# Countywide Water Reuse Master Plan Update

**Board of Directors Meeting** 

February 26, 2019

#### **Outline**

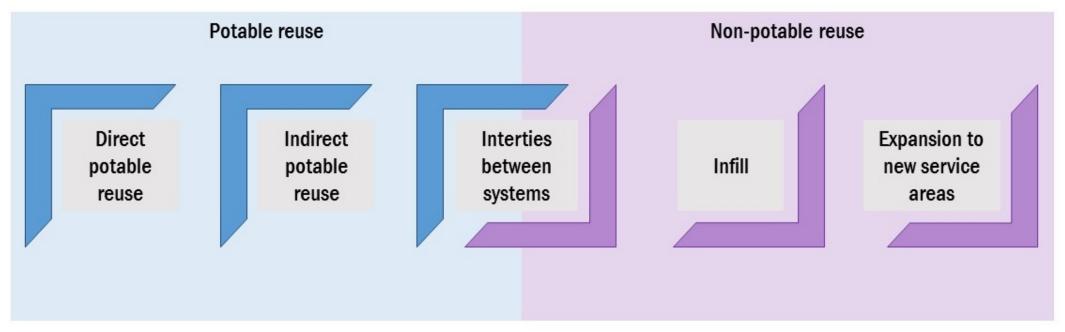
- 1. Background and Purpose
- 2. Regulatory Framework
- 3. Baseline Analysis
- 4. Project Portfolios
- 5. November 2018 Recycled Water Committee Recommendations
- 6. Reuse Master Plan Next Steps
- 7. Staff Recommendations

#### **Drivers**

- Fulfillment of CEO Interpretation of Board Governance Policy:
  - Meet 10% of County's total water demands using water reuse
- Alignment with Water Supply Master Plan update:
  - Investment in water recycling (24,000 AFY of potable reuse)
  - Diversity of water supply alternatives (local control)
  - Meeting service area demands (resiliency during drought)

# Purpose

Improve water supply reliability through water reuse in collaboration with multiple stakeholders.



Portfolios will reflect a combination of potable and non-potable reuse.

# **Objectives**

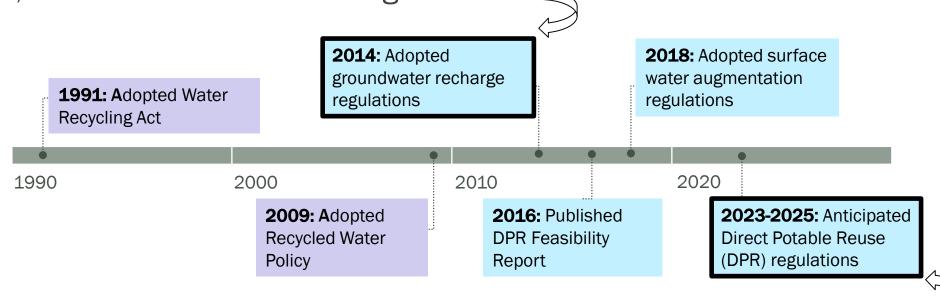
- Identify water available for potable and non-potable reuse
- Evaluate options for system integration
- Guide expansion via interagency agreements and governance structures
- Generate support by engaging stakeholders



Stakeholders at a 2018 meeting in District HQ

# California Regulatory Framework

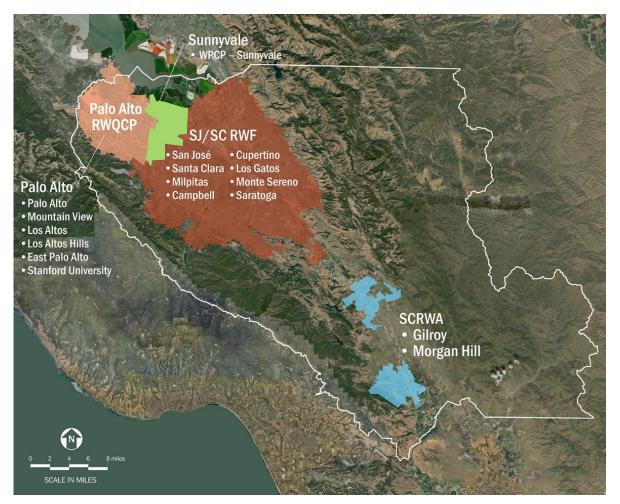
• Reuse Master Plan primarily consists of non-potable reuse expansion and groundwater recharge, which have established regulations.



• Potential for direct potable reuse is also included. Regulations are under development.

#### **Potential Water Reuse Partners**

- Palo Alto Regional Water Quality Control Plant (RWQCP)
- Sunnyvale Water Pollution Control Plant (WPCP)
- San José-Santa Clara Regional Wastewater Facility (SJ/SC RWF)
- South County Regional Wastewater Authority (SCRWA) WWTP



<sup>\*</sup> Figure is for illustration purposes. Boundaries are not exact.

### **History of Water Reuse Collaboration – 50 Years**

1970s

1980s

1990s

2000s

2010s

Present

- District & Gilroy
   Reclamation and
   Irrigation Project
- District & Palo
   Alto 2 MGD
   Advanced
   Reclamation Plant

District and San
José Tertiary
Recycled Water
Study for irrigation
and industrial use

- District regional Feasibility of Indirect Potable Reuse study
- District provides
   rebates
   to Sunnyvale and
   San José for
   recycled water
- District partners with San José on planning of SBWR
- District & Gilroy
   South County
   Integration
   Agreement

- The District and San José sign the Silver Creek and Integration Agreements
- District and SCRWA completed South County Recycled Water Master Plan
- District and San José complete
   SBWR Strategic
   and Master Plan
- The District approved \$5M for the South County recycled water projects
- Grand opening of the Silicon Valley Advanced Water Purification Center in San José

- The District has current **MOUs** with Sunnyvale, Palo Alto, Mountain View and SFPUC
- District & Sunnyvale Wolfe Road Recycled Water Pipeline
- Countywide Water
   Reuse Master
   Plan

Attachment 1 Page 8 of 24

# Stakeholder Engagement

#### 32 meetings/workshops planned

Project Start (2018)

Final Report (Fall 2019)



#### Stakeholder Task Force

Representing interests/organizations:

- Business/economy
- Chambers of Commerce
- Planning
- Public policy
- Environment
- Environmental justice
- Medical community
- Diversity
- Stormwater
- Groundwater
- Ratepayers
- Other water and recycled water suppliers/agencies/organizations

#### **Board of Directors**

#### **Board committees**

- Recycled Water Committee (RWC)
   (District Board only)
- Joint Committees
   (District Board and Partner
   Agency city council members)

#### **Executives**

- One-on-one meetings
- Executive Leadership Group (ELG)

#### Staff

Project Partner Group (PPG)

#### Regulators

Independent Advisory Panel (IAP)

#### **Public**

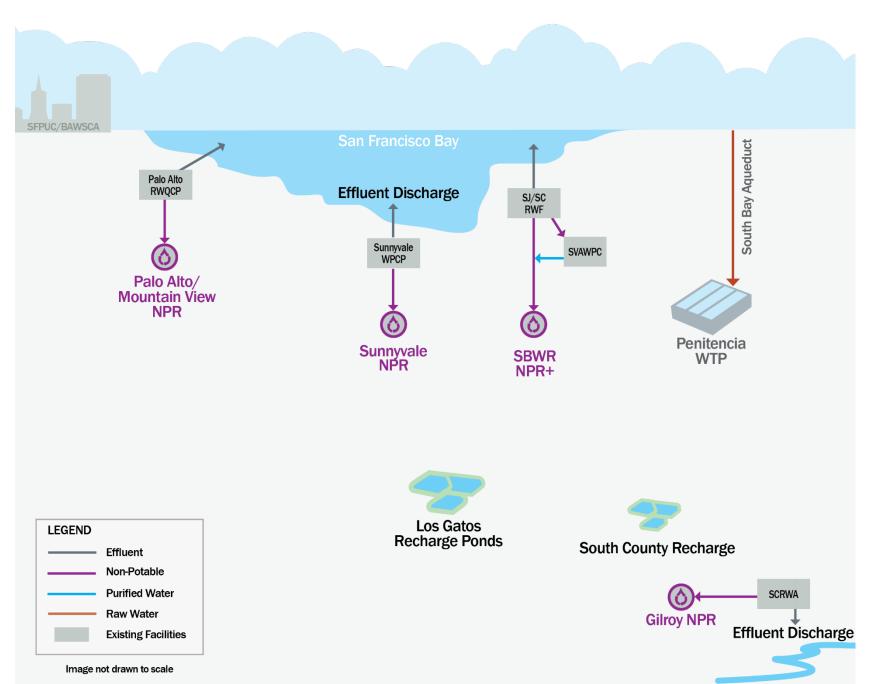
## 20+ meetings in 2018 with 50+ organizations

- 1 meeting of the Board of Directors (1/23/2018)
- 1 update to the District Board and Sunnyvale City Council (12/17/2018)
- 3 updates to the Recycled Water Committee
- 2 updates to the Joint Recycled Water Committee with City of Palo Alto
- 1 meeting of the Joint Water Resources Committee with Gilroy and Morgan Hill
- 1 meeting of the Joint Recycled Water Policy Advisory Committee with San José
- 4 meetings or conferences with the Project Partner Group
- 1 meeting of the Stakeholder Task Force
- 6 one-on-one meetings with agencies
- 2 meetings with water retailers

## Planning Framework (developed through stakeholder process)

- Develop 24,000 AFY of potable reuse supply
- Expand countywide reuse (non-potable and/or potable reuse) with Partner Agencies
- Consider new projects and previously explored projects
- Leverage existing infrastructure where possible
- Reflect a combination of non-potable reuse and potable reuse projects

#### **Baseline Conditions**



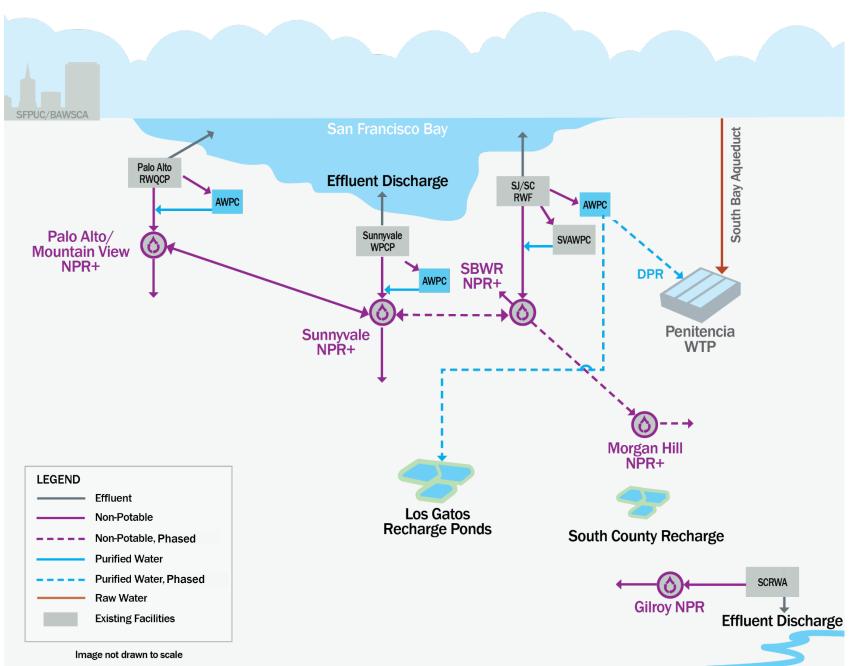
#### Portfolios\*

- Portfolio 1 Phased IPR/DPR (from San José-Santa Clara)
- Portfolio 2 IPR/Phased DPR (from Palo Alto/Sunnyvale)
- Portfolio 3 IPR (from Palo Alto/Mountain View)
- Portfolio 4 IPR/Phased DPR (from Palo Alto/Sunnyvale), IPR (from Morgan Hill)
- Portfolio 5 IPR (from Morgan Hill), Phased DPR (from San José-Santa Clara)

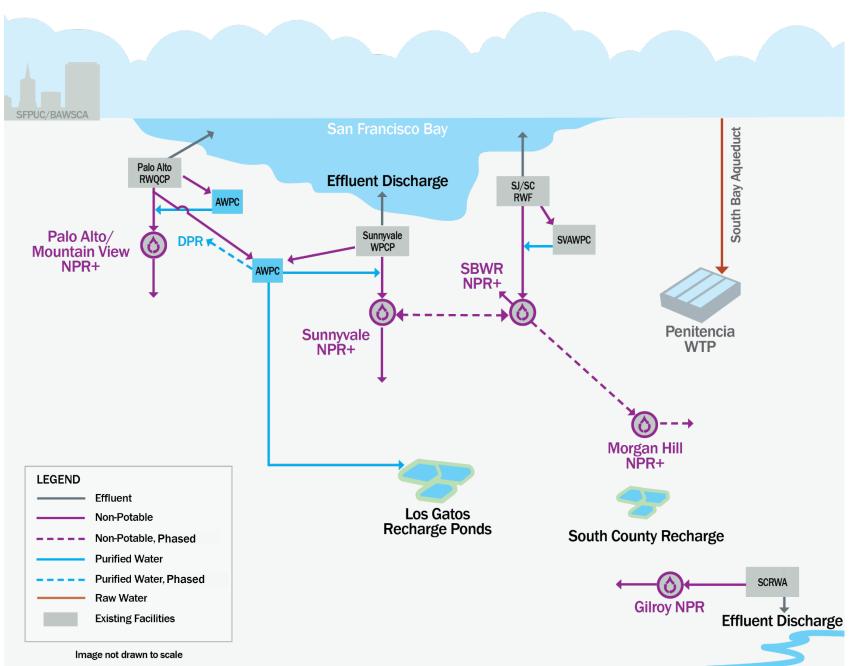
IPR = indirect potable reuse DPR = direct potable reuse

<sup>\*</sup>Expanded non-potable reuse is included in all Portfolios

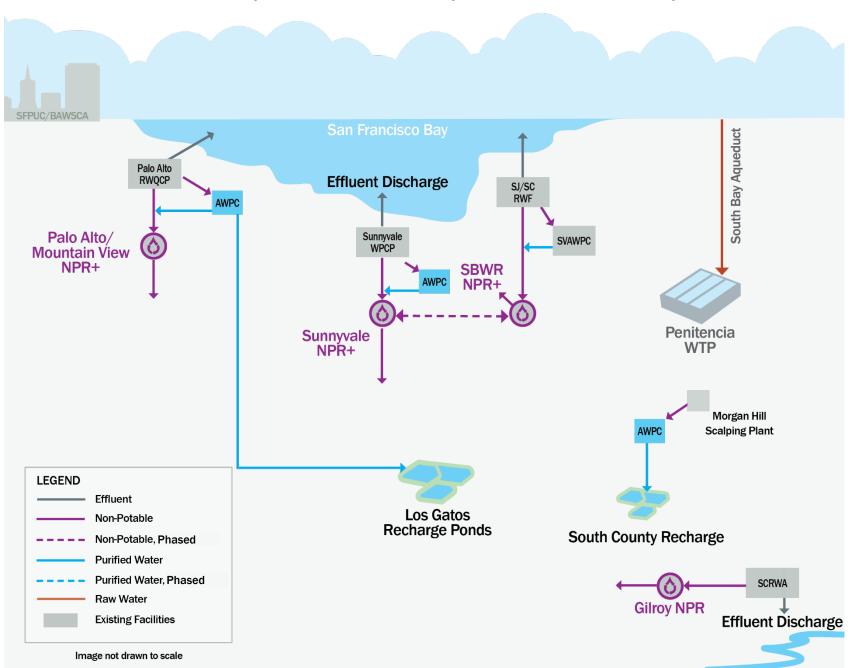
#### Portfolio 1 – Phased IPR/DPR (from San José-Santa Clara)



#### Portfolio 2 – IPR/Phased DPR (from Palo Alto/Sunnyvale)



#### Portfolio 3 – IPR (from Palo Alto/Mountain View)



Portfolio 4 – IPR/Phased DPR (from Palo Alto/Sunnyvale), **IPR** (from Morgan Hill) South Bay Aqueduct Palo Alto **RWQCP Effluent Discharge** SJ/SC RWF Sunnyvale WPCP Palo Alto/ SVAWPC **Mountain View** NPR+ **SBWR** NPR+ **Penitencia** Sunnyvale NPR+ **WTP** Morgan Hill **Scalping Plant LEGEND Effluent Los Gatos** Non-Potable **Recharge Ponds South County Recharge** Non-Potable, Phased **Purified Water** Purified Water, Phased Raw Water **Gilroy NPR Existing Facilities Effluent Discharge** Image not drawn to scale

Portfolio 5 - IPR (from Morgan Hill), Phased DPR (from San José-Santa Clara) South Bay Aqueduct Palo Alto RWQCP **Effluent Discharge** SJ/SC RWF Sunnyvale WPCP Palo Alto/ **SVAWPC Mountain View** NPR+ **SBWR DPR** NPR+ Sunnyvale NPR+ **Penitencia WTP** Morgan Hill **Scalping Plant LEGEND Effluent Los Gatos** Non-Potable **Recharge Ponds South County Recharge** Non-Potable, Phased **Purified Water** Purified Water, Phased Raw Water **Gilroy NPR Existing Facilities Effluent Discharge** Image not drawn to scale

# Feedback on Portfolios from October 25, 2018 Project Partner Group meeting

- Consensus (w/ some reservations)
   on Portfolios 1, 2, and 4
- Next steps:
  - Estimate costs and impact to water rates/local economy
  - Develop reverse osmosis concentrate management plans



# Provide direction regarding November 2018 recommendations from the Recycled Water Committee

#### Countywide Water Reuse Master Plan

- Add Rate Payer Advocate Group to Stakeholder Task Force
- Develop matrix summarizing status of potential partners
- Coordinate Reuse Master Plan with Water Supply Master Plan
- Review criteria/scoring of Portfolios
- Add "work with willing partners" concept to Guiding Principles

# Provide direction regarding November 2018 recommendations from the Recycled Water Committee

#### Purified Water Program Public-Private Partnership (P3)

 Alternatives for achieving comprehensive agreements with wastewater partner agencies

#### Site-specific Recycled Water

- Discuss on-site water reuse guiding principles with Committee
- Feasibility of providing recycled water to Vallco

#### **Next Steps for the Reuse Master Plan include:**

- 1. Develop Portfolios (Winter 2019)
- 2. Refine Portfolios (Spring 2019)
- 3. Draft Reuse Master Plan Report (Summer 2019)
- 4. Finalize Reuse Master Plan Report (Fall 2019)

### **Amendments to Consultant Agreements**

- For additional planning flexibility, **three** portfolios will be included in the final Reuse Master Plan (instead of **one** recommended portfolio).
- Additional meetings with Partner Agencies and stakeholders have been required to address complex technical issues.
- Agreements with Brown & Caldwell for the Reuse Master Plan and with GHD for the Reverse Osmosis Concentrate Management Plan may require scope, schedule and budget modifications to support additional complexity.

#### **Staff Recommendations to the Board:**

- 1. Provide direction regarding November 14, 2018 recommendations from the Recycled Water Committee; and
- 2. Provide direction regarding the ongoing development of the Countywide Water Reuse Master Plan.