to prevent the risk of COVID-19 transmission, and therefore trips and activities outside the home should be minimized. All activities that involve contact with people outside of one's household increase the risk of transmission of COVID-19.
- 8. Older Adults and Individuals with Serious Underlying Medical Conditions. Older adults (those age 70 or older) and individuals with serious underlying medical conditions (including immunocompromised state, chronic kidney disease, chronic obstructive pulmonary disease, obesity, serious heart conditions, sickle cell disease, and diabetes) are strongly urged to stay in their places of residence except to access critical necessities such as food and medicine. Adults aged 50 to 69 are encouraged to minimize activities and interactions with people outside their household to the extent practicable.
- 9. **Social Distancing Requirements.** When outside their place of residence, all individuals must strictly comply with following "Social Distancing Requirements" to the maximum extent possible, except to provide necessary care to others (including childcare, adult or senior care, care to individuals with special needs, and patient care) or as otherwise expressly allowed in this Order. For clarity, activities that cannot be conducted while maintaining Social Distancing Requirements are generally prohibited; those activities may be conducted only if they are the subject of specific directives of the Health Officer establishing the protocols that must be followed in order to reduce the risk of transmission of COVID-19 when conducting those specific activities.
  - 1. Maintaining at least six feet of social distance from individuals who are not part of their household;

- 2. Frequently washing their hands with soap and water for at least 20 seconds, or using hand sanitizer that is recognized by the Centers for Disease Control and Prevention as effective in combatting COVID-19;
- 3. Covering their coughs and sneezes with a tissue or fabric or, if not possible, into their sleeve or elbow (but not into hands);
- 4. Wearing a face covering as required by Section 10; and
- 5. Avoiding all contact with anyone outside their household when sick with a fever, cough, or other COVID-19 symptoms.
- 10. **Face Coverings.** Face coverings must be worn at all times and by all individuals as specified in the California Department of Public Health's mandatory Guidance for the Use of Face Coverings ("Face Covering Guidance") and in accordance with any additional directives issued by the County Health Officer. Further, all individuals must wear face coverings at all times when inside a business facility or using public transportation. For clarity, a face covering is not required when a person is in a personal office (a single room) when others outside of that person's household are not present as long as the public does not regularly visit the room. Further, individuals under age two, individuals a healthcare professional has advised should not wear a face covering because they have a medical condition that would make wearing a face covering dangerous, and individuals who are hearing impaired or communicating with someone who is hearing impaired, do not need to wear a face covering.

#### 11. Limitations on Gatherings.

- a. Gatherings of any size outside of a single household remain strongly discouraged because they carry significant risk of exposure to COVID-19.
- b. Any gathering occurring indoors is prohibited unless it involves no more than 20 people or 1 person per 200 square feet of the space accessible to participants in the gathering, whichever is fewer.
- c. Any gathering occurring outdoors is prohibited unless it involves no more than 60 people and occurs in an outdoor area large enough to allow for social distancing of all attendees.
- d. Participants in gatherings of any size must adhere to any additional directives of the Health Officer applicable to gatherings, and also the Social Distancing and Face Covering Requirements set forth above in Sections 9 and 10.

#### 12. Requirements Applicable to All Businesses.

a. **Maximization of Telework.** All businesses must continue to maximize the number of personnel who work remotely from their place of residence. For clarity, all businesses must require that all personnel carry out their job functions remotely if they are able to do so.

b. **Activities that Can Occur Outdoors**. All businesses are strongly urged to move as many operations as possible outdoors, where there is generally less risk of COVID-19 transmission. Businesses that cannot meet the Density or strict Face Covering requirements indoors may be able to operate by shifting their operations outdoors.

#### c. Social Distancing Protocol.

- 1. All businesses must prepare, submit to the County, and implement a "Social Distancing Protocol" for each facility or worksite at which any personnel or members of the public may be present, using the updated form identified in Paragraph 3 below. The Social Distancing Protocol must confirm that the business is achieving the applicable requirements listed in that form, which include important mandates regarding worker and customer safety.
- 2. For any business that only performs services for dispersed facilities or worksites that the business does not own or operate (such as, by way of example, residential cleaning service operations at client homes), the business must submit a Social Distancing Protocol for its operation as a whole.
- 3. The Social Distancing Protocol must be completed using the fillable webform and submitted to the County Public Health Department at <a href="https://www.COVID19Prepared.org">www.COVID19Prepared.org</a>. All Social Distancing Protocols will be stored and available in a publicly accessible database.
- 4. The Social Distancing Protocol must be completed by a person authorized to complete and sign it on behalf of the business, and it must be signed under penalty of perjury. All businesses must provide evidence of implementation of their Social Distancing Protocol to any authority enforcing this Order upon demand.
- 5. All businesses with facilities or worksites that are currently open must submit a new Social Distancing Protocol pursuant to this Section 12.c on or before the effective date of this Order as a condition of continued operation. Prior Social Distancing Protocols are no longer valid.
- 6. A full copy of the current Social Distancing Protocol for each facility or worksite must be distributed to each person performing work at that business location and made available to customers upon request. For any business that only performs services for dispersed facilities or worksites that the business does not own or operate, a copy of the Social Distancing Protocol must be provided to each person performing work for that business in the County, and

- also to the owner or operator of each facility or worksite where it performs services.
- 7. A COVID-19 PREPARED Sign and Social Distancing Protocol Visitor Information Sheet, which can only be downloaded and printed upon completion of the webform, must be posted at or near the entrance of the relevant facility or business worksite for which an individual Social Distancing Protocol is required, and shall be easily viewable by the public and personnel from outside the facility or worksite. This includes all construction worksites. Any business that only performs services for dispersed facilities or worksites that the businesses does not own or operate is not required to post a COVID-19 PREPARED Sign or Social Distancing Protocol Visitor Information Sheet.
- d. **Density Limitation.** The total number of personnel present at a business facility may not exceed one personnel per 250 gross square feet of the facility, and the total number of customers or members of the public may not exceed one person per 150 square feet of space open to the public. Business facilities with less than 250 gross square feet of space may have no more than one personnel present at the facility, and businesses with less than 150 square feet of space open to the public may have no more than one customer or member of the public at the facility at a time. Minors under the age of 12, when accompanied by an adult, do not count towards these density limitations. Healthcare facilities, educational and childcare facilities, and other facilities that are specifically identified in a Health Officer directive are exempt from these density limitations and may be subject to alternative limitations.
- e. Mandatory Reporting Regarding Personnel Contracting COVID-19. Businesses and governmental entities must require that all personnel immediately alert the business or governmental entity if they test positive for COVID-19 and were present in the workplace within the 48 hours prior to onset of symptoms or within 48 hours of the date on which they were tested. In the event that a business or governmental entity learns that any of its personnel is a confirmed positive case of COVID-19 and was at the workplace in this timeframe, the business or governmental entity is required to report the positive case within four hours to the Public Health Department at <a href="https://www.sccsafeworkplace.org">www.sccsafeworkplace.org</a>. Businesses and governmental entities must also comply with all case investigation and contact tracing measures by the County, including providing any information requested.
- 13. **Facilities that Must Remain Closed.** The following facilities are not allowed to open under this Order because they create a particularly high risk of COVID-19 transmission:
  - a. Any indoor facility that is used for an activity inherently necessitating the removal of a face covering, including but not limited to indoor dining, indoor bars, indoor swimming

- pools, smoking lounges, saunas, steam rooms, and heated exercise studios. This prohibition does not apply to healthcare facilities.
- b. Professional sports stadiums and arenas, except that professional sports training is permitted and professional sporting events can occur in such facilities <u>without</u> spectators and in accordance with other applicable requirements, upon approval by the Health Officer of a facility-specific risk reduction protocol.
- c. Non-residential adult and elder day care facilities.
- d. Amusement and theme parks.
- e. Nightclubs, music and concert venues, and indoor theaters.
- f. Indoor playgrounds and amusement centers such as bounce centers, ball pits, and laser tag.
- g. Any additional businesses or facilities that the Health Officer specifies in a directive or order must be closed.
- 14. **Transit.** Transit agencies must facilitate compliance with Social Distancing Requirements to the greatest extent feasible. All people must comply with the Face Covering Guidance in Section 10 and Social Distancing Requirements in Section 9 while riding or waiting for public transit, except people specifically exempted.
- 15. **Enforcement.** Pursuant to Government Code sections 26602 and 41601, Health and Safety Code section 101029, and Santa Clara County Ordinance Code section A1-34 *et seq.*, the Health Officer requests that the Sheriff, all chiefs of police in the County, and all enforcement officers ensure compliance with and enforce this Order. The violation of any provision of this Order constitutes an imminent threat and menace to public health, constitutes a public nuisance, and is punishable by fine, imprisonment, or both.
- 16. **Effective Date.** This Order shall become effective on the later of (1) 12:01 a.m. on July 13, 2020 or (2) 12:01 am two days following approval by the State Department of Public Health of a "variance" under the State's "Resilience Roadmap" as described at covid19.ca.gov. This Order shall continue to be in effect until it is rescinded, superseded, or amended in writing by the Health Officer.
- 17. **Copies.** Copies of this Order shall promptly be: (1) made available at the County Government Center at 70 W. Hedding Street, San José, California; (2) posted on the County Public Health Department website (<a href="www.sccphd.org">www.sccphd.org</a>); and (3) provided to any member of the public requesting a copy of this Order.
- 18. **Severability**. If any provision of this Order or its application to any person or circumstance is held to be invalid, the remainder of the Order, including the application of such part or

provision to other persons or circumstances, shall not be affected and shall continue in full force and effect. To this end, the provisions of this Order are severable.

Sara H. Cody, M.D.	Dated:
Health Officer of the County of Santa Clara	
Approved as to form and legality:	
James R. Williams	Dated:
County Counsel	

IT IS SO ORDERED:

### Santa Clara Valley Water District



**File No.**: 20-0648 **Agenda Date**: 7/28/2020

Item No.: \*4.7.

#### **BOARD AGENDA MEMORANDUM**

SUBJECT:

Board Committee Reports.

**ATTACHMENTS:** 

Handout 4.7-A: DCA Summary

Handout 4.7-B: DCA Finance Summary

Date: Friday, July 17, 2020 From: Garth Hall, Acting COO

# Delta Conveyance Design & Construction Authority (DCA) Board of Directors Meeting Report out for Director Estremera

Regular Meeting, Thursday, July 16, 2020, 2:00 p.m.

#### 6. CONSENT CALENDAR

#### (a) DCA Investment Policy

Recommended Action:

Adopt Resolution and Delegated authority to the Treasure to invest DCA's funds for Fiscal Year 2020/21.

There were minor changes to some of the items. The changes align with the DCA Investment Policy and changes in CA code. A more in-depth report is included in Board packet.

Recommendation: APPROVED

#### 7. DISCUSSION ITEMS

(a) Biennial Board of Directors Officer Appointments and Resolution Updating the Bylaws

APPROVED RESOUTION; and APPOINTED OFFICERS BY MOTION AS FOLLOWS:

President: Richard Atwater, MWD

Vice President: Sarah Palmer, SWC At Large

Secretary: Steve Blois, MWD Treasurer: Katano Kasaine

Updated bylaws, 2-year now begins in July rather than May

#### (b) July DCA Monthly Report

A written report was provided in the Board packet

Topics highlighted in the report include:

- ~ Engineering & Field Work
- ~ Stakeholder Engagement
- Program Management/Controls
- ~ Budget
- ~ Contract
- ~ Schedule

Recommended Action: Information Only

#### (c) Field Work Activities for Fiscal Year 2020-2021

#### KEY GOALS OF GEOTECHNICAL PLAN FOR FY20/21

- Supplement existing DWR database and address data gaps in historical data
- Refine data on DCP alignments
- Further existing data for possible future use, including:
  - Validation of geophysical methods
  - ~ Evaluation of satellite-based tools to monitor regional subsidence

A detailed presentation is included in the Board packet.

Recommended Action: Information Only

#### (d) Tunnel Independent Technical Review No. 2 - Findings and DCA Response

Ms. Mallon reported that The Delta Conveyance Design and Construction Authority has assembled world-class experts to develop conceptual engineering work to help define the project alternatives and to

identify ways to avoid or minimize impacts that will be analyzed as a part of the environmental review process.

Mr. Steve Dubnewych gave a technical presentation regarding Tunnels and Shafts 2<sup>nd</sup> Independent Technical review. A detailed presentation is included in the Board packet.

Recommended Action: Information Only

#### (e) DCA Leadership Spotlight – Gwen Buchholtz, Environmental Manager

Introduction of the DCA Environmental Liaison Team and provided the team overview, 2019-2020 key accomplishments, and upcoming activities

- Gwen Buchholtz, Environmental Manager
- Karen Askeland
- Claire Bjork, Intern from UC Davis

Who they are and what they do will be posted when video is posted on the DCA website.

Recommended Action: Information Only

#### (f) Stakeholder Engagement Committee Update

Ms. Parvizi reported that the DCA team presented information about Delta-wide soil management and transportation logistics, provided updates on the siting concepts that

have been adjusted based on feedback from SEC members and other stakeholders, and provided updates on the development of a virtual tour. DWR provided an update on

their Tribal engagement process and explained the Section 404 permit application submitted to the U.S. Army Corps of Engineers (USACE).

A report is included in the board packet.

Recommended Action: Information Only

#### (g) Stakeholder Engagement Committee Members Report Out

Two of the SEC Board Members provided presentations.

Mr. Douglas Hsia represents Sacramento at Large and provided an insight of who he is as a Chinese American and about his heritage. The presentation is included in the board packet.

Mr. David Gloski, DCA Stakeholder Representative provided a presentation on who he is and why he is volunteering his time, stating the SEC is a start on community engagement. The presentation is included in the board packet.

Recommended Action: Information Only

#### 8. STAFF REPORTS AND ANNOUNCEMENTS

#### (a) Gen Counsel – Josh Nelson

The General Counsel continues to assist the DCA on legal matters as requested. This includes the development of the Board reorganization agenda item and bylaws update. It also included beginning the process for the biennial update of the DCA's conflict of interest code. Lastly, the DCA continues to receive and respond to Public Records Act requests.

#### (b) Treasurer's Report – Katano Kasaine

The beginning cash balance for the Delta Conveyance Design and Construction Joint Powers Authority (Authority) at June 1, 2020 was \$796,714. During June 2020, receipts totaled \$858,314 representing contributions from the Department of Water Resources, Delta Conveyance Office (DCO) for payment of the Authority's obligations. Total disbursements for the month were \$931,788. The ending cash balance at June 30, 2020, was \$723,240. A detailed report is included in the board packet.

#### (c) DWR Environmental Manager's Report – Carolyn Buckman

The Department of Water Resources (DWR) is progressing through the California Environmental Quality Act (CEQA) process to analyze a single-tunnel solution to

modernizing and rehabilitating the water distribution system in the Delta. A report is included in the board packet.

#### Verbal Reports:

<u>Director Palmer</u> stated that she viewed two webinars on "Reframing a Region: Communities of Color in the California Delta Parts I & II". This webinar series addresses popular narratives of the California Delta that present the region as a white space. Using an array of primary sources, a diverse panel of experts contest this view, illustrating how communities of color were fundamental to the development of the Delta region. She recommended that everyone take the time and watch both webinars. The links are below:

Reframing a Region: Communities of Color in the California Delta-Part I (Covers history through 1907) https://www.youtube.com/watch?v=63Zf5EDCUjs

Reframing a Region: Communities of Color in the California Delta-Part II (Covers history 1907 and beyond) https://www.youtube.com/watch?v=IYZONqRkO50

<u>Executive Director Mallon</u> wanted to thank Douglas and David for their presentations today, along with all the other SEC members that have presented in the past. She expressed her appreciation to Doug; she enjoyed hearing about the history of the Chinese in the Delta and the community in Locke and in Portland. She also appreciated the points that David made about having empathy for the Delta and make sure that this is more than just a tunnel project on our part. Those are two really powerful points.

Date: Friday, July 17, 2020

From: Garth Hall, Interim COO

# Delta Conveyance Finance Authority (DCFA) Board of Directors Meeting Report out for Director Kremen

#### **Regular Meeting**

Thursday, July 16, 2020, 11:00 a.m.

#### SCHEDULED ACTION ITEMS

## a. Report from Kathryn Mallon, Executive Director for the Delta Conveyance Design & Construction Authority

Ms. Mallon reported that the DCA Board approved the annual budget of \$34M, consistent with the level of expenditure of the current 2019/20 fiscal year (forecasted at approximately \$36.4M). Over 70% of the new annual budget (\$24M) is dedicated to engineering and field work along with the permitting management and property access necessary to support the technical work.

The DCA Program Management Office and Program Initiation efforts in FY 2020/21 are largely a continuation of work initiated in FY 2019/20 in support of DWR's Environmental Planning efforts.

DWR is continuing to fund the DCA engineering work for now and that funding will be recovered from participating agencies and bond funding in the future.

#### b. Review and approval of changes to the DCFA's investment policy

Staff seeks board approval of the DCFA's Statement of Investment Policy (Policy) for fiscal year (FY) 2020/21. Staff also seeks board approval for the delegation of authority to the Treasurer to invest the DCFA's funds for FY 2020/21, pursuant to the Government Code of the State of California (California Government Code). The DCFA's funds are invested with those of the Metropolitan Water District, and the proposed revisions are consistent with the California Government Code and Metropolitan's Investment Policy.

#### Recommendation:

Approve the Statement of Investment Policy for fiscal year 2020/21; and Delegate authority to the Treasurer to invest DCFA's funds for fiscal year 2020/21.

Action: APPROVED

#### **REPORTS AND ANNOUNCEMENTS**

#### a. Executive Director's Report, Brian Thomas

Mr. Thomas reported that the past two months have seen little activity on the part of the DCFA. We have continued to communicate with the State Water Contractors, including the Metropolitan Water District, and Department of Water Resources to determine if there is a role for the DCFA. A written report was provided in the Board packet.

#### b. General Counsel's Report, Steve O'Neill

Mr. O'Neill reported that it has not been an active period. He has been engaging with staff and administrators with some issues on the Form 700. Worked on the investment policy and general board meeting agenda.

#### c. Treasurer's Report Katano Kasaine, Treasurer

Ms. Kasaine reported that the beginning cash balance in the DCFA Trust at January 1, 2020 was \$682,819. Receipts for the three months ended March 2020 totaled \$3,688, consisting of interest receipts. Disbursements totaled \$60,309 during the three months ended March 2020. The ending cash balance at March 31, 2020 was \$626,198. A written report was provided in the Board package.

The next scheduled Board Meeting for the DCFA will be Thursday, August 20, 2020, at 11:00 am.

#### Santa Clara Valley Water District



File No.: 20-0373 Agenda Date: 7/28/2020

Item No.: 6.1.

#### **BOARD AGENDA MEMORANDUM**

#### SUBJECT:

Adopt the Resolution Adopting the 2019 San Francisco Bay Area Integrated Regional Water Management Plan Update.

#### RECOMMENDATION:

Adopt the Resolution ADOPTING THE 2019 SAN FRANCISCO BAY AREA INTEGRATED REGIONAL WATER MANAGEMENT PLAN.

#### SUMMARY:

The Bay Area Integrated Regional Water Management (Bay Area IRWM) region is a nine-county effort to coordinate and improve water supply reliability, protect water quality, manage flood protection, maintain public health standards, protect habitat and watershed resources, and enhance the overall health of the San Francisco Bay (Attachment 1). Santa Clara Valley Water District (Valley Water) has participated in the Bay Area IRWM group since its formation, providing key representation for the south sub-region/Santa Clara County. Valley Water has also provided subject-matter expertise for regionwide water supply and flood/habitat projects and programs. Participation in the Bay Area IRWM provides the following benefits to Valley Water and the other participants in the region:

- Provides a valuable venue for regional collaboration across agencies.
- Improves responsiveness to regional needs and priorities.
- Helps to effectively integrate water resources management activities.
- Serves as a platform to secure state and federal grant funding, as administered by the Department of Water Resources (DWR).

IRWM Plans establish the governance structure for IRWM regions and identify the region's unique water resources needs through member agency, community, and stakeholder input. IRWM Plans are living documents which must be maintained and updated to meet current California Water Code standards, address statewide water management priorities, and address the most current regional needs and conditions through proposed project actions. DWR reviews the proposed IRWM plans according to criteria provided in the IRWM Program Guidelines. The latest 'statewide priorities' from the 2016 IRWM Program Guidelines (2016 Guidelines) are shown in Attachment 2.

The Bay Area IRWM submitted its updated plan documents to DWR for review on November 12,

File No.: 20-0373 Agenda Date: 7/28/2020

Item No.: 6.1.

2019. On February 14, 2020, DWR completed its review and determined that the IRWM Plan is consistent with 2016 Guidelines (Attachment 3). The updated IRWM Plan is available online at <a href="https://bayareairwmp.org>/irwm-plans/">https://bayareairwmp.org>/irwm-plans/</a>. Key updates to the Bay Area IRWM Plan include: 1) an improved project review process to better reflect regional goals, 2) updated groundwater quality information, 3) expanded disadvantaged and underrepresented community information and outreach plans, and 4) updated climate change impact review.

Valley Water and the other Bay Area IRWM region participants must formally adopt the updated Bay Area IRWM Plan to be eligible for continued funding.

#### Valley Water Participation

Participation in the Bay Area IRWM directly aligns with many of the water supply reliability, groundwater and surface water quality improvement, flood protection and risk management, and environmental protection and enhancement goals emphasized by Valley Water. Additionally, the IRWM group provides a unique mechanism to coordinate with other key Bay Area stakeholders to facilitate regional coordination and apply for grant funding.

Since 2004, Valley Water has benefitted from approximately \$86.3 million in grant funding that was secured through participation in the Bay Area IRWM. The funding has supported critical projects and programs including the Lower Silver Creek and Berryessa Creek Flood Protection Projects, the Silicon Valley Advanced Water Purification Center, Shoreline Resilience Program and the Bay Area Advanced Quantitative Precipitation Information System.

#### Proposition 1 and Plan Update

In 2014, the Proposition 1 Water Quality, Supply, and Infrastructure Improvement Act (Prop 1) authorized \$510 million in IRWM grant funding to help California's regions improve water self-reliance, security, and for climate change adaption and mitigation efforts. A total of \$65 million was allocated specifically to the San Francisco Funding Area, represented by the Bay Area IRWM. These funds will be dispersed over multiple planning and implementation grant-funding rounds. Approximately 25% of these funds are targeted to be allocated to Santa Clara County (also referred to as the south sub-region).

On April 1, 2020, DWR announced Prop 1 Implementation Round 1 funding awards in the amount of \$22,750,000 for the Bay Area IRWM region, including three projects in Santa Clara County. Funds were awarded to two Valley Water partnership projects: the Upstream San Francisquito Creek Flood Protection, Ecosystem Restoration, and Recreation Project and the Regional Water Conservation Project. To accept this funding, Valley Water must adopt the recently updated Bay Area IRWM Plan by Resolution (Attachment 4).

Valley Water staff will continue to participate in the implementation of the Bay Area IRWM plan. Implementation activities includes ongoing stakeholder engagement, updating the project list, coordinating Prop 1 Round 2 grant application development, monitoring project implementation, reviewing progress toward meeting IRWM Plan objectives, and updating the IRWM Plan as necessary.

File No.: 20-0373 Agenda Date: 7/28/2020

Item No.: 6.1.

#### FINANCIAL IMPACT:

Adoption of an IRWM Plan does not entail a commitment of resources to or implementation of any project, and there is no joint commitment or responsibility by the IRWM Plan participants to implement any or all the projects. However, if Valley Water does not adopt this updated plan, the Bay Area IRWM region will be ineligible for pending and future grant funding awards, including funding for the Upstream San Francisquito Creek Flood Protection, Ecosystem Restoration, and Recreation Project and the Regional Water Conservation Project. DWR's funding of IRWM projects requires a local match, either in direct local funding or in-kind contributions. The local match for the San Francisquito Creek project will come from the Joint Powers Authority and the local match for the Regional Water Conservation Project will come from our existing Water Conservation budget.

#### CEQA:

The recommended action does not constitute a project under CEQA because it does not have the potential for resulting in direct or reasonably foreseeable indirect physical change in the environment.

#### ATTACHMENTS:

Attachment 1: Bay Area IRWM Participants

Attachment 2: IRWM Program Statewide Priorities

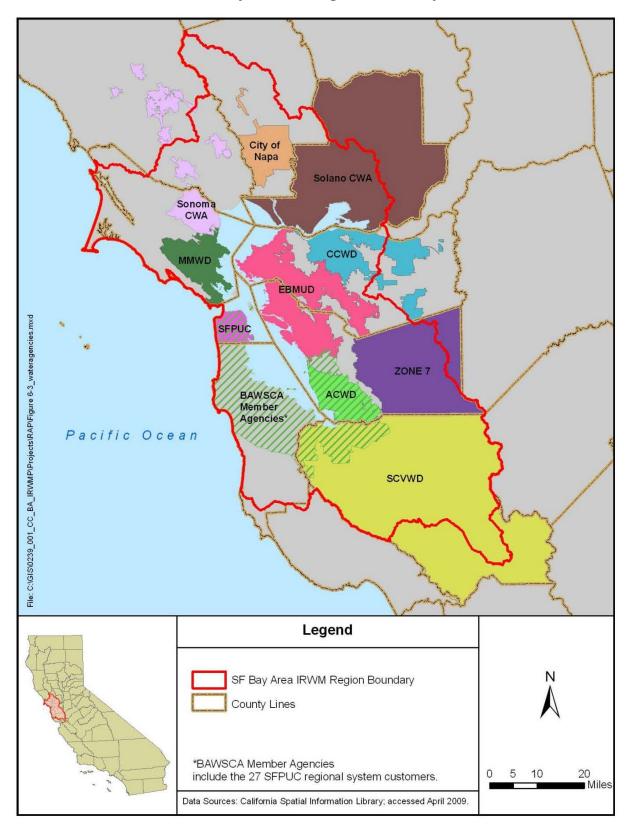
Attachment 3: DWR Plan Review

Attachment 4: Resolution Attachment 5: PowerPoint

#### **UNCLASSIFIED MANAGER:**

Lisa Bankosh, 408-630-2618 Jerry De La Piedra, 408-630-2257

**Attachment 1: Major Water Agencies of Bay Area IRWM** 



#### **Attachment 2: IRWM Program Statewide Priorities**

Source: 2019 IRWM Grant Program Guidelines, published April 2019 and amended December 2019

Action #	Description		
Make Conservation a     California Way of Life	<ul> <li>Building on current water conservation efforts and promoting the innovation of new systems for increased water conservation</li> </ul>		
	<ul> <li>Expand agricultural and urban water conservation and efficiency to exceed SB-X7-7 targets</li> </ul>		
	Provide funding for conservation and efficiency		
	<ul> <li>Increase water sector energy efficiency and greenhouse gas reduction capacity.</li> </ul>		
	<ul> <li>Promote local urban conservation ordinances and programs.</li> </ul>		
Increase Regional Self- Reliance and Integrated     Water Management     Across All Levels of	Ensure water security at the local level, where individual government efforts integrate into one combined regional commitment where the sum becomes greater than any single piece		
Government	<ul> <li>Support and expand funding for Integrated Water Management planning and projects</li> </ul>		
	Improve land use and water alignment		
	Provide assistance to disadvantaged communities		
	<ul> <li>Encourage State focus on projects with multiple benefits such as flood protection, groundwater recharge, water quality, conjunctive use, etc.</li> </ul>		
	Increase the use of recycled water		
3. Achieve the Co-Equal Goals for the Delta	<ul> <li>This action is directed towards State and federal agencies; however, consideration will be afforded to eligible local or regional projects that also support achieving the co-equal goals providing a more reliable water supply for California and to protect, restore, and enhance the Delta ecosystem</li> </ul>		
4. Protect and Restore Important Ecosystems	<ul> <li>Continue protecting and restoring the resiliency of our ecosystems to support fish and wildlife populations, improve water quality, and restore natural system functions</li> </ul>		
	Restore key mountain meadow habitat		
	Manage headwaters for multiple benefits		
	Protect key habitat of the Salton Sea through local partnership		
	Restore coastal watersheds		
	Continue restoration efforts in the Lake Tahoe Basin		
	Continue restoration efforts in the Klamath Basin		
	Water for wetlands and waterfowl		
	Eliminate barriers to fish migration		
	Assess fish passage at large dams		
	Enhance water flows in stream systems statewide		
5. Manage and Prepare for Dry Periods	<ul> <li>Effectively manage water resources through all hydrologic conditions to reduce impacts of shortages and lessen costs of state response actions. Secure more reliable water supplies and consequently improve drought preparedness and make California's water system more resilient.</li> <li>Revise operations to respond to extreme conditions</li> <li>Encourage healthy soils</li> </ul>		

Action #	Description
6. Expand Water Storage Capacity and Improve Groundwater Management	Increase water storage for widespread public and environmental benefits, especially in increasingly dry years and better manage our groundwater to reduce overdraft Provide essential data to enable Sustainable Groundwater Management Support funding partnerships for storage projects Improve Sustainable Groundwater Management Support distributed groundwater storage Increase statewide groundwater recharge Accelerate clean-up of contaminated groundwater and prevent future contamination
7. Provide Safe Water for All Communities	<ul> <li>Provide all Californians the right to safe, clean, affordable and accessible water adequate for human consumption, cooking, and sanitary purposes</li> <li>Consolidate water quality programs</li> <li>Provide funding assistance for vulnerable communities</li> <li>Manage the supply status of community water systems</li> <li>Additionally, as required by Water Code §10545, in areas that have nitrate, arsenic, perchlorate, or hexavalent chromium contamination, consideration will be given to grant proposals that included projects that help address the impacts caused by nitrate, arsenic, perchlorate, or hexavalent chromium contamination, including projects that provide safe drinking water to small disadvantaged communities.</li> </ul>
8. Increase Flood Protection	Collaboratively plan for integrated flood and water management systems, and implement flood projects that protect public safety, increase water supply reliability, conserve farmlands, and restore ecosystems Improve access to emergency funds Better coordinate flood response operations Prioritize funding to reduce flood risk and improve flood response Encourage flood projects that plan for climate change and achieve multiple benefits
9. Increase Operational and Regulatory Efficiency	<ul> <li>This action is directed towards State and federal agencies; however, consideration will be afforded to eligible local or regional projects that also support increased operational of the State Water Project or Central Valley Project</li> </ul>
<ol> <li>Identify Sustainable and Integrated Financing Opportunities</li> </ol>	This action is directed towards State agencies and the legislature

#### **DEPARTMENT OF WATER RESOURCES**

1416 NINTH STREET, P.O. BOX 942836 SACRAMENTO, CA 94236-0001 (916) 653-5791



SENT VIA EMAIL

February 14, 2020

Ms. Michelle Novotny Senior Water Analyst San Francisco Public Utilities Commission 525 Golden Gate Avenue, 13th Floor San Francisco, California 94102

Subject: San Francisco Bay IRWM Plan Draft Review

Dear Ms. Novotny:

Attached please find the Department of Water Resources (DWR) draft review of the San Francisco Bay Integrated Regional Water Management (IRWM) Plan (Plan). DWR has determined that the Plan is consistent overall with the IRWM Planning Act and the related IRWM Plan Standards contained in the 2016 IRWM Grant Program Guidelines (Guidelines).

Pursuant to Volume 2, Section IV of the Guidelines, a public comment period of 30 days is required for this review. The website link that you provided us to the DWR-reviewed version of the Plan and appendices on your website will be used for the public to access them during the 30-day public review period. The draft review and the link to the Plan will be uploaded within three to five business days.

We will notify you when the public review period closes, and whether or not any comments were received.

If you have any questions, please contact Ted Daum at (916) 651-9264 or Ted.Daum@water.ca.gov.

Sincerely,

Carmel Brown, P.E. Chief Financial Assistance Branch

Division of Integrated Regional Water Management

### BOARD OF DIRECTORS SANTA CLARA VALLEY WATER DISTRICT

#### **RESOLUTION NO. 20-**

### ADOPTING THE 2019 SAN FRANCISCO BAY AREA INTEGRATED REGIONAL WATER MANAGEMENT PLAN

WHEREAS, the California electorate approved multiple statewide bond measures since 2000, including Propositions 50, 84, and 1, to fund water and natural resource projects and programs, including Integrated Regional Water Management (IRWM); and

WHEREAS, the benefits of integrated planning for water resources management activities include increased efficiency or effectiveness, enhanced collaboration across agencies and stakeholders, and improved responsiveness to regional needs and priorities; and

WHEREAS, State statute and guidelines require that an IRWM Plan be adopted by the governing boards of participating agencies before IRWM grant funds would be provided for water resource management projects that are part of the IRWM Plan; and

WHEREAS, more recent state statutes and guidelines require that the Bay Area IRWM Plan be updated before agencies may receive Proposition 1 IRWM grant funding; and

WHEREAS, the Bay Area IRWM Plan provides an implementation framework for tracking accomplishments and periodically updating the Bay Area IRWM Plan as conditions warrant, providing funding and resources are available to carry out these activities; and

WHEREAS, adoption of the Bay Area IRWM Plan does not entail a commitment of resources or implementation of any project, and there is no joint commitment or responsibility by the Bay Area IRWM Plan participants to implement any or all of the projects; and

WHEREAS, the Bay Area IRWM Plan does not constitute a project under the California Environmental Quality Act because it does not have a potential for resulting in direct or reasonably foreseeable indirect physical change in the environment; and

WHEREAS, the Bay Area IRWM Plan is meant to be complementary to participating agencies' individual plans and programs and does not supersede such plans and programs, and adoption of the IRWM Plan does not prohibit or effect in any way a participating agencies' planning efforts separate of the IRWM Plan.

NOW, THEREFORE BE IT RESOLVED that the Board of Directors of the Santa Clara Valley Water District does hereby adopt the 2019 San Francisco Bay Area Integrated Regional Water Management Plan.

### ADOPTING THE 2019 SAN FRANCISCO BAY AREA INTEGRATED REGIONAL WATER MANAGEMENT PLAN Resolution No. 20-

PASSED AND ADOPTED by the Board of Directors of the Santa Clara Valley Water District by

g vote on July 28, 2020:	
Directors	
Directors	
Directors	
Directors	
	SANTA CLARA VALLEY WATER DISTRICT
	NAI HSUEH Chair, Board of Directors
IICHELE L. KING, CMC	
d of Directors	_
	Directors



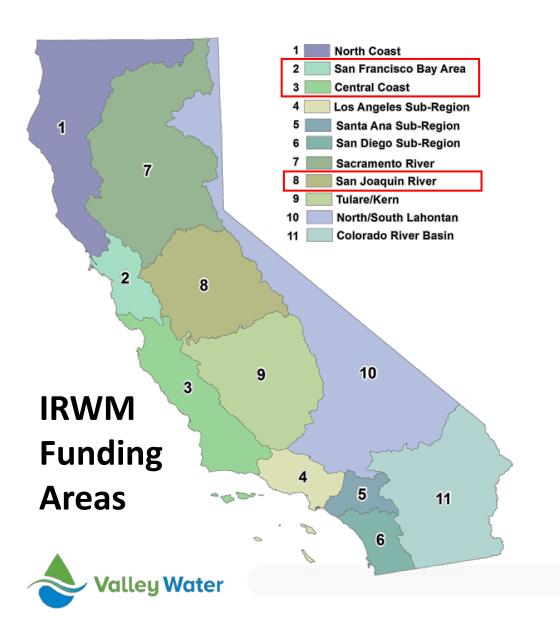
## Bay Area IRWM Plan Update (Prop 1)

Presented by: Samantha Greene, Ph.D., Senior Water Resources Specialist Brian Mendenhall, Senior Water Resources Specialist

July 28, 2020 *Board of Directors Meeting* 



## **Integrated Regional Water Resources Management**



Purpose

- To encourage regional cooperation in water resources planning and management
- California has 50 IRWM regions grouped into 11 funding areas

Voter passed funding propositions

- Proposition 50 in 2002
- Proposition 84 in 2006
- Proposition 1E in 2006
- Proposition 1 in 2014

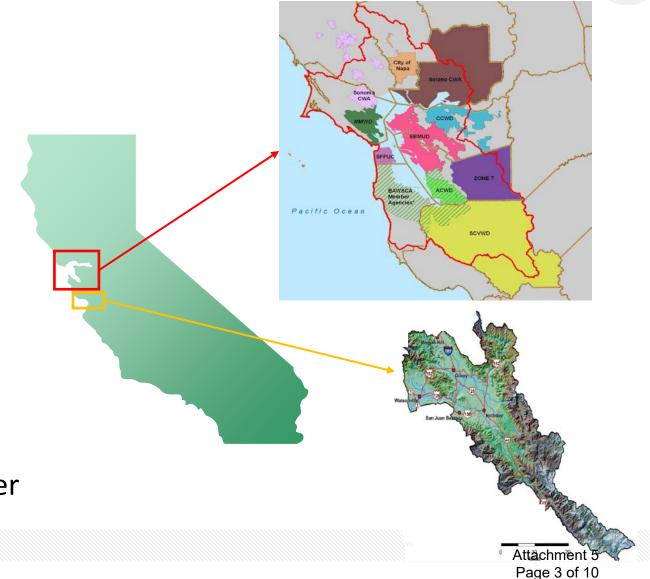
Regional stakeholders

- Water, open space, and resource conservation districts
- Cities, counties, economically disadvantaged communities
- Non-governmental organizations
- State, regional, and federal agencies

Attachment 5

## Integrated Regional Water Management (IRWM) Regions

- Develops, maintains, and implements IRWM plan
- Oversees stakeholder engagement
- Valley Water IRWM Group Role:
  - San Francisco Bay Area:
    - Vice Chair
    - Flood Prevention-Stormwater
       Functional Area Representative
    - Water supply technical expert
  - Pajaro River Watershed: Lead
  - Westside San Joaquin: Stakeholder





## **IRWM Supports Valley Water's Mission**



Sunnyvale Recycled Water/Wolfe Pipeline



San Francisquito Creek Improvements



Bay Area Advanced Quantitative Precipitation Info (AQPI) Project

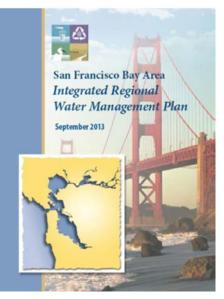
#### Awards over the past ten years:

Project/Program	Grant Amount (millions)
Regional Recycling, Silicon Valley Advanced Water Purification Center	\$7.5
Anderson Dam Seismic Retrofit	\$4.1
Advanced Quantitative Precipitation Information (AQPI) System	\$5.0
Shoreline Resilience Program	\$5.3
Salt Pond Habitat Restoration	\$1.3
Conservation programs and rebates	\$2.4
Salt and Nutrient Management Planning	\$90,000*
Lower Silver Creek	\$25
Berryessa Creek	\$30
Wolfe Road Pipeline	\$2.5
San Francisquito Creek Bay to 101	\$3.1
TOTAL =	\$86.3



### **IRWM Plan Overview**

- Basis for regional coordination, governance
- Defines regional goals and objectives
- Incorporates projects and programs into regional planning
- Updates address CA Water Code standards, statewide water management priorities, and regional needs/conditions
- Plan is a pre-requisite for grant awards



Valley Water last adopted Bay Area IRWM plan in September 2013 (for Prop 84 requirements).





## Plan Update 2019/2020

- 2014: Proposition 1 passed by voters
- 2016: DWR updated IRWM Plan guidelines:
  - Groundwater management compliance
  - Climate change
  - Tribal involvement
  - Reduce reliance on the Delta
- 2019: Prop 1 Implementation funding
  - Plan adoption required
  - Round 1 under review
  - Round 2 will commence 2021 or later

### **GRANT FUNDING**



\$6.2 million toPajaro RiverWatershed



## **IRWM Status**

- DWR approved the Bay Area and Pajaro Plans
- DWR Prop 1 Round 1 recommended awards:
  - Pajaro: ~\$500 thousand total; \$200 thousand for Gilroy Advanced Metering Infrastructure (AMI)
  - Bay Area: \$22.75 million; \$750 thousand for Valley Water conservation program, \$3 million for San Francisquito Creek Project
- Pajaro IRWM Plan adopted by Valley Water on April 28, 2020

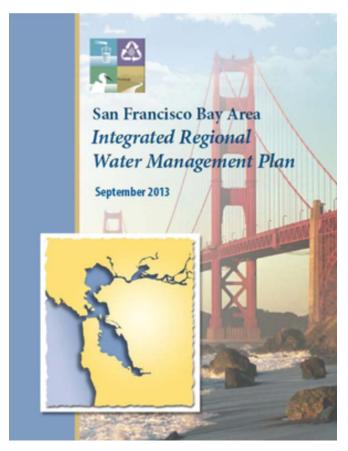






## Next Steps

- Valley Water needs to adopt the Bay Area IRWM plan to be eligible for award
- Regional Water Management Groups (RWMGs) continues to implement their plans with stakeholder support
- RWMGs will oversee the Proposition 1 Round 2 grant applications



Last adopted in September 2013



### Staff Recommendation

## ADOPT THE 2019 SAN FRANCISCO BAY AREA INTEGRATED REGIONAL WATER MANAGEMENT PLAN

- Allows Valley Water to be eligible for the awarded Prop 1 grant funding
- Allows Valley Water to be eligible for other future state bond funding
- Supports regional planning efforts





## Valley Water

Clean Water • Healthy Environment • Flood Protection

### Santa Clara Valley Water District



File No.: 20-0632 Agenda Date: 7/28/2020

Item No.: \*6.2.

### **BOARD AGENDA MEMORANDUM**

#### SUBJECT:

Approve an Increase to the Construction Contract Contingency Sum and Notice of Completion of Contract and Acceptance of Work for the Lower Berryessa Creek Flood Protection Project Phase 2, (Construction Phase - Stage 1), Brosamer & Wall, Inc., Contractor, Project No. 40174005, Contract No. C0614 (Milpitas) (District 3).

### RECOMMENDATION:

- A. Approve an increase of \$187,841.27 to the construction contract contingency sum for the Lower Berryessa Creek Flood Protection Project Phase 2, (Construction Phase Stage 1), Brosamer & Wall, Inc., Contractor, Project No. 40174005, Contract No. C0614;
- B. Accept the work as complete; and
- C. Direct the Clerk of the Board to sign the Notice of Completion of Contract and Acceptance of Work and submit for recording to the Santa Clara County Clerk-Recorder.

#### SUMMARY:

The Construction Contractor, Brosamer & Wall, Inc., has completed the Construction Phase (Stage 1) for the Lower Berryessa Creek Flood Protection Project Phase 2 (Project). The construction contract was awarded in the amount of \$38,876,550 and the construction contract amount through the completion of Stage 1 is \$44,845,046.27. Subject to any withholds required by law or the contract, acceptance of the work by the Board will allow for the release of \$2,242,252.31 in retention to the Contractor.

### **Project Background**

The Lower Berryessa Creek Project, which extends approximately 1.6 miles from its confluence with Lower Penitencia Creek upstream to Calaveras Boulevard, is part of a number of flood protection improvements within the City of Milpitas. The Project will protect the surrounding area by removing approximately 1,800 parcels from the 1 percent (1%) floodplain and provide improved maintenance access to the channel. The Lower Berryessa Creek Project was constructed in two phases. Phase 1 was completed in December 2016 and included improvements between the confluence with Lower Penitencia Creek and Abel Street. Phase 2 includes approximately 1.1 miles of channel improvements upstream of Jacklin Road/Abel Street to Calaveras Boulevard and is the subject of this Board agenda item.

File No.: 20-0632 Agenda Date: 7/28/2020

Item No.: \*6.2.

The Contractor has completed the Construction Phase (Stage 1) of the subject Project.

The three-year Plant Establishment and Maintenance Phase (Stage 2) of the Project is in progress and is scheduled for completion in December 2022.

This Board action is only for the acceptance of the Construction Phase (Stage 1). A separate Board action will be scheduled once the three-year Plant Establishment and Maintenance Phase (Stage 2) of the contract is completed.

### **Previous Board Actions**

On March 22, 2016, the Board approved the plans and specifications and authorized advertisement for bids for the construction of the Project.

On June 28, 2016, the Board awarded the construction contract for the Project to Brosamer & Wall, Inc., in the amount of \$38,876,550 and approved a contingency sum of \$3,887,655. The Board authorized the Chief Executive Officer (CEO) or designee to approve individual change orders up to the total amount of the contingency, with the Engineering Unit Manager and Deputy Operating Officer to approve individual changes up to \$50,000 and \$100,000, respectively.

On June 28, 2016 the Board authorized the CEO to negotiate and execute Amendment No. 1 to the Standard Consultant Agreement with Ghirardelli Associates, Inc. for construction management services for construction of the Project, for the not-to-exceed amended amount of \$3,436,036. Previously, on June 9, 2015 the Board approved the original Agreement with Ghirardelli Associates, Inc., for construction management services for construction of the Lower Berryessa Creek Flood Protection Project Phase 1 and Phase 2. It was later amended to extend its term to be commensurate with the duration of construction of the Project.

On November 14, 2017, the Board approved an increase to the construction contingency sum of the Project by \$1,943,000 to \$5,830,655 to a new total contingency amount of 15 percent (15%) of the contract amount.

On March 13, 2018, the Board authorized reducing the construction contract retention of ten percent (10%) to five percent (5%), consistent with the minimum amount required by the California Public Contract Code.

### **Contract Change Orders**

Since construction started in August 2016, staff and the contractor have approved 73 contract change orders totaling \$5,801,119.46 for costs resulting from schedule recovery efforts from utility relocation delays, locating unexpected utilities, additional tree removal, and necessary design changes. During the first year of construction, the Project was delayed by utility relocations from PG&E, Chevron, and AT&T. Because of the utility relocation delays, the Project incurred about \$2.2 million in acceleration costs to increase Contractor staff and equipment and to get the Project back on schedule. In the second year of construction additional change orders were approved to address another season of accelerated construction, design changes, replacement of damaged landscaping,

File No.: 20-0632 Agenda Date: 7/28/2020

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and changed site conditions.

A final contract change order in the amount of \$167,376.81 for the Construction Phase (Stage 1) has been agreed to by the parties and payment is pending board approval of staff's recommendation to increase the contingency sum. This last change order will compensate the contractor for the repairs of a below grade unforeseen conduit and fiber optic communication line damaged during excavation, and hydroseed irrigation.

Table 1 presents a summary of the construction contract and contingency amounts as well as a breakdown of the recommended increase to the contingency sum and proposed final contract change order.

TABLE 1
Summary of Construction Contract and Contingency Amounts

	Contract Amount	Contingency Amount
Original Contract Amount	\$38,876,550.00	\$5,830,655.00
Change Order No. 1 (Deleted)	N/A	N/A
Change Order No. 2 (Staff Approved) Construction fencing along Edgewater Drive	\$36,726.25	<\$36,726.25>
Change Order No. 3 (CEO Approved) Removal of additional trees	\$181,500.00	<\$181,500.00>
Change Order No. 4 (Staff Approved) Pothole and survey existing AT&T ducts	\$22,777.21	<\$22,777.21>
Change Order No. 5 (Staff Approved) Modify CIDH rebar cages	\$36,213.50	<\$36,213.50>
Change Order No. 6 (Staff Approved) Remove irrigation at FW12	\$5,695.67	<\$5,695.67>
Change Order No. 7 (Deputy Approved) Increase insurance to cover VTA/UPRR requirements	\$62,721.00	<\$62,721.00>
Change Order No. 8 (Staff Approved) Demolish existing sound wall at FW12	\$42,000.00	<\$42,000.00>
Change Order No. 9 (Staff Approved) Locate limit of unknown 48-inch storm drain	\$7,064.34	<\$7,064.34>
Change Order No. 10 (CEO Approved) Add cobblestone texturing to floodwalls	\$138,116.59	<\$138,116.59>
Change Order No. 11 (CEO Approved) Remove unknown concrete channel lining	\$168,745.59	<\$168,745.59>
Change Order No. 11S1 (Staff Approved) Credit for quantities of concrete removal to CCO No. 10	<\$20,000.00>	\$0.00
Change Order No. 12 (Staff Approved) Provide support to AT&T at FW12 and FW16	\$25,000.00	<\$25,000.00>

File No.: 20-0632 **Agenda Date:** 7/28/2020 **Item No.:** \*6.2.

Change Order No. 13 (Staff Approved) Provide Project Partnering Meetings	\$50,000.00	<\$50,000.00>
Change Order No. 14 (Staff Approved) Facilitate the Dispute Review Board	\$50,000.00	<\$50,000.00>
Change Order No. 15 (CEO Approved) Schedule recovery costs due to AT&T and PG&E relocation delays	\$2,264,098.35	<\$2,264,098.35>
Change Order No. 16 (Staff Approved) Landscape repairs at Beresford Village	\$30,000.00	<\$30,000.00>
Change Order No. 16S1 (Staff Approved) Additional landscape repairs at Beresford Village	\$5,000.00	<\$5,000.00>
Change Order No. 17 (Staff Approved) Improve access road for PG&E pole relocation	\$36,035.24	<\$36,035.24>
Change Order No. 18 (Staff Approved) Pothole PG&E Gas Line near IHOP	\$4,986.44	<\$4,986.44>
Change Order No. 19 (Staff Approved) Lower Existing AT&T Manhole at FW12	\$1,082.61	<\$1,082.61>
Change Order No. 20 (Staff Approved) Additional Tree removal at Sta 14+10	\$6,229.57	<\$6,229.57>
Change Order No. 21 (Deputy Approved) Additional shoring for FW 16	\$78,139.07	<\$78,139.07>
Change Order No. 22 (Staff Approved) Fence removal at FW 12, 14 and 17	\$14,517.24	<\$14,517.24>
Change Order No. 23 (Deputy Approved) Additional potholing, repair and cleanup of water utilities, excavation for AT&T duct work	\$83,717.91	<\$83,717.91>
Change Order No. 24 (Deputy Approved) Place 12- foot-wide Asphalt Pavement on Levee	\$82,800.00	<\$82,800.00>
Change Order No. 24S1 (Staff Approved) Credit to eliminate 2 feet of Asphalt Pavement	<\$42,261.91>	\$0.00
Change Order No. 25 (Staff Approved) Extra work on Saturday	\$12,682.95	<\$12,682.95>
Change Order No. 25S1 (Staff Approved) Supplemental Saturday Work	\$31,537.54	<\$31,537.54>
Change Order No. 26 (Staff Approved) Install and Maintain Concrete Cover at FW 12	\$33,035.74	<\$33,035.74>
Change Order No. 27 (Deputy Approved) Additional Winter Work	\$100,000.00	<\$100,000.00>
Change Order No. 28 (CEO Approved) Eliminate CIDH Piles at FW12, FW13, FW14, FW16	<\$1,186,142.20>	\$0.00
Change Order No. 29 (Deputy Approved) Additional Pothole utilities and relocate electrical lighting	\$54,667.97	<\$54,667.97>

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Change Order No. 30 (Deputy Approved) Additional potholing utilities at FW11, FW12, FW15 and furnish temporary fencing at Sutterwind Drive	\$74,566.82	<\$74,566.82>
Change Order No. 31 (Deputy Approved) Manage High Groundwater and additional rip-rap at LV14 wingwall	\$60,468.33	<\$60,468.33>
Change Order No. 32 (Staff Approved) Survey AT&T ducts, FW17 fence removal, RW 17 and 18 changes due to PG&E gas vents, ADA ramp at FW17	\$38,839.89	<\$38,839.89>
Change Order No. 33 (CEO Approved) Acceleration costs for FW 12	\$173,070.00	<\$173,070.00>
Change Order No. 34 (Staff Approved) Remove additional concrete lining, modify storm drainage at LV13, add expansion joint at pedestrian bridge	\$46,643.39	<\$46,643.39>
Change Order No. 35 (Deputy Approved) Install and maintain 2 additional vibration monitors	\$56,490.00	<\$56,490.00>
Change Order No. 36 (Staff Approved) Remove existing sidewalk and sacked concrete at RW 17 and RW18	\$21,019.33	<\$21,019.33>
Change Order No. 37 (Staff Approved) Steepen slopes, remove and restore existing fence at LV13	\$28,914.93	<\$28,914.93>
Change Order No. 38 (CEO Approved) FW13 CIDH Pile Cave-in Impacts	\$117,652.44	<\$117,652.44>
Change Order No. 39 (Staff Approved) Off-Season Staffing in 2018	\$44,903.04	<\$44,903.04>
Change Order No. 40 (Deputy Approved) Moving and Disposing of Eliminated CIDH Pile Cages, FW 12 Shear Key Work	\$88,574.44	<\$88,574.44>
Change Order No. 41 (Deputy Approved) Off-season Work at FW11 and RW11	\$68,300.44	<\$68,300.44>
Change Order No. 42 (CEO Approved) Landscape Repairs at Sutterwind Drive	\$270,444.30	<\$270,444.30>
Change Order No. 42S1 (Staff Approved) Supplemental Landscape Repairs at Sutterwind Drive	\$19,444.95	<\$19,444.95>
Change Order No. 43 (CEO Approved) Additional Guardrailing at FW17	\$253,124.00	<\$253,124.00>
Change Order No. 43S1 (Staff Approved) Supplement Costs for Guardrailing at FW17	\$16,712.64	<\$16,712.64>
Change Order No. 44 (Deputy Approved) Additional Mobilization for CIDH Pile Work, mow area of weeds not in contract	\$72,750.00	<\$72,750.00>
Change Order No. 45 (CEO Approved) Additional concrete work at FW 11 and FW15	\$156,515.40	<\$156,515.40>

**Agenda Date:** 7/28/2020 **Item No.:** \*6.2. File No.: 20-0632

		•
Change Order No. 45S1 (Staff Approved) Credit for FW11 and FW15 Design to U-Frame Walls	<\$15,009.80>	\$0.00
Change Order No. 46 (Staff Approved) 8-inch Pipe Repair at Wrigley Ford Pump Station	\$32,131.29	<\$32,131.29>
Change Order No. 47 (CEO Approved) 2018 Recovery and Acceleration	\$884,708.00	<\$884,708.00>
Change Order No. 48 (Staff Approved) FW12 Design Changes, VTA Background Check	\$20,219.21	<\$20,219.21>
Change Order No. 49 (Staff Approved) FW 13 Storm Drain protection, FW 12 drywells, remove and replace chain link fence	\$12,519.23	<\$12,519.23>
Change Order No. 50 (Staff Approved) LV11 keyway subgrade stabilization	\$19,575.69	<\$19,575.69>
Change Order No. 51 (Deputy Approved) Credit for elimination of CIDH piles for FW15	<\$297,997.94>	\$0.00
Change Order No. 52 (CEO Approved) Design changes for FW11, FW15, and FW16	\$279,545.11	<\$279,545.11>
Change Order No. 53 (CEO Approved) Adjustment for Decrease of in quantity of CIDH piles by more than 25%	\$332,316.19	<\$332,3116.19>
Change Order No. 54 (Deputy Approved) Install Additional Chain Link Fence, PG&E gas line conflicts at RW12 and RW14	\$62,059.64	<\$62,059.64>
Change Order No. 55 (Staff Approved) Credit to eliminate decomposed granite path at FW12	<\$15,952.19>	\$0.00
Change Order No. 56 (Staff Approved) Credit to eliminate Asphalt Concrete path at LV11	<\$178,643.30>	\$0.00
Change Order No. 57 (Deputy Approved) Remove/dispose abandoned manhole, add weep holes to U-frame invert, grade modification to lower maintenance road, pave slope at FW11 outfall, install City traffic sign at FW17	\$50,422.90	<\$50,422.90>
Change Order No. 58 (Staff Approved) Repair 2-inch irrigation line at Wrigley Ford, RW12 and RW14 weep hole extensions, erosion control blankets at revegetation areas 1 and 2, unknown manhole obstruction at FW11		<\$17,574.03>
Change Order No. 59 (Staff Approved) Modify 60 inch storm drain cap, ACB work at AT&T duct bank, additional chain link fence at trash rack	\$14,624.73	<\$14,624.73>

**Agenda Date:** 7/28/2020 **Item No.:** \*6.2. File No.: 20-0632

Change Order No. 60 (Staff Approved) Extra labor fo	·\$40 075 26	<\$40,075.26>
50 inch Storm Drain Leak, abandoned concrete	φ40,073.20	γ40,073.20
obstruction, extend 60 inch storm drain outfall pipe at		
FW11		
Change Order No. 61 (Staff Approved) Credit for	<\$81,662.37>	\$0.00
design changes to FW11, FW15 and FW16	Ψο 1,002.07	Ψ0.00
Change Order No. 62 (Staff Approved) Additional bird	\$66 246 01	<\$66,246.01>
monitoring for 2018 season	1,000,240.01	
Change Order No. 63 (Staff Approved) Cleaning Box	\$48,420.57	<\$48,420.57>
Culvert Cell #3 of sediment		
Change Order No. 64 (Staff Approved) Additional	\$20,623.16	<\$20,623.16>
noise and vibration monitoring, weed removal and		
herbicide treatment, additional concrete apron		
removal at FW11		
Change Order No. 65 (Staff Approved) Additional	\$10,878.00	<\$10,878.00>
gates and fencing at FW12		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Change Order No. 66 (Staff Approved) Additional	\$15,180.18	<\$15,180.18>
topsoil preparation for planting	ψ 10, 100.10	Ψ 10, 100. 10
Change Order No. 67 (CEO Approved) Remedial	\$247,660.39	<\$247,660.39>
levee work at LV11, LV12, LV13 and LV14	Ψ247,000.00	Ψ241,000.00
	\$0.00	\$0.00
Change Order No. 68 (Pending CEO Approval) Balance Contract Items	\$0.00	\$0.00
	<b>***</b>	
Change Order No. 69 (Staff Approved) Riprap at	\$80,042.29	<\$80,042.29>
Berryessa Pump Station Outfall		
Change Order No. 70 (Staff Approved) 60-inch Storm	\$52,485.78	<\$52,485.78>
Drain Scour Protection		
Change Order No. 71 (Staff Approved) Asphalt	\$96,691.01	<\$96,691.01>
Pavement Trail at LV12		
Change Order No. 72 (Staff Approved) Credit for	<\$33,754.62>	\$0.00
Valley Water O&M Labor at Pond A-8		
Change Order No. 73 (Staff Approved) Modification		\$0.00
to Waiver of Subrogation	\$0.00	
Current Contract Amount and Remaining	\$44,677,669.46	\$29,535.54
Contingency		ľ
Contingency Amount Increase (Pending Board		\$187,841.27
Approval)		Ψ. σ. ,σ ι ι.Σι
Change Order No. 74 (Pending CEO Approval) Fiber	\$167 376 81	<\$167,376.81>
Optic Cable Repair and Hydroseed Irrigation	Ψ101,310.01	, , , , , , , , , , , , , , , , , , , ,
	¢44.045.040.07	¢50,000,00
Proposed Contract Amount and Remaining	\$44,845,046.27	\$50,000.00
Contingency		

File No.: 20-0632 Agenda Date: 7/28/2020

**Item No.:** \*6.2.

### **Increase in Construction Contingency**

There are insufficient funds remaining in the contingency sum to execute change order No. 74 required to resolve remaining cost issues with the Contractor for the Construction Phase (Stage 1). Additionally, some contingency funds are necessary to address issues that may arise during the three-year Plant Establishment and Maintenance Phase (Stage 2). Staff recommends the Board approve an increase to the contingency sum for the Project in the amount of \$187,841.27 to allow staff to execute the final contract change order and provide contingency funds for the Plant Establishment and Maintenance Phase (Stage 2). The additional contingency amount will result in a total contingency of \$6,018,496.27 which is approximately 15.5 percent (15.5%) of the original contract.

### Acceptance of the Work and Recording Notice of Completion of Contract

The California Civil Code allows an owner or its agent to execute a Notice of Completion of Contract Acceptance of the work by the Board. The Notice of Completion of the Contract and Acceptance of all work is included in Attachment 1. The Designated Engineer has determined that the work has been completed, to the best of his knowledge, in accordance with the plans and specifications, and recommends acceptance. The Designated Engineer's recommendation of construction acceptance is included in Attachment 2. The Project Completion Letter is included as Attachment 3. Photos of the completed Project are included in Attachment 4.

### **Construction Contract Retention**

California law requires Valley Water to release contract retention in accordance with certain time frames, which will commence once the Notice of Completion is recorded. Interest payment on retention due to the Contractor may be avoided by meeting the requisite deadlines.

Valley Water is currently withholding retention funds totaling five percent (5%) of the contract items associated with Stage 1 in accordance with the Public Contract Code. Per the construction contract documents, Valley Water is required to release retention funds associated with the contract 35 days after recording the Notice of Completion of Contract and Acceptance of Work, subject to any withholds required by law or the contract.

Recording a Notice of Completion is recommended for the Stage 1 work and a second Notice of Completion will be recommended once Stage 2 work is complete. Retention withheld for Stage 1 will be released as a result of the Board's acceptance. Retention withheld for Stage 2 will be released after that work is completed and a Notice of Completion is recorded.

### **Project Expenditures**

As presented in the Summary of Construction Contract and Contingency Amounts (Table 1), at the end of Construction Phase - Stage 1 the original contract amount of \$38,876,550 has been increased by \$5,968,496.27 to \$44,845,046.27, an increase of approximately 15.4 percent (15.4%).

File No.: 20-0632 Agenda Date: 7/28/2020

Item No.: \*6.2.

### FINANCIAL IMPACT:

There are sufficient funds available in the FY 2021 Project 40174005 Lower Berryessa Creek Phase 2 budget to increase the construction contract contingency by \$187,814.27 to a total contingency of \$6,018,496.27, which is approximately 15.5 percent (15.5%) of the original contract. Approving this increase will result in a total Project construction cost increase from \$44,707,205 to \$44,895,046.27. The funding sources for the Project are the Watershed Stream Stewardship Fund and a \$25 million grant from the Department of Water Resources Proposition 1E; the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006.

### CEQA:

The recommended action does not constitute a project under CEQA because it does not have a potential for resulting in direct or reasonably foreseeable indirect physical change in the environment.

### ATTACHMENTS:

Attachment 1: Notice of Completion

Attachment 2: PowerPoint

Attachment 3: Project Delivery Process Chart

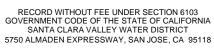
\*Supplemental Agenda Memorandum

\*Supplemental Attachment 1: Construction Contract Acceptance

\*Supplemental Attachment 2: Project Completion Letter

### **UNCLASSIFIED MANAGER:**

Ngoc Nguyen, 408-630-2632





C valley water	
Recording Requested by: Michele L. King, Clerk, Board of Directors	
When Recorded, Mail to:	
Michele L. King, Clerk, Board of Directors Santa Clara Valley Water District 5750 Almaden Expressway San Jose, CA 95118-3686	
Construction Phase (Stage 1)	
NOTICE OF COMPLETION OF CO	ONTRACT AND ACCEPTANCE OF WORK
California, pursuant to law, that work to be performed und Santa Clara Valley Water District, as Owner therein, and Creek, CA 94596 as Contractor therein, bearing the date Flood Protection Project Phase 2, (Construction Phase appurtenant facilities upon lands of said District known as (From Abel Street to Calaveras Blvd.) situated in the Construction Phase 2.	rd of Directors of Santa Clara Valley Water District, State of ler the contract heretofore made and executed by and between Brosamer & Wall, Inc., 1777 Oakland Blvd #110, Walnut June 28, 2016 for the construction of Lower Berryessa Creek is — Stage 1), Contract No. C0614, Project No. 40174005 and Lower Berryessa Creek Flood Protection Project Phase 2, county of Santa Clara, State of California, was completed as specifications, by the said Contractor, and the said work was of said District on July 28, 2020.
	ce Company, 1340 Treat Boulevard, Walnut Creek, CA y said Brosamer & Wall, Inc. the said Contractor, as required by
That the title of said District to the real property upand Easement and;	oon which said work and contract was performed is that of Fee
That the address of said District is 5750 Almaden	Expressway, San Jose, California 95118.
	of the Board of Directors made and given on <u>July 28, 2020</u> the said District has caused these presents to be executed in its aid Board of Directors on <u>July 28, 2020</u> .
	Clerk, Board of Directors Santa Clara Valley Water District
make this declaration on its behalf; that said District is the	rd of Directors of the Santa Clara Valley Water District; that I owner of the real property interest described in the foregoing knows the contents thereof, and the same is true of my own
I declare under penalty of perjury that the foregoing	ng is true and correct.
Executed on July 28, 2020, at San Jose, Californ	ia.
-	Clark Board of Directors
	Clerk, Board of Directors Santa Clara Valley Water District

FC 68A (01/29/2020)

Attachment 1

Page 1 of 1



# Valley Water

Clean Water • Healthy Environment • Flood Protection

### Lower Berryessa Creek Flood Protection Project Phase 2

Notice of Completion of Construction Contract (Construction Phase – Stage 1)
Project No. 40174005, Contract No. C0614



### **Presentation Topics**

- Project Objective
- Project Description
- Project Location
- Project Construction Costs
- Construction Photos



### **Project Objective**

4

The objective of the Lower Berryessa Creek Flood Protection Project is to:

- Protect the surrounding area by removing approximately 1800 parcels from the 1% floodplain,
- Improve the structural integrity of the levees, and
- Improve maintenance access to creek.



### **Project Description**

5

This project provides flood protection improvements along Lower Berryessa Creek from Abel Street to Calaveras Boulevard and included:

- Approximately 1.1 miles of channel Improvement,
- Flood walls, levee improvements, and maintenance road
- Revegetation, and Irrigation system
- Three-year plant establishment maintenance period



### **Project Location**

Lower Berryessa Creek (Milpitas)





### **Project Construction Costs**

### **Construction Cost:**

- \$38,876,550.00 Contract Award Amount
- \$44,845,046.27 Final Contract Amount (15.4% increase)

**Funding Sources:** The funding sources for the Project are the Watershed Stream Stewardship Fund and a grant from the Department of Water Resources Proposition 1E; the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006.







Levee 11 and 12 During Construction







Levee 13 and 14 During Construction











Flood Wall – During Construction







Lower Berryessa Creek - After Construction







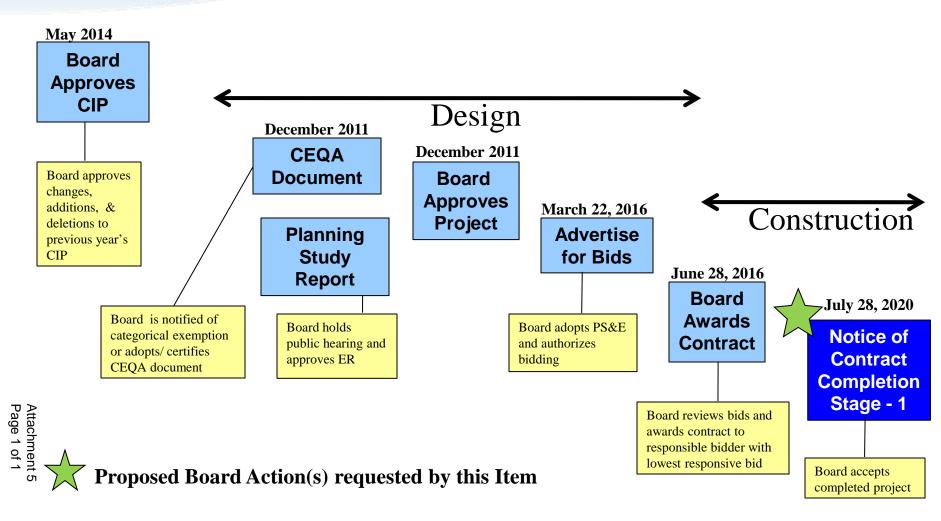


Lower Berryessa Creek - After Construction



### Project Delivery Process

Lower Berryessa Creek Phase 2 Project Contract No. C0614, Project No. 40174005



F75103a Project Delivery Process Chart for Board Agenda Items Revision: B

Effective Date: 8/20/12

Attachment 3
Page 1 of 1

### Santa Clara Valley Water District



File No.: 20-0633 Agenda Date: 7/28/2020

Item No.: \*6.2.

### SUPPLEMENTAL BOARD AGENDA MEMORANDUM

#### SUBJECT:

Approve an Increase to the Construction Contract Contingency Sum and Notice of Completion of Contract and Acceptance of Work for the Lower Berryessa Creek Flood Protection Project Phase 2, (Construction Phase - Stage 1), Brosamer & Wall, Inc., Contractor, Project No. 40174005, Contract No. C0614 (Milpitas) (District 3).

### REASON FOR SUPPLEMENTAL MEMORANDUM:

This report conveys additional information received after the initial report was released, consistent with Executive Limitations Policy EL-7-10-5.

#### RECOMMENDATION:

- A. Approve an increase of \$187,841.27 to the construction contract contingency sum for the Lower Berryessa Creek Flood Protection Project Phase 2, (Construction Phase Stage 1), Brosamer & Wall, Inc., Contractor, Project No. 40174005, Contract No. C0614;
- B. Accept the work as complete; and
- C. Direct the Clerk of the Board to sign the Notice of Completion of Contract and Acceptance of Work and submit for recording to the Santa Clara County Clerk-Recorder.

#### SUMMARY:

The Construction Contractor, Brosamer & Wall, Inc., has completed the Construction Phase (Stage 1) for the Lower Berryessa Creek Flood Protection Project Phase 2 (Project). Approval of the Contractor's as-built documentation was delayed because of slight deficiencies regarding elevation of levee surface, which impacted issuing final Project acceptance documents by staff. The Contractor acknowledged the deficiencies and agreed to complete the corrective work no later than July 24, 2020. Completion of the work will be confirmed by Valley Water staff prior to recommending Project acceptance by the Board and disbursement of final payment to the Contractor. Attached are updated Project completion documents issued by staff.

### FINANCIAL IMPACT:

File No.: 20-0633 Agenda Date: 7/28/2020

Item No.: \*6.2.

There are sufficient funds available in the FY 2021 Project 40174005 Lower Berryessa Creek Phase 2 budget to increase the construction contract contingency by \$187,841.27 to a total contingency of \$6,018,496.27, which is approximately 15.5 percent (15.5%) of the original contract. Approving this increase will result in a total Project construction cost increase from \$44,707,205 to \$44,895,046.27. The funding sources for the Project are the Watershed Stream Stewardship Fund and a \$25 million grant from the Department of Water Resources Proposition 1E; the Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006.

#### CEQA:

The recommended action does not constitute a project under CEQA because it does not have the potential for resulting in direct or reasonably foreseeable indirect physical change in the environment.

### ATTACHMENTS:

Attachment 1: Construction Contract Acceptance

Attachment 2: Project Completion Letter

#### **UNCLASSIFIED MANAGER:**

Ngoc Nguyen, 408-630-2632

### SANTA CLARA VALLEY WATER DISTRICT

### RECOMMENDATION OF CONSTRUCTION CONTRACT ACCEPTANCE

In accordance with **Article 9.10, Final Inspection and Acceptance of Work**, of the contract specifications, a final inspection was conducted on May 28, 2020, for the Construction Phase (Stage 1) of the Lower Berryessa Creek Flood Protection Project Phase 2, Contract No. C0614, Project No. 40174005. The Project Completion Letter for the Construction Phase (Stage 1) dated July 17, 2020 indicates that the work was completed in accordance with the requirements of the contract.

It is recommended that the work under this contract be accepted by the District.

Recommended By:	
DocuSigned by:	
Tim Bramer	7/17/2020
Timothy M. Bramer, P.E.	Date
Engineering Unit Manager	
Designated Engineer's Representative	
Concurrence:	
DocuSigned by:	
Ngoc Nguyen	7/17/2020
Ngoc Nguyen, P.E.	Date
Deputy Operating Officer	
Watersheds Design and Construction Division	



July 17, 2020

Mr. William Faoro Brosamer & Wall, Inc. 1777 Oakland Blvd. Walnut Creek, CA 94596

Subject: Lower Berryessa Creek Flood Protection Project, Phase 2,

Contract No. C0614, Project No. 40174005

**Construction Phase – Stage 1 Project Completion** 

Dear Mr. Faoro:

The Santa Clara Valley Water District (Valley Water) is in receipt of Brosamer & Wall, Inc.'s Project Completion Certification dated June 11, 2020 for the Construction Phase (Stage -1) of the Project. Except for slight deficiencies regarding elevation of levee surface, all work has been completed as attested to by Valley Water staff and all required closeout documents have been received. Brosamer & Wall issued a supplement to the project completion letter dated July 17, 2020 acknowledging that the levee elevation issue will be remedied no later than July 24, 2020 and prior to final payment.

This correspondence services as the Project Completion letter per **Article 21.01.05**. **Project Completion** of the contract specifications. In accordance with **Article 21.01.06**. **Acceptance of Work I** will recommend that the Valley Water Board of Directors formally accept the Plant Establishment Phase portion of the work of this contract.

Questions related to this matter can be directed to me or Mr. Amandeep Saini (408) 630-3092, or by email at asaini@valleywater.org.

Sincerely,

Timothy M. Bramer, P.E. Construction Manager Construction Services Unit

HBran

cc: K. Neuman, Y. Lee, T. Bramer, N. Bullock, A. Trinh, Contract File

### Santa Clara Valley Water District



File No.: 20-0507 Agenda Date: 7/28/2020

Item No.: 8.1.

### **BOARD AGENDA MEMORANDUM**

#### SUBJECT:

Central Fiscal Year 2019-20 Year-End and Fiscal Year 2020-21 Budget Adjustments.

### RECOMMENDATION:

Approve the central Fiscal Year 2019-20 year-end and Fiscal Year 2020-21 budget adjustments.

#### SUMMARY:

In adhering to Governance Policies of the Board and specifically Executive Limitations EL-4, staff respectfully submits central budget adjustments to the FY 2019-20 Adjusted Budget and FY 2020-21 Adopted Budget which are necessary in order to better align limited allocated resources with the Board's Ends, meet Board priorities, and continue to provide for a balanced budget.

A brief description of the FY 2019-20 central budget adjustments are presented below:

- 1. Capital Project: 40324003 Upper Penitencia Creek Corps Coordination (\$495,880 Increase): The Upper Penitencia Creek-Corps Coordination project number currently has a negative budget of \$495,880 and is set to close in FY 2019-20. The Upper Penitencia Creek Project consists of three project numbers, which represent: (1) the Upper Penitencia Creek-Corps Coordination project, (2) the Upper Penitencia Creek Corp Coordination SCW project, and (3) the Upper Penitencia, Coyote-Dorel project. The Upper Penitencia Project is continuing into the Design phase with the Upper Penitencia Creek Corp Coordination SCW project number, as approved by the Board during the December 17, 2019 meeting. To close out the Upper Penitencia Creek-Corps Coordination project number with a \$0 balance, \$495,880 is needed to be transferred from the Upper Penitencia Creek Corps Coordination SCW project number in the same fiscal year, FY 2019-20. This budget adjustment is funded by the Operating and Capital Reserve balance in the Watershed & Stream Stewardship Fund.
- 2. Capital Project: 62044001 Watershed Habitat Enhancement (\$93,000 Increase): The currently approved Watershed Habitat Enhancement Project includes (1) completing a feasibility study to separate Coyote Creek from the Ogier Ponds complex, (2) completing a feasibility study to separate Coyote Creek from the Metcalf Ponds complex, (3) preparing a fish passage barrier analysis for Stevens Creek, and (4) evaluating and prioritizing fish passage barriers for Stevens Creek. The project currently has a negative balance due to re-allocation of staff

**File No.:** 20-0507 **Agenda Date:** 7/28/2020

Item No.: 8.1.

resources to this project. There is budget available in FY 2020-21 to cover the negative balance. This budget adjustment will re-appropriate funds from FY 2020-21.

3. Capital Project: 00074038 Capital Program Services Admin (\$1,050,000 Increase): This p roject provides for the administration and training needs of the Water Utility Capital, Watershed Capital, and Dam Safety and Capital Delivery Divisions. Specifically, the project provides for unit, division, and office management activities that promote communication, District-wide efforts, project efficiency, recruitment, process improvement, and high-level management support. The project currently has a negative balance due to reorganization after the FY 2019-20 budget was adopted and delayed capital projects resulting in administrative charges to this project as staff sought training while capital projects were re-advertised and rebid for better pricing and/or implementation of COVID-19 purchasing processes. This budget adjustment is funded by Operating and Capital Reserve balances in the General Fund, Watershed & Stream Stewardship Fund, Safe Clean Water Fund and Water Enterprise Fund.

A brief description of the FY 2020-21 central budget adjustments, all consisting of carryforward of unspent budget from FY 2019-20 to FY 2020-21, are presented below:

- 4. Operating Project: 73271009 Software Services (\$1,548,000 Increase): Replacement of the CRM system, otherwise known as Comcate and Access Valley Water, utilized by the public to contact Valley Water staff and Board Members, and to report a hazardous condition. Due to unforeseen circumstances, and the pandemic, RFP process was delayed, and a carryforward budget adjustment is necessary.
- 5. Capital Project: 70004002 Replacement Vehicle & Equipment (\$251,000 Increase): Due to the pandemic, the procurement and purchase of the Marsh Master, or equivalent, to cut vegetation and brush, was delayed in FY20. Valley Water's Vegetation Field Operations Unit annually performs removal of instream emergent vegetation for flow conveyance purposes, which can be achieved more effectively and efficiently with a weed harvester. Annually, the weed harvester will be used to remove 100 acres of emergent vegetation on various creeks countywide. It would cost Valley Water approximately \$75k/year to contract out 100 acres of removal, indicating cost recovery of the Marsh Master purchase in approximately three years.
- 6. Operating Project: 60131014 Continual Improvement (\$150,000 Increase): Development impact fee consultant study was delayed due to the pandemic. Progress was made toward preparing the Request for Proposal (RFP) during the fiscal year but staff was unable to issue the RFP due to the pandemic; expected to issue in FY 2020-21.
- 7. Operating Project: 65052001 President's Day Flood (\$100,000 Increase): There are unsettled President Day Flood claims pending settlement. The high volume of remaining flood claims/lawsuits, associated legal activity, and settlement costs require this funding for claim settlement needs in FY 2020-21.
- 8. Operating Project: 26061008 A2 Water Conservation (\$130,000 Increase): The funds budgeted in FY 2019-20 for the pilot A2 Water Conservation Mini-Grants were not fully

Item No.: 8.1.

expended due to unexpected delays as a result of COVID-19 and the pilot program was approved to run until December 31, 2020 or until all funding is awarded. No funds were budgeted for these grants in FY 2020-21 as they were already budgeted and expected to be spent in FY 2019-20. This budget adjustment remains within the 15-year funding allocation amounts for these projects as specified in the Safe, Clean Water Program.

- 9. Operating Project: 26061006 B3 Pollution Prevention (\$678,969 Increase): The funds budgeted in FY 2019-20 for B3 Pollution Prevention grants were awarded, but the agreements are not yet executed to encumber the funding. This is due to unexpected delays as a result of COVID-19 impacts; as well as CEQA compliance challenges. Currently there is a partnership negotiation in development that would not be executed until FY 2020-21. No funds were budgeted for these grants and partnerships in FY 2020-21 as they were already budgeted and expected to be spent in FY 2019-20. This budget adjustment remains within the 15-year funding allocation amounts for these projects as specified in the Safe, Clean Water Program.
- 10. Operating Project: 00061019 B7 Volunteer Cleanups & Education (\$200,000 Increase): The funds budgeted in FY 2019-20 for B7 Volunteer Cleanups & Education partnerships were not fully expended and there are prospective opportunities in development that would not be executed until FY 2020-21. No funds were budgeted for these partnerships in FY 2020-21 as they were already budgeted and expected to be spent in FY 2019-20. This budget adjustment remains within the 15-year funding allocation amounts for these projects as specified in the Safe, Clean Water Program.
- 11. Operating Project: 26061007 D3 Wildlife Habitat Restoration & Access to Open Space (\$2,496,937 Increase): The funds budgeted in FY2019-20 for D3 Restore Wildlife Habitat and Access to Trails and Open Space grants and D3 Mini-Grants were awarded but the agreements are not yet executed to encumber the funding. This is due to unexpected delays as a result of COVID-19 impacts; as well as CEQA compliance challenges. The funds budgeted in FY 2019-20 for D3 Restore Wildlife Habitat and Access to Trails and Open Space partnerships were not fully expended and there are prospective opportunities in development that would not be executed until FY 2020-21. No funds were budgeted for these grants and partnerships in FY 2020-21 as they were already budgeted and expected to be spent in FY 2019-20. This budget adjustment remains within the 15-year funding allocation amounts for these projects as specified in the Safe, Clean Water Program.
- 12. Operating Project: 00061045 Asset Management Prog (\$250,000 Increase): Staff was unable to proceed with the Asset Management Plan development on Permanente Creek due to staff being deployed on the Maximo Watershed site with development and training taking significant administrative change effort due to the pandemic. Additionally, staff was unavailable due to the pandemic and work must be pursued in FY 2020-21.
- 13. Operating Project: 91101004 Recycled and Purified Water Program (\$285,000 Increase): The Countywide Water Reuse Master Plan (CWRMP) is evaluating various capital projects leading to the design and construction of Advanced Water Purification Facilities (AWPF) throughout the County of Santa Clara with the main objective to augment the water supply portfolio for

Item No.: 8.1.

Valley Water. The project's scope and schedule has been significantly impacted by the pandemic. Unexpected project delays, project extension, and interruption of stakeholder participation will require contract adjustment to scope, schedule and budget. The planning effort will need to be extended 6-8 months, scope will require modification to provide greater opportunity for stakeholder participation, and adjustment will be required to maintain consultant support.

- 14. Operating Project: 91101004 Recycled and Purified Water Program (\$323,840 Increase): The Independent Advisory Panel's project scope and schedule has been significantly impacted by the pandemic. Unexpected project delays, project extension, and interruption of stakeholder participation will require contract adjustment to scope, schedule and budget. That planning effort will need to be extended 6-8 months, scope will require modification to provide greater opportunity for stakeholder participation, and a budget adjustment will be required to maintain consultant support.
- 15. Operating Project: 91131004 Imported Water Program (\$600,000 Increase): The Sites Project Authority 2019 Reservoir Project Agreement and subsequent First Amendment to participate in Phase 2 of the Sites Reservoir Project (Sites Project) expired on June 30, 2020. The Sites Joint Powers Authority is offering Valley Water the opportunity to continue participating in the Sites Project by executing the Second Amendment, which will obligate Valley Water to contribute funds to cover extended Phase 2 work and planning efforts to develop the Sites Project through December 2021 based on a specific participation level. The Second Amendment is planned to be presented and discussed in more detail at the next Water Storage Exploratory Committee and then taken to the Board for approval in September 2020. If the Board decides to execute the Second Amendment, it is estimated that \$1.6 million will be required to maintain participation at a level that would maintain Valley Water's estimated share of water supply yield from the project. In FY 2020-21 \$1 million is budgeted for the Sites Project and this re-appropriation of \$600,000 will increase the FY 2020-21 budget to \$1.6 million.
- 16. <u>Capital Project: 91214010 San Felipe Reach 1 Small Capital Project (\$1,750,000 Increase)</u>: The Pacheco Pumping Plant Fire Alarm and Suppression System Improvement Project was scheduled to go the Board for advertisement in April, but due to the pandemic it was pulled from the board agenda. Language was revised to include how to handle the pre-bid meeting and bid opening with the current pandemic in effect and the award for the construction contract will be in September in FY 2020-21.
- 17. Capital Project: 91234010 San Felipe Reach 3 Small Capital Project (\$847,748 Increase): The Coyote Pumping Plant office trailer replacement and warehouse mezzanine project was delayed due to the pandemic. Facilities staff is currently sourcing the trailer acquisition and the warehouse mezzanine was delayed due to unforeseen construction delays but expected to be completed in FY 2020-21.
- 18. <u>Capital Project: 93764004 Treatment Plant Small Capital Project (\$7,250,000 Increase)</u>: The Treatment Plant Small Caps budget is used to refurbish and/or replace assets that are nearing

Item No.: 8.1.

the end of their lifecycle. Planning and purchases preparations for most items within this budget are complex and require the entire fiscal year to complete, with some contract items requiring full plans and specs prior to obtaining Board approval. These times, beginning in FY 2019-20 are challenging due to pandemic restrictions, which have required staff in Water Utility to restructure shifts, workspaces, and curtail non-critical work projects. These changes impacted the trajectory of larger projects requiring adjustments to due dates on four key projects that were originally planned for the fourth quarter in FY 2019-20 and have been identified as being critical rehabilitation and/or necessary improvements for the Water Utility treatment plants to maintain reliable and continuous operations. The carryforward of the remaining funds will continue to fund this critical work.

Additionally, as part of the FY 2020-21 central budget adjustments, the previously Board-approved 11 repurposed vacancies, and budgets, have been aligned with the appropriate business units.

#### FINANCIAL IMPACT:

Approval of the central budget adjustments amends the FY 2020-21 Budget which was adopted by the Board per Resolution 20-33 on May 26, 2020 and subsequent changes to the Adopted Operating and Capital Budget authorized by this resolution. The central budget adjustments had a \$1,050,000 impact on operating and capital reserve balances in FY 2019-20, which in effect carry over, and impact, reserve balances in FY 2020-21 as demonstrated in the reserves table below. The FY 2020-21 central budget adjustments total \$16,818,494 with no impact to reserve balances in FY 2020-21 as these adjustments are rebudgeted amounts between FY 2019-2020 and FY 2020-21 carried over from one fiscal year to the next, with a net-zero effect on the Adopted Budget.

The table below summarizes the changes.

#### FY 2020-21 Operating, Capital and Interfund Transfer Budget

Fund	Adopted	Change	Adjusted
General Fund (11)	\$73,429,225	\$175,000	\$73,604,225
Watershed & Stream (12)	107,817,095	72,000	107,889,095
Safe, Clean Water (26)	77,040,602	3,415,906	80,456,508
Water Enterprise Fund (61)	384,803,004	11,194,088	395,997,092
Fleet Management (71)	8,536,251	263,500	8,799,751
Risk Insurance Fund (72)	6,854,862	100,000	6,954,862
Information Technology (73)	26,052,707	1,548,000	27,600,707
All Other Funds	43,103,082	-	43,103,082
Total Appropriations	\$727,636,828	\$16,768,494	\$744,405,322

Item No.: 8.1.

#### FY 2020-21 Reserves Budget\*

Fund	Adopted	Change	Adjusted
General Fund (11)	\$5,732,805	(\$21,000)	\$5,711,805
Watershed & Stream (12)	115,513,079	(779,380)	114,733,699
Safe, Clean Water (26)	80,380,518	107,380	80,847,898
Water Enterprise Fund (61)	130,506,166	(357,000)	130,149,166
Fleet Management (71)	1,493,465	-	1,493,465
Risk Insurance Fund (72)	13,282,033	-	13,282,033
Information Technology (73)	2,259,425	-	2,259,425
Total Reserves	\$349,167,491	(\$1,050,000)	\$348,117,491

<sup>\*</sup>The FY 2020-21 Reserves Budget illustrates the effect of the FY 2019-20 central budget adjustments on the FY 2020-21 Adopted Budget Reserves.

#### CEQA:

The recommended action does not constitute a project under CEQA because it does not have a potential for resulting in direct or reasonably foreseeable indirect physical change in the environment.

#### **ATTACHMENTS:**

Attachment 1: SCVWD Resolution No. 20-33

#### **UNCLASSIFIED MANAGER:**

Darin Taylor, 408-630-3068

#### **BOARD OF DIRECTORS** SANTA CLARA VALLEY WATER DISTRICT

#### RESOLUTION NO. 20-33

#### APPROVING AND ADOPTING THE OPERATING AND CAPITAL BUDGET **FOR FISCAL YEAR 2020-21**

WHEREAS, on April 29, 2020, the Board of Directors of the Santa Clara Valley Water District (Valley Water) held its annual budget work study sessions to review and consider the Proposed Operating and Capital Budget (Budget) for Fiscal Year (FY) 2020-21; and

WHEREAS, such budget work study sessions were open to the general public to appear and be heard regarding any item of the proposed budget or for the inclusion of additional items; and

WHEREAS, Section 20 of the District Act requires that after conclusion of the public meeting(s) to hear general public comments on the proposed budget, the Board shall by resolution adopt the budget as finally determined including any revisions that the Board determines advisable during or after the meeting(s) and not later than June 30 of each year; and

WHEREAS, the Budget for FY 2020-21 was developed in accordance with the Board's Executive Limitations EL-4 that the Valley Water's financial planning for any fiscal year shall be aligned with the Board's Ends, not risk fiscal jeopardy, and be derived from a multi-year plan; and

WHEREAS, the Board was provided a comprehensive overview of the budget development process and assumptions, Valley Water-wide financial review and a presentation of fund and business area financial allocations in the Proposed Budget for FY 2020-21; and

WHEREAS, the Board of Directors has previously created the following Special Purpose Funds (as such term is defined in Resolution 16-10, adopted on February 23, 2016): San Felipe Emergency Reserve, Silicon Valley Advanced Water Purification Center Reserve, Supplemental Water Supply Reserve, Drought Reserve, and P3 Reserve; and

WHEREAS, the Board was provided assurance that the Proposed Budget for FY 2020-21 meets Board priorities, realizes efficiencies and cost savings, demonstrates fiscal accountability and value to customers, is balanced and helps ensure future financial sustainability.

NOW, THEREFORE BE IT RESOLVED by the Board of Directors of the Santa Clara Valley Water District that the Budget for FY 2020-21, plus any changes or modifications made at the time of adoption, and including the terms of this Resolution, is hereby approved and adopted; and

BE IT FURTHER RESOLVED that the total appropriations approved by the Board of Directors, which include all operating and capital outlays, debt service payments and interfund transfers, and budgeted reserves, are limited within each fund as follows (plus any changes or modifications made at the time of adoption):

## Resolutions

#### FY 2020-21 Operating, Capital, and Interfund Transfer Budget

1.	District General Fund (11)	\$ 73,429,225
2.	Watershed and Stream Stewardship Fund (12)	\$ 107,817,095
3.	Lower Peninsula Watershed Fund (21)	\$ 2,707,673
4.	West Valley Watershed Fund (22)	\$ 2,259,408
5.	Guadalupe Watershed (23)	\$ 4,560,561
6.	Coyote Watershed Fund (24)	\$ 3,939,179
7.	Safe, Clean Water and Natural Flood Protection Fund (26)	\$ 77,040,602
8.	Water Enterprise Fund (61)	\$ 384,803,004
9.	State Water Project Fund (63)	\$ 29,636,261
10.	Fleet Management Fund (71)	\$ 8,536,251
11.	Risk Insurance Fund (72)	\$ 6,854,862
12.	Information Technology Fund (73)	\$ 26,052,707

#### FY 2020-21 Reserves Budget

1.	District General Fund (11)	\$ 5,732,805
2.	Watershed and Stream Stewardship Fund (12)	\$ 115,513,079
3.	Safe, Clean Water and Natural Flood Protection Fund (26)	\$ 80,380,518
4.	Water Enterprise Fund (61)	\$ 130,506,166
5.	State Water Project Fund (63)	\$ 0
6.	Fleet Management Fund (71)	\$ 1,493,465
7.	Risk Insurance Fund (72)	\$ 13,282,033
8.	Information Technology Fund (73)	\$ 2,259,425

#### BE IT FURTHER RESOLVED, that:

- Any subsequent changes to the Adopted Valley Water FY 2020-21 Operating, Capital and Interfund Transfer Budget shall occur as follows:
  - (a) By Valley Water Board of Directors action for all budget adjustments that either increase or decrease a fund's total operating, capital, or interfund transfer budget or reserve appropriations.
  - (b) By Valley Water Board of Directors action for all budget adjustments between capital projects within a fund that exceed \$100,000 per project within the fiscal year.
  - Delegation of authority is hereby conferred to the Chief Executive Officer (CEO), or (c) his/her designee to approve budget transfers from the Supplemental Water Supply Reserve for amounts not to exceed 20 percent of the annual imported water purchases budget. The CEO shall inform the Board of any such budget transfers on a timely basis.
  - (d) By the CEO, or his/her designee, for all other changes.
- 2. With the exception of those capital projects that have been closed or those related to capital program management and administrative services, any unexpended or unencumbered appropriation balances remaining at the end of FY 2019-20 for capital projects are hereby reappropriated to FY 2020-21 for continued use in those same projects, up to \$100,000 above the planned expenditure amounts for each project identified in the draft Five-Year CIP for FY 2020-21. The portion of the balances that are not reappropriated to FY 2020-21

### Resolutions

will remain as designated reserves for Current Authorized Projects to be reappropriated in future years in accordance with the Five-Year CIP expenditure schedule.

- Any variances at the end of FY 2020-21 in Committed Reserves, Restricted Reserves and 3. Other Reserves from those estimated in this FY 2020-21 Budget not otherwise reappropriated above shall result in corresponding adjustments to the FY 2020-21 estimated reserve appropriations in accordance with the Valley Water Reserve Policy. These adjustments shall be made in the following order:
  - First, to restore Restricted Reserves.
  - (a) (b) Second, to restore Risk Fund Committed Reserves.
  - (c) Third, to restore other Committed Reserves excluding Operating and Capital Reserves.
  - (d) Fourth, to restore Operating and Capital Reserves.
- 4. If at the commencement of FY 2020-21, the appropriations applicable to that year have not been finally determined and adopted by the Board of Directors in accordance with the District Act, Valley Water shall proceed in accordance with the following authorizations:
  - Except as otherwise provided in Section 4(b), the amounts set forth in the proposed budget for operating outlays, including existing debt service requirements, and (a) capital outlays and the purposes therein specified, except funding for fixed assets, and residual equity transfers, are deemed appropriated until the final adoption of the budget by the Board of Directors.
  - (b) Funding for fixed assets and residual equity transfers are deemed appropriated until the adoption of the final budget if specifically approved by the Board of Directors.

Estremera, Hsueh, Keegan, LeZotte, Santos, Varela

PASSED AND ADOPTED by the Board of Directors of the Santa Clara Valley Water District by the following vote on May 26, 2020:

AYES;

NOES:

**Directors** Kremen

ABSENT:

**Directors** None

ABSTAIN: Directors None

SANTA CLARA VALLEY WATER DISTRICT

By:

Chair, Board of Directors

NA! HSUEH

ATTEST: MICHELE L. KING, CMC

Clerk, Board of Directors

### Santa Clara Valley Water District



File No.: 20-0069 Agenda Date: 7/28/2020

Item No.: 9.1.

#### **BOARD AGENDA MEMORANDUM**

#### SUBJECT:

Receive Information and Adopt Resolution regarding Electric Vehicle Charging Rates for Santa Clara Valley Water District Electric Vehicle Charging Stations at Almaden Valley Headquarter Campus.

#### RECOMMENDATION:

- A. Receive information and consider Electric Vehicle Charging Rates for charging stations at Almaden Valley Headquarters Campus; and
- B. Adopt the Resolution ADOPTION OF ELECTRIC VEHICLE CHARGING RATES that sets forth Valley Water Electric Vehicle charging rates that will go into effect on August 1, 2020, and authorizes the Chief Executive Officer or his/her designee at the commencement of each fiscal year to modify the Level 2 and Direct Current Electric Vehicle charging rates subject to not exceeding reasonable cost for providing, operating, and maintaining the charging stations.

#### SUMMARY:

#### Regional and Statewide Commitment to EV Technology

In 2009, San Francisco Mayor, now current State Governor, Gavin Newsom announced a comprehensive plan to make the Bay Area the "Electric Vehicle (EV) Capital of the US."

Subsequently, in 2013, former Governor Jerry Brown's released a Zero-Emission Vehicle (ZEV) Action Plan (Plan) outlining California's commitment to a collaboration of government and business best practices, advocacy for investment in electric vehicles and infrastructure, in addition to setting a new goal of five (5) million EV's on state roads by 2030. The Plan was enacted by executive order on January 26, 2018.

In 2017, San Francisco Mayor Gavin Newsom, San Jose Mayor Chuck Reed, and Oakland Mayor Ron Dellums committed to and announced a collaborative plan focusing on permitting, incentives for employers, harmonizing local regulations for consistency, government programs, alignment of air quality programs, and roll-out plans for station placement throughout cities, including parking lots and curbside parking. On-going efforts remain consistent with the State's ZEV Plan.

Additionally, a 2019 report, released by Joint Venture Silicon Valley, indicates that "Silicon Valley's total number of registered electric vehicles surpassed 80,000 in 2018, comprising nearly 20% of all such vehicles in California, and by far the highest numbers of any region per capita" and "Silicon

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Valley vehicle owners account for 8.3% of all registered light-duty vehicles in California." Currently, electric vehicles account for 13% of all vehicle sales in Santa Clara County.

#### Almaden Campus EV Upgrade Project

Valley Water advances regional and state commitments to expand EV technology through the planned expansion and usage of newer EV charger technology throughout its facilities; directly upholding Valley Water's Mission Pillar for environmental stewardship.

Offering EV charging stations to Valley Water employees and visitors addresses climate change by reducing greenhouse gas emissions produced by tailpipe pollution and lowering the carbon footprint. EVs offer quieter engines to reduce localized noise pollution. Providing EV charging stations demonstrates a commitment to environmental stewardship efforts, attracts and retains top talent, and signals leadership, innovation, and a willingness to adopt advanced technology, while promoting employee satisfaction.

Valley Water's Almaden HQ Campus EV Upgrade Project updates and expands EV charging stations with new smart charge technology capable of providing users with an interactive experience. This technology's software continually gets upgraded to ensure the latest features are always available to staff.

In August 2019, as part of Valley Water's on-going management of its EV charging stations, the Board's Financial Sustainability Group (Attachment 1) received information on currently installed Valley Water EV charging stations, a sampling of Bay Area agency pricing policies, and provided feedback on proposed pricing options associated with workplace electric vehicle charging station management.

The cost to modernize and annually operate all of Valley Water's EV charging stations was approximately \$215,000 and \$57,000 respectively.

#### **EV Charging Rate Analysis and Recommendation**

Valley Water's new EV charging stations currently offer free charging for employees and the public, which are budgeted and managed by the General Service's Division's Facilities Management Unit. Two (2) different types of charging stations are available for this service. Fourteen Level 2 (L2) chargers which are individually powered by a 240-volt power supply and two (2) Direct Current (DC) 480-volt powered chargers.

Staff recommends that Valley Water seek to recover the reasonable costs for providing EV charging stations by adopting the proposed EV charging rates set forth in the proposed Resolution (Attachment 3). EV charging stations provide environmental benefits, including the reduction of nitrogen oxides released into the atmosphere, which can deposit pollutants into local streams and creeks.

The proposed EV charging rates (Attachment 3.), raises no Proposition 26 issue because the rates

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will not result in the collection of charges that are greater than the reasonable cost of providing, maintaining and operating EV charging stations. The proposed EV charging rates do not include the reasonable cost of installation and staff resources.

On December 16, 2019, California's Office of Administrative Law approved amendments to its Electric Vehicle Fueling Systems Specifications. These rules ban operators of EV charging stations from billing by the minute at new 240Vac stations in 2021 onwards, and new DC stations 2023 onwards. To comply with the future regulations, Valley Water is proposing a kWh charging rate structure.

Charging EV users on a kilowatt per hour (kWh) basis rather than hourly basis helps to create equity amongst EV users. Forbes.com explains that "People don't like [hourly] because cars take electricity at different speeds, based on what car you have and how full the battery is. The last 20% of a fill-up can take as many minutes as the middle 50%, and thus cost as much, for much less electricity. As such, people naturally dislike it."

**Table 1. Electric Vehicle Charging Rates (Proposed)** 

Rate Types	
	Charging Rate
Level 2 Charging Rate (Per kWh First 4 hours)	\$0.19/kWh*
DC Charging Rate (Per kWh First hour)	\$0.19/kWh*
Escalation Rate Level 2 (Per Hour After 4-Hours)	\$2.00/hour
Escalation Rate DC (Per Hour After 1-Hour)	\$4.00/hour

\*Rate includes Valley Water's \$0.11 kWh charge rate and EV Station Unit's Average Operation and Maintenance per kW service fee of \$0.08

Rate analysis included a sampling of rate structures collected from 26 Bay Area agencies who operate publicly owned EV charging stations and Valley Water's EV charging station usage data since May 2019 (usage data prior to May 2019 is unavailable due to previous system limitations). While some jurisdictions implemented hourly or time-based rates, it was found through research that kWh rates provide equity between slower charging EV models and faster charging EV models. Additionally, escalation rates are consistent with other EV charging stations.

During our rate sampling research, PG&E Residential EV Charging Rates were also sampled. The sampling showed that Valley Water's kWh charging rate is less than PG&E's average residential and EV Programs kWh charge rates (Table 2.). A more detailed depiction of PG&Es residential charge rates can be found in Attachment 2.

Table 2. Valley Water and Residential kWh Charging Rate Comparison

Valley Water kWh Charging Rate	\$0.19
PG&E Residential kWh Average Charging Rate	\$0.261
PG&E EV2 Program* kWh Average Charging Rate	\$0.314
PG&E EVB Program** kWh Average Charging Rate	\$0.290

<sup>\*</sup> PG&E EV2 Program combines your vehicle's electricity costs with those of your residence

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\*\*PG&E EVB Program involves the installation of another meter, which separates your vehicle's electricity costs from those of your home.

The proposed rate schedule is a kWh charge rate structure with an hourly escalation rate for charging that exceeds allotted charging periods (i.e. 4 hours for Level 2 charging stations and 1 hour for DC charging stations). This rate structure creates equity in that for the allotted charging periods, EV users are only charged for the amount of kW used to charge their vehicle. This kWh charge rates contribute towards cost recovery of Valley Water's utility costs, annual service plan fees, staff resource costs, and operational costs.

The rate structure also provides for hourly escalation rates if an EV remains at a Level 2 EV charging station for more than 4 hours or at a DC charging station for more than 1 hour. The escalation rates provide a self-regulating system that deters EV drivers from staying in the EV charging space after the allotted hours noted above. Since the escalation rates are considered penalties, Proposition 26 does not limit the use of revenue collected based on those escalation rate to Valley Water's reasonable cost of providing, maintaining and operating the EV charging stations.

The proposed rate structure will provide an opportunity for the Valley Water to recover its electricity costs at its EV charging stations, which help support Valley Water's focus of environmental stewardship. Administration requires minimal staff resources to implement rate structures as the newer technology administers a billing system used for the charging stations.

#### **Future Valley Water EV Expansion Opportunities**

Ongoing opportunities to expand EV charging station infrastructure throughout Valley Water facilities are being considered. This includes pursuing grant opportunities to expand the number of EV charging stations and conducting assessments to plan for the transition to electric fleet vehicles.

#### FINANCIAL IMPACT:

This action will authorize Valley Water to generate approximately \$57,000 per year to recover the anticipated reasonable annual cost to provide, operate and maintain Valley Water's EV charging stations. Staff estimates the annual reasonable cost will fluctuate depending on actual use.

#### CEQA:

The recommended action does not constitute a project under CEQA because it does not have the potential for resulting in direct or reasonably foreseeable indirect physical change in the environment.

#### ATTACHMENTS:

Attachment 1: PowerPoint

Attachment 2: Rate Analysis and Fact Sheet

Attachment 3: Resolution

**Agenda Date:** 7/28/2020 **Item No.:** 9.1. File No.: 20-0069

#### **UNCLASSIFIED MANAGER:**

Tina Yoke, 408-630-2385



# Workplace Electric Vehicle Charging Station Management



# Valley Water: EV Charging Profile

2

**Total Agency Employees:** 842 (FY19-20)

**Known Employee EV Users: 72** 

**Agency Charging Stations: 16** 

**Charging Locations:** 3

- 1. Almaden Campus (ChargePoint)
  - 2 DC Fast Chargers
  - 10 Level 2 Chargers
- 2. Rinconada Water Treatment Plant (Clipper Creek)
  - 2 Level 2 Chargers
- 3. Leased: Santa Teresa Office Building (TurboDock)
  - 2 Level 2 Chargers



# **EV Charging Basics**

Туре	Miles of Range Per Hour of Charging (RPH)	Time to Fully Charge	When to Use	Connector
Level 2 Charging Station (AC)	+ 12 RPH for cars with 3.7 kW on-board charger + 25 RPH for cars with 6.6 kW on-board charger	+ 3.5 hours for an 80-mile battery + 8 hours for a 200-mile battery	+ At work + While you sleep + Topping up around town	J1772 connector
DC Fast Charging	100 RPH or more, depending on the power level of the charger + 24 kW (up to 100 RPH) + 44 to 50 kW (up to 200 RPH)	Depends on the power level of the charger and car model, but could be 80% charged within 30 minutes	+ Short stops + Express Corridor locations	SAE Combo CHAdeMO Tesla (CCS)

#### Connectors

All EVs except Tesla use the same J1772™ connector for Level 2 charging. Tesla makes adapters that allow their vehicles to charge using J1772 or CHAdeMO connectors.

Not all EVs come with DC fast charging as a standard feature. It's often available as an upgrade package.

When choosing a DC fast charging station, check the connector to make sure it fits your car's charging port. There are three different DC fast charging connector standards in North America, each used by different EVs.

# SAE Combo (CCS) is compatible with

- + BMW
- + VW
- + Chevy
- All upcoming
   U.S. and European cars
- + Some of the new cars from Asian manufacturers

#### CHAdeMO is compatible with

- + Nissan
- + Mitsubishi
- + Kia



#### Tesla is compatible with

+ Tesla Note: adapters available for J1772 and CHAdeMO





Sample Bay Area Agency EV Pricing Policies\*

<u> </u>							
EV Charger Location	Municipality	Access Cost	Hourly Cost	Power per kWh Cost	Escalation Cost	Off-Peak Power per kWh Cost	Tiered Policy Scheduling, If Applicable
City of San Jose	San Jose	\$1.25		\$0.25 L2		\$0.20	Off-Peak 9:30 P.M. – 8:30 A.M.
Santa Clara City Library	Santa Clara			\$0.49 L2, \$0.59 DCFC			
Santa Clara University	Santa Clara		\$2.00		\$3.00		Escalation cost after 4-Hours
Santana Row	San Jose			\$0.59 L2			Blink Members pay \$.49 kWh for L2
City of Berkeley - Oxford Parking Garage	Berkeley		\$1.50				
Town of Los Gatos - Creekside Sports Park	Los Gatos	\$1.00	\$1.00		\$5.00		Escalation cost after 4-Hours
Los Gatos Inn	Los Gatos		\$1.50		\$3.00		Per hour from 8 A.M. – 8 P.M. Estalation after 8 P.M.
City of Saratoga Library	Saratoga		\$1.25 L2 \$9.95 DCFC				Min: \$1.00
City of Cupertino - City Center	Cupertino		\$3.30		\$4.00		First four hours; Escalation thereafter
City of Palo Alto - Cambridge Garage	Palo Alto			\$0.23 L2	\$2.00		Escalation cost per hour following 20-minute grace period following full charge
Castro St Garage	Mountain View			\$0.20 L2	\$3.00		First four hours; Escalation thereafter
Los Altos Plaza - South Parking Plaza	Los Altos			\$0.32 L2			
City of Los Altos Hills	Los Altos Hills			\$0.25 L2			
Rinconada Library	Palo Alto			\$0.23 L2			Escalation cost: \$2.00/hr. following 20-minute grace period after charge completion
Stanford Visitor Center	Palo Alto		\$2.00			\$1.00	Between 6 A.M 4 P.M; all other times \$1.00 hr.
Palo Alto City Hall	Palo Alto		\$0.23 L2		\$2.00		20 min grace period after charge; overstay fee per hour after grace period
City of Morgan Hill	Morgan Hill	\$0.50 L2 \$6.00 DCFC/hour		\$0.25 L2 \$0.25 DCFC			DCFC - \$0.25/kWh; after 30 Minutes an extra \$0.10/min.
Brisbane Village	Brisbane	\$5.00 DCFC/hour		\$.0.20 DCFC			DCFC – Escalation cost per hour after 45 minutes
							Evening Parking Fee – \$8 flat rate
City of Fremont - Development Services Ctr	Fremont		\$1.25 L2				Parking Fee - \$1 between 8 a.m. and 6 p.m.
County of San Mateo	San Mateo		\$1.50 L2		\$7.50		M-F 8 A.M 5 P.M. Escalation cost after 4-Hours; Max 4 Hours. Free outside these hours
City of Pleasant Hill	Pleasant Hill			\$0.20 L2			
City of Redwood City - Public Library	Redwood City		\$5.00 DCFC				Time Limit – 4-Hours; \$1/Hour Parking Fee
City of Petaluma	Petaluma		\$1.00 L2				



# **EV Policy Pricing Recommendation**

Policy	Cost Types	Definition	Implications	Annual Service Costs
Current Standard	Current Structure (No Cost)	No cost associated with the use of Valley Water stations for the public or staff	<ul> <li>Increased interest in station use by all users requires further analysis of tax and bargaining unit considerations for Valley Water employees.</li> <li>Not applicable for public end users.</li> </ul>	<ol> <li>Annual Service Cost - \$15,000 (approximate)</li> <li>Energy Cost-L2 \$15,000 (Usage Analysis)</li> <li>Energy Cost-DC \$N/A (currently not activated)</li> <li>Current Annual Approximate Service Costs: \$30,000</li> </ol>
Recommendation	kWh Based	Cost associated with kW usage while a vehicle is connected to the station. When the vehicle is connected to the charging station and drawing power this fee would apply.	cover the kW usage costs and the cost to operate and maintain all EV stations not to exceed 100%.	<ol> <li>Annual Service Cost - \$23,000 (approximate)</li> <li>Energy Cost-L2 - \$15,000 (Usage Analysis)</li> <li>Assumed Energy Cost-DC- \$19,000 (approximate)</li> <li>Total Annual Approximate Service Costs: \$57,000</li> </ol>

Rate Recommendation	Charge Fees
DC kWh + Service Fee Rate	\$0.19/kWh*
L2 kWh + Service Fee Rate	\$0.19/kWh*
Escalation Rate L2 (Per Hour after 4-Hours)	\$2.00
Escalation Rate DC (Per Hour After 1 Hour)	\$4.00

<sup>\*</sup>Rate includes Valley Water's \$0.11 kWh charge rate and EV Station Unit's Average Operation and Maintenance per kW service fee of \$0.08



# **QUESTIONS?**

	Attachment 2
Valley Water kWh Cha	arge Rate vs. Residential PG&E Average kWh Rate
Valley Water kWh Charge Rate	\$0.108
PG&E Residential kWh Average Rate	\$0.261
PG&E EV2 Program kWh Average Rate*	\$0.314
PG&E EVB Program kWh Average Rate*	\$0.290
PG&E EV (	Charger Residential Program kWh Rates
	EV2 Program
Summer kWh Usage Rate: \$0.5	541 (Peak Hours)   \$0.295 (Part-Peak Hours)   \$0.142 (Off-Peak Hours)
Winter kWh Usage Rate: \$0.38	0 (Peak Hours)   \$0.233 (Part-Peak Hours)   \$0.146 (Off-Peak Hours)
	EVB Program
Summer kWh Usage Rate: \$0.4	482 (Peak Hours)   \$0.371 (Part-Peak Hours)   \$0.169 (Off-Peak Hours)
Winter kWh Usage Rate: \$0.35	5 (Peak Hours)   \$0.338 (Part-Peak Hours)   \$0.169 (Off-Peak Hours)
Valley	Water Proposed kWh Charge Rate
·	Charge Rate
DC kWh + Service Fee Rate	\$0.19/kWh*
L2 kWh + Service Fee Rate	\$0.19/kWh*
Escalation Rate L2 (Per Hour After 4-Hours)	\$2.00
Escalation Rate DC (Per Hour After 1-Hour) \$4.00	
*Rate includes Valley Water's \$0.11 kWh charge rate and EV Station Unit's Average Operat	ion and Maintenance per kW service fee of \$0.08
	Terminology
DC Session - Refers to a 30 minute hour time period that a F	Electric Vehicle is connected to a charger
Level 2 Session - Refers to a 60 minute hour time period that	t a Electric Vehicle is connected to a charger
kWh - Kilowatt Per Hour	
Charge Rate - Dollar amount charged per kWh	

Warranty and Service Fees - Includes an approximate \$23,000/year annual ChargePoint cost to maintain and operated the charge stations

Operation and Maintenance Fees per Charge Session - On average cost to operate and maintain the EV Unit per kW

Page 1 of 1

# BOARD OF DIRECTORS SANTA CLARA VALLEY WATER DISTRICT

#### **RESOLUTION NO. 20-**

#### ADOPTION OF ELECTRIC VEHICLE CHARGING RATES

WHEREAS, the Santa Clara Valley Water District (Valley Water) encourages the use of electric vehicles (EV) through its installation of EV charging stations on Valley Water's premises; and

WHEREAS, the use of EV charging stations provides positive environmental benefits, including the reduction of nitrogen oxides released into the atmosphere, which can cause deposition of pollutants into local streams and creeks; and

WHEREAS, under Section 5.5 of the District Act, Valley Water has the authority to prevent contamination, pollution, or otherwise render unfit for beneficial use the surface or subsurface water used or useful in the County; and

WHEREAS, Valley Water seeks to recover the costs for providing EV charging stations; and

WHEREAS, the Level 2 and Direct Current (DC) EV charging rates specified in Exhibit A raise no Proposition 26 issue because they will not result in the collection of charges that are greater than the reasonable cost of Valley Water to provide, operate and maintain the EV charging stations; and

WHEREAS, the rate structure also provides for hourly escalation rates if an EV remains at a Level 2 EV charging station for more than 4 hours or at a DC EV charging station for more than 1 hour, which provides a self-regulating system to ensure equitable use of the EV chargers; and

WHEREAS, said escalation rates are considered penalties and therefore Proposition 26 does not limit the use of revenue collected from those rates to Valley Water's reasonable cost of providing, maintaining and operating the EV charging stations; and

WHEREAS, the Board desires that the Chief Executive Officer or his/her designee have discretion to modify the Level 2 and DC EV charging station rates subject to not exceeding Valley Water's cost for providing, operating, and maintaining the EV charging stations.

NOW, THEREFORE BE IT RESOLVED that the Board of Directors of the Santa Clara Valley Water District does hereby adopt the "Electric Vehicle Charging Rates" in the schedule attached hereto as Exhibit A, which shall become effective on August 1, 2020.

BE IT FURTHER RESOLVED that the Chief Executive Officer or his/her designee may increase the Level 2 EV Charging Rate and/or DC EV Charging Rate at the commencement of each fiscal year so long as the amount collected from those rates do not exceed Valley Water's reasonable cost for providing, operating, and maintaining Valley Water's EV charging stations.

RI 14536 A-1

	ID ADOPTED by the Board of I vote on July 28, 2020:	Directors of the Santa Clara Valley Water District by
AYES:	Directors	
NOES:	Directors	
ABSENT:	Directors	
ABSTAIN:	Directors	
		SANTA CLARA VALLEY WATER DISTRICT
		NAI HSUEH Chair, Board of Directors
ATTEST: MICHELE L. KING, CMC		
Clerk, Board	of Directors	

# **EXHIBIT A**

### **ELECTRIC VEHICLE CHARGING RATES**

Charging Rate Classification	Charging Rate Effective on August 1, 2020
Level 2 EV Charging Rate (Rate for the first 4 hours of Charging)	\$0.19/kWh*
DC EV Charging Rate (Rate for the first one hour of Charging)	\$0.19/kWh*
Level 2 Escalation Rate (Rate after charging for more than 4-Hours)	\$2.00/hr
DC Escalation Rate (Rate after charging for more than 1-Hour)	\$4.00/hr

<sup>\*</sup> Chief Executive Officer or his/her designee may increase the Level 2 EV Charging Rate and/or DC EV Charging Rate at the commencement of each fiscal year so long as the amount collected from those rates do not exceed Valley Water's reasonable cost to provide, operate and maintain Valley Water's EV charging stations.