

**AMENDMENT NO. 3 TO AGREEMENT A3639A
BETWEEN THE SANTA CLARA VALLEY WATER DISTRICT
AND URS CORPORATION, A NEVADA CORPORATION
DBA URS CORPORATION AMERICAS**

This Amendment No. 3 (“Amendment”), effective as of the date it is fully executed by the Parties, amends the terms and conditions of the Standard Consultant Agreement A3639A (“Agreement”) dated May 14, 2013, Amendment No. 1 dated July 22, 2014, and Amendment No. 2 dated December 8, 2015, between SANTA CLARA VALLEY WATER DISTRICT hereinafter called (“District”) and URS CORPORATION, a Nevada Corporation dba URS CORPORATION AMERICAS, hereinafter called (“Consultant”), collectively, the “Parties.”

RECITALS

WHEREAS, Consultant is currently performing planning, environmental, and design services for the District’s Almaden Dam Improvement Project (Project); and

WHEREAS, the Parties desire to amend the Agreement for Consultant to continue performing planning, environmental, and design services necessary for the Project; and

WHEREAS, the Parties desire to amend the Agreement to extend its term to provide time for the Consultant to perform additional services; to increase the Agreement Total Not-to-Exceed Amount to provide for compensation for Consultant to perform additional planning, environmental, and design services; and to modify the schedule to allow time for Consultant’s performance of the planning, environmental, and design services.

NOW, THEREFORE, in consideration of the mutual promises and agreements stated herein and notwithstanding anything to the contrary in the Agreement, Amendment No. 1, or Amendment No. 2, Consultant and the District hereby agree to amend the Agreement as follows:

1. Revised Appendix One, Scope of Services, is amended to add the tasks, subtasks, and deliverables as set forth in the attached Revised Appendix One, Scope of Services, and incorporated herein by this reference.
2. Revised Attachment One to Revised Appendix One, Consultant’s Key Staff and Subconsultants, is amended as set forth in the attached Revised Attachment One to Revised Appendix One, Consultant’s Key Staff and Subconsultants, and incorporated herein by this reference.
3. Revised Attachment Two to Revised Appendix One, Dispute Resolution, is amended as set forth in the attached Revised Attachment Two to Revised Appendix One, Dispute Resolution, and incorporated herein by this reference.
4. Revised Attachment Three to Revised Appendix One, Task Order Template, is amended as set forth in the attached Revised Attachment Three to Revised Appendix One, Task Order Template, and incorporated herein by this reference.

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5. Revised Attachment Four to Revised Appendix One, Reference Materials, is amended as set forth in the attached Revised Attachment Four to Revised Appendix One, Reference Materials, and incorporated herein by this reference.
6. Revised Attachment Six to Revised Appendix One, District Procedures and Work Instructions, is amended as set forth in the attached Revised Attachment Six to Revised Appendix One, District Procedures and Work Instructions, and incorporated herein by this reference.
7. Attachment Seven to Revised Appendix One, District Standards for GIS Products, is amended as set forth in the attached Revised Attachment Seven to Revised Appendix One, Santa Clara Valley Water District, Standards for GIS Products, July 2017, and incorporated herein by this reference.
8. Revised Attachment Eight to Revised Appendix One, Quality and Environmental Management System (QEMS) Fact Sheet, is amended as set forth in the attached Revised Attachment Eight to Revised Appendix One, Quality and Environmental Management System (QEMS) Fact Sheet, and incorporated herein by this reference.
9. Revised Attachment Nine to Revised Appendix One, Non-Disclosure Agreement (NDA), is amended as set forth in the attached Revised Attachment Nine to Revised Appendix One, Non-Disclosure Agreement (NDA), and incorporated herein by this reference.
10. Revised Appendix Two, Fees and Payments, is amended to increase the Agreement Total Not-to-Exceed Amount payable to provide for compensation to Consultant for performing the tasks, subtasks, and deliverables as set forth in the attached Revised Appendix Two, Fees and Payments, and incorporated herein by this reference.
11. Revised Appendix Three, Schedule of Completion, is amended to extend the term of the Agreement and revise the Project Schedule of the Agreement to provide sufficient time for Consultant to perform the tasks, subtasks, and deliverables as set forth in the attached Revised Appendix Three, Schedule of Completion, and incorporated herein by this reference.
12. Revised Appendix Four, Insurance, is amended as set forth in the attached Revised Appendix Four, Insurance, incorporated herein by this reference.
13. All other terms and conditions of Agreement A3639A dated May 14, 2013, Amendment No. 1 dated July 22, 2014, and Amendment No. 2 dated December 8, 2015, not amended herein, remain in full force and effect.

(SIGNATURES FOLLOW ON NEXT PAGE)

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IN WITNESS WHEREOF, THE PARTIES HAVE SET FORTH BELOW THEIR CONSENT TO THE TERMS AND CONDITIONS OF THIS AMENDMENT NO. 3 TO AGREEMENT A3639A THROUGH THE SIGNATURES OF THEIR DULY AUTHORIZED REPRESENTATIVES.

SANTA CLARA VALLEY WATER DISTRICT
"District"

URS CORPORATION, a Nevada
Corporation dba URS CORPORATION
AMERICAS
"Consultant"

By: _____
Richard P. Santos
Chair/Board of Directors

By: _____
Noel Wong
Vice President



Date: _____

Date: February 6, 2018

ATTEST:

Firm Address:

Michele L. King, CMC
Clerk/Board of Directors

300 Lakeside Drive, Suite 400
Oakland, CA 94612

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REVISED APPENDIX ONE SCOPE OF SERVICES

Revised Appendix One, Scope of Services, is revised as stated herein.

Revised Appendix One describes the professional planning, environmental, and design services to be undertaken by Consultant for the Almaden Dam Improvement Project (Project) on behalf of the District. Upon successful completion of Project design, the District may, at its discretion, choose to negotiate an amendment to this Agreement with Consultant to provide construction phase engineering support services.

I. PROJECT OBJECTIVES (UNCHANGED)

The objectives of the Project are: (1) to seismically stabilize or reconstruct the Almaden Dam (Dam) intake structure, renovate the outlet works, and determine if spillway modifications are necessary and (2) to rehabilitate the Almaden-Calero Canal (Canal).

II. INTENT (UNCHANGED)

Consultant will provide planning, environmental, and design services to meet the Project Objectives. In particular, Consultant is responsible for preparing planning level engineering studies and evaluations, environmental documents, assisting the District in securing resource agency permits, preparing design engineering documents, and for providing project management services.

III. PROJECT BACKGROUND (UNCHANGED)

Almaden Dam

The Dam is owned and operated by the District, but is under the State of California Department of Water Resources Division of Safety of Dams (DSOD) jurisdiction. The Dam creates a relatively small reservoir with capacity of about 1,586 acre-feet and impounds water in the reservoir for conservation, ground water recharge, flood protection, environmental flows, and recreation.

Dam construction was completed in 1935; the Dam is 500 ft. long and 110 ft. high. The crest, at elevation 615 ft. (El. 617 North American Vertical Datum of 1988 [NAVD88]), is about 20 feet wide and is gravel-paved. The Dam was built as an earth-fill dam with upstream and downstream embankment zones. The upstream and downstream slopes are approximately 2.5 Horizontal (H): 1 Vertical (V). The upstream slope is covered with a 4-inch-thick reinforced concrete slab for erosion protection.

The spillway consists of an L-shaped weir and reinforced concrete-lined channel constructed around the right abutment of the Dam. The weir is 120-ft. long and 3-ft. wide. The spillway weir is at El. 607 ft. (El. 609 ft. NAVD88). The discharge channel is about 900 ft. long, 25 ft. wide, with ½ H: 1V side slopes. The spillway channel discharges well below the toe of the embankment. Special gravity cutoff walls are provided in the last approximately 100 ft. of the spillway chute.

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Almaden Reservoir's capacity is 1,586 acre-feet with an average annual capacity of 4,700 acre-feet, which is approximately 4% of the local water supply produced by the District. The reservoir receives water supply strictly from the local rainfall. In the winter months, surplus flow is transferred to Calero Reservoir (owned and operated by the District) through the Canal at a maximum of 100 cubic feet per second (cfs). The reservoir storage is used to maintain fisheries habitat to the confluence with Calero Creek, with flows between 3 to 6 cfs, with a maximum discharge into Los Alamitos Creek of 192 cfs. During the winter months, the District maintains a maximum storage of 1,000 acre-feet for flood control purposes.

The outlet works consist of a concrete intake structure with a trash rack, a 36-inch, 576 ft. long, concrete jacketed steel outlet pipe which reduces to a 30-inch outlet butterfly valve in an outlet structure, and a 36-inch tee and pipe connected to a second 30-inch butterfly valve leading to the Canal. To address siltation in the reservoir, the intake structure has been extended several times since original construction. Flow to the outlet pipe can be controlled by a 42-inch hydraulically operated slide gate valve located in the intake structure. This valve is operated from a control mechanism located in an intake gate operator structure on the dam crest. Both the 30-inch outlet butterfly valve in the outlet structure and the 30-inch butterfly valve in the Almaden-Calero Canal Block House are remotely and locally operable. The combined capacity of the outlet pipes is approximately 246 cubic feet per second (cfs).

A spillway on the Canal, located at the Almaden-Calero conduit structure, will also discharge any excess flow over the canal design capacity of 115 cfs. The spillway discharges this excess flow through a conduit wasteway and a 48-inch concrete pipe into Alamitos Creek.

In 2004, again with reservoir siltation approaching the top of the intake structure, the District conducted an outlet works modification feasibility study. The preliminary findings suggest a project to construct a new sloping multiport intake structure to address the problem of increasing siltation deposits. Also in 2004, DSOD indicated unsatisfactory seismic factors of safety for both the upstream and downstream Dam slopes. Interim DSOD reservoir restrictions for the Dam were implemented and have been monitored by the District, beginning in October of 2006, to maintain water levels at or below El. 600.7 ft. (El. 602.7 ft NAVD88). This translates to an increase in freeboard of about 6 feet and a volume restriction to 79% of total reservoir capacity.

The original Certificate of Approval issued by DSOD authorized the District to store water to El. 607 ft. (El. 609 ft. NAVD88), the elevation of the spillway crest. After further consideration, the preliminary project to construct a new intake structure was deferred until after the Dam seismic stability analysis is completed, as a decision to retrofit the Dam for seismic stability would significantly impact the proposed outlet works modifications.

In the fall of 2011, the preliminary Seismic Stability Evaluation prepared for the District by URS concluded the Dam is seismically stable. Based on the findings of this evaluation, the District requested DSOD reconsider lowering the current reservoir restriction of 6 feet minimum freeboard below the Dam spillway to 2 feet minimum freeboard below the dam spillway. In March 2012, DSOD approved the District's request and the reduced restriction

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has been implemented. In May 2012, incorporating DSOD's evaluation of the preliminary Evaluation, the final Seismic Stability Evaluation concluded that the Dam is seismically stable and the March 2012 reservoir restriction is to remain in-place.

Almaden-Calero Canal

The Canal is a 4-mile long District facility used for transferring water impounded by Almaden Reservoir to Calero Reservoir during the winter months. The Canal was constructed in 1935 and is used to convey up to 6,000 acre-feet of water per year from Almaden Reservoir to Calero Reservoir. Water from Calero Reservoir is conveyed through a series of pipelines to a District water treatment plant and distributed to water municipalities and private water companies or is released into Calero Creek for groundwater recharge.

Since its construction in 1935, the Canal has gone through several modifications and upgrades. Some of these changes include re-lining, construction of bypass pipes (siphons), flume elevation upgrades, installation of side-weir spillways for debris and sedimentation originating from the hilly terrain, and others. Despite these modifications, the Canal still faces several operational issues, including sedimentation and deterioration. In 1995, a combination of large winter storms and sedimentation within the Canal caused the Canal to overtop along a section directly above residential housing, causing flood damage.

Since the locations of sediment deposits vary significantly, there is a possibility of uncontrolled spillover along the Canal that could impact properties downhill of the Canal. Runoff flows originating from the adjacent hillside contribute to the amount of sediment deposited in the canal. Furthermore, the Canal's flow capacity is hindered and the Canal is unable to adequately convey its maximum flow. Seepage through the concrete lining of the Canal increases the potential cracking and wear of the facility. In addition, seepage could saturate the hillside and may potentially contribute to landslides. The Canal maintenance road bordering Calero Reservoir has a history of continual sloughing into the Reservoir. The sloughing is caused by wave erosion of the toe of the levee, steepness of the slope, and saturation of the levee during winter months.

IV. GENERAL ASSUMPTIONS AND REQUIREMENTS (REVISED)

The following is a list of general assumptions:

1. **Manage Scope of Services.** Consultant will manage the Scope of Services such that the work is completed within the Not-to-Exceed Fees limit and in accordance with the Project schedule and ensure that all services and deliverables meet the District and Project requirements.
2. **Deliverable Format.** Consultant will submit deliverables in both electronic and hardcopy format. Deliverables shall be submitted in PDF and native (editable) format, including Word documents, Excel spreadsheets, PowerPoint files, AutoCAD files, etc. The hard copy deliverables shall be printed in professional quality presentation and

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submitted in 5 copies. District may require original copies of signed documents and/or scanned (Adobe PDF) versions.

3. **Review of Deliverables.** The District will review and comment on all Project deliverables and forward to the Consultant for revision and preparation of final versions as determined by the District, some of the deliverables may also be subject to review and comment from regulatory agencies and stakeholders following the District review process.
4. **District Quality Environmental Management System.** The District maintains a Quality Environmental Management System (QEMS) which has procedures, guidelines and work instructions for the performance of various District work. If requested, Consultant will perform some of the contract tasks and/or sub-tasks in accordance with the QEMS framework. In such situations, the District's Project Manager (DPM) will provide the Consultant with the specific QEMS procedure, guideline, and/or work instruction prior to the production of deliverables.
5. **Consultant Responsibility.** Consultant, with its expertise in the provision of the listed services, is responsible for making the appropriate assumptions in each task to complete each task's deliverables and to achieve the Project objectives of this Agreement as described in this Scope of Services.
6. **Document Control.** Consultant is responsible for establishing and maintaining its own document control system to execute this Scope of Services. An internal document control system for this Project is maintained by the District.
7. **File Exchange Service.** Consultant will provide a file exchange service to facilitate communications; particularly of large files over 3 megabytes. Difficulties in using and transmitting information with this exchange service shall be resolved by Consultant. In the event that transmitting or receiving information does not occur in a timely manner, the District will not be responsible for delays in completing Project work. Consultant may need to work with District's Information Technology Unit to address any firewall issues and/or permissions required to allow for these communications.
8. **Completeness.**
 - A. The completeness of a design set is determined primarily by the substance of the materials on the set, including the adequacy of background and relevant information. Three levels of completeness of a design set are defined using these four terms: PARTIALLY COMPLETE; SUBSTANTIALLY COMPLETE; VIRTUALLY COMPLETE; and COMPLETE.
 - B. COMPLETE design set must include all the information required for a constructible set of plans, specifications and estimate of cost and giving such directions to enable the construction to be carried out. The set must be ready for engineering certification (stamping, signing and dating) by a Registered Professional Engineer(s). The set

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must show the work with complete details and dimensions; identify all constraints; include all background information and call out dimensions; and comply with all drafting, specifications and cost estimating standards.

9. **Existing Project Documents.** The District will provide Consultant with all existing Project documentation, including past studies, maps, and engineering specifications and other relevant environmental documentation that the District has access to at the outset of the Agreement for Consultant's use during the course of the Agreement. Refer to this Revised Attachment Four, Reference Materials, in Revised Appendix One, Scope of Services.

10. Project-Specific Assumptions and Requirements.

- A. Consultant is required to work closely and collaborate with District engineering, operations and maintenance staff to gain the necessary understanding of District's requirements, needs, operational constraints and preferences to address and complete key milestones and deliverables associated with this Scope of Services.
- B. District will facilitate access to Almaden Dam and Almaden-Calero Canal as the District determines necessary and appropriate.

11. Plats and Land Descriptions.

- A. Where Consultant's work requires preparation of plats and legal property descriptions, the Consultant shall supply electronic drawings in a format approved by the District, of the Tract Map, Map, or Deed involved along with parcel to be transferred from the District or to the District. This file shall be submitted to the District's Land Surveying and Mapping Unit.

V. TASKS (RENUMBERED AND REVISED)

- 1. Tasks included in this Revised Scope of Services are described in detail in this section. The task structure established for the original Agreement, Amendment No. 1, and Amendment No. 2 have been completely revised to appropriately consolidate services for the Project. As shown in the Revised Task Description table, multiple original tasks have been grouped into a single task; certain tasks have been renumbered; and new tasks have been added. Existing tasks have been modified as well as renumbered.
- 2. As of the effective date of this Amendment, all prior tasks shall be closed and new tasks and numbering as shown in the Revised Task Description table will be implemented. Unspent funds remaining in prior tasks shall be redistributed among new tasks based on the task breakdown presented in Revised Appendix Two, Fees and Payments.

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REVISED TASK DESCRIPTIONS

ORIGINAL AGREEMENT THROUGH AMENDMENT NO. 2		AMENDMENT NO. 3	
TASK	DESCRIPTION	TASK	DESCRIPTION
1	Project Management Services for Almaden Dam	100	Project Management Services
5	Public Outreach Assistance for Almaden Dam		
2	Planning Study for Almaden Dam	200	Planning Services
6	Condition Assessment of Almaden-Calero Canal and Calero Reservoir Maintenance Road		
9	Planning Study for Almaden-Calero Canal		
3	Environmental Documentation for Almaden Dam	300	Environmental and Permitting Services
4	Permitting for Almaden Dam		
10	Environmental Documentation for Almaden-Calero Canal		
11	Permitting for Almaden-Calero Canal		
8	Design Services for Almaden Dam	400	Design Services
7	Supplementary Services	500	Supplementary Services

There are 5 major tasks in the planning, environmental, and design phases which include:

TASK 100—Project Management Services

TASK 200—Planning Services

TASK 300—Environmental and Permitting Services

TASK 400—Design Services

TASK 500—Supplementary Services

A detailed description of each task is listed below along with the task objectives and desired outcomes, approach, assumptions, tools used in executing the task, and a list of deliverables.

TASK 100—PROJECT MANAGEMENT SERVICES (RENUMBERED AND REVISED)

1. The purpose of this task is for Consultant to manage this Revised Scope of Services such that the work is completed within the not-to-exceed fees limit stated in Revised Appendix Two, Fees and Payments, and in accordance with the schedule of performance as stated in Revised Appendix Three, Schedule of Completion, while ensuring that all services and deliverables by the Consultant meet the District and Project requirements.

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Task 100.1.—Project Management

1. **Project Work Plan.** Consultant will prepare a Project Work Plan and updates in accordance with this Revised Scope of Services. The Project Work Plan will include Project objectives, requirements, constraints, a detailed Project Schedule (showing major tasks and deliverables), a breakdown of Consultant's costs for the major tasks, a list of the Consultant's team members and their roles and responsibilities, communication protocols (internal and external), document control procedures, and other administrative procedures.

The Project Work Plan will include a Project Quality Assurance and Quality Control (QA/QC) Plan documenting the Consultant's procedures to ensure the Consultant's services and deliverables meet District requirements and accepted practices and standards of the Consultant's profession. The District reserves the right to request and review the Consultant's Project documentation demonstrating its adherence with their own quality assurance procedures.

2. **Progress Meetings.** The District and Consultant key staff and subconsultants, as determined necessary and appropriate by Consultant, subject to District's Project Manager (DPM) approval, will coordinate and attend periodic progress meetings with District staff, regulatory and resource agencies, and review boards, to review and discuss the progress of the work. For each meeting, the Consultant will prepare the meeting agenda and notes and submit them for review by the DPM.
3. **One-on-One Meetings With District.** Consultant Project Manager must provide a brief update of the team's completed work activities, the look-ahead activities, and the issues and actions that require the District's attention, in bi-weekly meeting/conference call with the DPM; frequency of these meetings and calls will be as directed by the District.
4. **Coordination and Communication With External Agencies.** Consultant will assist the DPM with coordination and communication with appropriate regulatory or other agencies, as necessary, to execute this Revised Scope of Services. This task includes support in drafting correspondence related to the Consultant's Project activities as requested by the District.
5. **Public Outreach.** If requested, the Consultant will provide support and assistance with the District's public outreach activities, as directed by the DPM; including the coordination, preparation, and participation including, preparing presentation materials, attendance at meetings, preparation of newsletters, graphics, updates to the Project website, developing responses to questions, and other tasks.
6. **Monthly Progress Reports.** Consultant will furnish monthly progress reports to the District complete with updated schedules identifying critical path items. The purpose of this report is to document the work completed and the execution of the tasks described in the Revised Scope of Services, and to allow the District to evaluate, at its reasonable discretion, Consultant's progress and performance. The monthly progress report will include:

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- A. An assessment of actual versus planned progress in completing the Revised Scope of Services, including a description of the tasks and deliverables completed to date.
- B. For each task, the percentage of services performed versus the percentage of fees incurred for such task, and explanation of any significant variances in the percentage of services performed as compared to percentage of fees incurred.
- C. For each task, the percentage of the fees incurred for such task compared to dollar amount allocated to such task.
- D. A statement that all tasks will be completed within the agreed upon Not-to-Exceed Total Amount of this Agreement described in Revised Appendix Two, Fees and Payments.
- E. A statement that progress in the performance of this Revised Scope of Services required by this Agreement is on schedule within the time line set forth in Revised Appendix Three, Schedule of Completion; or, if completion of the services is not on schedule, a statement of the anticipated length of the delay, the cause of the delay, measures proposed or taken to prevent or minimize the delay, and the timeline for implementation of such measures.
- F. A look-ahead schedule listing deliverables and activities planned for the next 2 months.
- G. A summary of any proposed changes to the Revised Scope of Services including justifications for such changes. Also, Consultant will review draft and final Strategy, Decision, and Change Management Memorandum prepared by the DPM, as necessary, for any requested changes by either party to the Revised Scope of Services.
- H. Action Item and Decision Log: This log will document action items and any Project concerns and issues throughout the term of the Agreement which require resolution by District and/or Consultant.
- I. Draft Invoices: Consultant will prepare draft invoices (transmitted with the monthly progress reports) that will be organized such that the billing categories correspond with the Revised Scope of Services tasks. Draft invoices will include a summary of labor expenditures, direct costs, and billed subconsultant charges. Draft invoices will be prepared in accordance with the requirements stated in the Standard Consultant Agreement, Section IV, FEES AND PAYMENTS, as well as Revised Appendix Two, Fees and Payments. An Adobe PDF version will be provided by Consultant for preliminary review by District.

Task 100.1.—Assumptions

- 1. District will endeavor to resolve issues that impact scope and schedule within 5 working days of provision of information from Consultant.

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2. District will coordinate progress meeting logistics such that critical District team members are present for scheduled meetings. External participants may be invited by the District or by Consultant with District pre-approval to attend these meetings when appropriate.
3. The Project Quality Assurance and Quality Control (QA/QC) Plan has been previously submitted and accepted by the District. Additional updates to the QA/QC plan are not anticipated.
4. Monthly progress meetings will be held at District facilities or via telephone conference at discretion of the DPM. It is anticipated that meetings will be held at the District Headquarters building in San Jose, CA. For budgetary purposes, the Parties anticipate monthly progress meetings to occur from Notice-to-Proceed (NTP) through end of the Agreement, approximately half of which are face-to-face meetings and half are conference calls, at District's discretion, each lasting approximately 2 to 3 hours.
5. Each bi-weekly telephone call between the DPM and Consultant's Project Manager anticipated to last no more than 1 hour, once a month from NTP through end of Agreement.
6. Comments and correspondence will typically be routed first through the District and Consultant Project Managers to maintain a clear line of communication. Communications between others on the District and Consultant team may occur, but must be arranged with the District and Consultant Project Manager's prior knowledge. Consultant will not take direction from such communications between staff supporting the Project.
7. Support and assistance with the District's public outreach activities is based on an allowance of up to 40 hours.
8. Attendance and coordination from the Consultant key staff and subconsultants for periodic workshops with District staff, regulatory and resource agencies, and review boards, to review and discuss the progress of the work, may be performed pursuant to an approved Task Order as Supplementary Services, as determined necessary and appropriate by the District's Project Manager (DPM). If requested by the District, for each workshop the Consultant will prepare the meeting agenda and notes and submit them for review by the DPM.

Task 100.1.—Deliverables

1. Project Work Plan including QA/QC Plan.
2. Project Meeting Agendas, Minutes, and Presentations.
3. Project Bi-Weekly Meetings/Conference Calls attendance and notes.
4. Adobe PDF advance copies of each monthly invoice and paper copies of each monthly invoice.

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TASK 200—PLANNING SERVICES (RENUMBERED AND REVISED)

The purpose of this task is to prepare a planning study to be used to select a staff-recommended project. The District will lead the planning study effort and is responsible for the preparation of the planning study report. The planning study will be a compilation of technical memoranda addressing planning requirements, development and evaluation of alternatives that meet the Project Objectives and include a recommendation that maximizes the benefit to life-cycle cost ratio for the Project. In support of the planning study, Consultant will prepare planning-level engineering studies and evaluations to support this task.

Task 200.1.—Problem Definition

The purpose of this task is to review existing information, perform studies, assessments, and analysis to establish existing conditions and define and confirm the problems and deficiencies. The scope of this task is as follows:

Task 200.1.1.—Background and Data Collection

1. Consultant will assemble available information provided by the District, as well as, collect information/data that may be available from other sources, as identified by the District, to confirm and document the problem, constraints, and opportunities. Consultant will also consult with District staff to confirm the customer/partner/stakeholder list, challenges, Project Requirements, objectives, and operational and environmental constraints.
2. Consultant will identify data needs to define the problem, constraints and opportunities. This data may include, but may not be limited to, hydrology, water quality, sediment, topography, geotechnical, biology, ecology, listed species, critical habitat, archeology, instrumentation, canal system and equipment, hazmat, real estate, etc.
3. Consultant will collect property boundaries (delineation/tract register information) and collect utility information over the maximum probable Project footprint.
4. Consultant will perform planning-level topographic survey(s) of canal, as necessary, to verify and supplement existing topographical data for the entire canal length. Survey work shall adequately identify changes to the canal geometry not previously surveyed. Consultant will prepare plan and profile mapping, along with cross-sections of the entire canal length.

Task 200.1.1.—Assumption

1. The District will assist Consultant to identify pertinent background documents, including relevant environmental studies and reports, and determine whether the assumptions and conclusions as stated in the documents are still applicable.
2. The District will provide existing survey benchmark data. Survey duration for three-person survey crew will not exceed 1 week.

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Task 200.1.1.—Deliverables

1. Letter of Acknowledgement stating the background data has been reviewed and confirming Project Objectives, along with Initial Project Requirements, are understood.
2. Memorandum identifying data needs (1 Draft + 1 Final).
3. Property and Utility Maps (1 Draft + 1 Final).
4. Canal Plan and Profile Mapping with Cross-Sections (1 Draft + 1 Final).

Task 200.1.2.—Dam PMP Modified HMR 58/59 Study and PMF

1. Consultant will prepare a Probable Maximum Precipitation (PMP) Modified Hydrometeorological Report (HMR) 58/59 Study and Probable Maximum Flood (PMF) for Almaden Reservoir. This work involves the following:
 - A. Review the PMF study completed by the District in 2009 (Revised Appendix One—Scope of Services, Revised Attachment Four, Reference Materials, Item No. 10). The 100-year, 24-hour event data in National Oceanic and Atmospheric Administration (NOAA) Atlas 2 will be utilized by Consultant during the review of the 2009 PMF Study to geographically distribute the PMP rainfall. It will also be used to ensure consistency in the ratio between the PMP and the 100-year, 24-hour volumes across broad geographic areas.
 - B. Draft an initial modified HMR 58/59 methodology and reach agreement with both the District and the Division of Dam Safety (DSOD) on an acceptable approach in accordance with DSOD's Interim Hydrology Policy. The modified HMR58/59 approach will incorporate the more recent NOAA Atlas 14 to provide an updated PMP value that reflects the updated precipitation information in NOAA Atlas 14. Consultant will describe the methodology in a technical memorandum to be submitted to DSOD for review. Consultant will present the details of the method to DSOD and obtain comments from DSOD. Consultant will incorporate DSOD's comments in a final memorandum to DSOD.
 - C. Following DSOD's approval of the modified HRM 58/59 approach, Consultant will develop a PMP value for the Almaden Dam watershed using the modified HMR58/59 approach.
 - D. Following DSOD's approval of the modified PMP, Consultant will calculate the PMF by routing the PMP through a hydrological model (e.g., HEC-HMS) of the Almaden Dam watershed. The hydrology model will incorporate rainfall hydrograph distribution, rainfall losses due to land uses, lag times, and channel routing (if applicable). The results will determine whether the existing spillway can accommodate the PMF.

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Task 200.1.2.—Assumptions

1. Consultant will develop an approach for creating a modified HMR58/59 that is acceptable to DSOD.
2. Consultant will have 2 individuals participate in one 8-hour meeting (including travel and preparation time) with DSOD to present the modified HMR58/59 approach.
3. Three conference calls with DSOD to discuss modified approach and PMP and PMF results.
4. One round of DSOD comments on the modified HMR58/59 approach.
5. Although Consultant has no control regarding DSOD timelines to conduct reviews, for scheduling purposes, the Parties anticipate 20 days for initial, combined review(s) by DSOD and District; anticipate 15 days for review by DSOD and District for the modified HMR 58/59 approach.
6. The PMP study will not include the use of HMR58/59 procedures to re-generate the mapping for the PMP study.
7. No site visits are required for this task.

Task 200.1.2.—Deliverables

1. Technical Memorandum to DSOD for the PMP Modified HMR 58/59 Study Approach (2 Drafts + 1 Final).
2. Almaden Reservoir PMP Modified HMR 58/59 Study and PMF (2 Drafts + 1 Final).

Task 200.1.3.—Dam Outlet Works Assessment

1. Consultant will examine the integrity of the existing outlet conduit/pipe, 2 discharge structures, and associated mechanical equipment to determine what is acceptable for long-term use. Consultant will determine present pipe conditions (including cylinder thickness, structural integrity, etc.) and impacts/demands that may be created as a result of modifications to the outlet works system.
2. Prior to inspection, Consultant will prepare a Worker Safety Plan addressing dam lock-out procedures and entry into confined space, as well as a Work Plan identifying date and time that the pipe will be inspected, including a description of items to be provided or completed by District.

Task 200.1.3.—Deliverables

1. Outlet Works Workers Safety and Work Plan (2 Drafts + 1 Final).
2. Outlet Works Inspection Report (2 Drafts + 1 Final).

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Task 200.1.4.—Canal Physical Conditions Assessment

Consultant will prepare a condition assessment memorandum. The memorandum will include generalized recommendations for repairs to restore canal capacity, activities to mitigate future sloughing, and the feasibility of a potential secondary access road construction. Consultant will geologically map the canal, including the location of serpentine material, and identify locations that may require improvements due to over-steep slopes (uphill and downhill), sloughing and seepage. After Consultant prepares a draft memorandum, Consultant will coordinate a workshop at the District to review results. District will provide comments to draft memorandum from which the Consultant will prepare the final memorandum.

Task 200.1.4.—Assumptions

1. Two field days for geologic site mapping (2 geologists).
2. One field day for geotechnical engineer (geotechnical engineer, civil engineer and geologist).
3. District to provide necessary survey information.
4. Geologic mapping to be based upon available topographic information.
5. No DSOD restriction at Calero Reservoir will be assumed when assessing the maintenance road bordering Calero Reservoir.
6. Permitting and California Environmental Quality Act (CEQA) efforts associated with the repairs will not be considered because the condition assessment will not have the necessary level of detail developed to adequately evaluate the impacts.

Task 200.1.4.—Deliverables

1. Canal Condition Assessment Memorandum (2 Drafts + 1 Final).
2. Canal Plan and Profile Mapping with Cross-Sections (2 Drafts + 1 Final).

Task 200.1.5.—Canal Hydraulic Assessment *(Task Order 3, dated July 22, 2014; completed, funded by Supplementary Services)*

1. Consultant will perform hydraulic model using HEC-RAS to determine the Canal capacity given the current condition. Using the results of the hydraulic model, a technical memorandum will identify the existing capacity of the Canal and identify locations with reduced hydraulic capacity.
2. Consultant will conduct a physical verification of the hydraulic model, which includes development of a work plan, establishment of measurement locations, and obtaining flow depth measurements for 2 different flow rates.

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3. Consultant will calibrate hydraulic model utilizing the physical verification data and incorporate results into a hydraulic assessment technical memorandum for District review. The memorandum will document the physical verification process, hydraulic modeling and sensitivity analysis.

Task 200.1.5.—Assumptions

1. District to coordinate flow transfer between Almaden and Calero Reservoirs.
2. Consultant will rely on the results of the two-day flow transfer for physical verification for hydraulic model calibration. Collection of additional data, if necessary, would require a separate scope and cost estimate.
3. Consultant to perform up to 3 site visits: 1 site visit prior to physical verification, 1 site visit for each of the 2 flow rates.

Task 200.1.5.—Deliverables

1. Canal Hydraulic Assessment Memorandum (2 Drafts + 1 Final).
2. Canal Physical Flow Test Work Plan (2 Drafts + 1 Final).

Task 200.1.6.—Canal Hydrologic Runoff Analysis

Consultant will prepare a hydrologic analysis to quantify the runoff entering the canal. Consultant will use the model for continuous hydrologic simulation (multiple storms) and not event-based simulation (single storm). The continuous hydrologic simulation will allow for the estimation of runoff to the canal for a variety of water year types (e.g., dry, average wet). Up to 5 different year types will be simulated. Consultant will prepare a Canal Hydrologic Runoff Analysis Technical Memorandum presenting the methodology used, assumptions made, and results. The analysis will include the volume of runoff to the canal for each year type, the average volume of runoff to the canal, and a time series of runoff to the canal for each year type.

Task 200.1.6.—Assumptions

1. Most of the watershed is in a rural area and undeveloped. Land coverage will be based on readily available aerial photographs and the information in the National Land Cover Database (NLCD).
2. Soil properties will be based on data in the Natural Resources Conservation Service (NRCS) soil survey.
3. Precipitation data will be from nearby rainfall gages provided by the District (for District operated gages), obtained from the California Data Exchange Center (CDEC), or from the National Weather Service gages.

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Task 200.1.6.—Deliverable

1. Canal Hydrologic Runoff Analysis Memorandum (2 Drafts + 1 Final).

Task 200.1.7.—Canal Siphon Assessment

Consultant will examine the integrity of the existing four (4) canal siphons to determine present pipe conditions (visual crack survey, presence of sedimentation, debris blockages, etc.), using video and sonar imaging, and review findings. Prior to inspection, Consultant will prepare a Worker Safety Plan addressing canal lock-out procedures and entry into confined space, as well as a Work Plan identifying date and time that the siphons will be inspected, including a description of items to be provided or completed by District. Consultant will assess the siphons' future, expected life, as well as make recommendations for future asset management inspections and maintenance activities.

Task 200.1.7.—Assumptions

1. Consultant's inspection of the siphons will be in the dry and be conducted after District staff has removed siphon trash racks and cleared any blockages in the siphons.
2. Inspections will be conducted by remotely operated vehicles with video and sonar capabilities.

Task 200.1.7.—Deliverables

1. Canal Siphon Inspection Worker Safety Plan & Work Plan (2 Drafts + 1 Final).
2. Canal Siphon Inspection & Assessment Report (2 Drafts + 1 Final).

Task 200.1.8.—Fish Passage Feasibility Study *(Task Order No. 2, dated December 19, 2014 and Task Order No. 2.1, dated July 22, 2014; completed, funded by Supplementary Services)*

1. The purpose of this subtask is to evaluate options to provide steelhead fish passage upstream and downstream of Almaden Dam relative to the proposed Project components, the biological goals specified by the District, and the terms of the Fish and Aquatic Habitat Collaborative Effort ("FAHCE") Draft Settlement Agreement. The Draft Settlement Agreement specifies near- and longer-term actions to maintain the fisheries habitat and in-stream flow needs—specifically, it will satisfy the following requirements of Section 6.6.2.1.3.3. of the 2003 FAHCE Settlement Agreement:
 - A. Evaluate alternatives to provide unimpeded passage, both upstream and downstream, at the existing dam and reservoir.
 - B. Evaluate alternatives to eliminate (or minimize) the warming of water temperature in the reservoir.

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- C. Evaluate alternatives to eliminate or minimize the methylation of mercury in the sediments behind the dam.
 - D. If feasible alternatives exist, recommend action, including design and construction schedules.
2. To complete the steelhead fish passage feasibility study for Almaden Dam, Consultant will perform the following:
- A. **Background Review.** Consultant will review readily available, existing information related to steelhead habitats in the Alamos Creek watershed, identify gaps in the existing information, perform site visits (during both dry and wet seasons), including:
 - (1) Existing habitat conditions upstream and downstream of the reservoir – including the National Marine Fisheries Services (NMFS) stream habitat model data, if available.
 - (2) Potential steelhead passage barriers upstream and downstream of the reservoir.
 - (3) Reservoir operations data.
 - (4) Stream gauge data for Alamos Creek and tributaries.
 - (5) Reservoir and stream temperature and water quality data.
 - (6) Mercury concentrations in the sediments behind the dam.
 - (7) Steelhead and resident rainbow trout population data for Almaden Reservoir and Alamos Creek upstream and downstream of the dam.
 - (8) District data utilized for the Settlement Agreement, and other pertinent information.
 - (9) Identify gaps in the existing information that, if filled, would improve the feasibility study, and propose options to address the data gaps.
 - (10) Five days of site visits will be conducted to evaluate the in-stream steelhead habitat conditions above and below Almaden Dam. Site visits will be conducted by 2 fisheries biologists and will be limited to publicly accessible portions of the streams.
 - B. **Feasibility Study. Consultant will prepare a feasibility study. This task will include the following steps:**
 - (1) Establish steelhead passage criteria based on the biological goals and objectives set by the District.
 - (2) Analyze reservoir elevations and operations and outflow hydrology.

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- (3) Evaluate up to 4 combination alternatives to provide passage for steelhead moving upstream and downstream of Almaden Dam and develop conceptual-level schematic drawings. One of these options will be a trap and truck option as identified in Phase 2 of the FAHCE Settlement Agreement.
- (4) Evaluate options to eliminate or minimize warming of water in the reservoir.
- (5) Evaluate alternatives to eliminate or minimize methylation of mercury in the sediments behind the dam.
- (6) Estimate probable construction costs for options that would meet the District's biological goals and objectives (no more than 2) based on professional opinion and experience with other projects, rough order of magnitude estimated quantities and expected construction methods derived from schematic designs.
- (7) Identify potential environmental impacts and permitting requirements for potential passage options.
- (8) Potential passage options will be evaluated based on the following considerations:
 - (a) Biological benefits of providing steelhead passage, such as, access to additional upstream habitat to increase natural production; contribution to steelhead recovery through increased overall natural production; enhanced genetic integrity and resilience of the population.
 - (b) Pre-planning level cost estimates for construction, operation, and maintenance of passage facilities.
 - (c) Annual water costs (in AF) as provided by the District.
 - (d) Potential environmental impacts and permitting requirements.
 - (e) District will consider whether the alternative could be implemented during construction of the Almaden Dam Improvement Project or after the Project is completed. Biological benefits and the potential effectiveness of the fish passage alternatives would be evaluated based on the availability and quality of the habitats above Almaden Dam and the potential barriers to movement of steelhead downstream and upstream of the Dam. These variables would be evaluated based on existing information provided by the District. The evaluation will also consider the difficulty of implementing fish passage, either as part of the proposed Project or after the Project is completed.

C. **Coordination with District Fish Passage Studies.** As requested by the District, Consultant will attend coordination meetings with fish passage teams working on Almaden, Calero, Guadalupe and Anderson Dams. This task will include up to 6 meetings at the District's office to review opportunities, share available data, discuss

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agency feedback, and share proposed solutions. Consultant will prepare agendas and notes and summarize action items for each of the 6 meetings.

Task 200.1.8.—Assumptions

1. District will identify and compile the available data related to the biological, operational, hydrology, site conditions, planned modifications, and property ownership. The District will transmit the data to the Consultant in an electronic format.
2. District will provide direction on the biological goals and objectives of the steelhead passage options. If goals and objectives cannot be readily established, the District will specify the performance criteria that will be used to evaluate potential passage options.
3. Consultant will rely on existing data and the results of a two-day site visit to evaluate feasibility of fish passage options. Collection of additional data or synthesis of missing stream gauge or operational data, if necessary, would require a separate scope and cost estimate.
4. This evaluation will focus on the feasibility of various concepts to meet Project Objectives. No engineering design is included in this Scope of Work. While concepts found to be feasible may be developed schematically or in sketches for the purposes of example, this feasibility study is not intended to take the place of a more detailed alternatives analysis for the recommended concepts. If concepts are identified as feasible, a more focused design alternatives analysis may still be needed during the conceptual design phase.
5. Private property rights, flow requirements, and other factors may influence the analysis.
6. One site visit with the District to discuss options at the dam and reservoir is expected during Task 100 and a second site visit to ground-truth the final recommendations.
7. A two-day site visit is included to evaluate in-stream habitat conditions for steelhead above and below Almaden Dam. The habitat evaluation will be conducted by two biologists and will be limited to publicly accessible reaches of the stream.
8. This study will not include evaluation of flow requirements. If needed, they will be evaluated at the later stage.
9. Two meetings with resource agencies (National Marine Fisheries Service and California Department of Fish and Wildlife) are included. The purpose of the first meeting will be to introduce the proposed scope of the evaluation. The second meeting will be conducted concurrent with transmittal of the Draft Technical Memorandum to present the results of the evaluation.
10. Up to six meetings with the District and other fish passage teams to discuss information available and data needs.

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11. Final Technical Memorandum: The final feasibility study technical memorandum will be submitted by the District to the resource agencies.

Task 200.1.8.—Deliverables

1. Fish Passage Feasibility Study Technical Memorandum based on District comments from two rounds of review of the draft feasibility study (2 drafts and 1 final version).
2. One meeting with District and the resource agencies to present the conclusions of the Final Technical Memorandum.
3. Consultant will prepare agendas and notes and summarize action items for each of the six meetings relating to fish passage issues.

Task 200.1.9.—Project Requirements

Consultant will assist the District with the identification and establishment of the Project Requirements. Consultant will prepare a Project Requirements Matrix which will be updated periodically.

Task 200.1.9.—Deliverable

1. Project Requirements Matrix (as necessary)

Task 200.1.10.—Problem Definition Report

Consultant will prepare a Problem Definition Report, which will include detailed information on the Project background and existing conditions, detailed descriptions of the problems and deficiencies, a listing of the Project Requirements, identification of opportunities and constraints, and any refinements to the Project Objectives.

Task 200.1.10.—Deliverable

1. Problem Definition Report (2 Drafts + 1 Final).

Task 200.2.—Feasible Alternatives

The purpose of this task is to further develop and evaluate the feasible alternatives so as to prepare the Feasible Alternatives Report, which includes a Staff-Recommended Alternative (10% preliminary design).

Task 200.2.1.—Feasible Alternatives Analysis

The scope of this task includes, but is not limited to:

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1. **Develop Alternatives.** Consultant will collect in-depth information to develop each feasible alternative. Consultant will prepare preliminary designs for each feasible alternative to a level that allows objective assessment of the pros and cons of the alternatives.
2. **Assessment Methodology.** Consultant will develop an assessment methodology which will include the selection of relevant criteria, assignment of weights or weighting factors for each criterion.
3. **Feasible Alternative Matrix.** Consultant will analyze and evaluate the alternatives using the methodology developed, and shall screen and score the alternatives and rank each alternative. Consultant will prepare a feasible alternatives matrix from the scoring and ranking of the alternatives, showing results of the relative score of each alternative. These scores will be used to identify or select the staff-recommended alternative.
4. **Feasible Alternatives Report.** Consultant will prepare a Feasible Alternatives Report, which will include descriptions of the alternatives, the assessment methodology, the evaluation and scoring of the alternatives, and identify the Staff Recommended Alternative, which includes 10 percent preliminary design plans, estimate of costs, and a preliminary construction schedule.

Task 200.2.1.—Assumptions

1. Consultant will conduct 1 workshop with District to review the feasible alternatives.
2. For budgeting purpose, it is assumed three feasible, planning-level alternatives will be prepared.

Task 200.2.1.—Deliverables

1. Feasible Alternatives Report (2 Drafts + 1 Final).
2. Workshop Agenda, Materials, Notes and Comments for Draft Feasible Alternatives Report (2 Drafts + 1 Final).

Task 200.2.2.—Canal Hydraulic Alternatives *(Task Order No. 5, dated December 8, 2015; completed, funded by Supplementary Services)*

1. Consultant will evaluate the canal system, as necessary, to verify and supplement existing hydraulic analysis for the entire canal length. The evaluation will provide findings to help refine the existing system and select proposed system hydraulic features, as necessary to support planning-level existing conditions and develop feasible improvement alternatives. The canal system will be capable of meeting all established operational, maintenance, and regulatory requirements, including, but not limited to, passing the range of District operational flows from Almaden to Calero Reservoirs.
2. Consultant will prepare the Canal System Hydraulics Technical Memorandum which will include necessary analysis to establish the existing canal system and include necessary

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alternative analysis, as well as, develop planning-level feasible alternatives to correct or modify the existing canal system hydraulics.

Task 200.2.2.—Assumption

1. Up to three canal feasible improvement alternatives will be included in the hydraulic analysis.

Task 200.2.2.—Deliverable

1. Canal System Hydraulics Technical Memorandum (2 Drafts + 1 Final).

Task 200.3.—Planning Study Report Review

Consultant will prepare a Planning Study Report (PSR) Review Memorandum. The PSR will be prepared by the District and will include the Project background, objectives, problem definition, conceptual alternatives analysis, public outreach process, feasible alternatives analysis, the Staff-Recommended Alternative, and the basis for its selection. Consultant will assist with the preparation of graphic exhibits to be included in the PSR. The Staff-Recommended Alternative will be fully described in the PSR, along with detailed calculations supporting findings in the appendices to the report.

Task 200.3.—Assumptions

1. This task assumes that the District will provide a complete PSR for Consultant to review.
2. This task assumes that the District will require up to 6 graphic exhibits to be included in the PSR.

Task 200.3.—Deliverable

1. Planning Study Report Review Memorandum (1 Draft + 1 Final).

TASK 300—ENVIRONMENTAL AND PERMITTING SERVICES (RENUMBERED AND REVISED)

The purpose of this task is to prepare an environmental plan, complete required field investigations and associated technical reports that will support the preparation of an environmental document in accordance with the requirements of the California Environmental Quality Act (CEQA). The desired outcome is that the environmental review will present sufficient information to enable the District's Board of Directors, acting as the CEQA Lead Agency, to make the requisite findings and certify the Final Environmental Impact Report (EIR) and adopt the recommendations from the Mitigation Monitoring and Reporting Plan (MMRP). In addition, this task includes supporting the District's coordination with federal, state and local and preparation of permit applications and any documents required to acquire permits and agreements.

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Task 300.1.—Environmental Plans

Task 300.1.1.—Environmental Phase Work Plan

1. Consultant will prepare an Environmental Phase Work Plan and an update that will describe the implementation of the planned environmental document and permitting tasks associated with the Project. The District will review and provide 1 set of consolidated comments.

Task 300.1.1.—Deliverable

1. Environmental Phase Work Plan (4 Drafts + 2 Finals).

Task 300.1.2.—Field Investigation Plan

1. Consultant will prepare a Field Investigations Work Plan and an update for conducting biological and cultural resource field investigations where existing information is insufficient for CEQA and regulatory permitting needs. This plan will summarize the required environmental information, the proposed methods to acquire the information and additional actions, if any, required by Consultant or the District to implement the plan. District will provide comments to a draft plan and Consultant will prepare a final plan. Additional investigations deemed necessary by the District to address specific resources that may be required, may be performed pursuant to an approved Task Order as Supplementary Services.

Task 300.1.2.—Deliverable

1. Field Investigation Plan (4 Drafts + 2 Finals).

Task 300.1.3.—Environmental & Regulatory Strategy Plan

1. Consultant will prepare and collaborate with the District to develop an Environmental & Regulatory Strategy Plan and an update that will include a description of the Project, background, regulatory compliance, mitigation needs, and schedule. The District will review and provide 1 set of consolidated comments on each draft Plan.

Task 300.1.3.—Deliverable

1. Environmental & Regulatory Strategy Plan (2 Drafts + 1 Final).

Task 300.2.—Field Investigations

Task 300.2.1.—Field Work

Consultant will conduct field work necessary to gather information regarding the existing condition of biological and cultural resources, aesthetics, and transportation.

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1. Consultant will conduct field studies sufficient to identify potentially jurisdictional wetlands and other waters of the United States (U.S.), and waters of the State of California. A preliminary jurisdictional delineation will be prepared following the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) and United States Army Corp of Engineers (USACE) guidance including the 2008 USACE Regulatory Guidance Letter, and the 2007 Memorandum re: Clean Water Act (CWA) Jurisdiction Following U.S. Supreme Court Discussion in *Rapanos v. United States*.
2. The land cover types identified in the Santa Clara Valley Habitat Conservation Plan (VHP) will be mapped and characterized based on aerial photos and field investigation.
3. Consultant will conduct focused surveys to identify, map and characterize wildlife habitats, including woodrat nests, tricolored blackbird habitat, and adult Bay checkerspot butterflies during the appropriate flight season.
4. Consultant will conduct a dewatering baseline survey in accordance with VHP conditions. Consultant's biologists will review readily available reference data, reports and coordinate with District biologists regarding locations where California red-legged frog, foothill yellow-legged frog, and western pond turtle may occur. Consultant will conduct a field reconnaissance survey within District-owned properties associated Almaden Reservoir, and at selected locations below Almaden Reservoir along Alamitos Creek to the confluence with Arroyo Calero that might be affected by flow regulation during dewatering events. Consultant will use this information to assess habitat suitability for use by various life-history stages (e.g., adults, egg masses, larvae) of these species and to identify sites where these species are most likely to be detected, to serve as appropriate sites for pre- and post-dewatering monitoring of these species.
5. Based on the results of the dewatering baseline survey, and the protocol established in Task 300.2.2. within the Baseline Monitoring Report, Consultant will conduct dryback conditions monitoring. The surveys will be conducted 5 times during the dry season, for 3 years (a total of 15 events) to document the channel dryback conditions. The monitoring will include photography stations, measurements of the creek width and depth at the thalweg. One survey event during each year will be conducted at night. During these surveys, biologist will note observed species, and search for California red-legged frog, foothill yellow-legged frog, and western pond turtle.
6. Consultant will conduct focused surveys to identify protected trees that may be impacted as a result of the Project.
7. Consultant will identify and evaluate historic or prehistoric sites in the study area that are potentially eligible for listing on the National Register of Historic Places (NRHP) and/or the California Register of Historical Resources (CRHR); a historical evaluation will be conducted for the purposes of CEQA and Section 106 of the National Historic Preservation Act. Consultant will investigate the potential for known or unknown archaeological resources within the vicinity of the Project and evaluate potential cultural resource effects in the Project area.

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8. Consultant will conduct field investigations for aesthetics resources. The visit will include an inventory, including photographic documentation of the following existing conditions: viewpoints; notable visual resources, and vividness, intactness, and unity of the Project area.
9. Consultant will collect daily volume data at up to five locations using machine traffic counting equipment. The equipment will capture data for at least three weekdays.

Task 300.2.1.—Assumptions

1. The biological investigations will be comprised of the following:
 - A. Study area will be limited to 100 feet on each side of the canal centerline or 150 acres, whichever is smaller, where access is available. Access to the study area will be arranged by the District.
 - B. The jurisdictional delineation will evaluate features and include collection of up to 10 data points. Consultant will attend a one-day field visit with the USACE to verify the jurisdictional delineation followed by one round of revisions to the jurisdictional delineation.
 - C. Botanical surveys and technical reporting will be completed by District biologists.
 - D. Due to its large size and number of trees in the study area, surveys are contemplated only for select areas that require disturbance and would not be conducted until the Project footprint is well established.
2. The cultural investigations will be comprised of the following:
 - A. Study area will be limited to 100 feet on each side of the canal centerline, where access is available. Access will be arranged by the District.
 - B. Cultural resource surveys will be a pedestrian-level survey conducted by two cultural resources specialists. The specialists will assess the eligibility of the canal and its appurtenant structures, the potential for archeological and paleontological resources at any sites that could be disturbed during Project construction, and will include up to two field meetings with Native American representatives.
 - C. No new cultural resources surveys (aside from existing canal) will require recordation and/or evaluation. Any additional cultural resource surveys deemed necessary by the District to address particular resources, may be performed pursuant to an approved Task Order as Supplementary Services.
3. The reservoir dewatering baseline survey and dryback condition monitoring will be comprised of the following:

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- A. District biologists will provide information regarding the locations within the dewatering action area where the VHP-covered species might be detected, to inform Consultant reconnaissance survey. This information can be provided via maps or a written or verbal description.
 - B. The dewatering baseline survey area is assumed to extend from the upstream extent of Almaden Reservoir inundation to the confluence of Alamitos Creek with Arroyo Calero.
 - C. Consultant's biologists will look for individuals of the selected VHP-covered species during the field reconnaissance; however, this survey may not be intensive enough to detect each species at the proposed monitoring locations.
 - D. The preliminary description of potential effects of dewatering will be based on input from the District and the professional opinions of the URS biologists. Input from District will include hydrological modelling developed for the FAHCE agreement. Evaluation of the effects will include a one-day workshop with the FAHCE flow/habitat modelling team to discuss available information, results, and applicability of the result in evaluation potential impacts. A separate scope and cost estimate would be required if additional survey data or protocols are identified by the resource agencies or District.
 - E. The field reconnaissance survey will be limited to areas that are publicly accessible and that can be safely accessed by field personnel.
 - F. A total of 3 field days for two biologists are included for the field reconnaissance surveys.
 - G. Dryback conditions survey will be conducted by two biologists over a 1-day period, except for the annual night survey which will be conducted over a 2-day period.
 - H. Dryback condition monitoring will occur at a maximum of 10 sites.
4. Consultant assumes a full transportation impact analysis (TIA) is not required because peak hour construction traffic is expected to be fewer than 50 vehicle trips during the morning and evening peak hours and because this Project is temporary in nature. Thus, the transportation analysis will focus on construction impacts associated with the Project. Due to the age of the existing traffic count data, Consultant will review the data collected to date for the Project to determine if they will be adequate and defensible. Consultant may recommend to the District to conduct additional traffic studies. Such studies would only be initiated pending District review and approval of Supplementary Services to conduct such studies.
5. Consultant will use existing data for noise analysis. No field visit or new noise measurements will be taken.
6. Mercury sampling performed by Consultant in 2004 will be sufficient to evaluate potential impacts. Should preparation of a mercury sampling plan and field sampling for mercury be necessary, it will be determined by the District and may be performed pursuant to an approved Task Order as Supplementary Services.

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Task 300.2.2.—Field Investigation Reports

Consultant will develop field investigation technical reports based on the field work conducted. This information will be used to establish baseline conditions that will be analyzed in the CEQA Document, as described in Task 300.3.

1. The results of the jurisdictional delineation will be presented in the Jurisdictional Delineation Report for District submittal to the USACE.
2. The results of the land cover mapping and focus surveys will be summarized in a Biological Resources Survey Report.
3. The results of the baseline dewatering background research and field review will be summarized in the Baseline Monitoring Report. Consultant will prepare a memorandum that describes the background review, and reconnaissance surveys conducted for California red-legged frog, foothill yellow-legged frog, and western pond turtle in the dewatering action area. The memorandum will also provide recommended methods for conducting dryback conditions monitoring, including locations where surveys should be conducted and protocols for the timing and frequency of monitoring. Monitoring will consider the life-history requirements of each species, including nesting sites for western pond turtle and egg-laying sites for the other species, as well as habitat for larvae, juveniles, and adults.
4. The results of the 4 annual dryback conditions monitoring surveys will be summarized in three separate annual reports. Years 2 and 3 will include results from the previous years' surveys.
5. The result of the focused protected trees surveys will be provided in a Protected Tree Survey Memorandum. The memorandum will include a table of the trees and corresponding mapped locations of protected trees.
6. Consultant will prepare an Archaeological and Historic Resources Report which will identify potential cultural resources in the study area including sites of historical, archeological, architectural, or cultural significance. The results of the field survey and background research results will be documented in an Archaeological and Historic Resources Report.
7. Consultant will conduct a Native American Consultation in accordance with California Public Resources Code. Under Assembly Bill (AB) 52, the District is required to conduct formal consultation with all Native American individuals and groups who request, in writing, consultation with the District on projects for which the District is the CEQA lead agency. Consultant will assist the District in meeting its obligations, through preparation of Native American consultation letters, and participation in meetings with Native American individuals who request additional consultation for the Project.

Task 300.2.2.—Assumptions

1. District will provide consolidated comments for Consultant's review and incorporation. If additional rounds of comments and review are required, additional budget may be needed.

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2. District will develop the text, tables and all applicable report needs relating to botanical resources. The District will insert the botanical information into the first draft of the Biological Resources Survey Report.
3. Results from the Aesthetics and Traffic field work will be provided as part of the CEQA Environmental Document, Task 300.3.

Task 300.2.2.—Deliverables

1. Jurisdictional Delineation Report (2 Drafts +1 Final).
2. Biological Resources Survey Report (2 Drafts + 1 Final).
3. Dewatering Baseline Survey Report (2 Drafts + 1 Final).
4. Year 1 Annual Dryback Conditions Monitoring Report (2 Drafts).
5. Year 2 Annual Dryback Conditions Monitoring Report (2 Drafts, incorporating comments from Year 1).
6. Year 3 Annual Dryback Conditions Monitoring Report (2 Drafts + 1 Final, incorporating comments from Years 1 and 2).
7. Tree Survey Technical Memorandum (2 Drafts + 1 Final).
8. Archeological and Historic Resources Survey Report (2 Drafts +1 Final).
9. Native American consultation letters (2 Drafts +1 Final).

Task 300.3.—CEQA Environmental Document

Task 300.3.1.—Project Description

1. Consultant will collaborate with the District to develop a Project Description and update for the EIR that explains the key elements of the Project to an adequate level of detail to serve as the common Project Description for all CEQA resource evaluations. Consultant will identify to the District the level of engineering design and associated data needed to complete the Project Description.

The Project Description will include the following:

- A. A description of key Project elements including, planning and design for canal improvements; construction techniques and equipment to be used; and construction phasing.
- B. Text and map(s) that present the Project area considered for evaluation in the EIR.

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2. A draft Project Description will be submitted to the District for review and comment. The District will provide a consolidated set of comments with discrepancies resolved. Comments provided by the District on the draft Project Description will be incorporated into the version of the Project Description that will be used in the Administrative Draft EIR (ADEIR).

Task 300.3.1.—Assumptions

1. Once the revised Project Description is developed, there will be no subsequent substantive changes or specifics in Project designs and plans that would necessitate substantive changes to the revised Project Description or substantively alter the scope of the environmental analysis.
2. Existing data will be used to the extent feasible.

Task 300.3.1.—Deliverable

1. Project Description (4 Drafts + 2 Final).

Task 300.3.2.—Initial Study / Notice of Preparation

1. Consultant will prepare an Initial Study (IS) checklist and update to document the level of environmental review to be undertaken in the EIR. The IS will indicate resource areas requiring more detailed analysis and those areas that do not involve significant issues. The checklist in the IS will contain CEQA topics and significance thresholds based on Appendix G of the CEQA Guidelines and District CEQA procedures. Consultant will provide brief supporting text to explain the basis for the conclusions identified on the checklist.
2. Consultant will prepare a Notice-of-Preparation (NOP) to solicit public input on the scope and content of the EIR. The NOP will include a brief description of the Project and Project background, to a level sufficient to allow for meaningful public comment in accordance with CEQA requirement. The IS developed under this task will be included with the NOP as an attachment.
3. Consultant will prepare an initial mailing list for the IS/NOP for District use in NOP distribution and website posting.

Task 300.3.2.—Assumptions

1. Distribution of the IS/NOP to the California Office of Planning and Research State Clearinghouse will be performed by the District.
2. It is anticipated that some resource topics, or issues within these topics, will be removed from consideration for the EIR analysis based on the IS review. Rather, the evaluation described in Task 3.3.4. will focus on the potentially significant impacts identified in the IS checklist, or as appropriate, and those raised during the scoping period described in Task 300.3.3.

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3. The Initial Study will be based on existing information and field study data collected during the Planning Services, 50% Design Phases.
4. The District will prepare the Internal Decision Memorandum as required by QEMS guidelines using information from this task.

Task 300.3.2.—Deliverables

1. Initial Study (4 Drafts + 2 Finals w/ 15 hard copies).
2. Notice-of-Preparation (2 Drafts + 1 Final).
3. Distribution List for Mailing of IS/NOP (2 Drafts + 1 Final).

Task 300.3.3.—Scoping

1. Consultant will conduct up to 2 scoping meetings for the Project. At the scoping meeting, the Consultant will present the Project, describe the CEQA process, answer questions, and solicit comments from the public. Draft meeting notes will be prepared by the Consultant. Location for the scoping meeting will be determined in consultation with the District Project Manager. Consultant will prepare informational and presentation materials for the meeting.
2. Comments received at the scoping meeting and otherwise submitted in response to the NOP will be compiled and submitted by Consultant to the District along with a table that lists the public comments received in the form of a Scoping Summary Report.

Task 300.3.3.—Assumptions

1. Participating Consultant staff will include the CEQA Manager, lead environmental planner, and the traffic subconsultant.
2. A meeting transcript will not be necessary.

Task 300.3.3.—Deliverables

1. Story board visuals for the District's Scoping Meetings (1 Draft + 1 Final).
2. Scoping Summary Report (1 Draft + 1 Final).

Task 300.3.4.—Administrative Draft EIR

1. Consultant will prepare an Administrative Draft of the EIR (ADEIR). The ADEIR will contain the necessary elements and required sections as outlined by CEQA Guidelines. The ADEIR will incorporate the data and information collected and reviewed during development of the Planning Study Report, as described in Task 200.3., as well as consider and incorporate as appropriate the comments submitted during the public scoping period.

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2. Technical analyses and impact assessments will be prepared by Consultant using the impact topics and significance thresholds prescribed in Appendix G of the CEQA Guidelines, District input, and other applicable standards provided by the District. Only those impacts identified in the IS as a “potentially significant impact” will be evaluated in the ADEIR by Consultant. Appropriate mitigation measures will be identified by Consultant for significant impacts. Each topical section will include both a physical and regulatory setting, as applicable, clearly identify significance thresholds, describe Project impacts, identify feasible mitigation measures, and identify the level of significance both prior to and following mitigation.
3. Consultant will submit 10 hard copies, plus 1 unbound, reproducible copy, along with an electronic copy of the ADEIR in both PDF and MS Word format for the District’s internal use, reproduction, and distribution.
4. The ADEIR will contain the following sections:
 - A. **Executive Summary.** This section will contain a concise summary of the Project, and the findings of the EIR. Details of the impacts and mitigation measures will be provided in a table at the end of the Executive Summary.
 - B. **Introduction.** The Introduction to the EIR will instruct readers on how to find information in the EIR and explain the regulatory purpose of the document, the public’s role, and steps in the process.
 - C. **Project Description.** The Project Description will primarily consist of the description developed previously under Task 300.3.1. The Consultant will update the Project Description developed under Task 300.3.1. with any additional new information necessary to support the EIR environmental analysis; however, this task assumes there will be no substantive changes or specifics in Project designs and plans that would necessitate substantive changes to the Project Description.
 - D. **Environmental Analysis.** The physical setting will be based on information gathered and results of additional new field investigations described in Task 300.2., and other physical setting information relevant to the resource topics and potential impacts from the Project. The regulatory setting will be developed from the review of federal, state and local plans and relevant to the resource topics and potential impacts from the Project. The environmental impact analysis will build upon that prepared for the IS, with additional analysis and greater detail and specificity provided for each impact. Certain impact topics may be dismissed due to the absence of potential to generate an environmental impact. In such cases, a brief justification will be provided for their dismissal, as considered for the IS checklist developed in Task 300.3.2. The approach to each environmental topic is described below.

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(1) *Aesthetics.*

- (a) The aesthetic analysis will be performed by Consultant using methods and protocols developed by the Federal Highway Administration, in combination with elements of other visual resources assessment methods (including U.S. Forest Service and Bureau of Land Management).
- (b) Consultant's analysis will define visual resources within the Project area and will evaluate and describe visual quality and character and viewer groups and responses.
- (c) Consultant will prepare an analysis that will summarize the potential impacts to visual resources, and viewer group responses, and will propose mitigation measures to lessen the impact from each alternative on visual resources, if needed.

(2) *Air Quality/Greenhouse Gas.*

- (a) Consultant will analyze the potential significance of the Project's air quality and greenhouse emissions associated with Project construction. Consultant will estimate emissions using the California Emissions Estimator Model (CalEEMod) Program.
- (b) Consultant analysis will employ standard air quality modeling techniques, consistent with the requirements of the Bay Area Air Quality Management District (BAAQMD).
- (c) The analysis will cover criteria pollutants, local carbon monoxide (CO), greenhouse gas (GHG) emissions, toxic air contaminants (TACs), and odor. Consultant will base the greenhouse gas impact analysis on the construction traffic projections. Consultant will complete the impact analysis by evaluating whether the Project will comply with state Assembly Bill (AB) 32 GHG goals; however, since this is a construction-only Project, long-term greenhouse gas impacts are not expected.
- (d) In the impact analysis, the Consultant will prepare a discussion of the potential impacts associated with implementation of the proposed Project in the context of existing BAAQMD guidance. This discussion will describe the air quality thresholds used to identify significant impacts based on the BAAQMD guidance, as well as the methodology used to estimate Project-related emission impacts.

(3) *Biological Resources.*

- (a) Consultant will use the field investigation information collected in Task 300.2., and the Project Description developed in Task 300.3.1., to confirm the scope of the studies required to prepare the biological resources chapter of the ADEIR.

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- (b) Consultant will analyze the elements of the Project in the context of the biotic resources of the Project site and vicinity and identify site-specific and cumulative impacts.
 - (c) Mitigation, as it applies to a discussion of how to ameliorate the significant impacts of the Project on biotic resources on and off the Project site, will include avoidance of the impact, minimizing the impact by decreasing the magnitude of the action, restoring the biotic resource to its former condition after the impact has occurred, reducing or eliminating the impact over time by appropriate preservation and maintenance operations during the life of the Project, and/or compensating for the impact by replacing elsewhere those habitats or those biota that have been adversely affected.
 - (d) Sources of existing biological resources information include:
 - i) The Valley Habitat Plan (VHP).
 - ii) The Santa Clara Valley Water District Dam Maintenance Program Final Programmatic Environmental Impact Report (PEIR).
 - iii) Previous reports prepared by H.T. Harvey for District work in the Project area, including the Santa Clara Valley Water District Dams 2009 Rodent Burrow Removal (Phase I) Project Report, Santa Clara Valley Water District Dams 2012 Rodent Burrow Removal Project Report, and H.T. Harvey reports concerning the expected distribution of special-status reptiles and amphibians in Santa Clara County.
 - iv) California Natural Diversity Database (CNDDDB) occurrences from the Project vicinity.
 - v) Species occurrence data and status information compiled by the California Native Plant Society.
 - (e) Consultant will also review aerial photographs to refine habitat mapping and characterization of the biological resources in the project area and vicinity.
- (4) *Cultural Resources.*
- (a) Consultant will use the field investigation information collected in Task 300.2. to identify cultural resources including sites of historical, archeological, architectural, or cultural significance in the Area of Potential Effect (APE).
 - (b) It is currently unknown whether any possible historic or prehistoric sites in the vicinity are potentially eligible for listing on the National Register of Historic Places (NRHP) and/or the California Register of Historical Resources (CRHR); therefore, a historical evaluation will be conducted for the purposes of CEQA and

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Section 106 of the National Historic Preservation Act. This will include a record search at the Northwest Information Center and a field survey that will be conducted as described in the field work plan developed in Task 300.1.

- (c) Almaden Dam and Almaden-Calero Canal have been previously determined to be a contributing resource to a Santa Clara Valley Water District Historic Dams National Register and California Register eligible historic district. Consultant will evaluate the potential for adverse effects to this and other cultural resources identified under Task 300.2.

(5) *Geology and Soils.*

- (a) Consultant will evaluate the soils and geologic characteristics of the site and area including seismicity, liquefaction, soil hazards, and their effects on proposed structures based on existing information. The EIR will address geotechnical hazards based on the geotechnical analysis for the Project. The EIR will summarize the geotechnical assessment and address site specific concerns, such as seismic effects from nearby faults, grading, loss of topsoil, and erosion. Mitigation will be recommended to reduce any potentially significant or significant impacts to a less-than-significant level.

(6) *Hazards and Hazardous Materials.*

- (a) Consultant will evaluate potential threats to public health and safety from hazardous materials and other hazards that could result from Project construction. Consultant will evaluate potential impacts using CEQA significance criteria, and draft practical mitigation measures to mitigate significant impacts, where appropriate. Consultant will review available environmental database reports and describe emergency and response evacuation plans, regulatory framework, and existing policies. If necessary, Consultant will identify Best Management Practices (BMPs) and mitigation measures for the transport and use of hazardous materials.
- (b) Consultants will evaluate potential disturbance of existing hazardous materials/contamination sites located within the area of construction disturbance and 1/8 mile around construction disturbances.
- (c) Consultant will review information on properties potentially affected by the Project, including identification of hazardous materials sites. This will include a search of the state's EnviroStar and GeoTracker databases to identify the existing locations of documented hazardous cleanup sites and permitted hazardous waste facilities.
- (d) Additional information on hazardous sites may be further evaluated by requesting and reviewing environmental documents from the State Department of Toxic

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Substances Control, San Francisco Regional Water Quality Control Board, or U.S. Environmental Protection Agency for these properties.

- (e) If any sites are identified during the review of existing available information or from additional hazardous materials assessments conducted as part of Supplementary Services for the District. If sites are found, feasible mitigation measures will be developed for remediation of hazardous materials or contamination.

(7) *Hydrology and Water Quality.*

- (a) Consultant will evaluate impacts to hydrology, flood control, and water quality, and in particular, assess construction impacts on water quality and hydrology parameters, along with applicable federal, state and local regulations. This analysis shall consist of a qualitative-quantitative evaluation of all construction work that would be performed, including a cumulative effects analysis. Consultant will describe construction activities (i.e., location, use of equipment and techniques) and assess their potential to result in discharge of sediment and other pollutants.
- (b) No field work or laboratory analysis is assumed to be necessary for this task. Consultant will identify practical avoidance, minimization, and mitigation measures to reduce or eliminate potential water quality and hydrology impacts.
- (c) Consultant will work with the District to identify existing BMPs and develop Project-specific BMPs and other mitigation measures, as necessary, to prevent construction related discharges of sediment and other pollutants, such as remediation of contamination.

(8) *Noise.*

- (a) Noise and vibration impacts associated with the Project are anticipated to be limited to temporary noise from on-site construction activities and haul trucks traveling on local streets.
- (b) Existing noise conditions will be documented along with identification of existing noise sensitive uses and existing noise sources within the Project area.
- (c) Consultant will identify relevant noise regulations and planning standards and determine specific thresholds against which to compare Project impacts.
- (d) Construction-related noise and vibration will be evaluated using construction equipment information provided by the District and noise modeling methods recommended by the U.S. Department of Transportation.

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- (e) Because this Project is temporary in nature and the Project site is isolated from “sensitive receptors,” significant noise impacts from Project construction are not anticipated.

(9) *Land Use and Planning.*

- (a) Although the Project would be exempt from local building and zoning ordinances under California Government Code Section 53091, the District will determine if the Project would conflict with local land use plans and/or any policies and regulations adopted to avoid or mitigate an environmental effect. The plans, policies and regulations will be presented in a table with an explanation of how the Project would be in compliance with those regulations.

(10) *Traffic and Transportation.*

- (a) The transportation analysis will focus on construction and fish passage operation impacts. Consultant will prepare Project trip and vehicle miles travelled (VMT) estimates. Consultant will estimate the number of vehicle trips generated by construction and operation activities and using information provided by the District and the Project team such as the number of employee trips, light-duty trucks, and heavy trucks used to haul materials or fish into or out of the Project area. Consultant will also use information regarding the locations of planned disposal sites. Consultant will prepare an estimate of the VMT due to the Project for use in air quality modeling for GHG emissions estimation in the EIR. VMT estimates will be based on where materials will be hauled in from as well as disposal sites identified by the Project team.
- (b) Consultant will qualitatively describe the effects of construction and operation traffic on local roadways near the access points to the construction area. The traffic section will include recommended mitigation measures to reduce trips and/or avoid congestion on the local roadways. Consultant will identify local roadways near the access points to the Project area that may experience short-term construction impacts and will discuss potential delay on these roadways related to construction and operation activities in terms of “time spent following” vehicles.
- (c) As noted in Task 300.2.1., based on the quality and extent of available data to conduct the traffic impact evaluation, Consultant may recommend conduction additional traffic studies. Such studies would only be initiated pending District review and approval of Supplementary Services to conduct such studies.

(11) *Utilities and Service Systems.*

- (a) Construction of the proposed improvements may temporarily affect water supply availability and distribution, the impacts of which Consultant will evaluate. Other public utilities, such as electricity, gas, stormwater and wastewater facilities

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would not likely be affected. While the intent of the Project is to avoid alterations to public services, such as police enforcement and fire protection, Consultant will evaluate the potential effects on these services. If necessary, Consultant will identify feasible and appropriate measures for avoiding or reducing impacts to public utilities and services.

(12) *Cumulative Impacts.*

- (a) Using the District-approved method (list or general plan build-out), Consultant will prepare a cumulative analysis for projects that may occur at the same time or near the Project vicinity. Consultant does not expect to identify many significant issues in the cumulative scenario, except hazardous materials, since mercury in the watershed has been and will continue to be of concern.

(13) *CEQA Alternatives.*

- (a) Project alternatives will be developed by Consultant and the 2015 CEQA Project Alternatives Technical Memorandum will be revised and updated. Information in the technical memorandum will be summarized in the CEQA document.
- (b) Consultant will describe in this section which alternatives feasibly attain the Project objectives and reduce identified environmental impacts of the Project. Consultant will clearly and definitively explain why an alternative was eliminated, such as site constraints, feasibility, worst impacts on sensitive resources, etc.
- (c) Up to 3 alternatives, including the No Project Alternative, will be developed and considered in the analysis.

(14) *Other Statutory Considerations.*

- (a) The EIR will contain a section which addresses the other topics required by CEQA, including irreversible impacts and growth inducement.

E. Mitigation, Monitoring and Reporting Program (MMRP). Consultant will prepare a MMRP in compliance with CEQA Guidelines Section 15097 and District QEMS guidelines. The MMRP will incorporate the mitigation measures proposed in the ADEIR and will likely change as the impact and mitigation language are refined through the review process. The MMRP will consist of a matrix that includes the following information for each mitigation measure:

- (1) the individual, department, agency, or other entity responsible for performing the mitigation measure,
- (2) the timing for implementation of the mitigation measure,
- (3) the specific results or performance standards that the mitigation is intended to accomplish if not clearly stated in the mitigation measure,

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- (4) appropriate references, such as standard implementation methods,
- (5) the individual, department, agency, or other entity responsible for ensuring implementation of the mitigation measure,
- (6) the frequency of inspections or other monitoring activities,
- (7) when compliance was completed, and
- (8) providing a signature block for the Project sponsor and the property owner.

F. **Agencies and Persons Contacted, References and Literature Cited, and Report Preparers.** The EIR will contain this information, as required by CEQA Guidelines Section 15129.

G. **Appendices.** Appendices will be included in the EIR, as needed.

Task 300.3.4.—Assumptions

1. The District will provide a set of consolidated comments on the ADEIR with any discrepancies resolved. First, Consultant will conduct a conference call with District to discuss comments and agree on the appropriate responses to those comments. Based on the conference call and comments received from the District, the Consultant will prepare an ADEIR that includes the MMRP.
2. The study area for biological and cultural field surveys will be limited to the area within 100 feet of the canal centerline, the upstream fish passage facilities, improvements in the immediate vicinity of Almaden Dam, and the cofferdam/forebay. Surveys in additional Project areas would require additional scope and budget and may be performed pursuant to an approved Task Order as Supplementary Services.
3. All field investigations including biological field surveys, cultural resource investigations, aesthetics and traffic counts will be conducted as described in Task 300.2. No additional biological, cultural, aesthetics, or traffic count field work would be required.
4. Land Cover Maps produced for the ADEIR will be appropriate to meet the requirements of the VHP application package in Task 300.4.
5. Noise, geologic and other unspecified field surveys are not anticipated nor included in this scope.
6. Aesthetics section would not require production of simulations.
7. The District will provide a list of concurrent projects to be analyzed for cumulative impacts.
8. Consultant will contact County for a list of other projects in the area to include in the cumulative analysis.

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Task 300.3.4.—Deliverables

1. ADEIR (1 Draft + 1 Final w/ 10 hard copies, plus one unbound, reproducible copy, along with an electronic copy in both PDF and MS Word format).
2. Revised CEQA Project Alternatives Technical Memorandum (1 Draft + 1 Final).

Task 300.3.5.—Public Review of Draft EIR

1. Notice-of-Availability

- A. Consultant will prepare a Notice-of-Availability (NOA). In compliance with CEQA Guidelines Sections 15087 and 15105, the NOA will contain:
 - (1) a description of the Project and location.
 - (2) identification of significant environmental impacts.
 - (3) dates of the public review period.
 - (4) date, time, and place of public hearing(s), if applicable; address for locations where the Draft EIR and supporting documents are available for review.
 - (5) a statement of whether the Project site is a listed toxic site.
- B. The draft NOA will be provided to the District for review. The District will provide 1 set of consistent consolidated comments on the NOA, with any internal District inconsistencies resolved prior to submitting to the Consultant. The NOA will be finalized based on the District's comments.
- C. Consultant will utilize the initial mailing list for distribution developed for the Notice of Preparation for distribution of the NOA and copies of the Draft EIR. The mailing list will include local libraries where copies of the Draft EIR will be available for public review. The District will provide any additional listings for distribution of the NOA and Consultant will prepare final mailing list.
- D. Consultant will prepare draft newspaper notices (if any) for the District.
- E. In accordance with CEQA Guidelines, the NOA will be sent by the District to the Santa Clara County Clerk/Recorder for recording and all responsible and trustee agencies, any person or organization requesting a copy, and the State Clearinghouse.
- F. The District will publish a copy of the NOA in a newspaper of general circulation, posted near the Project site, or directly mailed to owners and occupants of contiguous property consistent with District public outreach procedures.

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2. Notice of Completion and Public Hearing

- A. Upon conclusion of District's review of the ADEIR, Consultant will revise the document based on comments received and submit a Screen Draft EIR. This assumes that the District will provide Consultant with 1 consolidated copy of all comments on the ADEIR. Following the District's review and comments received from the Screen Draft EIR, Consultant will provide the District with a Draft EIR for public review. Consultant will provide 75 copies (approximately 20 paper and 55 CDs with electronic copies) of the Draft EIR, along with an unbound, reproducible copy. Electronic copies will be submitted on CD in both high resolution and low-resolution versions (less than 4 MB), suitable for downloading from the District's website. The electronic copy will include separate files by chapter or resource section for ease of downloading.
- B. Consultant will prepare a Notice-of-Completion (NOC). The NOC will contain a brief Project description and location, address where the Draft EIR is available for public review, and the dates of the review period which will be submitted to the State Clearinghouse for a 45-day public review period and all other agencies and interested parties with appropriate tracking in compliance with CEQA Guideline Section 15085. The District will send the NOC to the State Clearinghouse.
- C. During the public comment period, Consultant will attend a public meeting or hearing with the District Board of Directors. Consultant will assist the District Project team in presenting the Project, describe the CEQA process, and answer questions on the EIR from the Board of Directors and public. Consultant will record detailed notes during the public hearing. This scope assumes that a meeting transcript will not be necessary. Consultant will prepare draft newspaper meeting notices, public hearing displays, presentation, and handouts.

3. Public Comment Response

- A. After the close of the public comment period on the Draft EIR, the District will provide Consultant with a complete copy of all comments. Following review of the letters, Consultant will conduct a conference call with the District to discuss the approach to developing responses, resulting in agreement on the approach for the comments and provide a matrix of all public comments received, sorted by commenter, agency or organization they represent (if applicable), main issues (numbered) and any other notes.
- B. Consultant will prepare responses for comments and submit these to the District in a Response to Comments Report for review. The District will provide a set of consolidated comments on the Response to Comments Report with any discrepancies resolved. Based on District comments, Consultant will revise the response to comments to develop a Final Response to Comments. The Final Response to Comments Report will be included in the Final EIR, as described under Task 300.3.6.

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Task 300.3.5.—Assumptions

1. One public meeting to be held at District's Boardroom. Consultant staff members participating in public meeting or hearing (CEQA Manager, environmental planner, fisheries biologist, and traffic subconsultant).
2. No official transcription will be provided. Notes from the public meeting will be drafted for the District's review. Copies of all comments received in writing will be provided.

Task 300.3.5.—Deliverables

1. Notice-of-Availability (1 Draft + 1 Final).
2. Distribution List for Mailing of Notice-of-Availability (1 Draft + 1 Final).
3. Draft newspaper notices for Notice-of-Availability (1 Draft + 1 Final) (if any).
4. Screen Draft EIR (1 Final).
5. Draft EIR (1 Final w/ 20 hard copies and 55 electronic copies on CDs).
6. Notice-of-Completion (1 Draft + 1 Final).
7. Draft newspaper notices for public hearing for Draft EIR (1 Draft + 1 Final).
8. Draft EIR Public Hearing notes, displays, presentation, and handouts (1 Draft + 1 Final).
9. Draft EIR Public Comments Response Report (1 Draft + 1 Final).

Task 300.3.6.—Final EIR / Responses to Comments

1. Consultant will prepare an Administrative Final EIR (AFEIR). It will include copies of the comment letters received on the Draft EIR, a specific response to each comment identified in the Response to Comments Report, as described in Task 300.3.5., and any text edits to the Draft EIR as a result of public comments. The AFEIR will also include the MMRP.
2. Consultant will submit 10 hard copies, plus 1 unbound, reproducible copy, along with an electronic copy of the AFEIR in both PDF and MS Word format for the District's internal use, reproduction, and distribution.
3. The District will provide a set of consolidated comments on the AFEIR with any discrepancies resolved. First, Consultant will conduct a conference call with District to discuss comments and agree on the appropriate responses to those comments. Based on the conference call and comments received from the District, Consultant will prepare a Screen Final EIR that includes the MMRP. The Consultant will submit an electronic copy and 3 bound copies of the Screen Final EIR to the District for review and confirmation prior

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to the Final EIR.

4. Consultant will complete the Final EIR based on comments received from the District on the Screen Final EIR (1 electronic copy and 3 bound hard copies). Preparation of the Final EIR is assumed primarily related to the document layout, format, and editing.
5. Consultant will prepare 20 hard copies plus 1 unbound, reproducible copy, of the Final EIR for the District's internal use, reproduction and distribution. Consultant will also produce PDF and MS Word versions of the document on CD.
6. Consultant will update the mailing list developed for the Public Draft EIR and then the District will add any additional listings.
7. A copy of the Final EIR will be provided by District to any public agency that submitted comments on the Public Draft EIR and any other recipients that may be appropriate.
8. Per CEQA Guidelines Section 15089(b), the Final EIR will be distributed to commenting agencies at least 10 days prior to certification of the Final EIR.

Task 300.3.6.—Assumption

1. Quantitative reanalysis to respond to Draft EIR comments and changes to the Project Description that require EIR updates between Draft and Final versions would require additional scope and budget and may be performed pursuant to an approved Task Order as Supplementary Services.

Task 300.3.6.—Deliverables

1. Administrative Final EIR (1 Draft w/ 10 hard copies, plus 1 unbound, reproducible copy, along with an electronic copy in both PDF and MS Word format).
2. Screen Final EIR (1 Final w/ electronic copy and 3 bound copies).
3. Final EIR (1 Final w/ 20 hard copies, plus one unbound reproducible copy. Consultant will also produce PDF and MS Word versions of the document on CD).
4. Mailing List for Final EIR distribution (1 Draft + 1 Final).

Task 300.3.7.—Findings and Statement of Overriding Considerations

1. Consultant will prepare draft Findings for each significant impact, and a Statement of Overriding consideration for significant impacts found to be unavoidable, if applicable, for the District's use in certifying the Final EIR and approving the Project. The Statement of Overriding Considerations, if required, will express the District's reasons for approving a Project that would have significant, unavoidable impacts on the environment. The Statement of Overriding Considerations will be based on supporting evidence in the

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administrative record. Consultant will prepare the findings in compliance with CEQA Guidelines Section 21081 and 21081.5. Following review and comment of the draft Findings, Consultant will finalize the Findings for adoption.

Task 300.3.7.—Deliverables

1. Findings for Significant Impacts (1 Draft + 1 Final).
2. Statement of Overriding Considerations (1 Draft + 1 Final).

Task 300.3.8.—Public Hearing and Certification of EIR

1. Consultant will attend the Board of Directors hearing scheduled to consider adopting the EIR and approving the Project. For this hearing, the Consultant will prepare materials and answer questions from the District Board of Directors and public. Consultant will record public comments during the meeting and provide those comments to the District.

Task 300.3.8.—Assumptions

1. One public meeting to be held at District's Boardroom. Consultant staff members participating in public meeting or hearing (CEQA Manager and environmental planner).
2. No official transcription will be provided. Notes from the public meeting will be drafted for the District's review. Copies of all comments received in writing will be provided.

Task 300.3.8.—Deliverable

1. Public Hearing display materials, agenda, presentation, handouts, and meeting notes with public comments (1 Draft + 1 Final).

Task 300.3.9.—Notice-of-Determination

1. Consultant will prepare a Notice-of-Determination for District review and filing once the Project has been approved by the District Board of Directors. The Notice-of-Determination will contain the Project description, location, date of Project approval, statement that the EIR was certified, summary of the Project's significant effects, statement of whether mitigation measures were made, conditions of Project approval, whether the findings and statement of overriding considerations were adopted, and the address where the Final EIR can be reviewed.
2. Within 5 days of Project approval, the District will file the Notice-of-Determination with the County of Santa Clara Office of the County Clerk-Recorder for recording and State Clearinghouse, and mail it to anyone who requests a copy of the notice.

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Task 300.3.9.—Deliverable

1. Notice of Determination (1 Draft + 1 Final).

Task 300.4.—Environmental Permitting

Task 300.4.1.—Regulatory Agency Consultations and Meetings

1. District will act as the primary contact with the following agencies:
 - A. **Regulatory.** United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), California Department of Fish and Wildlife (CDFW), United States Fish and Wildlife Service (USFWS), and National Marine Fisheries Service (NMFS).
 - B. **Local.** Santa Clara Valley Habitat Agency (SCVHA) and County of Santa Clara (CSC).
2. At the direction of the District, Consultant will assist the District in planning and attending pre- and/or post-application consultation meetings with agency personnel in the San Francisco Bay Area. At these meetings, Consultant will be responsible for developing and distributing meeting notes.
3. This coordination will be initiated once sufficient details exist regarding the Project design. The objective of this task will be to provide opportunities for agency feedback on the Project design alternatives and potential mitigation measures so that the impacts and mitigation developed for the CEQA document will be consistent with the anticipated permitting requirements. The Consultant's responsibilities under this task will include:
 - A. Attend District meetings and teleconferences with agencies.
 - B. Issue notes for the meetings described above attended by Consultant.
 - C. Assist the District to address agency requirements through providing calculations, construction drawings and/or providing analysis and data in applications required by the agencies.
 - D. Advise the District on agencies, issues and/or requirements not identified by the District that pertain to the Project and provide guidance with contacts and requirements pertaining to the agency concern(s) to address as described in Task 300.1.

Task 300.4.1.—Assumption

1. Meetings attendance will occur both in person and via conference calls. No more than 26 meetings will be required.

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Task 300.4.1.—Deliverable

1. 26 meeting agendas and meeting notes (1 Draft + 1 Final).

Task 300.4.2.—Permit Applications

1. Consultant will prepare draft and final permit applications for compliance with applicable regulations for the following agencies:
 - A. Division of Safety of Dams Permit.
 - B. USACE Section 404 Permit Application:
 - (1) 404(b)(1) Alternatives Analysis.
 - (2) NMFS Biological Assessment.
 - (3) USFWS Biological Assessment.
 - (4) Section 106 Consultation (Finding of Effect and Formal Consultation Letter).
 - C. San Francisco Bay RWQCB Section 401 Water Quality Certification.
 - D. CDFW Section 1602 Lake and Streambed Alteration Agreement.
 - E. SCVHA Valley Habitat Reporting Form:
 - (1) SCVHA Habitat, Mitigation, and Monitoring Plan.
 - (2) VHP Dewatering Plan.
 - F. County of Santa Clara (CSC) Department of Planning and Development Permits.
2. Applications will be prepared by Consultant and submitted by the District to the relevant agencies in hard copy binders, with copies provided to the District. For each application, the Consultant will first prepare a draft version of the binders/documents for review by the District. Based on District comments, Consultant will revise the draft applications. The applications will be finalized by Consultant. Consultant will provide 5 bound final permit hard copies, plus an electronic version of each final permit application. The District will pay all agency application fees.

Task 300.4.2.1.—Division of Safety of Dams

1. Consultant will pursue approval for the Project from the DSOD under an Application for Approval of Plans and Specifications for the Repair or Alteration of a Dam and Reservoir.

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2. Consultant will prepare the following items in support of the permit application:
 - A. **Cover Letter.** The cover letter will briefly describe the Project and the Project activities that are subject to permitting. The cover letter will describe the contents of the permit application binder.
 - B. **DSOD Application Form.** This is the standard permit application form for a repair or alteration of a dam and reservoir permit from DSOD.

Task 300.4.2.1.—Deliverable

1. DSOD Application for Approval of Plans and Specifications for the Repair or Alteration of a Dam or Reservoirs (2 Drafts + 1 Final).

Task 300.4.2.2—United States Army Corps of Engineers

1. Consultant will determine if the activities qualify for coverage under a Nationwide Permit Application, Regional General Permit, or if an Individual Permit is required.
2. Consultant will prepare the following items in support of the USACE permit application:
 - A. **Cover Letter.** The cover letter will briefly describe the Project and the Project activities that are subject to permitting. The cover letter will describe the contents of the permit application binder.
 - B. **Jurisdictional Delineation.** Consultant will conduct field studies sufficient to identify potentially jurisdictional waters and wetlands of the United States, and waters and wetlands of the State under Task 300.2. Field Investigations.
 - C. **Engineer Form 4345, Application for Standard Permits.** This is the standard permit application form for USACE permits. Through Regulatory Consultations and Meetings (Task 300.4.1.), the District will determine what permit application the Consultant will prepare.
 - D. **404(b)(1) Alternatives analysis and Environmental Assessment (if necessary).** If the Project requires an Individual Permit, Consultant will prepare a single document containing: 1) an alternatives analysis pursuant to CWA Section 404(b)(1); and 2) an analysis of compliance with the National Environmental Policy Act (NEPA). The alternatives analysis will identify the least environmentally damaging practicable alternative. These 2 analyses are not necessary if the Project qualifies for authorization under a Regional General or Nationwide Permit. Thus, if the Project requires a Regional General or Nationwide Permit, Consultant would not prepare any documentation related to CWA Section 404(b)(1) or NEPA.
 - E. **Habitat Mitigation and Monitoring Plan.** Consultant will prepare a Habitat Mitigation and Monitoring Plan (HMMP) in addition to the MMRP developed along with the EIR.

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The HMMP prepared under Task 3.4.2.7. will be incorporated into the USACE permit application.

- F. **Public Notice.** If the Project requires authorization under an Individual Permit, the Consultant will draft a public notice for USACE's use in the Federal Register. This deliverable would not be required if the Project qualifies for authorization under a Nationwide Permit.
- G. **Section 106 Documentation.** The Archaeological and Historic Resources Report prepared under Task 300.2., will be prepared in compliance with Section 106 of the National Historic Preservation Act. This document, along with a formal consultation letter and a Finding of Effect (FOE) will be prepared and submitted to the USACE for consultation with the State Historic Preservation Officer (SHPO).

Task 300.4.2.2.—Assumptions

1. If the District prefers the use of a Joint Aquatic Resource Permit Application(JARPA), the District will notify the Consultation prior to efforts to complete Section 404 application.
2. Consultant assumes no direct consultation between SHPO and no Adverse Effects to Historic Properties requiring development of Memorandum of Agreement (MOA) or additional mitigation measures will be needed. If so, any additional documentation or mitigation that may be required, may be performed pursuant to an approved Task Order as Supplementary Services.

Task 300.4.2.2.—Deliverables

1. USACE Section 404 Permit Application (2 Drafts + 1 Final).
2. USACE 404(b)(1) Alternative Analysis (2 Drafts + 1 Final).
3. Section 106 Documentation and FOE (2 Drafts + 1 Final).

Task 300.4.2.3.—United States Fish and Wildlife Service

1. Consultant will prepare a Biological Assessment (BA) to support the USACE Section 7 consultation with the USFWS.
2. The BA will address the potential for the District's Project to result in "take" of listed species regulated by USFWS, including adverse modification of their habitat, and adverse effects on designated critical habitat. Once complete and approved by the District, the BA will be submitted to USACE during the CWA Section 404 permitting process per Task 300.4.2.2.
3. Consultant will use the available information from the VHP to evaluate potential effects of the Project. The in-lieu fee compensation required by the VHP will be identified in the BA as the compensation for all listed species effects.

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Task 300.4.2.3.—Assumptions

1. The USACE, as the lead federal agency, will submit the BA to USFWS. The USFWS will prepare a Biological Opinion (BO) if formal consultation is required.
2. The BA will address the federally-listed species under the jurisdiction of USFWS that could occur in the Project area and vicinity based on the VHP. The analysis of direct, indirect, and cumulative effects of the Project on listed species and designated critical habitat will rely on the measures specified by the VHP and will not require additional focused surveys or evaluation of species not already addressed in that plan.

Task 300.4.2.3.—Deliverable

1. USFWS BA (2 Drafts + 1 Final w/ 5 bound final permit hard copies, plus an electronic version).

Task 300.4.2.4.—National Marine Fisheries Service

1. Consultant will prepare a BA to facilitate USACE Section 7 consultation with NMFS regarding potential impacts of the Project to the federally listed species in Alamitos Creek.
2. Consultant will review up to 3 downstream water release locations.
3. The BA will address downstream flows during construction, and construction and operation of the up and downstream fish passage collection facilities.
4. The BA will address the potential for the District's Project to result in "take" of listed species regulated by NMFS, adverse modification of their habitat, as defined by Section 9 of the federal Endangered Species Act (ESA).
5. The BA will address each federally-listed species under the jurisdiction of NMFS and will incorporate the following components:
 - A. Detailed analysis of direct, indirect, and cumulative effects of actions affecting waters of the United States, associated listed species, and critical habitat.
 - B. Identification of the potential for "take" of listed species, and adverse modification of critical habitat, and specific avoidance and minimization measures to ensure that effects are avoided and minimized to the extent practicable.
 - C. Where appropriate, identification of additional actions that would assist in species conservation and are tied to tasks identified in recovery plans. The additional actions may be incorporated, as necessary, as Conservation Recommendations in the Biological Opinion.
 - D. Description of the monitoring and reporting programs necessary to assure NMFS that they will know when the authorized amount or extent of take is approached or exceeded.

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6. Within the BA, the Consultant will present different levels of actions by level of effect on the listed species, incorporating minimization and avoidance provided by implementation of specific measures. Activities may be categorized by:
 - A. **Intensity.** The magnitude of effect, as determined by the various measurements of effect relative to the proportion of habitat, species life history, or species population affected.
 - B. **Duration.** The period of the effect, such as short-term effects, long-term or chronic effects, or permanent effects (i.e., the action sets a new threshold for some feature of the species environment).
 - C. **Frequency.** The number of effects within a unit of time.
 - D. **Severity.** The period of recovery from the effect and the change in susceptibility of the species to effects of other actions.

Task 300.4.2.4.—Assumptions

1. BA will be based on existing fisheries information; additional focused fisheries surveys will not be required to develop the BA.
2. Once complete and approved by the District, the BA will be submitted to USACE during the CWA Section 404 permitting process. Consultant assumes that the USACE will then submit the BA to NMFS for development of a Biological Opinion (BO).

Task 300.4.2.4.—Deliverable

1. NMFS Biological Assessment (2 Drafts + 1 Final).

Task 300.4.2.5.—San Francisco Bay Regional Water Quality Control Board

1. The Project will require approval from the San Francisco Bay RWQCB for a Water Quality Certification (WQC) under Section 401 of the federal CWA.
2. Consultant will prepare the following items in support of the RWQCB permit application:
 - A. **Cover Letter.** The cover letter will briefly describe the Project and the Project activities that are subject to permitting. The cover letter will describe the contents of the permit application binder.
 - B. **Form R2C502-E, Application for 401 WQC.** This is the standard permit application form for RWQCB 401 WQC.

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Task 300.4.2.5.—Assumptions

1. If preferred by the District, Consultant will utilize the JARPA format for the application to the San Francisco Bay RWQCB Form R2C502-E.
2. The preliminary jurisdictional delineation and Habitat Mitigation and Monitoring Program (HMMP) prepared for the USACE will be sufficient for the RWQCB review.
3. The Jurisdictional Delineation submitted to the USACE will be acceptable to CDFW for waters of the state.

Task 300.4.2.5.—Deliverable

1. RWQCB Section 401 WQC (2 Drafts + 1 Final).

Task 300.4.2.6.—California Department of Fish and Wildlife

1. Consultant will prepare a Notification for submittal to CDFW pursuant to California Fish and Wildlife Code Section 1602 for Lake or Streambed Alteration Agreement (LSAA).
2. Consultant will prepare the following items in support of the notification for a LSAA:
 - A. **Cover Letter.** The cover letter will briefly describe the Project and the Project activities that are regulated by CDFW under Section 1602. The cover letter will describe the contents of the notification package.
 - B. **Form FG 2023, Notification of Lake or Streambed Alteration.** This is the standard form to request a Lake or Streambed Alteration Agreement from the CDFW.
 - C. **Supplemental Information.** Supplemental information will be provided by Consultant as identified in collaboration with the CDFW during the initial consultation meeting or other communications. The anticipated supplemental information includes results of land cover mapping, focused biological resource surveys, and the USACE jurisdictional delineation as developed under separate tasks.

Task 300.4.2.6.—Assumptions

1. If preferred by the District, Consultant will utilize the JARPA format for the CDFW LSA Notification.
2. The HMMP prepared for the USACE will be sufficient for the CDFW review.
3. The Jurisdictional Delineation submitted to the USACE will be acceptable to CDFW for waters of the state.

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Task 300.4.2.6.—Deliverable

1. CDFW Section 1602 Notification of LSAA (2 Drafts + 1 Final).

Task 300.4.2.7.—Santa Clara Valley Habitat Agency

1. **Valley Habitat Plan.** Consultant will prepare the Santa Clara Valley Habitat Plan Reporting Form for Public Project (VHP) to the SCVHA. The contents of the form will include: the Project description; land cover types and impacts; wetland impacts; results of wildlife and botanical surveys; and applicable avoidance and minimization measures.
2. **Habitat Mitigation and Monitoring Plan.** Consultant will prepare a Habitat Mitigation and Monitoring Plan (HMMP) in addition to the MMRP developed along with the EIR. The HMMP will identify conceptual measures that will be implemented to mitigate temporary and permanent impacts to jurisdictional wetlands and other water resulting from the Project activities as required by Task 300.4.2.2. for the USACE and downstream flows during construction as required by Task 300.4.2.4. for the NMFS. The HMMP will also describe conceptual onsite measures that would be implemented, where feasible, to reduce potential impacts to jurisdictional aquatic resources. SCVHA in-lieu fee program for compensatory mitigation of aquatic resources will be summarized in the HMMP. The HMMP would also include mitigation for impacts to species that are not covered by the VHP, or USFWS, but are otherwise afforded protection and require mitigation. For example, the HMMP would include impacts and mitigation to *Monolopia gracilens*, a CNPS List 1B-2 species. The HMMP will address each federally-listed species under the jurisdiction of USFWS per Task 300.4.2.3. and will incorporate the following components:
 - A. Analysis of direct, indirect, and cumulative effects of actions affecting listed species and designated critical habitat.
 - B. Identification of the potential for “take” of listed species, adverse modification of critical habitat, and the avoidance and minimization measures proposed by the District to avoid or minimize potential effects to the extent practicable.
 - C. Description of the monitoring and reporting programs necessary to evaluate whether the authorized amount or extent of take is approached or exceeded.
3. **VHP Dewatering Plan.** In accordance with the VHP, Consultant will prepare a Dewatering Plan. The plan will address operations and flows downstream of the Almaden Dam during construction. The contents of the Dewatering Plan will include the Baseline Monitoring conducted and Dryback Condition Survey conducted in Task 300.2., as well as the Reservoir Operations Technical Memorandum conducted in Task 400.2. The plan will also discuss the District’s ability to bypass or supplement flows downstream of the reservoir. The Consultant will propose minimization measures consistent with the VHP recommendations, including a detailed description of the methods for rescue and relocation of native fish, amphibians, and/or western pond turtles that may be stranded during the dewatering event.

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Task 300.4.2.7.—Deliverables

1. SCVHA VHP Reporting Form (2 Drafts + 1 Final).
2. SCVHA HMMP (2 Drafts + 1 Final).
3. SCVHA Dewatering Plan (2 Drafts + 1 Final).

Task 300.4.2.8.—County of Santa Clara

1. Construction of the Project and property acquisition will require permits/authorizations from the County of Santa Clara to ensure consistency with County's planning, zoning, building, and public works regulations.
2. Consultant will assist the District in obtaining permits/authorizations from the County of Santa Clara.
3. Tasks may include determining the need for permits/authorizations based on engineering specifications and the location of property acquisitions, completing applications with Project information and providing supplemental materials.

Task 300.4.2.8.—Assumption

1. The level of effort to support applications for the County permits is 115 hours.

Task 300.4.2.8.—Deliverable

1. CSC Planning, Building, and Public Works Permits (2 Drafts + 1 Final).

TASK 400—DESIGN SERVICES (RENUMBERED AND REVISED)

Task 400.1.—Data Collection and Investigations

The purpose of this task is to research, review, and adopt Planning Phase deliverables as a basis for Project design, as well as conduct necessary field survey and geotechnical analysis to establish Project base mapping and geotechnical information.

1. **Data Collection and Investigation Work Plan.** Consultant will develop a detailed work plan as necessary for the data collection and investigations for Tasks 400.1.2 thru 400.1.4.
2. **Project Base Map.** The Consultant will prepare and submit a Project Base Map and data as necessary to complete required studies and prepare contract drawings for the Project. Base Map preparation shall include, but not be limited to:
 - A. Collect existing survey, topographical, GIS, property, easements and rights of way and utility/infrastructure data as applicable to generation of the Project Base Map for purposes of final design. The District has topographical, bathymetric, and GIS data

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available for the area around the dam; however, available information is suitable for reference only and surveying is required to create construction documents, as detailed in Task 400.1.2.B.

- B. Conduct field survey work as necessary to verify and supplement existing topographical data for the entire area of work including spoil areas. Survey work shall be adequate for preparation of base mapping data that will be used for final design. The Consultant will review the District aerial photography and bathymetric survey data from 2012 that supports 1-foot contours, and will perform field surveys to verify those data. If mapping is determined to be inconsistent with field surveys, the Consultant will complete additional field surveys, such as aerial photography, bathymetric, and LiDAR surveys to support bare earth contour mapping throughout the site. The LiDAR survey, if needed, will be conducted at high density and with accuracy capable of supporting 1-foot contours. In addition, aerial photography will be obtained at 1:3600 photo scale to provide 1" = 40' scale mapping and 1-foot contours. LiDAR data together with aerial photography will be used to generate a base map covering the main dam site and all areas affected by the Project.
 - C. Perform land surveying to support the LiDAR collection and validation, and to identify Project site utilities and structures for incorporation into the Project base map. Land surveying will include areas identified for Canal and fish passage improvements. Land surveying will include a GPS survey to establish precise horizontal and vertical coordinates on a local control station. Approximately 40 checkpoints will be surveyed throughout the mapping area to validate existing survey data and support new survey data collection, if needed. The survey will include horizontal and vertical control stations published by the National Geodetic Survey (NGS) and/or NGS-published. Continuously operating Reference Stations in order to reference the Project to a specified geodetic coordinate system and vertical datum. The Consultant will complete a field bathymetric survey to confirm existing ground elevations directly upstream of the dam. The bathymetric survey will be completed using boat-mounted echo sounder techniques and the data will be incorporated into the Project base map with a 2-foot contour base map.
 - D. Review data for existing utilities, pipelines, and other infrastructure to determine where it is necessary to verify locations for design and inclusion in final drawings. At critical locations, the Consultant will pothole existing utilities, pipelines, and other infrastructure as necessary to verify location for design and inclusion in the final drawings. The Consultant shall use a contractor with a Class A or C-12 license for this work. The District will provide available data on the expected location and depth of utilities from existing mapping and information in the District's possession.
 - E. Base map preparation shall conform to District Standards for GIS Products (See Revised Attachment Seven to Revised Appendix One, Scope of Services).
3. **Geotechnical/Subsurface Investigations.** Consultant will conduct Geotechnical/Subsurface Investigations as required for detailed design and identified in the Geotechnical Investigations Work Plan described in Task 400.1.1.A. The

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Geotechnical/Subsurface Investigation will be completed in 3 phases, prepared pursuant to the Phase 1 Geotechnical Work Plan (*Task Order No. 1 dated March 13, 2014; completed, funded by Supplementary Services*), the Phase 2 Geotechnical Work Plan, and the Phase 3 Geotechnical Work Plan (*Task Order No. 4 dated April 26, 2017; completed by Supplementary Services*).

- A. This Scope of Services assumes the total number of borings and drilling footage as follows:

Dam. Evaluating the outlet works structures—up to 4 borings, approximately 165 feet; spillway and dam crest—up to 10 borings, approximately 875 feet; seepage, including the fillet-to fill located on the downstream left abutment—up to 3 borings, approximately 200 feet; and cofferdam and lake sediments—up to 3 borings, approximately 45 feet. Additionally, 6 corings (6-inch dia.) of the spillway walls will be conducted and tested to determine concrete properties.

Fish Passage. Evaluating the upstream tributary collector—up to 1 boring, approximately 45 feet.

Canal. Evaluating the geologic conditions near the proposed new access road—up to 1 boring, approximately 45 feet; Canal maintenance road—up to 2 borings, approximately 90 feet, Canal terminal structure—up to 1 boring, approximately 45 feet.

- B. The exploration will be designed to provide adequate data for the basis-of-design engineering analyses, the development of the draft Geotechnical Baseline Report, and the draft Basis of Design Report. The borings will be drilled with drill rigs using rotary wash and wireline coring methods. Borings will be drilled on land from a track-mounted drill and over water from a drill rig placed on a barge. Access to the horizontal bench east of the spillway where the drilling will be performed will require a small amount of grading so that the drill rig can access the bench. Sediment samples will be collected with a vibrocore sampler lowered from the barge. The Consultant will collect drive samples in soil-like materials and rock core samples in the underlying bedrock. Samples of lake sediment will be collected by vibrocore technique to allow for sediment thickness estimation and contaminant analysis. A portion of the exploration will be completed by Task Order (*Phase 3 Geotechnical Exploration, Task Order 7, dated January 18, 2018; completed; funded by Supplementary Services*).

Borehole geophysical investigations will include P-wave and S-wave surveys for evaluation of foundation properties in some of the borings as well as televiwer surveys to evaluate rock mass fracture patterns and areas of potential core loss.

- C. Consultant will use a driller with a valid C-57 license, a California-Registered Geologist, a California-Registered Geophysicist and a California-Registered Professional Geotechnical Engineer to complete all proposed investigation work, as appropriate.
- D. **Laboratory Testing Program.** The Consultant will develop a material testing program sufficient to gain District and regulatory acceptance; and to provide all necessary data

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for analysis and design of the Project. The tests will include index and strength tests. Consultant will also conduct environmental analyses on selected samples of lake sediments and serpentine rock and bedrock to evaluate the presence of naturally occurring asbestos and mercury. Consultant shall prepare a draft material testing program for approval by the District and regulatory agencies. The Draft program will be refined and finalized after inspection of the soil and rock samples.

- E. **Develop and submit a Geotechnical Data Report.** The report will include the results of all field exploration and laboratory testing work performed by Consultant, and the results of the investigations previously completed by others. A Draft report shall be submitted to the District for comment. After incorporation of District comments, a Revised Draft shall be submitted to DSOD. The document will be updated to respond to agency comments.
4. **Environmental Support Studies.** Consultant will collect and evaluate engineering data that may be required to support environmental documentation, as part of Task 300, including CEQA documents and permit applications. Activities may include, but are not limited to: (1) assist in obtaining environmental clearance for design-phase exploratory investigations of dam site geologic and geotechnical conditions; (2) provide data on composition of materials to be excavated relative to environmental impacts, e.g. naturally occurring asbestos or reservoir sediment constituents; (3) estimate the number and types of equipment that will be utilized during Project construction and the duration, timing, and locations of construction activities, per CEQA requirements; (4) identify limits of temporary and permanent work areas; (5) provide 3-D renderings of proposed design for visual analysis and public presentations; and (6) describe methods for maintaining stream bypasses for minimum flows and temperature requirements for use in environmental permitting documents.
5. **Spillway Conditions Assessment.** The purpose of the task will focus on evaluating short-term alternatives for a reservoir spillway to safely pass a flood event (*Task Order 6, dated December 8, 2015; completed, funded by Supplementary Services*).

Consultant will perform a 3-phased spillway comprehensive conditions assessment, focusing on identifying potential geologic hazards associated with the spillway, including characterization of the foundation materials underlying and adjacent to the spillway structures and their susceptibility to erosion and instability. The integrity of the spillway concrete will also be investigated, if necessary. The scope of a detailed condition assessment of the spillway will include an evaluation of the concrete lining and the existing drainage system, and any potential for slab undermining and hydraulic jacking.

Phase 1 on the assessment will focus on spillway design review and visual inspection. Based on results of Phase 1, Phases 2 will focus on field and laboratory testing, as well as structural concrete analysis, evaluating erodible material at the chute for potential undermining, and uplift pressure analysis from spillway flows. Based on Phase 2 results, Phase 3 will focus on evaluating potential measures and recommendations for the spillway, including repairs, replacements, maintenance, inspection procedures, and interim measures. Should preparation of Phase 2 and Phase 3 be necessary, it may be performed

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pursuant to an approved Task Order as Supplementary Services.

Phase 1—Design Review and Spillway Inspection:

- A. Consultant will review available information including design drawings, District maintenance and monitoring records, and other available documents to evaluate potential vulnerabilities in the spillway structure.
- B. Consultant will perform an initial assessment comparing the existing design to current, modern spillway design practices to identify potential deficiencies of the existing design, if any, identify potential additional investigations, if any, and recommend potential corrective mitigations, if any.
- C. Consultant will interview maintenance staff and incorporate their input and observation into subsequent phases of the work.
- D. Consultant will conduct a comprehensive inspection of the spillway.
 - (1) Consultant will prepare a detailed inspection plan including a Health and Safety Plan. This plan will detail the items to be covered in the inspection and safe procedures for carrying out the inspection. A draft plan will be provided for District and DSOD review. Consultant will incorporate comments from the review into a final version of the plan.

- (2) The inspection will include the following:

Structural Aspects:

- (a) Visual inspection and assessment of entire concrete surface including approach (sediment & water surface elevation permitting), crest, chute slab and side walls, and terminal structure.
- (b) Mapping of cracks, joints, offsets, damage, repairs, spalling, erosion, exposed aggregate, distressed concrete, etc. on the spillway floor and walls.
- (c) Visual inspection of spillway drainage system, including weep holes.
- (d) Striking the concrete surface with a rock hammer to checking for “drummy” or hollow sounding concrete indicating possible voids beneath or behind concrete.

Geologic/geotechnical aspects:

- (a) Inspection of ground conditions immediately downstream of the spillway to assess potential for head-cutting type failure.
- (b) Inspection and record foundation conditions (including tree growth) and general topography (runoff drainage) surrounding the entire spillway structure for potential erosions or undermining type failure.

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- E. The results of the Data Review and Spillway Inspection will be documented in a technical memorandum. The memorandum will also include recommendations for future phases of the Spillway Condition Assessment including testing and analyses. A draft version of the memorandum will be provided to the District and DSOD for review and comment and a final version incorporating those comments will be produced.

Task 400.1.—Assumptions

1. The District will provide surveillance reports and other available documents in the District's files related to the Almaden Dam including District site topographic data.
2. The existing topographical information is suitable for reference only and additional field surveys are necessary to verify and supplement the existing data.
3. The total number of borings, surveys, and drilling footage outlined for the site and area investigations are only for budgetary purposes and not to the substantive analysis of the site and area investigations.
4. Access to the site for all data collection and field investigations will be cleared by the District. Environmental permits for the field investigations will be obtained by the Consultant.
5. Soil profiling and disposal is included in the Consultant Scope of Services:
 - A. Drill cuttings and fluids from the drilling and grouting operations will be containerized in clean, appropriately labeled 55-gallon drums. They will be stored onsite temporarily near the boring locations. It is assumed a lift gate truck will not be required to move the drums.
 - B. Required environmental testing to dispose of the spoils will be performed. This process usually takes about 2 weeks.
 - C. Contents of the drums will be disposed of offsite. It is assumed that the cuttings will be classified as non-hazardous. If test results indicate the cuttings are contaminated and cannot be disposed of as non-hazardous, the cost difference to dispose of hazardous waste will be allocated from Supplementary Services.
 - D. For determining the not-to-exceed fees for this subtask, the Consultant estimates that the site will have up to 25 drums or 1 dumpster container (10 cubic yards) and any additional drums or dumpster containers that may be required, may be performed pursuant to an approved Task Order as Supplementary Services.
6. Effort required to collect and evaluate engineering data that may be required to support environmental documentation is based on an allowance of up to 100 hours. Additional environmental support studies deemed necessary by the District to determine the presence of environmental resources may be performed pursuant to an approved Task Order as Supplementary Services.

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Task 400.1.—Deliverables

1. Data Collection and Investigation Work Plan and Update (2 Drafts + 1 Finals).
2. Comprehensive Project Base Map and Update (4 Drafts + 2 Finals).
3. Laboratory Testing Program (2 Drafts +1 Final).
4. Geotechnical Data Report (2 Drafts + 1 Final).
5. Engineering data and information to support Environmental Studies (2 Drafts + 1 Final).
6. Data Review and Spillway Inspection Technical Memorandum (2 Drafts + 1 Final).

Task 400.2.—Basis of Design

The purpose of this task is to perform engineering analysis and calculations and prepare technical memoranda and reports that are required to support and develop the Basis of Design for the Project. The supporting analysis, calculations, and other supporting standards and detailed design information shall be used to prepare a biddable and constructible set of Project plans, specifications, and engineering cost estimates.

It is the responsibility of Consultant to perform independent analyses, as appropriate, to fully develop the Basis of Design without relying solely on work completed by others. These analyses will be subject to the review of the District, DSOD, relevant regulatory agencies and input regarding the Project Basis of Design. These analyses will include, but not be limited to the following:

1. **Canal and Dam Design Criteria.** The Design Criteria Memorandum will define the basic criteria for the Project including District operational and maintenance requirements, Project performance requirements, and DSOD design criteria. The Design Criteria Memorandum will include known relevant constraints such as environmental restriction dates and disposal location constraints. The Design Criteria Memorandum will document geotechnical, civil, structural, electrical and mechanical standards to be used in the analyses and design. Pertinent codes and reference will be cited. The design criteria will be presented in a concise tabular format divided into features, issues, corresponding criteria, and remarks/references. The Design Criteria Memorandum will be issued in draft form and updated as design progresses through the various design phases with comments from the District. A Design Criteria Workshop will be held with the District. The draft Design Criteria Memorandum will be revised based on comments from the Workshop and a revised draft memoranda will be submitted to DSOD. The comments from DSOD will be responded to by the Consultant and incorporated into a third draft memorandum, if necessary.
2. **Canal Hydraulics.** Consultant will evaluate the canal capacity along the entire canal length using the HEC-RAS model developed as part of the planning phase and further refine the model to support development of design improvements. The canal system will be capable of

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meeting all established operational, maintenance, and regulatory requirements, including, but not limited to, passing the range of District operational flows from Almaden to Calero Reservoirs.

- 3. Dam Spillway Hydraulics.** Consultant will develop a 3-D computational fluid dynamics (CFD) model of the spillway that incorporates approach conditions, proposed spillway features (approach conditions, crest, upper chute, lower chute and terminal structure) and energy dissipation features. The CFD model will illustrate the flow velocity and energy distributions for the complete range of flows anticipated up to and including the PMF, and include consideration of impacts to the spillway performance resulting from potential degradation of the downstream channel. A Spillway Hydraulics CFD Model Technical Memorandum presenting the methodology used, assumptions made, and results of the spillway hydraulics evaluation will be prepared. The Spillway Hydraulics CFD Model Technical Memorandum will include digital appendices of the CFD model. The Draft Spillway Hydraulics CFD Model Technical Memorandum shall be submitted to the District for comment. After incorporation of District comments, a Revised Draft Spillway Hydraulics CFD Model Technical Memorandum will be submitted to DSOD by the Consultant. The document will be finalized after receipt and response to all comments and following finalization of the Spillway Hydraulics Physical Model Technical Memorandum.

Consultant will develop a physical model of the spillway (for a full range of flows up to the revised PMF). The physical model of the proposed spillway will be built at an 1:24 scale to fully assess the flow characteristics of the entire spillway (including exit conditions). The Consultant shall utilize a hydraulics laboratory with experience developing similar physical models. The Consultant will prepare a Spillway Physical Model Work Plan for review by the District and DSOD.

Detailed documentation tests for the selected final design (including development of a stage-discharge rating curve, HGL profiles, documenting crest and chute pressures, cross waves, etc.) for 5-6 flows up to the new PMF estimate will be conducted. The final model may be subject to verification by the District and DSOD. A Spillway Hydraulics Physical Model Technical Memorandum presenting the methodology used, assumptions made, and results of the spillway hydraulics evaluation will be prepared. The Draft Spillway Hydraulics Physical Model Technical Memorandum shall be submitted to the District for comment. After incorporation of District comments, a Revised Draft Spillway Hydraulics Physical Model Technical Memorandum will be submitted to DSOD by the Consultant. The document will be finalized after receipt and response to all comments.

- 4. Dam Outlet Works.** The Outlet Works Design Technical Memorandum will document the basis of design for the new low-level outlet works. The Outlet Works Design Technical Memorandum shall document the proposed size, horizontal and vertical layout, hydraulic, structural, and geotechnical details as well as control, operational, and maintenance requirements, intake structure design, low flow conduit, re-use of existing outlet pipe, and design of the upstream/downstream controls and connections for the low-level outlet.

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- A. **Low-Level Outlet.** This Scope of Services assumes the low-level outlet works design includes a new multi-port sloping intake structure on the right abutment upstream of the spillway, a new low flow release conduit, re-use of the existing outlet pipe, and replacement of the two downstream discharge structures. The low-level outlet will consider the severe ground shaking. The design approach will be validated based on an elastic linear finite element analysis using the program SAP2000, which will capture the existing outlet pipe, and the dynamic response of the pipe. Upstream/Downstream controls for the low-level outlet will be designed to meet District requirements, including but not limited to low and high capacity discharge to Alamitos Creek, and tie-in to the Almaden-Calero Canal.
- B. The Scope of Services for this task includes field investigations and data collection and interpretation for the Outlet Works in conjunction with other Project facilities; development of a Basis of Design Technical Memorandum; and supplementing the Basis of Design Report. Task 400.3. includes the subsequent preparation of plans, specifications, and engineer's cost estimates for all facilities associated with the Outlet Works, including but not limited to design of cut-and-cover grading and excavations, pipelines, intake, connections, valves, gates, actuators, control systems for operation of all inlet/outlet works, support and backfill for pipelines, instrumentation for measuring and recording flow rates, water pressure, depths, and valve/gate motion and positions, debris racks, corrosion protection and coating systems, cranes, hoists, monorails, and rigging systems, electrical power and emergency power backup systems, all water distribution, plumbing, and security and communication systems.
- C. An Outlet Works Design Technical Memorandum presenting the methodologies used, input parameters and assumptions made, and results of the analysis will be prepared. The Draft Outlet Works Design Technical Memorandum will be submitted to the District for comment. After incorporation of District comments, a Revised Draft Outlet Works Design Technical Memorandum shall be submitted to DSOD. The document will be finalized after receipt and response to all comments.
5. **Dam Outlet Works Buildings.** Consultant will prepare a Dam Outlet Works Buildings Technical Memorandum that defines the basis of design for replacement of the existing Almaden Dam Crest, Alamitos Creek, and Almaden-Calero Canal outlet structures with new outlet structures. The Dam Outlet Works Buildings Technical Memorandum will provide the proposed size, horizontal and vertical layout, materials and dimension of key elements, including the chamber structure, valves, telemetry, crane hoist, appurtenances, and access. The outlet works buildings will be capable of meeting all established operational, maintenance, safety, and regulatory requirements.
6. **Dam Embankment Stability Analyses.** Consultant will evaluate the embankment to confirm stability under the PMF loading conditions required by DSOD. Consultant will develop a single, 2-dimensional model to represent the embankment conditions from abutment to abutment, as well as for the right cut-slope. The model will incorporate appropriate phreatic conditions for the loading conditions being evaluated. Where possible,

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the Consultant will make use of previously developed input parameters, such as 1 material strength properties, and 2 hydraulic conductivities. An Embankment Stability Analyses Technical Memorandum presenting the methodologies used, input parameters and assumptions made, and results of the analysis will be prepared. The Draft Embankment Stability Analyses Technical Memorandum will be submitted to the District for comment. After incorporation of District comments, a Revised Draft Embankment Stability Analyses Technical Memorandum will be submitted to DSOD. The document will be finalized after receipt and response to all comments.

7. **Canal and Dam Material Handling.** Consultant will prepare a Material Handling Technical Memorandum with recommendations on material handling as required to facilitate construction. Specific recommendations (including alternatives analyses) on development of disposal areas shall be developed, along with staging requirements to facilitate these operations, including haul roads associated with disposal areas. A Materials Balance Diagram shall be developed and presented in the Material Handling Technical Memorandum to reflect excavation volumes, waste volumes and their associated shrink/swell factors.

The Material Handling Technical Memorandum presenting the methodologies used, input parameters and assumptions made, and results of the analysis will be prepared. The Draft Material Handling Technical Memorandum will be submitted to the District for comment. The Material Balance Diagram and Material Handling Technical Memorandum will be updated at the 50%, and Final design submittals.

8. **Reservoir Cofferdam.** Consultant will prepare a Cofferdam Technical Memorandum that defines the basis of design for a temporary cofferdam to facilitate intake structure construction in the dry. The Cofferdam Technical Memorandum shall focus on defining criteria for design, including location and alignment of the cofferdam, reservoir operations and levels during construction and crest elevation requirements; conveyance/bypass requirements during construction (for both flood control and environmental flows); removal after construction; flood protection, including inflow hydrographs, for a design storm occurring during construction, cofferdam type, foundation treatment, freeboard requirements and seepage control.
 - A. Consultant will evaluate and recommend whether the cofferdam should be designed by the Consultant and included as part of the Contract Bid Documents or whether the cofferdam be designed by the Contractor as part of their temporary site works to a set of criteria provided in the Contract Specifications. Regardless of the design approach, a preliminary cofferdam design will be made in this task for constructability, scheduling and cost-estimating purposes.
 - B. Cofferdam type will be evaluated and a risk analysis performed for type selection. Cofferdam construction will be coordinated with construction/reservoir schedule to establish whether the schedule affects contract approach or cofferdam type selection. Locations and alignments for the cofferdam will be evaluated. An area around the recommended cofferdam alignment will be established to permit various cofferdam designs to be considered. Considerations include constraints from potential disposal

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site for excavation/dredging, intake construction, and Project schedule. The specifications for a Contractor to design the cofferdam will be developed in Tasks 400.3 through 400.5.

- C. The Cofferdam Technical Memorandum will present the methodologies used, input parameters and assumptions made, and results of the analysis will be prepared. The Draft Cofferdam Technical Memorandum will be submitted to the District for comment. After incorporation of the District's comments, a Revised Draft Cofferdam Technical Memorandum will be submitted to DSOD. The document will be finalized after receipt and response to all comments.
 - D. If Consultant recommends that the cofferdam be designed by Consultant, the basis of design will be developed and presented in the Cofferdam Technical Memoranda and the design plans and specifications will be developed in Tasks 400.3 thru 400.5.
9. **Reservoir Operations.** Consultant will prepare a Reservoir Operations Technical Memorandum that addresses reservoir operations, flow releases to Alamos Creek and Almaden-Calero Canal, and management of inflows to the reservoir over the expected duration of construction. This Reservoir Operations Technical Memorandum will establish clear baselines for inflows into the reservoir and requirements for design of temporary cofferdams. The Reservoir Operations Technical Memorandum will further define schedule baselines for reservoir lowering to facilitate construction and for maintaining the existing intake in service, if required.
- A. As part of the evaluation, the Reservoir Operations Technical Memorandum will address how and when the spillway and outlet works could be taken out of service while operating the reservoir within a relatively narrow band, maintaining a minimum level for resource protection and a maximum level that maintains adequate flood protection. The analysis will address flood safety risks (of being unable to maintain flood protection during construction or of reservoir rising to a level higher than accepted by DSOD), operational risk (lack of operational flexibility during construction) and technical risks of a large storm delaying the start of construction or adversely impacting construction.
 - B. The Reservoir Operations Technical Memorandum presenting the methodologies used, input parameters and assumptions made, and results of the analysis will be prepared. The Draft Reservoir Operations Technical Memorandum will be submitted to the District for comment. After incorporation of District comments, a Revised Draft Reservoir Operations Technical Memorandum will be submitted to DSOD. The document will be finalized after receipt and response to all comments.
10. **Dam Seepage Analysis.** Consultant will evaluate the embankment, including the fillet-to-fill, for possible locations of seepage, potential implications, likely causes, and estimated rate of seepage, as well as discuss the plausible purpose of the fillet-to-fill construction.

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A Seepage Analysis Technical Memorandum, presenting the methodologies used, input parameters and assumptions made, and results of the analysis will be prepared. It shall document proposed seepage collection and monitoring system, and recommendations regarding fillet-to-fill. The Draft Seepage Analysis Technical Memorandum will be submitted to the District for comment. After incorporation of the District's comments, a Revised Draft Seepage Analysis Technical Memorandum will be submitted to DSOD. The document will be finalized after receipt and response to all comments.

11. **Fish Passage Facilities.** A basis of design for fish passage facilities to provide upstream and downstream passage past Almaden Dam will be prepared. This effort includes development of biological goals, hydrology, environmental setting, design criteria for upstream and downstream passage, fish passage approach, flow releases, and monitoring. The basis of design will take into consideration the FAHCE settlement agreement, seasonal environmental restrictions, and regulatory agency input.

The Draft Fish Passage Facilities Technical Memorandum will be submitted to the District for comment. After incorporation of District Comments, a Revised Draft Fish Passage Facilities Technical Memorandum will be submitted to relevant regulatory agencies for comment. The document will be finalized after receipt and response to all comments.

12. **Civil, Roads and Utilities.** A basis of design for permanent site access roads, other civil works, and utilities will be prepared. This effort includes development of a preliminary design of horizontal alignment and vertical profile of the Alamos Road and the dam crest access road to accommodate the raising of Almaden Dam's crest and modification of the dam's embankment fill per the Project's seismic and hydraulic requirements. A preliminary design of horizontal alignment and vertical profile of the proposed boat ramp into Almaden Reservoir and the proposed Canal access road will also be included. Grading limits will be established to identify environmental, right of way, and utility and drainage facility impacts.
 - A. This preliminary engineering work includes determining right of way, utilities easements, construction quantities, cost estimates and permit requirements for the Project, including roadway and structures. Design elements will be studied for value engineering opportunities, and those elements where significant cost savings or other advantages can be realized will be addressed.
 - B. Exhibits will be attached to the Civil, Roads, and Utilities Technical Memorandum and include planimetric maps showing key dimensions and features, roadway profiles, cross-sections, and additional construction details, as necessary, to graphically show the proposed work and limits of impact. Miscellaneous calculations used to determine pavement or aggregate limits will also be included.
 - C. The Civil, Roads, and Utilities Technical Memorandum will present the input parameters and assumptions made and results of the analysis will be prepared. The Draft Civil, Roads, and Utilities Technical Memorandum shall be submitted to the District for comment. The document will be finalized after receipt and response to all comments.

13. **Canal, Dam, Fish Passage Preliminary Plans.**

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- A. The Consultant will prepare, and submit to the District, a sample drawing and index drawing numbering scheme, file naming labeling, layout, and format for District review for drafting standards are being adopted into the plan set.
- B. Following approval of the sample drawing and drawing numbering scheme, Consultant will prepare a preliminary set of plans for the Canal, Dam and Fish Passage Project elements. This preliminary set will be commensurate with a 10% design and be a partial drawing set. Plan and section drawings shall be included to a moderate degree of completion. Drawings shall be of sufficient detail to facilitate the review and approval of proposed modifications identified in the Planning Study Report.

14. Canal and Dam Operations and Maintenance.

- A. Consultant will prepare a Canal and Dam Operations and Maintenance Technical Memorandum that will identify the operational and maintenance requirements of Project facilities. For the dam, these facilities include the intake structure, outlet pipe, cathodic protection system, secondary flow diversion, outlet structures, seepage monitoring, telemetry, and access roads. For the Canal, these facilities include the uphill runoff structures, siphons, reaches with box culvert/elliptical pipe, emergency overflow structures, existing maintenance road and proposed access road.
- B. These operation and maintenance requirements will be developed within known relevant constraints, such as seasonal environmental restrictions, water rights, District safety requirements, and regulatory restrictions.

15. Fish Passage Facilities Operations and Maintenance.

- A. Consultant will prepare a Fish Passage Facilities Operations and Maintenance Technical Memorandum that will identify the operational and maintenance requirements of the fish passage facilities that will provide upstream and downstream migration past Almaden Dam. In addition to the facilities, the requirements will also include operation and maintenance of water level monitoring, automation, SCADA systems, auxiliary water system, racks (barrier and debris), and access.
- B. These operation and maintenance requirements will be developed within known relevant constraints, such as seasonal environmental restrictions, water rights, FAHCE settlement agreement, District safety requirements and regulatory restrictions.

16. Basis of Design Report.

- A. Consultant shall prepare a full Basis of Design Report to define the technical requirements and parameters for the entire Project including the fields of civil, geotechnical, structural, hydraulic, mechanical, electrical, instrumentation, controls, operational, maintenance and others as appropriate.

The Basis of Design Report shall include: (1) description of the general arrangement of existing and new Project facilities; (2) summary of the pertinent findings of the

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geotechnical investigations; (3) construction materials source assessment (on-site and commercial); (4) groundwater dewatering requirements; (5) civil and geotechnical design of the crest including stability and seismic deformation analyses; (6) design of disposal sites; (7) hydraulic and structural design of the spillway and outlet works; (8) mechanical and electrical design of the intake, outlet, and fish passage facilities; (9) access roadwork; and (10) the temporary cofferdam.

- B. The Basis of Design Report will include all known and relevant constraints, such as: start and end of reservoir filling periods, environmental restriction dates, minimum flow criteria, criteria related to continuation of District water services and operations, borrow and spoil area constraints, sequencing constraints, etc. The Basis of Design Report shall include the completed Base Map and preliminary design drawings of the Project components detailing the retrofit, spillway and/or crest modifications, outlet works, and disposal areas.
- C. The Draft Basis of Design Report will be submitted to the District for comment. After incorporation of District comments, a Revised Draft Basis of Design Report will be submitted to DSOD and their comments incorporated.
- D. A review workshop will be convened with the District to review the basis of design documents. A separate review meeting will be convened with the District and DSOD to review the basis of design documents. The review meeting will be held after submittal of the documents to the regulatory agencies.
- E. The Basis of Design Report will continue to be updated through the design phase. Upon completion of final design, the Basis of Design Report will be updated to reflect any changes or additions that occurred over the course of the design development as detailed in Task 400.5.

Task 400.2.—Assumptions

- 1. For embankment stability analyses under Task 400.2.6., the same cross-section used in the 2012 Seismic Stability Evaluation will be analyzed for permanent embankment conditions.
- 2. The emergency power backup system referenced under Task 400.2.4. will be comprised of “roll-up” equipment (i.e., back-up generator). Communication systems (i.e., supervisory control and data acquisitions) will be based upon criteria provided by the District. Security closed-circuit wireless (pan/tilt/zoom) cameras with solar power generation will be included for sites where there is a lack of existing electrical power.
- 3. The seepage collection and monitoring system referenced under Task 400.2.10. will be comprised of automated weir data sent to the District’s Automated Data Acquisition System, including flow rate and turbidity readings.
- 4. The spillway physical model referenced under Task 400.2.3. will be comprised of the following:

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- A. The physical model of the spillway will be designed and constructed at an 1:24 scale, extending approximately halfway (300 ft.) across the reservoir, 400 ft. upstream of the spillway crest and encompassing the full length of spillway chute to Alamitos Creek, plus approximately 200 ft. of downstream river channel and the area downstream of the dam inundated during the PMF event.
 - B. The effectiveness of performance of the proposed spillway crest design as developed in the CFD model will be evaluated. Minor modifications and/or refinements to the design to improve its performance or reduce construction costs will be developed.
 - C. Design development testing and physical model storage have been assumed for scheduling and budgeting purposes. Any additional development testing that may be required, may be performed pursuant to an approved Task Order as Supplementary Services.
 - D. The preferred design modifications will be presented during a two-day witness test in the laboratory.
 - E. Subconsultant (Northwest Hydraulic Consultants) will be entitled to compensation for demolition and disposal of the physical model in the event the physical model is terminated prior to testing. If so, any demolition and disposal that may be required, may be performed pursuant to an approved Task Order as Supplementary Services.
 - F. Subconsultant Northwest Hydraulic Consultants will be entitled to compensation for maintaining the physical model in working order and paid for rental space cost in the event of a temporary suspension or extension to the Project. If so, any rental space expense that may be required may be provided for and invoiced pursuant to an approved Task Order as Supplementary Services.
5. Other civil works referenced under Task 400.2.12. will include, but not be limited to, accommodations for a 12-foot wide passage truck-trailer boat ramp.
 6. For budgetary purposes, the preliminary set of plans for the Canal, Dam and Fish Passage Project elements referenced under Task 400.2.13 is estimated to be limited to no more than 25 drawings.
 7. One round of regulatory review is anticipated for the Draft Fish Passage Facilities Technical Memorandum referenced under Task 400.2.11 and the District will provide consolidated comments for Consultant's review and incorporation.
 8. One round of regulatory review is anticipated for the Fish Passage Facilities Operations and Maintenance Technical Memorandum referenced under Task 400.2.15 and the District will provide consolidated comments for Consultant's review and incorporation.

Task 400.2.—Deliverables

1. Canal and Dam Design Criteria Technical Memorandum (2 Drafts + 1 Final).

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2. Canal Hydraulics Technical Memorandum (2 Drafts + 1 Final).
3. Dam Spillway Hydraulics Technical Memorandum:
 - A. Computational Fluid Dynamics Model Technical Memorandum (2 Drafts + 1 Final).
 - B. Physical Model Work Plan (2 Drafts + 1 Final).
 - C. Physical Model Technical Memorandum (2 Drafts + 1 Final).
4. Dam Outlet Works Hydraulics Technical Memorandum (2 Drafts + 1 Final).
5. Dam Outlet Works Buildings Technical Memorandum (2 Drafts + 1 Final).
6. Dam Embankment Stability Analyses Technical Memorandum (2 Drafts + 1 Final).
7. Canal and Dam Material Handling Technical Memorandum (2 Drafts + 1 Final).
8. Reservoir Cofferdam Technical Memorandum (2 Drafts + 1 Final).
9. Reservoir Operations Technical Memorandum (2 Drafts + 1 Final).
10. Dam Seepage Analysis Technical Memorandum (2 Drafts + 1 Final).
11. Fish Passage Facilities Technical Memorandum (2 Drafts + 1 Final).
12. Civil, Roads and Utilities Technical Memorandum (2 Drafts + 1 Final).
13. Canal, Dam, Fish Passage Preliminary Plan Set, including Sample Drawing Plan Set with Index Drawing Numbering (1 Draft + 1 Final).
14. Canal and Dam Operations and Maintenance Technical Memorandum (2 Drafts + 1 Final).
15. Fish Passage Facilities Operations and Maintenance Technical Memorandum (2 Drafts + 1 Final).
16. Basis of Design Report (2 Drafts + 1 Final).

Task 400.3.—Fifty Percent Design Document Preparation

The purpose of this task is to prepare a 50% design that will be a partial drawing and specification set. Plan and section drawings shall be included to a moderate degree of completion. Drawings and specifications shall be of sufficient detail to facilitate the review and approval of proposed modifications previously identified in the Planning Study Report.

1. Consultant will prepare and submit 50% drawings, specifications, and a construction cost estimate per the Association for the Advancement of Cost Engineering (AACE), Class 3.

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- A. For specification development, Consultant will use the District's Standard Provisions (Boiler Plate) and the District's Special Provisions Format. Consultant will recommend edits and additions to the District's Special Provisions where appropriate for this Project. Consultant will submit a recommended format for the Technical Provisions, for review and approval by the District. The District has a separate bid proposal package/template that the Consultant will provide input for as requested by the District. Three rounds of intermediate submittals of Special Provisions sections to the District are anticipated to reconcile referencing and formatting issues.
- (1) Provisions regarding milestones, testing, and acceptance schedule and criteria for the Project aligned with completion and payment for the Contractor's completion of each milestone to be included in the Special Provisions.
 - (2) Consultant will prepare a draft bid sheet at the 50% level of design, including a Technical Memorandum that explains the basis for the bid sheet and the strategies related to risk and cost uncertainty associated with work that may be difficult to define.
- B. Cost estimates for the most significant lines of the work breakdown structure shall be "bottom-up" estimates based on assumed productivity, equipment, and labor spreads for the activities. The basis for field and office overhead, other markups, and profit shall be clearly identified in the estimate.
2. Consultant will prepare a 50% Construction Sequencing Plan (CSP) to identify the Consultant's intended construction sequencing to meet Project requirements, including support excavations, outlet works, stockpiling, and other constructability considerations, including maintaining the required reservoir levels and service. This plan will be used to guide the detailed design and will be updated as the design is refined. The CSP shall be incorporated into the specifications as a guide to the Contractor and to establish requirements to submit Contractor's own sequencing plans as needed to confirm continuance of reservoir operations.
 3. Consultant will prepare a 50% Project Requirements Plan. This plan will be prepared similar to and include the MMP (Task 400.3.). Utilizing the Design Criteria Memorandum (Task 300.1.a.), the Consultant will develop a matrix and categorize the Project requirements for design, operations, maintenance, regulatory, and include required permits. Similar to the MMP, the Project Requirements Plan will identify responsible parties, reporting procedures, implementation, and specifically identify the specification and plan locations where the Project requirements are addressed.
 4. Consultant will prepare a 50% Constructability Technical Memorandum to identify risks associated with the construction of the Project.
 5. Consultant will submit the 50% plans, specifications, estimate, 50% Construction Sequencing Plan, 50% Project Requirements Plan, 50% Constructability Technical Memorandum to the District, and will include for review:

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- A. The District and regulatory-driven improvements demonstrating the Project team has addressed these concerns or requirements.
 - B. The constructability/sequencing requirements for the Contractor.
 - C. Clear delineation of existing property lines and take lines (i.e., rights of way, easements, or property acquisitions) needed for Project construction and/or ongoing maintenance or access.
 - D. Consultant will conduct a 50% review meeting/workshop with the District to review and discuss District comments.
 - E. The Consultant will compile a Comment Resolution Document. The Comment Resolution Document will list collected comments, proposed means of resolution, and means to document that resolution is completed in the next design submittal.
 - F. After incorporation and District comments, a Revised 50% Submittal will be submitted to the DSOD.
6. A 50% Constructability Review Workshop will be held with the District. Construction experts from the District and Consultant staff will participate in this workshop.
- A. Subsequent to the 50% Constructability Review Workshop, a meeting will be held with the District and the DSOD to review the 50% submittal.
7. District will identify the need for Consultant to attend meetings, workshops and consultations with District as needed to complete the 50% design tasks.
8. If, in the course of preparing the 50% documents, additional Technical Memoranda or edits to previously-finalized Memoranda (not identified for future updates in this Scope of Services) are necessary, that work may be accomplished pursuant to an approved Task Order as Supplementary Services.

Task 400.3.—Assumption

- 1. The District will be responsible for acquisition of permanent and temporary property-related rights of way and all permit application fees.
- 2. For budgetary purposes, the 50% Design Documents referenced under Task 400.3.1 is estimated to be limited to no more than 90 Drawings.

Task 400.3.—Deliverables

- 1. 50% Plans, Specifications, and Construction Cost Estimate (1 Draft + 1 Final).
- 2. 50% Draft Bid Sheet & Supporting Technical Memorandum (1 Draft + 1 Final).

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3. 50% Construction Sequencing Plan (1 Draft + 1 Final).
4. 50% Project Requirements Plan (1 Draft + 1 Final).
5. 50% Design Comment Resolution Document (1 Draft + 1 Final).
6. Agenda & Record for 50% Design Review Workshop(s).
7. 50% Constructability Technical Memorandum (1 Draft + 1 Final).
8. Agenda and Record for 50% Constructability Workshop (1 Draft + 1 Final).

Task 400.4.—Ninety Percent Design Document Preparation

The purpose of this task is to prepare a 90% design set that will be a complete drawing and specification set at or near the level of completion required for Agency Permitting Review and Contractor Bidding.

1. Consultant will update the Basis of Design Report, design criteria technical memoranda (TMs), analyses, calculations, etc., as identified in previous task descriptions. If, in the course of preparing the 90% documents, additional Technical Memoranda or edits to previously finalized memoranda not identified for future updates in this Scope of Services are necessary that work may be accomplished pursuant to an approved Task Order as Supplementary Services.
2. Consultant will prepare and submit 90% drawings, specifications, and a construction cost estimate per the AACE, Class 2.
 - A. Provisions regarding milestones, testing, and acceptance schedule and criteria for the Project aligned with completion and payment for the Contractor's completion of each milestone to be included in the Special Provisions.
 - B. Consultant shall prepare a draft bid sheet at the 90% level of design, including a technical memorandum that explains the basis for the bid sheet and the strategies related to risk and cost uncertainty associated with work that may be difficult to define.
 - C. The cost estimate will be based on the 90% plans, specifications, and 90% CSP.
3. Consultant will prepare a 90% CSP. The CSP will identify key milestone dates to be met during construction and include them in the Special Provisions.
4. The Consultant will prepare a 90% Project Requirements Plan.
5. Consultant will submit the 90% plans, specifications, estimate, 90% Construction Sequencing Plan, 90% Project Requirements Plan to the District, and shall include for review:

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- A. The District and regulatory-driven improvements demonstrating the Project team has addressed these concerns or requirements.
 - B. The constructability/sequencing requirements for the Contractor.
 - C. Clear delineation of existing property lines and take lines (i.e., rights of way, easements, or property acquisitions) needed for Project construction and/or ongoing maintenance or access.
 - D. Consultant will conduct a 90% review meeting/workshop with the District to review and discuss District comments.
 - E. Consultant will compile a Comment Resolution Document. The Comment Resolution Document shall list collected comments, proposed means of resolution, and means to document that resolution is completed in the next design submittal.
 - F. After incorporation and District comments, a Revised 90% Submittal shall be submitted to all permitting authorities, per Task 300.4.2.
6. Consultant will prepare a Commissioning, Training, and Maintenance Plan to assist District staff for different operational modes: through the construction milestones, start-up and testing, and through the first year of operation. This Plan will be a comprehensive approach to:
- A. Assure the facility can continue to operate through construction and not disrupt the ability to meet its delivery obligations.
 - B. Assist the District Operations and Maintenance staff to continue to complete their primary duties of operating the facility on a day-to-day basis; they will not be dedicated to supporting the Project.
7. District will identify the need for Consultant to attend meetings, workshops and consultations with District to complete the 90% design tasks.
8. If, in the course of preparing the 90% documents, additional technical memoranda or edits to previously-finalized memoranda (not identified for future updates in this Scope of Services) are necessary, that work may be accomplished pursuant to an approved Task Order as Supplementary Services.

Task 400.4.—Assumption

- 1. Consultant will identify and additional required items that are identified in the EIR and other environmental permit application documents prior to the preparation of the 90% design submittal.
- 2. For budgetary purposes, the 90% Design Documents referenced under Task 400.4.1 is estimated to be limited to no more than 90 Drawings.

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Task 400.4.—Deliverables

1. Updated Basis of Design Report, Design Criteria TMs, and all supporting analyses and calculations, as identified in this Scope of Services.
2. 90% Plans, Specifications, and Construction Cost Estimate (1 Draft + 1 Final).
3. 90% Draft Bid Sheet & Supporting Technical Memorandum (1 Draft + 1 Final).
4. 90% Construction Sequencing Plan (1 Draft + 1 Final).
5. 90% Project Requirements Plan (1 Draft + 1 Final).
6. 90% Design Comment Resolution Document (1 Draft + 1 Final).
7. Agenda & Record for 90% Design Review Workshop (1 Draft + 1 Final).
8. Commissioning, Training, and Maintenance Plan (1 Draft + 1 Final).

Task 400.5.—Final Design Document Preparation

The purpose of this task is to prepare a 100% Design Set that will be fully completed, signed, and sealed Plans and Specifications that is ready for permitting review. This set will be revised as necessary to address any remaining permitting agency comments to form the Bid Set, which will be used for Contractor Bidding.

1. Consultant will prepare revisions, as necessary, to confirm and finalize the Basis of Design Report to Final Design. All Engineering Analysis and Calculations completed and checked as per the QA/QC Plan and assembled in accordance with the relevant design analyses sections in the Basis of Design Report.
2. Consultant will prepare and submit 100% drawings, specifications, and construction cost estimate per the AACE, Class 1.
 - A. Plans and Specifications will address comments from the 90% permitting review and the Commissioning, Training, and Maintenance Plan.
 - B. Specifications, including Standard Provisions, Special Provisions, Technical Provisions, Appendices, Notice to Bidders, geotechnical data report and geotechnical baseline report, bid documents and construction sequencing specification.
3. Consultant will prepare a 100% Project Requirements Plan.
4. The Consultant will submit the 100% plans, specifications, and a construction cost estimate, and 100% Project Requirements, and will include for review:
 - A. Per Task 400.4., submittal is to be forwarded to all permitting agencies.

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- B. After District review and final comments received from all permitting agencies, the Consultant will compile a Comments Resolution Document. The Comment Resolution Document will list collected comments, proposed means of resolution, and means to document that resolution is completed in the final design submittal.
 - C. After incorporation of District and permitting agency comments, a final 100% plans, specifications, construction cost estimate, along with any revisions necessary to the Basis of Design Report and Engineering Calculations will be prepared and submitted. Per Task 400.4., submittal is to be forwarded to all permitting agencies.
5. Consultant will prepare a Design-to-Construction Phase Transition Report and use District's QEMS W73004 Design Phase WBS Item Descriptions and Instructions and F75101 Close-Out Checklist as guides for items to be included in the Transition Report. The report will include the following:
- A. A description of the work that would occur during the construction phase but is not included in the construction contract documents, such as roles and responsibilities of discipline engineers and Consultants. It will also identify the special interactions that will be required with stakeholders and oversight agencies during construction, unique critical construction compliance checks, and special or non-standard construction documentation requirements;
 - B. A list of required construction submittals; and
 - C. A Construction Testing and Inspection Plan (CTIP). The CTIP will identify all testing and inspections to be performed during construction as part of the work to complete the construction Project. The Consultant will identify testing and inspection within the specification sections, articles, test/inspection items, frequencies, responsible parties, performed by, scheduling and notifications, and code/institution standard references.

Task 400.5.—Assumption

- 1. For budgetary purposes, the 100% Design Documents referenced under Task 400.5.1 is estimated to be limited to no more than 90 Drawings.

Task 400.5.—Deliverables

- 1. 100% Basis of Design Report and Engineering Calculations completed and checked as per the QA/QC Plan and assembled in conformance with relevant design analysis (1 Draft + 1 Final).
- 2. 100% Plans, Specifications, Construction Cost Estimates (1 Draft + 1 Final).
- 3. 100% Project Requirements Plan (1 Draft + 1 Final).
- 4. 100% Comment Resolution Document (1 Draft + 1 Final).

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5. Design-to-Construction Phase Transition Report (1 Draft + 1 Final).

Task 400.6.—Bid and Award Services

Upon the District's request, the Consultant will assist during the bidding process of the Project by:

1. Responding to bidders' questions pertaining to the Bid Set within 2 business days of receipt of District's written request. The Consultant will maintain a log of bidders' questions and responses, including whether any questions require addenda to the Bid Set.
2. Attending the pre-bid conference, including a site visit, and assisting with preparation of documents to be distributed at the conference.
3. Preparing bid document addenda if clarifications or changes to documents in the Bid Set are needed, which includes:
 - A. Changes to drawings will be shown on 8.5 x 11 sheets to the extent possible.
 - B. Changes to drawings will be signed and stamped and will be provided within 5 business days of the written request from District.
 - C. During preparation of each addendum, the Consultant shall evaluate any construction schedule and cost impact of the addendum and submit to District for consideration prior to finalizing addendum.
4. Preparing a Conformed Set of construction Contract Documents after construction bids are received for use during construction.

Task 400.6.—Assumptions

1. District will arrange process for bidders to obtain Bid Sets.
2. District will receive all bidders' questions, convey those questions related to the Consultant's work to the Consultant, and disseminate the responses to bidders. For budgetary purposes, the number of bidders' questions is not expected to exceed 25.
3. Consultant will assist District in generating pre-bid conference meeting minutes and District will be responsible for disseminating the notes to bidders.
4. Up to two bid document addenda are assumed for budgetary purposes.
5. District is responsible for reproducing and distributing bid documents and addenda documents.

Task 400.6.—Deliverables

1. Written responses to bidders' questions and associated log (1 Draft + 1 Final).

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2. Minutes of the pre-bid conference (1 Draft + 1 Final).
3. Addenda to bid documents (1 Draft + 1 Final).
4. Electronic and wet-stamped versions of stamped and signed revised Contract Documents, including plans and specifications, that are prepared during the bidding process.
5. Wet-stamped and signed conformed set of Contract Documents for use during Project construction (1 Draft + 1 Final).

TASK 500—SUPPLEMENTARY SERVICES (RENUMBERED AND REVISED)

1. Provide Supplementary Services, as needed and approved by the District, to meet Project needs.
2. The District may require and Consultant shall perform Supplementary Services during the Agreement term on an as-needed basis.
3. Prior to performing any Supplementary Service, Consultant must obtain written authorization from the District's Water Utility Capital Division Deputy Operating Officer in the form of a Task Order (See Revised Appendix One, Revised Attachment Three, Task Order Template). Written authorization will state the agreed upon scope of the services requested, associated not-to-exceed fees, and any schedule impacts.
4. Details of the specific scope, deliverable, and not-to-exceed fees for any Supplementary Services will be developed with the District and submitted in writing prior to approval to begin work.
5. Possible Supplementary Services may include but are not limited to:
 - A. Additional Quantities of Services: As requested by District or Consultant, with District's approval, Consultant will provide additional services for any quantity of tasks and deliverables beyond those stated in Tasks 100 through 400 to include but not be limited to:
 - (1) Additional meetings and technical workshops.
 - (2) Additional time allotted for meetings and workshops.
 - (3) Additional status/progress reports.
 - (4) Additional telephone conference calls.
 - (5) Additional pages or copies of technical memorandums, plans, reports, drawings and specifications.
 - (6) Additional public outreach visuals.

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(7) Additional addenda.

VI. ADDITIONAL TERMS AND CONDITIONS (REVISED)

1. Consultant as Independent Contractor

- A. Consultant will perform all services as an independent contractor and not an agent or employee of District.
- B. The expertise and experience of Consultant are material considerations for District's award and execution of this Agreement. Consultant will not assign or transfer any interest in this Agreement nor the performance of any of Consultant's obligations hereunder, without prior written consent of District, in the form of an Amendment executed by both Parties, and any attempt to so assign this Agreement, or any rights, duties or obligations arising hereunder, will be void and of no effect. Any assignment of moneys due or to become due in accordance with this Agreement, will be to the extent permitted by law, and will be subject to all proper set-offs, deductions, and withholdings in favor of the District.

2. Consultant's General Responsibilities

A. Standard of Care

- (1) Consultant and its subconsultants must perform services in accordance with those standards of care that are generally recognized as being used by competent persons in Consultant's area of specialty in the State of California.
- (2) Consultant and its subconsultants must perform services in compliance with all applicable written federal, state and local codes, statutes, laws, regulations and ordinances, including, but not limited to, environmental, energy conservation, and disabled access requirements.

B. Unless the requirements for the Scope of Services described in this Agreement are specifically modified in writing, Consultant must provide its services and deliverables as required.

C. Consultant shall provide staff designated in Revised Attachment One, Consultant's Key Staff and Subconsultants. Any designated staff changes proposed by Consultant must be approved at the administrative staff level by the District Representative.

3. Confidentiality

A. Due to the nature of the services the Consultant will provide under the Agreement, there may be disclosure to the Consultant of detailed information about the District's operations, including on a need-to-know basis information which may be protected from public disclosure by confidentiality laws, the attorney-client privilege, and/or other provisions of law which govern the nature and timing of disclosure of public information.

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- B. Consultant understands and acknowledges that District staff members providing information to the Consultant do so with the understanding that such information will be handled appropriately. In the event the Consultant receives such restricted or confidential information, the Consultant will limit access to the information to only those of the Consultant's employees, its subcontractors, and its subconsultants authorized by the District to have the information.
 - C. Consultant will notify the District's Project Manager immediately of any request by any third party to have access to the information, and will not disclose the requested information without first receiving express written authorization from the District's Project Manager. The requirements of this section will survive completion, termination, suspension, and expiration of the Agreement.
4. Project Management
- A. The Project Manager for the District is Victor Gutierrez, Associate Civil Engineer.
 - B. The Project Manager for Consultant is as indicated in Revised Attachment One, Consultant's Key Staff and Subconsultants, of this Revised Appendix One.
 - C. The District's Project Manager or his designee is the only person authorized to accept Consultant's deliverables on behalf of the District.
5. Task Orders
- A. Supplementary Services will be assigned to the Consultant through issuance of Task Orders. After Supplementary Services to be performed under this Agreement are identified and communicated to Consultant by the District Project Manager, the Consultant will prepare a proposed Task Order. The proposed Task Order must identify the following:
 - (1) Description of the services, including deliverables.
 - (2) The total not-to-exceed amount for Consultant to complete the services, including estimated number of hours per assigned staff to complete the services.
 - (3) Proposed staff that will be assigned to complete the services, including resumes if not previously provided to the District Project Manager.
 - (4) Estimated cost of each reimbursable expense, including any applicable fees.
 - (5) Time schedule for completing the services.
 - (6) Copies of applicable state, federal, and local permits required to complete the services, unless previously provided to the District Project Manager.

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- B. Consultant agrees that the not-to-exceed amount specified in a proposed Task Order will be the product of a good faith effort in exercising its professional judgment. After an agreement has been reached on the negotiable items, the finalized Task Order will be signed by authorized representatives of both Parties.
 - C. Consultant must not commence performance of services on a Task Order until it has been approved by authorized representatives of both Parties and notice to proceed has been issued by the District. No payment will be made for any services performed prior to approval or after the period of performance of the Task Order. The period of performance for Task Orders will be in accordance with dates specified in the Task Order. No Task Order will be written which extends beyond the expiration date of this Agreement. The total amount payable by the District for an individual Task Order will not exceed the amount agreed to in the Task Order.
6. Conflict of Interest
- A. Consultant represents that there exists no actual or potential conflict of interest concerning the services to be performed under this Agreement.
 - B. Consultant represents that Consultant's performance under the Agreement does not require the breach of any agreement or obligation to keep in confidence the proprietary information of another party.
 - C. Consultant will not bring to the District or use in the performance of Consultant's duties under the Agreement any materials or documents of another party considered confidential or proprietary unless Consultant has obtained written authorization from such party, and the informed consent of the District, for the possession and use of such materials.
 - D. Consultant represents and warrants that during the term of the Agreement, Consultant, Consultant's parent company, Consultant's subsidiaries, or any affiliated entity sharing substantially similar ownership of or control with Consultant will not act as a consultant or expert for any party in support of any potential or active claim or legal action against the District by such party.
 - E. Consultant, Consultant's parent company, Consultant's subsidiaries, or any affiliated entity sharing substantially similar ownership of or control with Consultant will not submit a proposal: (i) for any contract to be awarded for construction management, or the construction of any Project that is related to the services provided in accordance with this Agreement; (ii) in response to any request for proposal or District solicitation developed or prepared by or with the assistance of Consultant, Consultant's parent company, Consultant's subsidiaries, or any affiliated entity sharing substantially similar ownership of or control with Consultant; or (iii) for any single or sole source products/services related to the services under this Agreement, or have a financial stake in any single or sole source products/services resulting from this Agreement.

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7. Term & Termination

This paragraph 7. Term and Termination and the following paragraph 8. CONSULTANT'S COMPENSATION UPON TERMINATION OR SUSPENSION, of ARTICLE VI. ADDITIONAL TERMS AND CONDITIONS, replaces the second paragraph stated in the Standard Consultant Agreement portion of this Agreement, at Section VI. CHANGES IN WORK.

A. Term & Automatic Termination

This Agreement encompasses all services for which Consultant is responsible to provide within the time limits and not-to-exceed amount set forth herein. Consultant will not undertake to provide services where it reasonably appears that the services cannot be provided and expenses cannot be incurred within said total compensation limit and the applicable not-to-exceed amount of any Task Order.

B. District's Rights

- (1) Suspension: District may, by written notice to Consultant, suspend any or all services pursuant to this Agreement or to any individual Task Order. District may subsequently terminate this Agreement or any Task Order for convenience, or determine to proceed. If a decision to proceed is not made within 90 days from the date of the notice of suspension, any decision to proceed must be conditioned upon execution of a new Notice-To-Proceed or Task Order.
- (2) Termination for Convenience: District may, by written notice to Consultant, terminate all or part of this Agreement or any Task Order at any time for District's convenience. Upon receipt of such notice, Consultant will immediately cease all work as specified in the notice. If this Agreement or any Task Order is so terminated, Consultant will be compensated as set forth in section 8, Consultant's Compensation Upon Termination of Suspension, referenced below.
- (3) Termination for Breach: If Consultant violates any of the covenants, agreements or stipulations of this Agreement or a Task Order, or if Consultant fails to fulfill in a timely and proper manner its obligations pursuant to this Agreement or any Task Order, and does not cure such failure or violation within 30 days (or a reasonable extension thereof, if requested, which extension will not be unreasonably withheld) after receipt of written notice from District specifying such failure or violation, District will thereupon have the right to terminate this Agreement and any or all uncompleted Task Orders by giving written notice to Consultant of such termination. Such notice will specify the effective date thereof, and Consultant will not be entitled to compensation for services or expenses beyond the specified termination date.
- (4) If, after notice of termination for breach of this Agreement or any Task Order, it is determined that Consultant did not breach the Agreement or Task Order, the termination will be deemed to have been effected for District's convenience, and

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Consultant will receive payment that is allowed by this Agreement for a termination for convenience.

- (5) The rights and remedies provided herein to District are in addition to any other rights and remedies provided by law, this Agreement, or a Task Order.

8. Consultant's Compensation Upon Termination or Suspension

A. In the event of termination of this Agreement or any Task Order, or suspension of services by District, Consultant shall receive compensation based on satisfactory performance, accepted by the District Project Manager, as follows:

- (1) For Direct Labor—Consultant shall be entitled to receive compensation for all authorized direct labor performed prior to termination pursuant to the provisions of this Agreement or Task Order and all authorized labor expenses incurred to demobilize from the Project after the date of termination
- (2) For Reimbursable Expenses—Consultant shall be entitled to receive compensation for all authorized Reimbursable Expenses incurred prior to termination and all authorized expenses incurred to demobilize from the Project after the date of termination
- (3) In no event shall the total compensation paid for any item of service exceed the payment specified in the applicable Task Order for that item of service

9. CALIFORNIA FAIR POLITICAL PRACTICES COMMISSION STATEMENT OF ECONOMIC INTEREST FORM 700 ("FORM 700"): Upon District's request, Consultant employees, officers, agents, subconsultants, and subcontractors shall complete, execute, and submit a Form 700 as follows:

A. Consultant employees, officers, agents, subconsultants, and subcontractors assigned to perform services pursuant to this Agreement shall file with the District in a manner prescribed by the District, an Assuming Office Statement. The Assuming Office Statement shall be filed:

- (1) Within 30 calendar days of the effective date of this Agreement; and
- (2) Within 30 calendar days of Consultant hiring, adding or promoting to a designated filer position employees, officers, agents, subconsultants, and subcontractors to perform services pursuant to this Agreement.

B. Consultant employees, officers, agents, subconsultants, and subcontractors assigned to perform services pursuant to this Agreement that filed an Assuming Office Statement shall file in a manner prescribed by the District an amendment to their Form 700 any time there is a change to their disclosure information.

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- C. Consultant employees, officers, agents, subconsultants, and subcontractors assigned to perform services pursuant to this Agreement that filed an Assuming Office Statement shall file with the District an Annual Statement in a manner prescribed by the District during the District's annual filing season as determined by the District;
- D. Consultant employees, officers, agents, subconsultants, and subcontractors assigned to perform services pursuant to this Agreement that filed an Assuming Office Statement shall file in a manner prescribed by the District a Leaving Office Statement with the District when one of the following occurs:
- (1) Upon termination of this Agreement.
 - (2) Within 30 calendar days of Consultant employees, officers, agents, subconsultants, and subcontractors vacating a designated filing position (i.e., removed from the Project, promotion, demotion, transfer to non-designated position, end of employment, or as a result of changes in designated filer positions in the District's Conflict of Interest Code).
- E. Consultant understands and agrees that its employees, officers, agents, subconsultants, and subcontractors may be disqualified from providing services to the District pursuant to the California Political Reform Act, Gov. Code Sections 81000 et. seq. and Government Code Section 1090. If any of Consultant's employees, officers, agents, subconsultants, and subcontractors are disqualified from providing services, on written notice from District's Project Manager, Consultant will have 15 calendar days to remove that employee(s), officer(s), agent(s), subconsultant's, and subcontractor's person from the Project and provide a replacement acceptable to the District.
10. District Quality and Environmental Management System (QEMS) Fact Sheet (See Revised Attachment Eight to Revised Appendix One)

As an on-site provider of services that has the potential to result in significant environmental impacts, Consultant is required to review the QEMS Fact Sheet, incorporated herein by this reference hereto, with any of the employee(s), sub-contractor(s), and/or subconsultant(s) ("Staff") performing services on behalf of the District, and make Staff aware of the District's Quality and Environmental Policy and their role and responsibility in achieving conformity with the expectations.

11. Release of Information Prohibited

Consultant is not permitted to provide any information concerning the Project to the media nor anyone other than authorized District personnel. Consultant will not release any information pertinent to the Project under design or construction for publication, public disclosure, or in any other manner without first obtaining clearance and a release in writing from the District. Any media inquiry at any time to Consultant relating to any matter concerning services provided or requested to be provided under this Agreement will be

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referred immediately to the District. Consultant will not communicate with the media regarding any such matter.

12. Formation of Agreement

Formation of an Agreement between the Parties requires accomplishment of the following:

- A. Execution of the Agreement by Consultant.
- B. Submission by the Consultant, and acceptance by the District, of evidence of all required insurance coverages and documents.
- C. Submission by the Consultant, and acceptance by the District, of evidence of all required Form 700 documents, if applicable.
- D. Submission by the Consultant, and acceptance by the District, of evidence of the QEMS Awareness and Training certification.
- E. Submission by the Consultant, and acceptance by the District, of all required Non-Disclosure Agreements (“NDA”) or Personal Non-Disclosure Agreements (“PNDA”) documents, if applicable.
- F. Submission by the Consultant, and acceptance by the District, of a Health and Safety Plan, if applicable.
- G. Any other requirements that are deemed necessary by the District.
- H. Execution of the Agreement by the District.

No contract between the Parties is formed until all eight actions items have been accomplished to the satisfaction of the District. The District will not issue a Notice-to-Proceed until all required documents have been submitted and accepted by the District, if applicable.

13. Notices

All notices will be deemed to have been given when made in writing and when delivered or mailed to the representatives of the District and Consultant at their respective addresses as follows:

District:

Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3638
Attention: Katherine Oven, Deputy Operating Officer

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Water Utility Capital Division
E-mail: koven@valleywater.org
Phone: (408) 630-3126

Consultant:

URS Corporation, a Nevada Corporation dba
URS Corporation Americas
300 Lakeside Drive, Suite 400
Oakland, CA 94612
Attention: Noel Wong, Project Director, Vice President
Water, Northern California
E-mail: noel.wong@aecom.com
Phone: (510) 874-3112

14. Good Neighbor

The District always strives to be a good neighbor to the community adjacent to its facility. Consultant will take steps so that disturbance by its actions to neighbors is minimized. Consultant, its staff, and subconsultants will always communicate and interact with the members of the public in a polite and professional manner.

15. Revised Appendix One—Scope of Services Attachments

The following listed Attachments referred to herein are incorporated in this Revised Appendix One—Scope of Services as though set forth in full:

- A. Revised Attachment One—Consultant's Key Staff and Subconsultants (REVISED)
- B. Revised Attachment Two—Dispute Resolution (REVISED)
- C. Revised Attachment Three—Task Order Template (REVISED)
- D. Revised Attachment Four—Reference Materials (REVISED)
- E. Attachment Five—DSOD Interim Hydrology Policy (6/21/2012) (UNCHANGED)
- F. Revised Attachment Six—District Procedures and Work Instructions (REVISED)
- G. Revised Attachment Seven—District Standards for GIS Products (REVISED)
- H. Revised Attachment Eight—Quality and Environmental Management System (QEMS) Fact Sheet (REVISED)
- I. Revised Attachment Nine—Non-Disclosure Agreement (NDA) (REVISED)

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REVISED ATTACHMENT ONE
CONSULTANT'S KEY STAFF AND SUBCONSULTANTS**

1. Consultant's key staff assigned to the Project are as follows:

Team Member	Project Role	Contact Information
Michael Forrest	Principal-in-Charge	michael.forrest@aecom.com (510) 893-3600 300 Lakeside Drive, Suite 400 Oakland, CA 94612
Noel Wong	Project Manager	noel.wong@aecom.com (510) 874-3112 300 Lakeside Drive, Suite 400 Oakland, CA 94612
Greg Reichert	Engineering Manager	gregory.reichert@aecom.com (510) 874-3090 300 Lakeside Drive, Suite 400 Oakland, CA 94612
Bill Martin	Environmental—CEQA Manager	bill.h.martin@aecom.com (510) 874-3020 300 Lakeside Drive, Suite 400 Oakland, CA 94612
Steve Leach	Permitting Manager	steve.leach@aecom.com (510) 874-3205 300 Lakeside Drive, Suite 400 Oakland, CA 94612
Sam Gambino	QA/QC Manager	sam.gambino@aecom.com (510) 874-3073 300 Lakeside Drive, Suite 400 Oakland, CA 94612
Rob Stevens	Alternative Evaluations	rob.stevens@aecom.com (510) 874-3225 300 Lakeside Drive, Suite 400 Oakland, CA 94612
Shannon Leonard	Hydrology/PMP/PMF	shannon.leonard@aecom.com (510) 874-3215 300 Lakeside Drive, Suite 400 Oakland, CA 94612
Norm Ponferrada	Fisheries	norm.ponferrada@aecom.com (510) 874-1747 300 Lakeside Drive, Suite 400 Oakland, CA 94612
Justin Whitfield	Environmental Coordinator	justin.whitfield@aecom.com (510) 874-3078 300 Lakeside Drive, Suite 400 Oakland, CA 94612

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Team Member	Project Role	Contact Information
Jenn Hyman	AC Canal Planning Manager	jenn.hyman@aecom.com (510) 874-3287 300 Lakeside Drive, Suite 400 Oakland, CA 94612
Bob Green	Geotechnical Engineer	robert.k.green@aecom.com (510) 874-3036 300 Lakeside Drive, Suite 400 Oakland, CA 94612
Peter Smith	Structural Engineer	peter.d.smith@aecom.com (510) 874-3280 300 Lakeside Drive, Suite 400 Oakland, CA 94612

2. If necessary and appropriate, Consultant will employ subconsultants it deems appropriate to the complexity and nature of the required services. All subconsultants must, if their specialty is licensable, be licensed by the State of California to perform their specific services. Consultant must obtain District's approval of all subconsultants. Upon District's request, Consultant must provide copies of all subconsultant contract agreements. Any delegation or subcontracting of any services by Consultant will not operate to relieve Consultant of its responsibilities under this Agreement.

A. The following subconsultants are authorized to work on the Project:

Firm	Project Role
Horizon Water and Environmental LLC	Environmental Compliance (CEQA) and Permitting; Water and Sediment Quality; Public Involvement and Outreach
H.T. Harvey & Associates	Environmental Impact Analyses; Endangered and Special-status Species Studies; Wetland Delineations
Martin Lee Corporation	Constructability Reviews, Cost Estimating and Scheduling
Fehr & Peers	Traffic Engineering and Planning
Lee C. Gerbig, LLC	Mechanical Design Support; Outlet Works Layout
Telamon Engineering Consultants, Inc.	Surveying, Mapping, Drafting
SOHA Engineers	Spillway & Outlet Works Design Support
Underwater Resources, Inc.	Outlet Pipe Inspection
Cooper Testing Labs, Inc.	Laboratory Services
Kinnetic Laboratories, Inc.	Sediment Sampling
NORCAL Geophysical Consultants, Inc.	Geophysical Surveys

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REVISED ATTACHMENT ONE
CONSULTANT'S KEY STAFF AND SUBCONSULTANTS**

Firm	Project Role
Taber Drilling	Geotechnical Exploration
Northwest Hydraulic Consultants	Spillway Physical Model Tests
Martin Lee Corporation	Construction Cost Estimates

B. Contact information for the above listed subconsultants is as follows:

Horizon Water and Environmental LLC Kenneth Schwarz, PhD 1330 Broadway, Suite 600 Oakland, CA 94612 Office: (510) 986-1851 Cell: (510) 421-7665 Fax: (510) 350-3592 ken@horizonwater.com	H.T. Harvey & Associates Ginger Bolen 983 University Avenue Building D Los Gatos, CA 95032 Phone: (408) 458-3246 Office: (408) 458-3200 Cell: (408) 426-7326 Fax: (408) 458-3210 gbolen@harveyecology.com
Fehr & Peers Katy Cole 160 West Santa Clara, Suite 675 San Jose, CA 95113 Phone: (408) 278-1700 Fax: (408) 278-1717 K.Cole@fehrandpeers.com	Consulting Mechanical Engineer Lee C. Gerbig, LLC 5555 Royal Troon Way Avon, IN 46123 Phone/Fax: (317) 745-1787 Cell: (317) 554-7755 leecgerbigllc@gmail.com
Telamon Engineering Consultants, Inc. Earl Woods 855 Folsom Street, Suite 142 San Francisco, CA 94107 Phone: (415) 837-1336 Fax: (415) 837-1354 trisha.m@telamoninc.com	SOHA Engineers Stephen Lau 48 Colin P. Kelly Jr. Street San Francisco, CA 94107 Phone: (415) 989-9900 slau@soho.com
Underwater Resources, Inc. Tom Belcher Pier 26, Suite 14, The Embarcadero San Francisco, CA 94105 Phone: (415) 974-5464 Fax (415) 974-1749 tbelcher@underwater-resources.com	Cooper Testing Labs, Inc. Peter Jacke 937 Commercial Street Palo Alto, CA 94303 Phone: (650) 213-8436 peter@coopertestinglabs.com
Kinnetic Laboratories, Inc. Ken Kronschnabl 307 Washington Street Santa Cruz, CA 95060 Phone: (831) 457-3950 kkronschnabl@kinneticlabs.com	NORCAL Geophysical Consultants, Inc. Kenneth Blom 321A Blodgett Street Cotati, CA 94931 Phone: (707) 796-7170 kblom@norcalgeophysical.com

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REVISED ATTACHMENT ONE
CONSULTANT'S KEY STAFF AND SUBCONSULTANTS**

Taber Drilling Steve Taber 536 Galveston Street West Sacramento, CA 95691 Phone: (916) 371-8234 asandino@taberdrilling.com	Northwest Hydraulic Consultants Brian Hughes 30 Gostick Place, North Vancouver British Columbia V7M 3G3 Phone: (604) 969-3006 bhughes@nhcweb.com
Martin Lee Corporation 311 California Street, Suite 610 San Francisco, CA 94104 Phone: (415) 693-0236 mlee@mleecorp.com	

3. Consultant Key Staff and Subconsultants

- A. Consultant's key staff and subconsultants assigned to perform services are identified in this Revised Attachment One to Revised Appendix One, Scope of Services.
- B. The Project team organization chart and delegated responsibilities of each team member will be submitted to the District for concurrence.
- C. Consultant may utilize subconsultants, subcontractors, suppliers, or vendors it deems appropriate to the complexity and nature of the required Services.
 - (1) Consultant must obtain the District's approval of all subconsultants. Upon the District's request, Consultant must provide copies of all subconsultant agreements.
 - (2) Consultant must require its delegates or subconsultants to agree, in writing, to adhere to terms and conditions of this Agreement.
- D. Any delegation or use of subconsultants by Consultant will not operate to relieve Consultant of its responsibilities as described in this Agreement.
- E. If any of Consultant's designated key staff persons or subconsultants fail to perform to the satisfaction of the District, on written notice from the District, Consultant will have 15 calendar days to remove that person from the Project and provide a replacement acceptable to the District.
- F. Consultant will not charge the District for the time it takes Consultant's replacement personnel to obtain the District-specific Project knowledge in the possession of the person(s) being replaced.

AMENDMENT NO. 3 TO AGREEMENT A3639A

**REVISED APPENDIX ONE, SCOPE OF SERVICES
REVISED ATTACHMENT ONE
CONSULTANT'S KEY STAFF AND SUBCONSULTANTS**

G. Consultant's Key Staff

The District Project Manager may approve any revisions to Consultant's list of key staff assigned to the Project as an administrative modification to this Agreement, and such approval will be confirmed in writing.

H. Consultant's Subconsultants

- (1) The District Project Manager may approve any revisions to Consultant's list of authorized Subconsultants when the Subconsultant is deleted from the list and the scope of services is deleted from the Agreement or such services are assumed by the Consultant; such approval will be confirmed in writing.
- (2) The District's authorized representative may approve any revisions to Consultant's list of authorized Subconsultants when a listed Subconsultant is replaced (to perform the same scope) or a new Subconsultant is added (to perform new scope), provided the firm complies with all insurance requirements established by the District for such work; such approval will be confirmed in writing.

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AMENDMENT NO. 3 TO AGREEMENT A3639A

**REVISED APPENDIX ONE, SCOPE OF SERVICES
REVISED ATTACHMENT TWO
DISPUTE RESOLUTION**

1. CONSULTANT'S QUESTIONS AND CONCERNS

Questions regarding the terms, conditions and services relating to this Agreement will be decided by the District who will furnish the decisions to Consultant in writing within thirty (30) days after receiving a written request from Consultant.

2. DISPUTE RESOLUTION

A. Alternative Dispute Resolution (ADR)

(1) District intends to use ADR techniques including partnering and mediation to resolve disputes relating to the Project.

B. Consultant and its subconsultants are expected to participate in all ADR efforts.

C. The cost of partnering training facilities and facilitator will be borne by District.

3. NEGOTIATIONS BEFORE AND DURING MEDIATION

Negotiations to resolve disputes before and during mediation are initiated for settlement purposes only and are not binding unless otherwise agreed by District and Consultant.

4. VOLUNTARY MEDIATION

A. In the event a dispute or issue is not resolved by the Internal Review process stated in the Standard Consultant Agreement, Section VIII. RESOLUTION OF DISPUTES, District and Consultant agree to attempt to resolve the matter by mediation. The External Review paragraph of Section VIII. is hereby deleted.

B. Said mediation is voluntary, non-binding, and intended to provide an opportunity for the Parties to evaluate each other's cases and arrive at a mutually agreeable solution.

C. These provisions relating to voluntary mediation shall not be construed or interpreted as mandatory arbitration.

5. INITIATION OF MEDIATION

A. Any Party to a dispute or claim may initiate mediation by notifying the other Party or Parties in writing.

6. REQUEST FOR MEDIATION

A. A request for mediation must contain a brief written statement of the nature of the dispute or claim, and the names, addresses, and phone numbers of all Parties to the dispute or claim, and those who will represent them, if any, in the mediation.

AMENDMENT NO. 3 TO AGREEMENT A3639A

REVISED APPENDIX ONE, SCOPE OF SERVICES REVISED ATTACHMENT TWO DISPUTE RESOLUTION

7. SELECTION OF MEDIATOR

- A. Upon receipt of a written request for mediation, unless otherwise agreed by the Parties, within 14 Days, the Parties will confer to select an appropriate mediator agreeable to all Parties.
- B. If the Parties cannot agree on a mediator, they hereby agree to accept a mediator appointed by a recognized association such as the American Arbitration Association.

8. QUALIFICATIONS OF A MEDIATOR

- A. Any mediator selected must have expertise in the area of the dispute and be knowledgeable in the mediation process.
- B. No person shall serve as a mediator in any dispute in which that person has any financial or personal interest in the result of the mediation.
- C. Before accepting an appointment, the prospective mediator must disclose any circumstances likely to create a presumption of bias or prevent a prompt meeting with the Parties. Upon receipt of such information, the Parties will confer and decide whether to select another mediator.

9. VACANCIES

- A. If any mediator becomes unwilling or unable to serve, another mediator will be selected unless the parties agree otherwise.

10. REPRESENTATION

- A. Any Party may be represented by person(s) of their choice who must have full authority to negotiate.
- B. The names and addresses of such person(s) must be communicated in writing to both Parties and to the mediator.

11. TIME AND PLACE OF MEDIATION

- A. The mediator will set the time of each mediation session.
- B. The mediation will be held at a convenient location agreeable to the mediator and the Parties, as determined by the mediator.
- C. All reasonable efforts will be made by the Parties and the mediator to schedule the first session within 60 days after selection of the mediator.

AMENDMENT NO. 3 TO AGREEMENT A3639A

REVISED APPENDIX ONE, SCOPE OF SERVICES REVISED ATTACHMENT TWO DISPUTE RESOLUTION

12. IDENTIFICATION OF MATTERS IN DISPUTE

- A. The Parties shall comply with the process as required by the mediator, with regard to providing the mediator with memorandum setting forth its position with regard to the issues that need to be resolved. At the discretion of the mediator, or otherwise agreed by the Parties, the Parties may mutually exchange such memoranda.
- B. At the first session, the Parties will be expected to produce all information reasonably required for the mediator to understand the issue(s) presented. The Mediator may require each Party to supplement such information.

13. AUTHORITY OF MEDIATOR

- A. The mediator does not have authority to impose a settlement on the Parties but will attempt to assist the parties in reaching a satisfactory resolution of their dispute.
- B. The mediator is authorized to conduct joint and separate meetings with the Parties and to make oral and written recommendations for settlement.
- C. Whenever necessary, the mediator may also obtain expert advice concerning technical aspects of the dispute, provided the Parties agree and assume the expenses of obtaining such advice. Arrangements for obtaining such advice will be made by the mediator or the Parties, as determined by the mediator.
- D. The mediator is authorized to end the mediation whenever, in the mediator's judgment, further efforts at mediation would not contribute to a resolution of the dispute between the Parties.

14. PRIVACY

- A. Mediation sessions are private.
- B. The Parties and their representatives may attend mediation sessions.
- C. Other persons may attend only with the permission of the Parties and with the consent of the mediator.

15. CONFIDENTIALITY

Except as provided by California or federal law or regulation:

- A. The mediator will not divulge confidential information disclosed to a mediator by the Parties or by witnesses in the course of the mediation.

AMENDMENT NO. 3 TO AGREEMENT A3639A

REVISED APPENDIX ONE, SCOPE OF SERVICES REVISED ATTACHMENT TWO DISPUTE RESOLUTION

- B. All records, reports, or other documents received by a mediator while serving as mediator, are confidential.
- C. The mediator must not be compelled to divulge such records or to testify in regard to the mediation in any adversary proceeding or judicial forum.
- D. The Parties must maintain the confidentiality of the mediation and must not rely on, or introduce as evidence in any arbitration, judicial or other proceedings:
 - (1) Views expressed or suggestions made by the other Party with respect to a possible settlement of the dispute.
 - (2) Statements made by the other Party in the course of the mediation proceedings.
 - (3) Proposals made or views expressed by the mediator.
 - (4) Whether the other Party had or had not indicated willingness to accept a proposal for settlement made by the mediator.

16. NO STENOGRAPHIC RECORD

- A. There shall be no stenographic record of the mediation.

17. TERMINATION OF MEDIATION

- A. The mediation shall be terminated:
 - (1) By the execution of a Settlement Agreement by the Parties.
 - (2) By a written declaration of the mediator to the effect that further efforts at mediation are no longer worthwhile.
 - (3) By a written declaration of a party or parties to the effect that the mediation proceedings are terminated.

18. EXCLUSION OF LIABILITY

- A. No mediator shall be a necessary Party in judicial proceedings related to the mediation.

19. INTERPRETATION AND APPLICATION OF THESE MEDIATION PROVISIONS

- A. The mediator will interpret and apply these mediation provisions insofar as they relate to the mediator's duties and responsibilities.

AMENDMENT NO. 3 TO AGREEMENT A3639A

**REVISED APPENDIX ONE, SCOPE OF SERVICES
REVISED ATTACHMENT TWO
DISPUTE RESOLUTION**

20. EXPENSES

- A. The expenses of witnesses for each Party must be paid by the Party producing the witnesses.
- B. All other expenses of the mediation, including required travel and other expenses of the mediator, and the expenses of any witness called by the mediator, or the cost of any proofs or expert advice produced at the direct request of the mediator, will be apportioned as the mediator finds appropriate or as otherwise agreed to by the Parties.

21. COMPENSATION FOR PARTICIPATION IN MEDIATION

- A. Neither Consultant nor the District is entitled to compensation for time spent in or for negotiations or mediation to resolve questions or disputes between Consultant and District arising out of this Agreement.

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AMENDMENT NO. 3 TO AGREEMENT A3639A

**REVISED APPENDIX ONE, SCOPE OF SERVICES
REVISED ATTACHMENT THREE
TASK ORDER TEMPLATE**

Task Order No.

Agreement: Standard Consultant Agreement (“Agreement”) Between the Santa Clara Valley Water District (“District”) and (“Consultant”), dated

District:

Consultant:

Dollar Amount of Task Order: Not-to-exceed \$_____

1. Upon full execution of this Task Order Number: _____, as set forth in Revised Appendix One, Scope of Services, Article VI. ADDITIONAL TERMS AND CONDITIONS, paragraph 5. Task Orders, and issuance of a notice to proceed by the District, the Consultant is hereby authorized to perform the services described in Attachment A to this Task Order. Any costs incurred, services performed or expenditures by the Consultant before this Task Order is executed or before the issuance of the notice to proceed will be considered outside the contracted scope of services and will not be eligible for payment.
2. Both the scope of services to be performed and the deliverables to be provided under this Task Order are described in Attachment A which is attached hereto and incorporated by this reference. Attachment A identifies the following:
 - a. The Consultant personnel to be assigned to perform the services, including resumes if not previously provided to the District.
 - b. The estimated number of hours required to perform the services assigned to each assigned Consultant personnel.
 - c. Estimated cost of each reimbursable expense, including any applicable fees.
 - d. Project schedule for completing the scope of services.
3. The Consultant shall be compensated at the hourly rates established in Revised Appendix Two of the Agreement. The Consultant agrees that it will provide all equipment, furnish all materials, except as may be otherwise noted in the Attachment A.
4. This Task Order is effective on the date of full execution by authorized representatives of both Parties and remains in effect until the earlier of: completion of the tasks set forth in Attachment A or [expected completion date].
5. Copies of applicable state and federal permits required to complete the work in Attachment A are attached to this Task Order, unless the Consultant previously provided the appropriate permits to the District.
6. The Consultant shall perform all services described in Attachment A to this Task Order in accordance with the terms and conditions of the Agreement.

AMENDMENT NO. 3 TO AGREEMENT A3639A

**REVISED APPENDIX ONE, SCOPE OF SERVICES
REVISED ATTACHMENT THREE
TASK ORDER TEMPLATE**

7. Prevailing Wage Requirements.

- A. The Scope of Services Described in Task XXXX is considered by the District to be "Public Works" requiring the payment of prevailing wages. See Revised Appendix Two, Fees and Payments, Article IV. Terms and Conditions, paragraph M. Prevailing Wages.
- B. In accordance with the prevailing wage laws, the Director of the California 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 Project. These rates are set forth in the latest determination obtained from the Director, which is on file in the District's Office of the Clerk of the Board of Directors and incorporated herein by reference the same as though set forth in full. The rates are also available on the State of California Department of Industrial Relations website at <http://www.dir.ca.gov>.

8. Signatures:

Signature: _____
NAME OF CONSULTANT FIRM
Print Name
Print Title

DATE _____

Signature: _____
SANTA CLARA VALLEY WATER DISTRICT
Print Name
Print Title

DATE _____

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AMENDMENT NO. 3 TO AGREEMENT A3639A

**REVISED APPENDIX ONE, SCOPE OF SERVICES
REVISED ATTACHMENT FOUR
REFERENCE MATERIALS**

	DESCRIPTION
1	Geosyntec Consultants, 2012, Report of Potential Failure Mode Analysis (PFMA) Workshop on March 24, 2011 for Almaden Dam.
2	AMEC Geomatrix/WLA, 2009, Technical Memorandum No. 3, Seismotectonic and Ground Motion Study, Seismic Stability Evaluation of DIP Phase I Dams, Santa Clara County, CA.
3	Bailey, E.H. and Everhart, D.L., 1964, Geology and Quicksilver Deposits of the New Almaden District, Santa Clara County, California: U. S. Geological Survey Professional Paper 360, 206 p.
4	California Department of Water Resources, Division of Safety of Dams (Lessman), 2008, Review of Dam Instrumentation Program (DIP) Data Report Almaden Dam, No. 72-04, Santa Clara County, February 29, 2008.
5	Fugro West, Inc., 2007a, Geotechnical Support Services Project (GSSP), Dam Instrumentation Project (DIP) - Phase 1 (Volume 5 of 6) Field Logs and Piezometer Data Sheets for Anderson Dam, Calero Dam, Almaden Dam, and Guadalupe Dam.
6	Nelson, J.L., 2008, Santa Clara Valley Water District, Compilation Report on Analysis of Foundation and Embankment Conditions at Anderson, Almaden, Calero Main, and Guadalupe Dams.
7	Nelson, J.L., 2010, 2010 Surveillance Report, May 2009 through August 2010, Almaden Dam No. 72-4, Santa Clara County, SCVWD report dated August 2010.
8	Scott, J. B., 1976, Reconnaissance of landslide conditions at Almaden reservoir: office report on- file at the SCVWD, San Jose, CA.
9	Santa Clara Valley Water District, 1987, Specifications and contract documents for Modifications and Repairs to Almaden Dam and Guadalupe Dam Outlet Facilities.
10	Santa Clara Valley Water District, 2009, Almaden Dam, Probable Maximum Flood Study, June, 2009.
11	Technical Review Board Seismic Safety Evaluation of SCVWD Dams, 2009, Letter Report; Review of Proposed Investigation, Seismic Stability Evaluation of Almaden Dam, Guadalupe Dam and Calero (Main and Auxiliary) Dams, Santa Clara Valley Water District, October 9, 2009.
12	Technical Review Board Seismic Stability Evaluation of DIP Phase I Dams, 2007, Letter Report; Technical Meeting No. 1, Seismic Stability Evaluation of DIP Phase 1 Dams Santa Clara Valley Water District, December 18, 2007.
13	Thomas Reid Associates, 2006, Santa Clara Valley Water District Dam Instrumentation Project, Phase IB and II, Initial Study/Mitigated Negative Declaration: unpublished consultant report on file at the SCVWD, San Jose, CA.
14	URS Corporation; 2002, Santa Clara Valley Water District., Almaden Dam outlet works project: draft report.
15	URS, 2010a, Design Memorandum No. 1 (DM-1) - Final Submittal, Proposed Field Exploration and Laboratory Testing Plan, Seismic Stability Evaluation of SSE1B Dams, Santa Clara County, CA, April 14, 2010.

AMENDMENT NO. 3 TO AGREEMENT A3639A

**REVISED APPENDIX ONE, SCOPE OF SERVICES
REVISED ATTACHMENT FOUR
REFERENCE MATERIALS**

	DESCRIPTION
16	URS, 2010b, Design Memorandum No. 2 (DM-2) - Geologic Mapping, Seismic Stability Evaluation of SSE1B Dams, Santa Clara County, CA, August 27, 2010.
17	URS, 2010c, Design Memorandum No. 4 - Task 3- Site-Specific Design Earthquake Motions, Seismic Stability Evaluation of SSE1B Dams, Santa Clara County, CA, October 14, 2010.
18	URS, 2010d, Design Memorandum No. 5A - Draft Final, Data Summary and Material Properties for Stability Analysis, Seismic Stability Evaluation SSE1B, Almaden Dam, Santa Clara County, CA, October 21, 2010.
19	URS, 2011, Design Memorandum No. 6A, Draft Static and Seismic Stability Analyses, Seismic Stability Evaluation SSE1B, Almaden Dam, (DM-6A) dated August 8, 2011.
20	URS and AMEC, 2012, Design Memorandum No. 7, Recommended Reservoir Restrictions, Seismic Stability Evaluation SSE1B, Almaden, Calero, and Guadalupe Reservoirs, (DM-7) dated February 28, 2012.**
21	Volpe, R. L., 2005, Decision Document for the Dam Instrumentation Project: Phase 1— Almaden, Anderson, Calero & Guadalupe Dams. Santa Clara Valley Water District, San Jose.
22	Volpe, R. L., 2006, Addendum to Decision Document for the Dam Instrumentation Project: Phase 1-Almaden, Anderson, Calero & Guadalupe Dams. Santa Clara Valley Water District, San Jose.
23	California Department of Water Resources, Division of Safety of Dams, 2012, Almaden Dam, No. 72-4 Santa Clara County Letter, March 2012.
24	Santa Clara Valley Water District, 2012, Dam Maintenance Program Final PEIR, January 2012.
25	Santa Clara Valley Water District, 2012, Dam Maintenance Program PEIR Appendices, January 2012.
26	URS Corporation / Underwater Resources, Inc.; 2001, Santa Clara Valley Water District, Almaden Reservoir Outlet Works Summary Report of Inlet Structure and Outlet Pipe Inspections, October 2001.
27	URS Corporation; 2003, Santa Clara Valley Water District, Jurisdictional Delineation Report Almaden Dam Maintenance Program, January 2004.
28	URS Corporation; 2004, Santa Clara Valley Water District, Technical Memorandum Hydraulic Analysis Almaden Dam Outlet Works Project, January 2004.
29	FCI Constructors, Inc., 2004, Santa Clara Valley Water District, Almaden Dam Outlet Works Project Constructability Review of Construction Alternatives 1-3 with Recommendations, November 2004.
30	Santa Clara Valley Water District, 2012, Almaden Reservoir & Guadalupe Reservoirs Aerial & Bathymetric Surveys, April 2012
31	Bureau of Reclamation Technical Service Center, 1997, Almaden - Calero Canal Water Conservation Project, September 1997.

AMENDMENT NO. 3 TO AGREEMENT A3639A

**REVISED APPENDIX ONE, SCOPE OF SERVICES
REVISED ATTACHMENT FOUR
REFERENCE MATERIALS**

	DESCRIPTION
32	Santa Clara Valley Water District Water Resources Management Group Hydrology and Geology Unit, 1996, Almaden - Calero Canal Drainage Flow Study, October & December 1996
33	Santa Clara Valley Water District, 1976, Almaden - Calero Canal Land Slide Investigation, July 1976
34	Santa Clara Valley Water District, 2005, Geotechnical /Geologic Investigation for Almaden - Calero Canal Rehabilitation Project Maintenance Road Stability, April 2005
35	Santa Clara Valley Water District, 1975, Specifications and Contract Documents for the Installation of Emergency Spillway on Almaden-Calero Canal, November 1975
36	Santa Clara Valley Water District, 2004, Geotechnical Investigation Almaden - Calero Canal Station 91+60 to 95+.00, May 2004
37	Santa Clara Valley Water District, 1997, Reconnaissance Engineering Geologic Processes Map Almaden - Calero Canal, February 1997
38	State of California Department of Public Works Division of Water Resources, 1960, License for Diversion and Use of Water, March 1960
39	Santa Clara Valley Water Conservation District, 1957, Almaden – Calero Canal Property Map “9272_PropMap_Set 2024”, January 1957
40	Santa Clara Valley Water Conservation District, 1957, Almaden – Calero Canal Property Map “9272_PropMap_Set 2022”, January 1957
41	Santa Clara Valley Water Conservation District, 1936, Almaden – Calero Conduit Profile “9272_Construction_Set 2025”, January 1936
42	Santa Clara Valley Water Conservation District, 1934, Almaden – Calero Conduit General Plan “9272_Construction_Set 2023”, October 1934
43	Santa Clara Valley Water District, 1977, Map and Construction Plan for the Installation of Emergency Spillways on Almaden - Calero Canal between Canal Station 85+10 and 203+87 ” 9272_AsBuilt_Set 2026”, June 1977
44	Santa Clara County Flood Control and Water District, 1923, Zone No – 1 Almaden – Calero Canal “9272_AsBuilt_Set 2021”, November 1973
45	Santa Clara Valley Water District, 2010, Almaden – Calero Canal Levee Profile, December 2010
46	Santa Clara Valley Water District, 2010, Almaden – Calero Canal Surv Req No. 2011-085, December 2010
47	URS Corporation, 2015, Technical Memorandum, Final Feasible Alternatives, Almaden Dam Improvement Project, March 2015
48	URS Corporation, 2015, Technical Memorandum, Planning Phase, Final PMP & PMF Study, Almaden Improvement Project, March 2015
49	URS Corporation, 2014, Final, Design Phase Geotechnical Investigation Work Plan, Almaden Improvement Project, December 2014
50	URS Corporation, 2015, Technical Memorandum, Final Dam Outlet Works Inspection Report, Almaden Dam Improvement Project, March 2015

AMENDMENT NO. 3 TO AGREEMENT A3639A

**REVISED APPENDIX ONE, SCOPE OF SERVICES
REVISED ATTACHMENT FOUR
REFERENCE MATERIALS**

	DESCRIPTION
51	URS Corporation, 2015, Technical Memorandum, Final Revised Hydraulic Assessment of Almaden-Calero Canal, May 2015
52	URS Corporation, 2015, Technical Memorandum, Final Condition Assessment of Almaden-Calero Canal and Calero Reservoir Maintenance Road, February 2015
53	URS Corporation, 2016, Technical Memorandum, Feasibility of Fish Passage at Almaden Dam, April 2016
54	URS Corporation, 2015, Technical Memorandum, Final Revised Hydraulic Assessment of Almaden-Calero Canal, May 2015
55	URS Corporation, 2017, Technical Memorandum, Final Geotechnical Investigation Work Plan – Phase 3, July 2017
56	URS Corporation, 2017, Technical Memorandum, Final Spillway Condition Assessment Visual Inspection Work Plan, September 2017
57	URS Corporation, 2016, Technical Memorandum, Data Collection and Investigations Work Plan, April 2016
58	URS Corporation, 2016, Draft Almaden Dam Base Map, February 2016
59	URS Corporation, 2016, Technical Memorandum, Draft Phase II Geotechnical Data Report, April 2016
60	URS Corporation, 2015, Technical Memorandum, Draft Design Criteria Memorandum, November 2015
61	URS Corporation, 2015, Technical Memorandum, Draft Outlet System Hydraulic, Operational & Maintenance Analysis Memorandum, December 2015
62	URS Corporation, 2015, Technical Memorandum, Revised Draft Spillway Hydraulics CFD Investigation, October 2015
63	URS Corporation, 2017, Technical Memorandum, Final Spillway Physical Model Work Plan, February 2017
64	URS Corporation, 2015, Technical Memorandum, Revised Draft Embankment Stability Analysis Memorandum, October 2015
65	URS Corporation, 2015, Technical Memorandum, Revised Draft Seepage Analysis Memorandum, October 2015
66	URS Corporation, 2017, Technical Memorandum, Right Abutment Cut Slope Stability Memorandum, May 2017
67	URS Corporation, 2015, Technical Memorandum, Draft Reservoir Operations for Construction Technical Memorandum, October 2015
68	URS Corporation, 2016, AC Canal Survey - Plan and Profile Mapping, June 2016
69	URS Corporation, 2016, Technical Memorandum, Final AC Canal Hydrologic Runoff Analysis Technical Memorandum, August 2016
70	URS Corporation, 2017, Technical Memorandum, Final Hydraulic Alternatives Analysis of AC Canal, February 2017
71	URS Corporation, 2016, Technical Memorandum, AC Canal Problem Definition Report, October 2016
72	URS Corporation, 2017, Technical Memorandum, Revised Draft Feasible Alternatives Report, May 2017

AMENDMENT NO. 3 TO AGREEMENT A3639A

**REVISED APPENDIX ONE, SCOPE OF SERVICES
REVISED ATTACHMENT FOUR
REFERENCE MATERIALS**

	DESCRIPTION
73	URS Corporation, 2017, Technical Memorandum, Final Dewatering Baseline Survey, July 2017
74	URS Corporation, 2016, Technical Memorandum, Final Environmental Field Investigation Plan, AC Canal Improvement Project, July 2016

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AMENDMENT NO. 3 TO AGREEMENT A3639A
REVISED APPENDIX ONE, SCOPE OF SERVICES
REVISED ATTACHMENT FIVE
DSOD INTERIM HYDROLOGY POLICY (6/21/2012) (UNCHANGED)

DSOD's policy after the 1999 release of HMR 58/59 was to not actively require new hydrology studies as a result of the updated HMR. If a new dam was proposed or major work was being performed that affected the spillway, then those projects would be analyzed under HMR 59 with the requirement of 1.5 feet of residual freeboard.

Also, if dam owners initiated an updated hydrological study on their own using HMR 59, we would then follow and do our evaluation of the spillway with HMR 59.

Otherwise, dams that were previously analyzed using HMR 36 and were able to pass the PMF without overtopping the dam were considered adequate. If a dam was not able to pass the PMF based on HMR 36, then the spillway remediation would need to be designed to pass the PMF based on HMR 59.

So, now after learning more about the methodologies used to derive HMR 59 and the fact that the NOAA Atlas 14 has recently been released, DSOD is in a transition period with our hydrology policy with respect to HMR 59.

DSOD still requires as before that new dams and major projects be designed under HMR 59, and if an existing dam previously analyzed using HMR 36 can adequately pass a PMF, then no additional work is required at this time.

If an existing dam was previously shown to not adequately pass a PMF based on HMR 36 (overtops the dam), then the dam owner has the following options to consider. It may be advantageous for the dam owner to do a phased approach in evaluating the level of study required as outlined below:

1. Using HMR 59, determine if the precipitation is higher or lower than that of HMR 36. In some areas, HMR 59 is similar to HMR 36 or may show a reduction. If HMR 59 is equal to or lower than HMR 36, then the adequacy of the spillway is based on HMR 59.
2. If the results from HMR 59 are higher than HMR 36, then the owner can either remediate the spillway with those results which may be conservative, or develop a modified HMR 59 accounting for the updated NOAA Atlas 14 data as compared to NOAA Atlas 2 data. In this approach, the results from the HMR 36 should be used as a lower bound in evaluating the results from the modified HMR 59 study. If the results are reasonable, then the modified HMR 59 may be used as the basis for the PMF to evaluate the adequacy of the spillway.
3. Lastly, if the modified HMR 59 study continues to show a significant increase in precipitation as compared to HMR 36, then the dam owner may choose to have a SSPMP analysis performed. If this option is chosen, then the input parameters and methods used need to be thoroughly discussed with us before initiating the study. Results of the SSPMP may or may not be accepted based on the reasonableness of the results compared to HMR 36, historical storms, etc. It would be advantageous for the dam owner to have an independent technical advisor to review the parameters and methodologies used by the consultant performing the SSPMP study since there currently is not a standardization in place for SSPMP studies.

AMENDMENT NO. 3 TO AGREEMENT A3639A

REVISED APPENDIX ONE, SCOPE OF SERVICES
REVISED ATTACHMENT SIX
DISTRICT PROCEDURES AND WORK INSTRUCTIONS

ATTACHMENT No.	DOCUMENT TITLE
1	Capital Project Delivery, Q7571013, Revision I
2	Create Work Plan, W75102, Revision I
3	Change Management Practice, W75101, Revision D
4	District File Instructions for Capital Projects, W42302, Revision F
5	Project Delivery Process Chart for Board Agenda Items, F75103a, Revision C
6	Close-Out Checklist, F75102, Revision J
7	Planning Phase WBS, W73001, Revision K
8	Planning Phase WBS Item Descriptions and Instructions, W73002, Revision M
9	CPS Project Review—Responses to Technical Review Comments, F73005, Revision B
10	Calculations Cover Sheet, F73008, Revision B
11	Listing of Calculations Form, F73009, Revision C
12	Approval Planning Development Documents & Master Checklist, F73003, Revision C
13	Environmental Planning, Q520D01, Revision G
14	Environmental Planning Guidance: Section 1—Purpose of Environmental Planning and CEQA Services, W520M01, Revision C
15	Environmental Planning Guidance: Section 2—CEQA Documentation Guidelines, W520M02, Revision F
16	Environmental Planning Guidance: Section 3—Mitigation Monitoring and Reporting Programs, W52070, Revision C
17	Environmental Planning Guidance: Section 4—Responsible Agency, W520069, Revision D
18	Best Management Practices Handbook, W751037, Revision G
19	Project Comment Tracking for Responses to Comments on draft CEQA, F73004, Revision A
20	Instructions for Conducting a Hazardous Substance Liability Assessment (HSLA), W73007, Revision D
21	HSLA Request Form, F73006, Revision C
22	Design Phase WBS, W73003, Revision G
23	Design Phase WBS Item Descriptions and Instructions, W73004, Revision K
24	Technical Memorandum Form, F73001, Revision A
25	30% Design Submittal Approval Form & Master Checklists, F73002a, Revision E
26	60% Design Submittal Approval Form & Master Checklists, F73002b, Revision E
27	90% Design Submittal Approval Form & Master Checklists, F73002c, Revision E

AMENDMENT NO. 3 TO AGREEMENT A3639A
REVISED APPENDIX ONE, SCOPE OF SERVICES
REVISED ATTACHMENT SIX
DISTRICT PROCEDURES AND WORK INSTRUCTIONS

ATTACHMENT No.	DOCUMENT TITLE
28	100% Design Submittal Approval Form & Master Checklists, F73002d, Revision E
29	Advertise/Bid Opening/Report of Bids/Award, W73008, Revision G
30	Checklist for Project Advertising, F75102, Revision C
31	Construction Phase WBS, W73005, Revision B
32	Construction Phase WBS Item Description and Instructions, W73006, Revision D
33	Construction Submittal Comment Form, F73007, Revision B

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AMENDMENT NO. 3 TO AGREEMENT A3639A
REVISED APPENDIX ONE, SCOPE OF SERVICES
REVISED ATTACHMENT SEVEN
SANTA CLARA VALLEY WATER DISTRICT
STANDARDS FOR GIS PRODUCTS, JULY 2017

A. INTRODUCTION

1. A Geographic Information System (GIS) is an organized collection of computer hardware, software, and geographic data designed to efficiently capture, store, update, manipulate, analyze, and display all forms of geographically referenced information.

B. GENERAL POLICIES

1. The diverse nature of GIS precludes policies that cover every situation that can arise. However, the general policies of the District as they apply to the GIS include:
 - a. The District GIS standard coordinate system is California State Plane Coordinate System (Feet) using the North American Datum of 1983 California Zone 3 (NAD 83) for horizontal data and the North American Vertical Datum of 1988 (NAVD 88) for vertical data;
 - b. Each dataset must have a complete, District-compliant metadata file specific to that dataset. Datasets that do not include metadata will not be accepted by the District; and
 - c. All GIS products must be reviewed by the Software Services Unit or a reviewer authorized by the Software Services Unit before they can be accepted by the District.

C. DEFINITIONS

1. **ESRI**—Environmental Systems Research Institute. A GIS software company. The District is standardized on ESRI GIS software.
2. **Dataset**—Any tabular, vector, or raster data including, but not limited to, ESRI shapefile, ESRI geodatabase, dBase IV (DBF), ESRI GRID, Multiresolution Seamless Image Database (MrSID), Tag Image File (TIFF or GeoTIFF) format, or other ESRI-compliant format.
3. **Metadata**—Information that describes the content, quality, condition, origin, and other characteristics of data or other pieces of information. Metadata for spatial data may describe and document its subject matter; how, when, where, and by whom the data was collected; availability and distribution information; its projection, scale, resolution, and accuracy; and its reliability with regard to some standard. Metadata consists of properties and documentation. Properties are derived from the data source (for example, the coordinate system and projection of the data), while documentation is entered by a person (for example, keywords used to describe the data).

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4. **PRJ File**—The PRJ (projection) file contains the coordinate system information for the data.
5. **World File**—A text file containing information about where an image should be displayed in real world coordinates. When an image has a properly configured world file, GIS software can use the information (a total of six values, including the starting coordinates, the cell size in both x and y dimensions, and any rotation and scaling information) to accurately overlay the image with any other data already in that coordinate system.

D. DATASET STANDARDS

1. All GIS feature datasets will be created in ESRI shapefile, ESRI geodatabase, or other ESRI-compliant format. Tabular datasets will be in dBase IV (DBF) format, ESRI geodatabase, or other ESRI-compliant format. Image data will be in ESRI GRID, Multiresolution Seamless Image Database (MrSID), or Tag Image File (TIFF or GeoTIFF) format.
2. All GIS datasets must include coordinate system information. Shapefiles must include ESRI-compliant PRJ files and image data must include ESRI-compliant World files. PRJ files can be created using ArcGIS. Non-ArcGIS users can create a PRJ file by copying the information from Attachment Four-A Sample PRJ file for California State Plane Zone 3 NAD 83 feet, pasting it in Notepad, and then saving it as the name of the dataset with a PRJ extension. For example, the shapefile **creek.shp** should have a PRJ file named **creek.prj**.

E. METADATA STANDARDS

1. A metadata file for each dataset must be completed in order to comply with the Federal Geographic Data Committee (FGDC) Content Standards for Digital Geospatial Metadata. The Content Standard for Digital Geospatial Metadata adopted by the State Land Information Board, State of California, can be found on the Federal Geographic Data Committee website (<https://www.fgdc.gov/>).
2. If a new dataset is derived from an existing dataset that does not have metadata, a complete, District-compliant metadata file must be provided with the new dataset.
3. If using ArcGIS software, metadata should be created using ArcCatalog and provided in eXtensible Markup Language (XML) file format. All required fields must be completed. A list of required fields can be found in Attachment Four-B SCVWD GIS Dataset Metadata Template. Attachment Four-C SCVWD GIS Dataset Metadata Help provides information about each required field.

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4. If not using ArcGIS software, metadata can be provided in Rich Text (RTF) file format using the District's metadata template, Attachment Four-B SCVWD GIS Dataset Metadata Template.
5. If the originator of the dataset is not a District employee, metadata contact information must be provided for both the originator as well as a District employee who can answer questions about the dataset.

F. PROJECT STANDARDS

1. ArcGIS Project files (MXD) provided to the District must be created so that they can be easily transferred to the District's file system without broken links to datasets or pictures. Any non-standard marker symbols, fonts, or other special files must be included with the Project. Project files must be saved with relative path names. Pictures (such as logos) must be saved as part of the document. Use of layer packages (LPK) and map packages (MPK) is encouraged.

G. APPLICATION STANDARDS

1. All desktop, web, and mobile GIS applications must be developed using technology compatible with ESRI products if they are to be transferred to the District for hosting and/or maintenance. Alternatively, the Project should include budget to fund hosting, maintenance, and support of the application. The Software Services Unit must be contacted before development begins on any desktop, web, or mobile GIS application to discuss specific requirements.

H. CARTOGRAPHY STANDARDS

1. All maps must have the following standard map components:
 - a. Title
 - b. Legend
 - c. North Arrow
 - d. Scale Bar
 - e. Map Date
 - f. Map Author
 - g. Data Sources/Credits (when applicable)

I. ATTACHMENTS

The following listed Attachments referred to herein are incorporated in this document (District Standards for GIS Products) as though set forth in full:

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1. Attachment A Sample PRJ File for California State Plane Zone NAD 83 Feet
2. Attachment B SCVWD GIS Dataset Metadata Template
3. Attachment C SCVWD GIS Dataset Metadata Help

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ATTACHMENT A
SAMPLE PRJ FILE FOR CALIFORNIA STATE PLANE
ZONE III NAD 83 FEET

```
PROJCS["NAD_1983_StatePlane_California_III_FIPS_0403_Feet",GEOGCS["GCS_North_American_1983",DATUM["D_North_American_1983",SPHEROID["GRS_1980",6378137,298.257222101]],PRIMEM["Greenwich",0],UNIT["Degree",0.017453292519943295]],PROJECTION["Lambert_Conformal_Conic"],PARAMETER["False_Easting",6561666.666666666],PARAMETER["False_Northing",1640416.666666667],PARAMETER["Central_Meridian",-120.5],PARAMETER["Standard_Parallel_1",37.06666666666667],PARAMETER["Standard_Parallel_2",38.43333333333333],PARAMETER["Latitude_Of_Origin",36.5],UNIT["Foot_US",0.30480060960121924]]
```

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ATTACHMENT B

SCVWD GIS DATASET METADATA TEMPLATE

FGDC METADATA INFORMATION. REQUIRED INFORMATION FOR FGDC COMPLIANCE—ALL ITEMS UNDER "REQUIRED INFORMATION" MUST BE COMPLETED!

A. REQUIRED INFORMATION

1. CITATION INFORMATION
 - a. ORIGINATOR:
 - b. PUBLICATION DATE:
 - c. TITLE:

2. DESCRIPTION INFORMATION
 - a. ABSTRACT:
 - b. PURPOSE:

3. TIME PERIOD OF CONTENT INFORMATION
 - a. CALENDAR DATE:
 - b. CURRENTNESS REFERENCE:

4. STATUS INFORMATION
 - a. PROGRESS:
 - b. UPDATE FREQUENCY:

5. KEYWORDS INFORMATION
 - a. THEME:
 - b. THESAURUS:

6. ACCESS INFORMATION
 - a. ACCESS CONSTRAINTS:
 - b. USE CONSTRAINTS:

7. ATTRIBUTE INFORMATION
 - a. ATTRIBUTE LABEL:
 - b. ATTRIBUTE DEFINITION:

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8. POINT OF CONTACT INFORMATION

SCVWD CONTACT:

Attn: GIS Analyst
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3614
(408) 630-3040

9. DISTRIBUTION CONTACT INFORMATION (If Applicable)

- a. CONTACT PERSON:
- b. CONTACT ORGANIZATION:
- c. ADDRESS:
- d. CITY:
- e. STATE OR PROVINCE:

10. METADATA CONTACT INFORMATION

- a. CONTACT PERSON:
- b. CONTACT ORGANIZATION:
- c. ADDRESS:
- d. CITY:
- e. STATE OR PROVINCE:
- f. METADATA DATE:

11. SPATIAL REFERENCE INFORMATION

- a. PROJECTION: California State plane, NAD 83, Zone 3, Feet

B. ADDITIONAL INFORMATION

1. DATA ACCURACY/QUALITY

- a. ORIGINAL SOURCE/SCALE:
- b. LOGICAL CONSISTENCY:
- c. COMPLETENESS:
- d. PROCESS DESCRIPTION:
- e. ATTRIBUTE ACCURACY REPORT:

2. NOTES:

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ATTACHMENT C
SCVWD GIS DATASET METADATA HELP

FGDC METADATA INFORMATION. REQUIRED INFORMATION FOR FGDC COMPLIANCE—ALL ITEMS UNDER "REQUIRED INFORMATION" MUST BE COMPLETED!

A. REQUIRED INFORMATION

1. CITATION INFORMATION

- a. ORIGINATOR: The organization or individual who developed the data; for example, authors would be the originators of a book.
- b. PUBLICATION DATE: The date when the data set is made available for release or otherwise published. Dates can be provided as a year, a year and a month, or as a year, month, and day. Dates should be provided in the format YYYYMMDD (e.g., 20000921). If the publication date is unknown, put unknown. If the material (data) is unpublished, put unpublished material.
- c. TITLE: The name of the dataset, filename.

2. DESCRIPTION INFORMATION

- a. ABSTRACT: Abstract briefly describes the "what" aspects of the data. For example, what information is in the data set? What area is covered?
- b. PURPOSE: Purpose describes the "why" aspects. For example, why was the data set created?

3. TIME PERIOD OF CONTENT INFORMATION

- a. CALENDAR DATE: The year (and optionally month, or month and day) for which the data set corresponds to the ground, or "ground condition." The ground condition is the date for when the real world looked the way it is described by the data (e.g., the calendar date/ground condition for a set of aerial photographs would be the date or dates that the pictures were taken). Dates should be provided in the format YYYYMMDD (e.g., 20000921). If the data was collected during a series of dates, please provide a beginning date and an ending date (e.g., Beginning Date: 20020912, Ending Date: 20031225).
- b. CURRENTNESS REFERENCE: Indicate the basis on which the time period of content information was determined. Most potential users are

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interested in a data set's currentness with regard to the "ground condition" (that is, when the "real world" looked the way it is described in the data set). Unfortunately, sometimes only the date that the information was recorded or published—perhaps weeks, months, or even years after it was collected—is known. Or the time period of content dates may have been derived in some other fashion (e.g., from a text phrase such as Summer, 1992). The Currentness Reference element requires the producer to identify whether the Time Period of Content dates refer to the ground condition, to some later time when the information was published, or are derived from some source. The choices for this section would be: ground condition, publication date, or free text.

4. STATUS INFORMATION

- a. PROGRESS: The state of the data set. Use words such as complete, in work, or planned.
- b. UPDATE FREQUENCY: The frequency with which changes and additions are made to the data set after the initial data set is complete. Use words such as annually, as needed, continually, daily, irregular, monthly, none planned, quarterly, unknown, weekly, or other text describing when the data is updated.

5. KEYWORDS INFORMATION

- a. THEME: Common use word or phrase (keywords) used to describe the subject of the data set. Keywords are words or phrases that index the contents of the data source; they are very useful when searching for data. Theme is not the file name (e.g., creeks.shp, pipeline.shp, etc.).
- b. THESAURUS: You must specify whether or not the theme keywords were derived from a formal thesaurus. If not, type "None"; otherwise, provide the name of the thesaurus.

6. ACCESS INFORMATION

- a. ACCESS CONSTRAINTS: Restrictions and legal prerequisites for accessing the data set. If there are no access constraints, the value of the appropriate element should be "None."
- b. USE CONSTRAINTS: Restrictions and legal prerequisites for using the data set after access is granted. If there are no use constraints, the value of the appropriate element should be "None."

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7. ATTRIBUTE INFORMATION: Attribute Labels and Definitions must be included for each attribute.
 - a. ATTRIBUTE LABEL: The name of the attribute field.
 - b. ATTRIBUTE DEFINITION: A description of the attribute necessary to clarify or explain the dataset.

8. POINT OF CONTACT INFORMATION: The name of the individual/organization to contact to gain information about the data set. The current information will be used as the default for the point of contact information.
 - a. SCVWD CONTACT:

GIS Analyst
Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, CA 95118-3614
(408) 630-3040

9. DISTRIBUTION CONTACT INFORMATION (If Applicable): The name of the individual/organization that is responsible for the creation and distribution of the original data set.
 - a. CONTACT PERSON: The name of the individual to contact where the data set was acquired.
 - b. CONTACT ORGANIZATION: The name of the organization to contact where the data set was acquired.
 - c. ADDRESS: The address of the organization or the individual.
 - d. CITY: The city of the address.
 - e. STATE OR PROVINCE: The state or province of the address.

10. METADATA CONTACT INFORMATION: The party who is responsible for creating the metadata must be included as the metadata contact; they should be able to answer questions about or receive reports about errors in the metadata.
 - a. CONTACT PERSON: The name of the individual who created the metadata.
 - b. CONTACT ORGANIZATION: The **organization** associated with the creation of the metadata.

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- c. ADDRESS: The address of the organization or the individual.
- d. CITY: The city of the address.
- e. STATE OR PROVINCE: The state or province of the address.
- f. METADATA DATE: When the metadata was last updated (YYYYMMDD).

11. SPATIAL REFERENCE INFORMATION

- a. PROJECTION: California State plane, NAD 83, Zone 3, Feet

B. ADDITIONAL INFORMATION

1. DATA ACCURACY/QUALITY

- a. ORIGINAL SOURCE/SCALE: The original source and scale at which the data was derived from.
- b. LOGICAL CONSISTENCY: Describes the topological integrity of the data. For example, do lines intersect only where intended? Are there any duplicate lines? Are any polygons too small? You may want to report the software used to test and verify the topological integrity of the data.
- c. COMPLETENESS: Includes information about omissions, selection criteria, generalization, definitions used, and other rules used to derive the data. For example, you may want to include information about thresholds such as the minimum area for polygons.
- d. PROCESS DESCRIPTION: Provide details of the steps taken to construct the data. For each detail, provide a description including the parameters or tolerances used; as well as dates, software, and the process contact. (i.e., "update log")
- e. ATTRIBUTE ACCURACY REPORT: An explanation of the accuracy of the identification of entities and assignments of values in the data set and a description of the tests used. Attribute descriptions should go in this section as well.

2. NOTES:

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REVISED APPENDIX ONE, SCOPE OF SERVICES REVISED ATTACHMENT EIGHT QUALITY AND ENVIRONMENTAL MANAGEMENT SYSTEM (QEMS) FACT SHEET

Fact sheet

Quality and Environmental Management System (QEMS)



What is ISO?

The International Organization for Standardization (ISO) is the world's largest developer of voluntary international standards, which are state of the art specifications for products, services, and good practices, helping make industry more efficient and effective. For the Santa Clara Valley Water District's (district) customers and public, this means greater confidence in consistent, high quality products and services the district provides.

The district has extensive history of ISO commitment, having first been registered to ISO 9001 in 2002 for Quality Management Systems and to ISO 14001 in 2004 for Environmental Management Systems.

The district is currently certified to ISO 9001:2008 and ISO 14001:2004.

Principles of ISO

The district's management system is implemented based on the following ISO principles:

- **Customer Focus:** improve customer satisfaction
- **Leadership on purpose and direction:** management creates engagement
- **Involvement of people at all levels:** everyone is involved
- **Process approach to resources and activities:** process consistency and stability
- **Systems approach to management:** plan the work; work the plan
- **Continual improvement as a permanent objective:** seek regular, constant improvement
- **Factual approach to decision making:** ensure the facts before making decisions
- **Mutually beneficial relationships:** if they fail, then the organization fails

What are the Benefits of ISO?

- Improves efficiency and productivity
- Reduces variation, waste, inefficiencies, and defects
- Facilitates continual improvement
- Improves process consistency and stability
- Improves employee motivation and participation
- Improves customer confidence and satisfaction
- Improves conformity to quality and environmental requirements

District's Quality and Environmental Policy

The Santa Clara Valley Water District is committed to organizational excellence and environmental stewardship, and as such, maintains an integrated Quality and Environmental Management System (QEMS) conforming to ISO standards. The QEMS supports the organization's continual improvement through the development of a robust employee knowledge base, which ensures continuity of daily operations and facilitates succession planning. Compliance with this policy is the responsibility of each individual working for or on behalf of the District.

Purpose:

- Provide Silicon Valley safe, clean water for a healthy life, environment, and economy.

Customers:

- Meet customer requirements and enhance customer satisfaction.

Environmental Stewardship:

- Provide environmental stewardship through prevention of pollution and minimizing and managing environmental impacts by setting and regularly reviewing quality and environmental objectives.

Continual Improvement:

- Ensure the QEMS is regularly monitored and improved in accordance with ISO requirements to ensure that all District products and services offer the highest level of quality while maximizing the District's environmental stewardship efforts.

Compliance:

- Compliance with Board policies and statutory and regulatory requirements related to the District's quality and environmental processes.

Policy, Objectives, and Targets:

- Ensure this policy is documented, maintained, and implemented, and, in addition to the District's quality and environmental objectives and targets, reviewed for continuing suitability through periodic Management Reviews.

Awareness and Competence:

- Ensure, through workforce development, training, communication, and succession planning, that each individual working for and on behalf of the District has the awareness, skills, and knowledge to carry out this policy in a manner that maximizes effectiveness, ensures continuity of daily operations, promotes continual improvement, and contributes to environmental stewardship.

Public:

- Ensure this policy is available to the public.

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District's Significant Environmental Aspects

For each type of activity, product, or service, the district has identified its unique environmental aspects and determined the most significant environmental aspects that have or could have a significant environmental impact.

Management recognizes the following two major activities, within the scope of the QEMS, as having or could have a significant impact on the environment:

Bulk Chemical Storage

The district water treatment plants utilize several bulk chemicals in the water treatment process. The chemical of greatest concern, which could create a significant impact, is 19.5% aqueous ammonia. This chemical is regulated under the California Accidental Release Program. This chemical is singled out for greater control because accidental releases have the potential to create offsite consequences that could spread to residential neighborhoods adjacent to the water treatment plants.

Construction of water utility and flood protection capital projects

Construction of water utility infrastructure and flood protection projects can involve significant changes to riparian environments and other landforms. The district recognizes the impact of these changes by integrating projects into watersheds as a whole, ensuring that ecological functions and processes are supported, ensuring that the quality and availability of water are protected for ecological and water supply functions, and that environmental impacts of projects are avoided, minimized, or mitigated.

District's Quality and Environmental Objectives

The district has identified operational objectives throughout the organization. Specifically, in support of ISO, the district analyzes and determines goals for meeting customer product requirements and overall environmental goals consistent with the environmental policy.

The following in-scope quality and environmental objectives act as a general framework for continual improvement in the organization.

For More Information:

Your District contact can provide more information or answer any questions.

Quality Objectives:

- Prepare and respond effectively to flood emergencies countywide to protect life and property
- Current and future water supply for municipalities, industries, agriculture, and the environment is reliable.
- Reliable high quality drinking water is delivered
- Maintain effective relationships with the retailer and other stakeholders to ensure high quality, reliable drinking water
- Provide natural flood protection for residents, businesses, and visitors.
- Protect parcels from flooding by applying an integrated watershed management approach that balances environmental quality and protection from flooding.

Environmental Objectives:

- Prepare and respond to pollutants that threaten local waterways.
- Reduce greenhouse gas emissions to achieve carbon neutrality by 2020.

Environmental Impacts

Pollution prevention is the cornerstone of ISO's environmental standard. ISO requires that every individual working for or on behalf of the District is responsible for being aware of how their work could impact or potentially impact the environment. ISO specifies that staff, vendors, and contractors are aware of the QEMS policy, the District's significant environmental aspects, and the impacts of their work on the environment. Processes and programs are designed and implemented to help control environmental impacts resulting from District operations and therefore, deviating from these could have unintended adverse impacts on the environment.

Assessing the QEMS for Effectiveness

To ensure that the district is continually improving its QEMS and conforms to the ISO standards, regularly scheduled audits of the system are conducted by an external third-party. This organization, known as a registrar, audits the QEMS and makes findings based on interviews and review of district procedures and records. Any deviations from the ISO standards are captured as non-conformities and require the district to take the necessary corrective and preventive actions to prevent reoccurrence. If the district is found to be in conformance to the ISO standards of which it is registered, the registrar recommends certification.

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REVISED APPENDIX ONE, SCOPE OF SERVICES
REVISED ATTACHMENT NINE
NON-DISCLOSURE AGREEMENT (NDA)



SANTA CLARA VALLEY WATER DISTRICT
NON-DISCLOSURE AGREEMENT (NDA)

FC 1650 (12-30-14)
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This Agreement is between the Santa Clara Valley Water District (hereinafter "District"), and ("Company") identified as:

(Company Name)

(Street Address, City, State, Zip, Country)

Now, in consideration of the mutual covenants herein contained, District and Company agree as follows:

1. **Purpose.** This Agreement is to protect District from the misuse or inadvertent disclosure of District confidential and proprietary information that is disclosed in connection with the Company performing work for the District. District confidential information is described as follows:

The information described above will hereinafter be referred to as "Confidential Information."

2. **Limits on Use of Confidential Information.** Company shall maintain in confidence and will not disclose or disseminate the Confidential Information, whether or not in written form. Company agrees that Company shall treat all Confidential Information with at least the same degree of care as Company accords its own confidential information. Company shall encrypt Confidential Information that is electronic data, and store hard copies in a locked secure location. Company further represents that Company exercises at least reasonable care to protect its own confidential information. If Company is not an individual, Company agrees that Company will only disclose Confidential Information to those of its employees who need to know such information, and certifies that such employees have previously signed a copy of this Agreement.
3. **Acknowledgment of Title.** District, by reason of this Agreement, has not relinquished any right of ownership to the Confidential Information. Nor does District create a non-exclusive right in favor of Company as to the Confidential Information. Company acknowledges that title to Confidential Information delivered to Company under this Agreement shall, at all times remain with District.
4. **Restrictions on Use of Confidential Information.** Company shall not directly or indirectly disclose, display, provide, transfer or otherwise make available all or any part of the Confidential Information to any person (including its consultants and independent contractors), unless Company has received prior written permission from the District and such person previously signed a copy of this Agreement. Company shall not make copies of the Confidential Information or any portion thereof. Company acknowledges that Confidential Information may be utilized only in accordance with providing services to the District.
5. **Return.** Company agrees to return to District all Confidential Information. Company shall return to District all Confidential Information and copies thereof of documents, computer media and other items of District at such time as further retention is no longer necessary for future performance in connection with performing work for the District or upon 30 days written notice from District. In addition, Company agrees to erase, delete or destroy any notes, documents, magnetic media, or other computer storage, including system backups that contain any Confidential Information copies or derived from the Confidential Information. Company acknowledges that District, because of the unique nature of the Confidential Information, would suffer irreparable harm in the event that Company breaches its obligation under this Agreement in that monetary damages would be inadequate to compensate District for such breach. Company agrees that in such circumstances, District shall be entitled, in addition to monetary relief, to injunctive relief as may be necessary to restrain any continuing or further breach by Company, without showing or approving any actual damages sustained by District.

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6. **Notice of Disclosure.** Company shall immediately notify District of any unauthorized disclosure, loss of Confidential Information and shall further take all reasonable steps to retrieve and prevent further unauthorized disclosure of such proprietary information. Such disclosure of a loss shall in no way limit District's remedies under this Agreement including, but not limited to, immediate injunctive relief. Notwithstanding the foregoing, nothing herein shall restrict the right of Company to disclose such Confidential Information that is disclosed pursuant to a judicial order, but only to the extent so ordered, provided, however, that Company receiving such order shall notify District of such order in sufficient time to permit District to intervene in response to such order and provided that the confidential or proprietary markings remain on the information disclosed.

7. **General**

7.1 **Entire Agreement.** This Agreement sets forth the entire understanding and agreement between the parties hereto as to the subject matter of this Agreement and supersedes any previous communications, negotiations, warranties, representations, and prior non-disclosure agreements, either oral or written, with respect to obligations of confidentiality of the subject matter hereof, and no addition or modification of this Agreement shall be binding on either party hereto unless reduced to writing and duly executed by each of the parties hereto.

7.2 **Applicable Law/Disputes.** This Agreement is governed by the laws of the State of California. In any dispute arising out of this Agreement, the parties hereby consent to personal and exclusive jurisdiction and venue in the State and Federal Courts in Santa Clara County, California.

7.3 **Survival of Company's Obligations.** All obligations of Company under this Agreement shall survive the return of the Confidential Information and termination of this Agreement.

7.4 **Authority.** The undersigned individuals represent that they have the authority to enter into and bind the parties to this Agreement.

COMPANY:

SANTA CLARA VALLEY WATER DISTRICT:

By: _____
(Signature)

By: _____
(Signature)

Name: _____
(Printed)

Name: _____
(Printed)

Title: _____

Title: _____

Date: _____

Date: _____

AMENDMENT NO. 3 TO AGREEMENT A3639A
REVISED APPENDIX ONE, SCOPE OF SERVICES
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NON-DISCLOSURE AGREEMENT (NDA)



PERSONAL NDA
(Attachment One to the Santa Clara Valley
Water District NDA)
FC 1650 (12-30-14)
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I acknowledge that the Santa Clara Valley Water District ("District") will make available to me from time to time certain information that is highly confidential to the District. I acknowledge that such information is extremely sensitive and agree that I will not disclose all or any part of this confidential information to any person, firm, corporation, association, or partnership without the express written permission of the District. This confidential information includes, but is not limited to, the following kinds of information: citizen complaints, utility records, plans, security data, vulnerability assessments, draft documents, network data, control systems data, security protocols, personnel data, computer programs, remote application access, computer information licensed to the District, work product of the District's employees and agents, and other non-public information.

I will at all times hold all of the District's confidential information in trust and in the strictest confidence. This obligation shall continue after my employment at the District has ended. I will prevent the impermissible release of the District's confidential information. I will neither retain nor incorporate any of the confidential information into any database or any medium other than as may be required for the District's exclusive benefit. I will not duplicate or disclose or otherwise reveal such confidential information in any manner inconsistent with this NDA.

In addition, I will not perform any illegal acts with respect to the confidential information, and I will not share the password or account access provided exclusively to me. When leaving a workstation unattended, or out of sight, I will save my work and log off or lock the workstation to prevent unauthorized access. I will make no attempt to circumvent access codes or information protection schemes or uncover security loopholes or attempt to break authentication procedures or encryption protocols. I will make no attempts to increase the level of access to which I have been authorized. I will not attempt to use or obtain access codes in an unauthorized manner or from another user. I will not allow non-employees to access District computer systems.

I acknowledge that my faithful compliance with this NDA is necessary to protect the District and that any action on my part that is inconsistent with this NDA will cause the District irreparable and continuing harm. Therefore, if anything I do is inconsistent with this NDA, I agree that the District may obtain a court order to stop my inconsistent actions and to otherwise prevent any inconsistent actions, without the District having to post any bond or security for such order. I further agree that the District may pursue other remedies available to it, all of which are nonexclusive and cumulative.

PLEASE COMPLETE THE FOLLOWING SECTION (PLEASE PRINT):

Full Name:	
Company Name:	
Phone No.:	Fax No.:
Email Address:	
What department(s) do you work with within the District?	
Signature:	Date:

AMENDMENT NO. 3 TO AGREEMENT A3639A

**REVISED APPENDIX TWO
FEES AND PAYMENTS**

I. GENERAL

- A. Payment for all services performed by Consultant to the satisfaction of the District as described in Appendix One and Revised Appendix One, Scope of Services for this Agreement will be based on the Total Not-to-Exceed (NTE) Fees stated in this Revised Appendix Two for the completion of the associated tasks. The District will make payments to the Consultant according to the terms provided for in this Revised Appendix Two. Payments made by the District to the Consultant for services rendered will be considered full compensation for all personnel, materials, supplies, subconsultant(s), and equipment including reimbursable, travel, and per diem expenses incurred by the Consultant to complete the work.

II. TOTAL AUTHORIZED FUNDING

- A. Total payment for services performed, as described in Appendix One and Revised Appendix One, Scope of Services, will not exceed a total amount of **\$9,419,000** during the term of the Agreement. Under no conditions will the total compensation to the Consultant exceed this NTE amount without prior written approval in the form of an amendment to this Agreement executed by the District's Board of Directors ("Board"), or Chief Executive Officer, or designee, as authorized by the Board. Consultant guarantees that it will complete the contracted Scope of Services for the total NTE amount stated herein.

III. COST BREAKDOWN

- A. The not-to-exceed total compensation of this Agreement consists of the following task fee breakdown. No services will be performed or fees paid by the District to Consultant for Supplementary Services without prior written authorization by the District as stated in Appendix One or Revised Appendix One of this Agreement.

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AMENDMENT NO. 3 TO AGREEMENT A3639A

**REVISED APPENDIX TWO
FEES AND PAYMENTS**

COST BREAKDOWN

ORIGINAL AGREEMENT THROUGH AMENDMENT NO. 2 PER ORIGINAL TASK NUMBERS

TASK	DESCRIPTION	ORIGINAL NTE FEE	AMENDMENT No. 1 NTE FEE	AMENDMENT No. 2 NTE FEE	AMENDMENT No. 2 TOTAL FIXED NTE FEE
1	Project Management Services for Almaden Dam	\$173,465	\$105,000	\$77,461	\$355,926
2	Planning Study for Almaden Dam	\$225,857	N/A	N/A	\$225,857
3	Environmental Documentation for Almaden Dam	\$557,015	N/A	N/A	\$557,015
4	Permitting for Almaden Dam	\$302,080	N/A	N/A	\$302,080
5	Public Outreach Assistance for Almaden Dam	\$32,770	N/A	N/A	\$32,770
6	Condition Assessment of Almaden-Calero Canal and Calero Reservoir Maintenance Road	\$34,694	N/A	N/A	\$34,694
7	Supplementary Services	\$328,119	N/A	\$763,817	\$1,091,936
8	Design Services for Almaden Dam	N/A	\$2,260,000	\$461,461	\$2,721,461
9	Planning Study for Almaden-Calero Canal	N/A	N/A	\$276,347	\$276,347
10	Environmental Documentation for Almaden-Calero Canal	N/A	N/A	\$583,396	\$583,396
11	Permitting for Almaden-Calero Canal	N/A	N/A	\$237,518	\$237,518
Total NTE Amount		\$1,654,000	\$2,365,000	\$2,400,000	\$6,419,000

COST BREAKDOWN

ORIGINAL AGREEMENT THROUGH AMENDMENT NO. 3 PER NEW TASK NUMBERS*

TASK	DESCRIPTION	ORIGINAL NTE FEE*	AMENDMENT No. 1 NTE FEE*	AMENDMENT No. 2 NTE FEE*	AMENDMENT No. 3 NTE FEE	AMENDMENT No. 3 TOTAL FIXED NTE FEE
100	Project Management Services	\$173,465	\$105,000	\$77,461	\$250,144	\$606,070
200	Planning Services	\$293,321	N/A	\$276,347	N/A	\$569,668
300	Environmental & Permitting Services	\$859,095	N/A	\$820,914	\$629,384	\$2,309,393
400	Design Services	N/A	\$2,260,000	\$461,461	\$1,738,278	\$4,459,739
500	Supplementary Services	\$328,119	N/A	\$763,817	\$382,194	\$1,474,130
Total NTE Amount		\$1,654,000	\$2,365,000	\$2,400,000	\$3,000,000	\$9,419,000

* Notes: Original through Amendment No. 3 NTE amounts have been redistributed using Amendment 3 Task structure as shown in Revised Appendix One, Section V. TASKS (RENUMBERED AND REVISED)

AMENDMENT NO. 3 TO AGREEMENT A3639A

**REVISED APPENDIX TWO
FEES AND PAYMENTS**

IV. TERMS AND CONDITIONS

Payments for work completed, as described in Appendix One and Revised Appendix One, Scope of Services, will be based on the following terms:

- A. District will pay for services provided by the Consultant according to the schedule of rates for professional, technical, and administrative personnel as listed below in the Hourly and Unit Rate Schedule.
- B. The stated hourly rates are effective for the term of this Agreement unless otherwise revised as indicated. After 12 months from the date this Agreement is entered into by parties ("anniversary date"), and each 12 months thereafter, these hourly and unit rates may be negotiated by the Consultant and the District, provided Consultant submits written notice to District of Consultant's request to revise the hourly rates 90 calendar days prior to the anniversary date of this Agreement. Both parties will use as a benchmark for negotiations the percent change for the previous 12 months of the "Employment Cost Index (ECI), for total compensation for private industry workers, for the San Francisco–Oakland–San Jose, CA CSA Census region and metropolitan area (not seasonally adjusted)" as published by the U.S. Department of Labor, Bureau of Labor Statistics, or 2.0%, whichever is less. A negative index will result in rates remaining the same. Such rate revisions are subject to written approval by the District Deputy Operating Officer.

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AMENDMENT NO. 3 TO AGREEMENT A3639A

**REVISED APPENDIX TWO
FEES AND PAYMENTS**

HOURLY/UNIT RATE SCHEDULE

Classification/Staff	Original Agreement Hourly Rate Effective 05/14/13	Amendment No. 1 Hourly Rate Effective 7/22/14	Amendment No. 2 Hourly Rate Effective 12/8/15	Amendment No. 3 Hourly Rate Effective 03/13/18
PRIME—URS				
Principal	\$232	\$236.64	\$241.37	\$251.12
Project Manager	\$232	\$236.64	\$241.37	\$251.12
Principal Engineer/Geologist/Scientist	\$200	\$204.00	\$208.08	\$216.49
Senior Project Engineer/Geologist/Scientist IV	\$170	\$173.40	\$176.87	\$184.02
Senior Project Engineer/Geologist/Scientist III	\$160	\$163.20	\$166.46	\$173.18
Senior Project Engineer/Geologist/Scientist II	\$140	\$142.80	\$145.66	\$151.54
Senior Project Engineer/Geologist/Scientist I	\$125	\$127.50	\$130.05	\$135.30
Project Engineer/Geologist/Scientist	\$115	\$117.30	\$119.65	\$124.48
Senior Engineer/Geologist/Scientist II	\$110	\$112.20	\$114.44	\$119.06
Senior Engineer/Geologist/Scientist I	\$100	\$102.00	\$104.04	\$108.24
Staff Engineer/Geologist/Scientist II	\$90	\$91.80	\$93.64	\$97.42
Staff Engineer/Geologist/Scientist I	\$85	\$86.70	\$88.43	\$92.00
GIS/CADD Senior Staff	\$129	\$131.58	\$134.21	\$139.63
GIS/CADD Staff	\$85	\$86.70	\$88.43	\$92.00
Administrative Professional	\$70	\$71.40	\$72.83	\$75.77
SUBCONSULTANT(S)				
Horizon Water and Environmental LLC				
Principal	\$203	\$207.06	\$211.20	\$219.73
Senior Associate II	\$170	\$173.40	\$176.87	\$184.02
Senior Associate I	\$160	\$163.20	\$166.46	\$173.18
Associate II	\$149	\$151.98	\$155.02	\$161.28
Associate I	\$139	\$141.78	\$144.62	\$150.46
Clerical	\$69	\$70.38	\$71.79	\$74.69
H.T. Harvey & Associates				
Principal	\$215	\$219.30	\$223.69	\$232.73
Senior Ecologist 1	\$147	\$149.94	\$152.94	\$159.12
Ecologist 1	\$116	\$118.32	\$120.69	\$125.57

AMENDMENT NO. 3 TO AGREEMENT A3639A

**REVISED APPENDIX TWO
FEES AND PAYMENTS**

Classification/Staff	Original Agreement Hourly Rate Effective 05/14/13	Amendment No. 1 Hourly Rate Effective 7/22/14	Amendment No. 2 Hourly Rate Effective 12/8/15	Amendment No. 3 Hourly Rate Effective 03/13/18
GIS Specialist	\$105	\$107.10	\$109.24	\$113.65
Administrative Professional	\$80	\$81.60	\$83.23	\$86.59
Fehr & Peers				
Principal II	\$225	\$229.50	\$239.70	\$249.38
Senior Administrative Assistant I	\$155	\$158.10	\$127.50	\$132.65
Senior Administrative Assistant II	\$125	\$127.50	\$117.30	\$122.04
Transportation Planner/Engineer	\$135	\$137.70	\$127.50	\$132.65
Technician III	\$110	\$112.20	\$127.50	\$132.65
Lee C. Gerbig, LLC				
Lee Gerbig	\$100	\$102.00	\$104.04	\$108.24

Classification/Staff (Added in Amendment No. 1)	Amendment No. 1 Hourly Rate Effective 7/22/14	Amendment No. 2 Hourly Rate Effective 12/8/15	Amendment No. 3 Hourly Rate Effective 03/13/18
Telamon Engineering Consultants, Inc.			
Principal	\$222.00	\$226.93	\$236.10
Project Manager	\$206.59	\$210.72	\$219.23
Engineer III	\$158.92	\$162.10	\$168.65
Engineer II	\$143.02	\$145.88	\$151.77
Engineer I	\$127.13	\$129.67	\$134.91
CAD Manager	\$158.92	\$162.10	\$168.65
CAD Drafter III	\$143.02	\$145.88	\$151.77
CAD Drafter II	\$127.13	\$129.67	\$134.91
CAD Drafter I	\$111.24	\$113.46	\$118.04
Survey Manager	\$206.59	\$210.72	\$219.23
Survey Party Chief	\$143.02	\$145.88	\$151.77
Survey Field Crew	\$127.13	\$129.67	\$134.91
Administration/Accounting	\$127.13	\$129.67	\$134.91
Clerical	\$101.70	\$103.73	\$107.92
SOHA Engineers			
Principal	\$220	\$224.40	\$233.47
Senior Project Manager	\$180	\$183.60	\$191.02
Senior Project Engineer	\$135	\$137.70	\$143.26
Drafter	\$95	\$96.90	\$100.81

AMENDMENT NO. 3 TO AGREEMENT A3639A

**REVISED APPENDIX TWO
FEES AND PAYMENTS**

Classification/Staff (Added in Amendment No. 1)	Amendment No. 1 Hourly Rate Effective 7/22/14	Amendment No. 2 Hourly Rate Effective 12/8/15	Amendment No. 3 Hourly Rate Effective 03/13/18
Towill, Inc			
Geomatics Principal	\$195	\$195.00	\$202.88
Geomatics Project Manager	\$152	\$152.00	\$158.14
Senior Geomatics Analyst	\$118	\$118.00	\$122.77
Geomatics Analyst	\$91	\$91.00	\$94.68
Geomatics Technician	\$77	\$77.00	\$80.11

Classification/Staff (Added in Amendment No. 2)	Amendment No. 2 Hourly Rate Effective 12/8/15	Amendment No. 3 Hourly Rate Effective 03/13/18
Northwest Hydraulic Consultants		
Principal	\$240	\$249.70
Professional I	\$210	\$218.48
Professional II	\$170	\$176.87
Professional III	\$150	\$156.06
Professional IV	\$125	\$130.05
Professional V	\$105	\$109.24
Technologist I	\$140	\$145.66
Technologist II	\$120	\$124.85
Technologist III	\$95	\$98.84
Technologist IV	\$80	\$83.23
Technologist V	\$60	\$62.42
Administrator	\$145	\$150.86
Clerical I	\$95	\$98.84
Clerical II	\$80	\$83.23
Clerical III	\$60	\$62.42
M Lee Corporation		
Chief Estimator	\$218	\$222.36
Senior Estimator	\$161	\$164.22

AMENDMENT NO. 3 TO AGREEMENT A3639A

**REVISED APPENDIX TWO
FEES AND PAYMENTS**

Classification/Staff (Added in Amendment No. 2)	Amendment No. 2 Hourly Rate Effective 12/8/15			
Underwater Resources, Inc.				
	Admin/Shop	Straight-time Hourly	Overtime Hourly	Double-time Hourly
Principal	\$155.00	N/A	N/A	N/A
Project Manager	\$135.00	N/A	N/A	N/A
Shop Labor/Crew Travel	\$90.00	N/A	N/A	N/A
Superintendent	\$120.00	\$150.00	\$180.00	\$215.00
Diver (Wet)	N/A	\$230.00	\$285.00	\$350.00
Entrant (Dry Pipe)	N/A	\$215.00	\$280.00	\$335.00
Diver (STBY)/ROV Operator	N/A	\$147.50	\$170.00	\$200.00
Tender/Attendant/ROV Assistant	N/A	\$140.00	\$165.00	\$195.00
Classification/Staff	Amendment No. 3 Hourly Rate Effective 03/13/18			
Principal	\$161.26	N/A	N/A	N/A
Project Manager	\$140.45	N/A	N/A	N/A
Shop Labor/Crew Travel	\$93.64	N/A	N/A	N/A
Superintendent	\$124.85	\$156.06	\$187.27	\$223.69
Diver (Wet)	N/A	\$239.29	\$296.51	\$364.14
Entrant (Dry Pipe)	N/A	\$223.69	\$291.31	\$348.53
Diver (STBY)/ROV Operator	N/A	\$153.46	\$176.87	\$208.08
Tender/Attendant/ROV Assistant	N/A	\$145.66	\$171.67	\$202.88

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AMENDMENT NO. 3 TO AGREEMENT A3639A

**REVISED APPENDIX TWO
FEES AND PAYMENTS**

CONTRACTORS/VENDORS UNIT RATE SCHEDULE

Description (Added in Amendment No. 1)	Unit	Amendment No. 1 Effective 7/22/14	Amendment No. 2 Effective 12/8/15	Amendment No. 3 Effective 03/13/18
Cooper Testing Labs, Inc.				
Atterberg	Each	\$160	N/A	\$166.26
Moist & Density	Each	\$21	N/A	\$23.46
Sieve	Each	\$105	N/A	\$107.10
Bulk Sieve	Each	\$170	N/A	\$179.52
UU Triaxial	Each	\$225	N/A	\$229.50
CU Triaxial	Each	\$505	N/A	\$515.10
Direct Shear	Each	\$200	N/A	\$204.00
Falling-head Perm.	Each	\$305	N/A	\$311.10
Consolidation	Each	\$360	N/A	\$367.20
Compaction Modified Proctor 6-in.	Each	\$300	N/A	\$306.00
Corrosivity	Each	\$233	N/A	\$237.66
Corrosivity Package A	Each	N/A	N/A	\$173.40
Unconfined Compression—Rock	Each	\$255	N/A	\$271.32
Point Load	Each	\$75	N/A	\$76.50
Slake Durability	Each	\$185	N/A	\$188.70
Brazilian Splitting	Each	\$105	N/A	\$107.10
Sample Storage	Per Sample/Day	\$0.50	N/A	\$0.51
Principal Consulting	Per Hour	\$160	N/A	\$163.20
Kinnetic Laboratories, Inc.				
Reservoir Sediment Sampling	Lump Sum	\$16,000	N/A	\$16,320.00
Mercury Testing	Each	\$42	N/A	\$42.84
NorCal Geophysical Consultants, Inc.				
Mobilization/Preparation/Travel	Per Hole	\$160	N/A	\$979.00
Geophysical Logging	Per Hour	\$205	N/A	\$224.00
Probe Charge	Dayrate	\$1,200	N/A	\$1,224.00
Standby	Per Hour	\$160	N/A	\$163.00
Per Diem	Dayrate	\$175	N/A	\$194.00
Data Processing	Per Hole	\$650	N/A	\$765.00
Log Preparation	Each	\$160	N/A	\$163.00
Taber Drilling				
Mob/Demob—Land Drill Rig	Lump Sum, Per Rig	\$2,700	N/A	\$2,754.00
Mob/Demob—Barge and Drill Rig	Lump Sum, Per Rig	\$11,750	N/A	\$10,710.00
Mob/Demob—Sonic Rig	Lump Sum, Per Rig	\$4,600	N/A	\$4,692.00

AMENDMENT NO. 3 TO AGREEMENT A3639A

**REVISED APPENDIX TWO
FEES AND PAYMENTS**

Description (Added in Amendment No. 1)	Unit	Amendment No. 1 Effective 7/22/14	Amendment No. 2 Effective 12/8/15	Amendment No. 3 Effective 03/13/18
Mob/Demob—Crane	Lump Sum, Per Rig	\$9,500	N/A	\$11,000.00
Mobilization between boring locations-Land Drill Rig	Each	N/A	N/A	\$850.00
Soil Drilling and Sampling—Truck Rig	Per Foot	\$77	N/A	\$78.54
Soil Drilling and Sampling—Track Rig	Per Foot	\$87	N/A	\$88.74
Soil Drilling and Sampling—Barge	Per Foot	\$129	N/A	\$131.58
Rock Core Drilling—Truck Rig	Per Foot	\$88	N/A	\$89.76
Rock Core Drilling—Track Rig	Per Foot	\$98	N/A	\$108.12
Angled Rock Core Drilling—Track Rig	Per Foot	\$135	N/A	\$137.70
Rock Core Drilling—Barge	Per Foot	\$140	N/A	\$142.80
Sonic Drill	Per Foot	\$111	N/A	\$113.22
Drill, Sample, Backfill, Cuttings Disposal	Per Foot	\$195	N/A	\$198.90
Casing Advancement	Per Foot	\$45	N/A	\$45.90
Packer Testing	Each	\$740	N/A	\$754.80
Wooden Core Boxes	Each	\$50	N/A	\$76.50
Wood core boxes w/ PVC liners	Each	N/A	N/A	\$80.00
Undisturbed Soil Sampling	Each	\$35	N/A	\$35.70
Assist Geophysical Logging	Per Boring	\$1,180	N/A	\$918.00
Grout Backfill of Borings	Per Foot	\$5	N/A	\$5.10
Install Open Standpipe PVC Piezometer	Per Foot	\$6	N/A	\$6.12
Install Christie Boxes	Each	\$75	N/A	\$76.50
Hammer Calibration	Each	\$3,000	N/A	\$3,060.00
Cutting Disposal	Per Foot	\$7	N/A	\$7.14
Small Bulldozer Mob/Demob	Lump Sum	\$850	N/A	\$867.00
Small Bulldozer	Dayrate	\$2,400	N/A	\$2,448.00
Backhoe Mob/Demob	Lump Sum	\$750	N/A	\$765.00
Backhoe (Case 580E or similar)	Dayrate	\$1,250	N/A	\$1,275.00
Conex Storage Container Mob/Demob	Lump Sum Per Box	\$510	N/A	\$255.00
Conex Storage Container (8' X 20')	Per Month/Box	\$110	N/A	\$250.00
Portable Toilet	Per Month	N/A	N/A	\$153.00
Standby	Per Hour	\$295	N/A	\$224.40
Asbestos Analysis	Each	\$462	N/A	\$471.24

AMENDMENT NO. 3 TO AGREEMENT A3639A

**REVISED APPENDIX TWO
FEES AND PAYMENTS**

Description (Added in Amendment No. 1)	Unit	Amendment No. 1 Effective 7/22/14	Amendment No. 2 Effective 12/8/15	Amendment No. 3 Effective 03/13/18
Metal Analysis (As, Ni, Cr, Cu, Co)	Each	\$68	N/A	\$69.36
Access grading	Dayrate	\$3,300	N/A	\$3,366.00
Installation of erosion control materials	per boring	\$1,500	N/A	\$1,530.00
Pickup and delivery of erosion control materials	per hour	\$75	N/A	\$76.50
Towill, Inc.				
LiDAR System	Dayrate	\$3,500	N/A	\$3,570.00
Digital Camera	Dayrate	\$1,100	N/A	\$1,122.00
Kozmo Inc.				
Kozmo Bates	Per Hour	\$170	N/A	\$176.87
Dot Dat Inc.				
Dot Nelson	Per Hour	\$80	N/A	\$83.23
Cornerstone Environmental Contractors				
Mobilization and Demobilization	Lump Sum	\$410	N/A	\$418.20
Equipment Operator, (min. 8 hrs./day)	Per Hour	\$80	N/A	\$81.60
Case 580 Backhoe	Dayrate	\$390	N/A	\$397.80
Pickup truck, misc. small tools, etc.	Dayrate	\$150	N/A	\$153.00
Transport crushed rock	Per Hour	\$120	N/A	\$122.40
Clean ¾" crushed rock from Stevens Creek Quarry	Per Ton	\$40	N/A	\$40.80

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AMENDMENT NO. 3 TO AGREEMENT A3639A

**REVISED APPENDIX TWO
FEES AND PAYMENTS**

Description (Added in Amendment No. 2)	Unit	Amendment No. 2 Effective 12/8/15	Amendment No. 3 Effective 03/13/18
Underwater Resources, Inc.			
Surface-Supplied Air Breathing System - Primary/Secondary Compressors	Dayrate	\$250	\$255
Deep Air Diving System - Compressors, Dual Lock Decompression Chamber, etc.	Dayrate	\$450	\$459
Standard Dive Rigs, 2 X 300' Long Breathing Umbilicals + Radios	Dayrate	\$100	\$102
Short Penetration Rigs, 2 x 600' Long Breathing Umbilicals + Radios	Dayrate	\$200	\$204
Medium Penetration Rigs, 2 x 1200' Long Breathing Umilcials + Radios	Dayrate	\$300	\$306
Pick-Up Truck/Van (F-250/E-250) - Crew Cab or 4X4, Roof Rack (EA)	Dayrate	\$150	\$153
Service Truck (F-450) - 4X4, Utility Bed	Dayrate	\$200	\$204
Mileage for Truck/Van, Per Vehicle (EA)	Miles	\$0.56	\$0.57
Certified Fall Protection Davit/Tripod w/Fall Arrest/Recovery Winch & Harness	Dayrate	\$150	\$153
Gas Analyzer, Certified ATM Monitor (EA)	Dayrate	\$125	\$127.50
Misc. Safety Equipment - Ladder, Stokes Basket, 1st Aid Kit, Consumables, Etc.	Dayrate	\$200	\$204
Low Profile Entrant Personnel Cart	Dayrate	\$75	\$76.50
Rotary Air Compressor (185cfm) w/50' Tool Air Hose	Dayrate	\$125	\$127.50
Misc. Rigging Equipment for Winches-Sheaves, Chain/Binders, Screw Jacks	Dayrate	\$50	\$51
Pneumatic Winch, 1000# Dinky Tugger or 2000# Winch w/Brake	Dayrate	\$100	\$102
Ventilation Fan, Explosion Proof w/Generator	Dayrate	\$150	\$153
Closed-Circuit Video Camera System (250' Tether) + Topside Monitor/DVR	Dayrate	\$250	\$255
CamCorder (GoPro) in UW Housing with Battery Lighting	Dayrate	\$200	\$204
Digital Still Camera in UW Housing	Dayrate	\$125	\$127.50
Digital Ultrasonic Thickness (UT) Meter, Multiple Echo (EA)	Dayrate	\$150	\$153
Video Ray GTO Pro Remotely Operated Vehicle (ROV) System w/500' Umbilical	Dayrate	\$700	\$714
Phantom HD2+2 Remotely Operated Vehicle (ROV) System w/700' Umbilical	Dayrate	\$900	\$918
Pit Gauge, Hand-held (Mechanical)	Dayrate	\$25	\$25.50
Per Diem Charge in Morgan Hill (Less than GSA Rate), Per Person	Dayrate	\$175	\$178.50
Diver Depth Premium (only charged after 50') up to 100'	Per Foot	\$3.80	\$3.88

AMENDMENT NO. 3 TO AGREEMENT A3639A

**REVISED APPENDIX TWO
FEES AND PAYMENTS**

Description (Added in Amendment No. 2)	Unit	Amendment No. 2 Effective 12/8/15	Amendment No. 3 Effective 03/13/18
Diver Penetration Premium (only charged after 25')	Per Foot	\$1.90	\$1.94
Fuel Reimbursement, Training & other 3rd Party Charges (paid against receipts)	Cost + 5%	TBD	TBD
Northwest Hydraulic Consultant			
Lab Space & Equipment Rental	Per Week	\$1,428	\$1,456.56
Geo-Ex Subsurface Exploration			
Drill HQ-3 Core Borings (ft)	Per Foot	\$70	\$71.40
Drill rotary wash soil borings (ft)	Per Foot	\$30	\$30.60
Ream out Core (6.5")	Per Foot	\$15	\$15.30
Install open standpipe piezometers	Per Foot	\$18	\$18.36
Mobe/demobe track-mounted drill	Lump Sum	\$1,500	\$1,530.00
Assist geophysical surveys (3hr per bore)	Each	\$750	\$765
Small excavator (daily rate)	Dayrate	\$1,950	\$1,989
Mobe/demobe excavator	Lump Sum	\$750	\$765
Wood core boxes	Each	\$125	\$127.50
Cuttings disposal	Per Foot	\$5	\$5.10
Conex rental (monthly) POD	Per Month	\$600	\$612
Toilet rental (monthly)	Per Month	\$750	\$765
Standby (hr)	Per Hour	\$200	\$204
Water pressure testing (per test)	Each	\$500	\$510
Vibrating Wire assistance	Each	\$200	\$204
VW Assistance	Each	\$200	\$204
Above Ground Monuments	Each	\$250	\$255
VW Materials	Per Foot	\$4	\$4.08
Sonoma State University			
Hourly Fee (standard records search)	Per Hour	\$150	\$150
Spatial Features (1-999 shapes)	Each	\$12	\$12
Address-mapped shapes flat fee	Lump Sum	\$25	\$25
Digital Database Record Fee (1-999 records)	Each	\$0.25	\$0.25
Quads (crossed into)	Each	\$200	\$200
PDF flat fee	Lump Sum	\$25	\$25
PDF per-page cost	Per Page	\$0.15	\$0.15
Hourly Fee (stand-alone requests)	Per Hour	\$40	\$40

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REVISED APPENDIX TWO FEES AND PAYMENTS

- C. Upon the written approval of the District's Deputy Operating Officer referenced herein, unused fees from a completed or cancelled task may be reallocated to a task that has not yet been completed, provided the Agreement Total Not-to-Exceed Fees is not exceeded. Transferring fees from a task not yet completed to a different task is not permitted.
- D. Upon the written approval of the District's Deputy Operating Officer referenced herein, the scope of services described in a task may be reduced or eliminated. If the scope of services is reduced or eliminated, the portion of the fees attributable to that reduced or eliminated task may be allocated to revised existing tasks, or transferred to a Supplementary Services task, if provided for herein.
- E. Any reduction or elimination of tasks and any inter-task transfers will be clearly noted and described in the subsequent monthly progress report to the District.
- F. Services to be performed pursuant to the Supplementary Services task, if provided for herein, will commence only after issuance of a fully executed Task Order.
- G. Expenses incurred by the Consultant for subconsultants providing professional services and for subcontractors, including lab services, will be reimbursed at actual cost plus 5%. Consultant shall provide invoices for all lab services regardless of cost.
- H. All other direct expenses not included in overhead including, but not limited to, mapping, rendering, printouts, leased equipment, mailing and delivery services, printing services, film and processing, plotting, and supplies, will be billed monthly at cost linked to each Agreement Task, as approved by the District's Project Manager.
- I. Automobile travel mileage expenses will be paid at the current IRS rate. District will not reimburse Consultant and its subconsultants for mileage and travel time to and from District Headquarters and surrounding campus located at 5700 Almaden Expressway, San Jose, California. District will reimburse Consultant and its subconsultants for mileage incurred from District Headquarters or Consultant's and subconsultants' firm addresses, whichever is closer to the destination, to Project site(s) and, if directed or authorized by the District, to meeting locations such as community outreach meetings, partnering meetings, Dispute Review Board meetings, and meetings with regulatory agencies, if directed or authorized by the District.
- J. Consultant's monthly invoices will be prepared in accordance with the terms of this Revised Appendix Two and the Standard Consultant Agreement Section IV, FEES AND PAYMENT. The invoices will represent work performed and reimbursable costs incurred during the identified billing period; be consistent with Appendix One and Revised Appendix One; and include the following:
 - 1. Personnel Category and employee name itemized with all labor charges by Scope of Service Task.
 - 2. Direct charges by Scope of Service Task.

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REVISED APPENDIX TWO FEES AND PAYMENTS

3. Consultant's summary of the amount Consultant has been billed by their subconsultants and subcontractors and further detailed by Scope of Service Task.
 4. Direct charges must reflect actual fees versus the Agreement not to exceed fees in this Revised Appendix Two.
- K. Before submitting monthly invoices, the Monthly Progress Report and draft invoice (in Adobe PDF format) will be provided by the Consultant for preliminary review by the District Project Manager. Upon preliminary approval by the District, the Consultant will mail the complete signed and dated hardcopy invoice, including all supporting documentation. District's preliminary review of the draft invoice does not represent final approval of the hardcopy invoice, but is intended to reduce potential for re-submittals of hardcopy invoice by Consultant.
- L. Invoices will include a summary of labor expenditures, direct costs, and billed subconsultant charges. Billing statements, transmitted separately from the Monthly Progress Reports, will be organized such that the billing categories correspond with the Scope of Services tasks.
- M. District's Project Manager will review invoice within five (5) working days of receipt, address any questions with Consultant's Construction Manager, and approve the undisputed amount of the invoice within ten (10) working days of receipt of the invoice. District will pay undisputed invoices within thirty (30) calendar days from date invoice is approved by District's Project Manager.
- N. Prevailing Wages
1. A portion of the Services to be performed pursuant to this Agreement may be considered "Public Works" subject to California Labor Code Section §1771, et. seq. and the applicable implementing regulations.
 2. Labor Code Section §1720 includes "Inspection and Land Surveying" in its definition of "Public Works." If Consultant's Services includes such work, Consultant and its Subconsultants must comply with all Labor Codes applicable to prevailing wages.
 3. The Consultant and its Subconsultants shall not engage in the performance of public work, as defined in California Labor Code Section 1771.1, unless currently registered and qualified to perform public work pursuant to California Labor Code Section 1725.5.
 4. The General Prevailing Wage Rates issued by the California Department of Industrial Relations may be adjusted by the State throughout the term of this Agreement. Notwithstanding any other provision of this Agreement, Consultant will not be entitled to any adjustment in compensation rates in the event there are adjustments to the General Prevailing Wage Rates.
 5. This Agreement is subject to compliance monitoring and enforcement by the State of California Department of Industrial Relations. Upon request, the Consultant and

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**REVISED APPENDIX TWO
FEES AND PAYMENTS**

Subconsultants must furnish the records specified in Labor Code §1776 directly to the Labor Commissioner, in a format prescribed by the Labor Commissioner.

6. All records or documents required to be kept to verify statutory compliance with the prevailing wage requirement such as certified payroll records must be made available for audit at no cost to the District, at any time during regular business hours, upon written request by the District.
- O. Consultant's services will be performed by its staff members and subconsultants' staff members at the lowest hourly rates commensurate with the complexity of the required services.
- P. Consultant's attention is directed to Section IV of the Standard Consultant Agreement regarding FEES AND PAYMENTS and the corresponding retention clause.
- Q. Small Business Enterprise (SBE) Participation

This Agreement provides for the Consultant to include California Department of General Services certified Small/Micro Businesses in the performance of the services, estimated to be **30%** or more of the Total Not to Exceed Amount stated in this Revised Appendix Two and Consultant agrees to use its best efforts to meet this goal.

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**REVISED APPENDIX THREE
SCHEDULE OF COMPLETION**

1. This Agreement commences on the date specified in the introductory paragraph of this Agreement. This Agreement expires on **December 31, 2023**, unless its term is modified by a written amendment hereto, signed by both Parties prior to its expiration.
2. Consultant will commence tasks listed in Appendix One and Revised Appendix One of this Agreement upon receipt of the Notice-to-Proceed (NTP) issued by District.
3. Consultant will perform and complete the services described in Appendix One and Revised Appendix One, Scope of Services, in accordance with the Project Schedule table as shown below. Consultant will coordinate services with the District to provide the timeline of all tasks and subtasks including the site visits, document review, meetings, and deliverables.
4. The approved Project Schedule will be monitored monthly. Changes in the schedule for performance of Tasks and deliverables are subject to advance written approval by District. Consultant's attention is directed to the District's Standard Consultant Agreement, Section VII. DELAYS AND EXTENSIONS.
5. Project Delays—The Consultant will make all reasonable efforts to comply with the Project Schedule as shown in the table below. In the event Consultant becomes aware that the Project Schedule will be delayed, Consultant will notify the District as soon as possible; explain the reason(s) for the delay; the estimated length of the delay; and a description of the actions being taken to address the delay. If the Consultant is delayed in performance of its services by circumstances beyond its control, District may in its discretion grant a reasonable adjustment in the Project Schedule. This language will prevail should any conflict or discrepancy occur between this provision and the Standard Consultant Agreement, Section VII. DELAYS AND EXTENSIONS.
6. District's Project Manager and Consultant may agree to modify the schedule specified for Consultant's performance as a written administrative modification to the Agreement and such approval will be confirmed in writing.

PROJECT SCHEDULE

TASK	DESCRIPTION	DURATION FROM AGREEMENT OR AMENDMENT NTP
100	Project Management Services	Duration of the Agreement
200	Planning Services	52 months from NTP
300	Environmental and Permitting Services	99 months from NTP
400	Design Services	103 months from NTP
500	Supplementary Services	Duration of the Agreement

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REVISED APPENDIX FOUR INSURANCE

Please refer to the insurance requirements listed below.

Without limiting the Consultant's indemnification of, or liability to, the Santa Clara Valley Water District ("District"), the Consultant must provide and maintain at its own expense, during the term of this Agreement, or as may be further required herein, the following insurance coverages and provisions:

Consultant must provide its insurance broker(s)/agent(s) with a copy of these requirements and warrants that these requirements have been reviewed by Consultant's insurance agent(s) and/or broker(s), who have been instructed by Consultant to procure the insurance coverage required herein. All Certificates of Insurance complete with copies of all required endorsements must be sent to: Contract Administrator, Santa Clara Valley Water District, 5750 Almaden Expressway, San Jose, CA 95118.

In addition to certificates, Consultant must furnish District with copies of original endorsements affecting coverage required by this Appendix. The certificates and endorsements are to be signed by a person authorized by that insurer to bind coverage on its behalf. All endorsements and certificates are to be received and approved by District before work commences. In the event of a claim or dispute, District has the right to require Consultant's insurer to provide complete, certified copies of all required pertinent insurance policies, including endorsements affecting the coverage required by this Appendix.

Consultant must, at its sole cost and expense, procure and maintain during the entire period of this Agreement the following insurance coverage(s).

REQUIRED COVERAGES

1. **Commercial General/Business Liability Insurance** with coverage as indicated:

\$10,000,000 per occurrence / **\$10,000,000** aggregate limits for bodily injury and property damage

General Liability insurance must include:

Coverage at least as broad as found in standard ISO form CG 00 01.

Contractual Liability expressly including liability assumed under this contract.

If Consultant must be working within fifty (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.

Severability of Interest.

Broad Form Property Damage liability.

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**REVISED APPENDIX FOUR
INSURANCE**

If the standard ISO Form wording for "OTHER INSURANCE," or other comparable wording, is not contained in Consultant's liability insurance policy, an endorsement must be provided that said insurance will be primary insurance and any insurance or self-insurance maintained by District, its Directors, officers, employees, agents or volunteers must be in excess of Consultant's insurance and must not contribute to it.

2. **Business Auto Liability Insurance** with coverage as indicated:

\$2,000,000 combined single limit for bodily injury and property damage per occurrence, covering all owned, non-owned and hired vehicles.

3. **Professional/Errors and Omissions Liability** with coverage as indicated:

\$10,000,000 per claim/ **\$10,000,000** aggregate

Professional/Errors and Omission Liability appropriate to the Consultant's profession, and must include:

If coverage contains a deductible, or self-insured retention, it shall not be greater than one hundred thousand dollars (\$100,000) per occurrence/event.

Coverage shall include contractual liability.

If coverage is claims-made:

Certificate of Insurance shall clearly state that the coverage is claims-made.

Policy retroactive date must coincide with or precede the Consultant's start of work (including subsequent policies purchased as renewals or replacements).

Policy must allow for reporting of circumstances or incidents that might give rise to future claims.

Insurance must be maintained and evidence of insurance must be provided for at least three (3) years after completion of the contract of work.

4. **Workers' Compensation and Employer's Liability Insurance**

Statutory California Workers' Compensation coverage covering all work to be performed for the District.

Employer Liability coverage for not less than \$1,000,000 per occurrence.

GENERAL REQUIREMENTS

With respect to all coverages noted above, the following additional requirements apply:

1. **Additional Insured Endorsement(s):** Consultant must provide an additional insured endorsement for Commercial General/Business Liability and Business Automobile liability

AMENDMENT NO. 3 TO AGREEMENT A3639A

REVISED APPENDIX FOUR INSURANCE

coverage naming the **Santa Clara Valley Water District, its Directors, officers, employees, and agents, individually and collectively**, as additional insureds, and must provide coverage for acts, omissions, etc. arising out of the named insureds' activities and work. Other public entities may also be added to the additional insured endorsement as applicable and the Consultant will be notified of such requirement(s) by the District.

(**NOTE:** Additional insured language on the Certificate of Insurance is **NOT** acceptable without a separate endorsement such as Form CG 20 10, CG 2033, CG 2037. Note: Editions dated 07/04 are not acceptable.)

2. **Primacy Clause:** Consultant's insurance must be primary with respect to any other insurance which may be carried by the District, its officer, agents and employees, and the District's coverage must not be called upon to contribute or share in the loss.
3. **Cancellation Clause Revision:** The Certificate of Insurance **MUST** provide **30 days notice of cancellation, (10 days notice for non-payment 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 ". . . but failure to mail such notice must impose no obligation or liability of any kind upon the company, its agents or representatives."
4. **Acceptability of Insurers:** All coverages must be issued by companies admitted to conduct business in the State of California, which hold a current policy holder's alphabetic and financial size category rating of not less than A-V, according to the current Best's Key Rating Guide or a company of equal financial stability that is approved by the District's Risk Management Administrator.
5. **Self-Insured Retentions or Deductibles:** Any deductibles or self-insured retentions must be declared to and approved by the District. At the option of the District, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the District, its officers, officials, employees and volunteers; or the Consultant shall provide a financial guarantee satisfactory to the Entity guaranteeing payment of losses and related investigations, claim administration, and defense expenses.
6. **Subconsultants:** Should any of the work under this Agreement be sublet, the Consultant must require each of its subconsultants of any tier to carry the aforementioned coverages, or Consultants may insure subconsultants under its own policies.
7. **Amount of Liability Not Limited to Amount of Insurance:** The insurance procured by Consultant for the benefit of the District must not be deemed to release or limit any liability of Consultant. Damages recoverable by the District for any liability of Consultant must, in any event, not be limited by the amount of the required insurance coverage.
8. **Coverage to Be Occurrence Based:** With the exception of the Professional Liability/Errors and Omissions coverage mentioned above, all coverage must be occurrence-based coverage. Claims-made coverage is not allowed.

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**REVISED APPENDIX FOUR
INSURANCE**

9. **Waiver of Subrogation:** Consultant agrees on to waive subrogation against the District to the extent any loss suffered by Consultant is covered by any Commercial General Liability policy, Automobile policy, Workers' Compensation policy, or Professional policy described in **Required Coverages** above. Consultant agrees to advise its broker/agent/insurer about this provision and obtain any endorsements, if needed, necessary to ensure the insurer agrees.
10. **Non-Compliance:** The District reserves the right to withhold payments to the Consultant in the event of material noncompliance with the insurance requirements outlined above.
11. **Renewal certificates and endorsements must be submitted to:**

certificates-santaclara@riskworks.com

Please also note that the Certificate Holder on the certificates of insurance should read:

Santa Clara Valley Water District
c/o EXIGIS Risk Management Services
P.O. Box 4668 - ECM #35050
New York, NY 10163-4668

Almaden Dam Improvements Project
CAS File #4455, Agreement #A3639A
Victor Gutierrez, Project Manager

IMPORTANT: On the certificate of insurance, please note either the name of the project or the name of the District contact person or unit for the contract.

If your insurance broker has any questions, please advise him/her to call Mr. David Cahen, District Risk Management Administrator, at (408) 630-2213.

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