

CalDesal 5th Annual Desalination and Salt Management Conference

February 2, 2017

Jim Fiedler, P.E., D. WRE
Chief Operating Officer
Santa Clara Valley Water District



Santa Clara Valley Water District

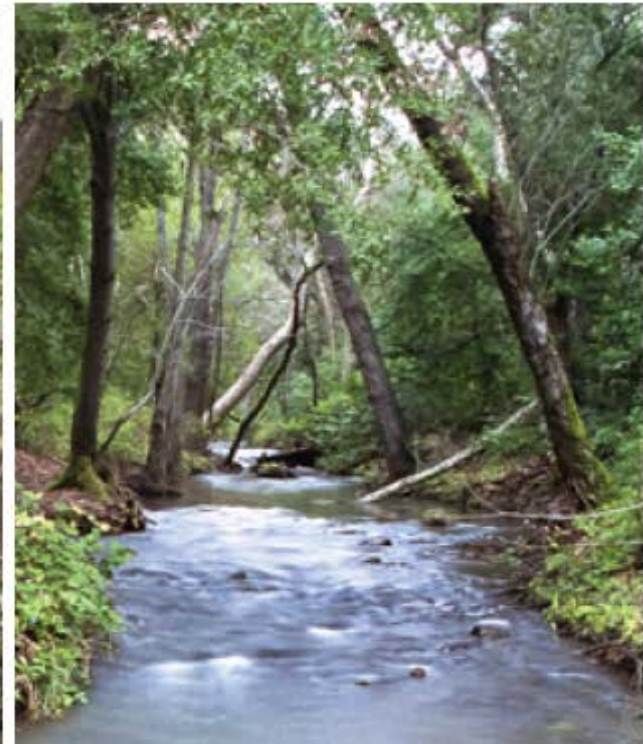
Providing Silicon Valley safe, clean water for a healthy life, environment and economy



CLEAN, RELIABLE WATER



FLOOD PROTECTION



HEALTHY CREEKS & ECOSYSTEMS

Who we serve

2,000,000 people

15 cities

4,700 direct well

owners

13 local water

providers



Purified/ Recycled Water Objectives and Goals

- ▶ Sustain at least 22,000 AFY of non-potable recycled water use
- ▶ Develop up to 45,000 AFY of potable reuse capacity no later than 2035



Silicon Valley Advanced Water Purification Center



- Opened in 2014, the Center is the largest plant of its kind in northern CA.
- Receives secondary-treated effluent from the neighboring San José-Santa Clara Regional Wastewater Facility and purifies it to a very high quality.
- Produces 8 million gallons a day of highly purified water that is expected to match CA drinking water quality standards.
- Partnership with cities of San Jose and Santa Clara

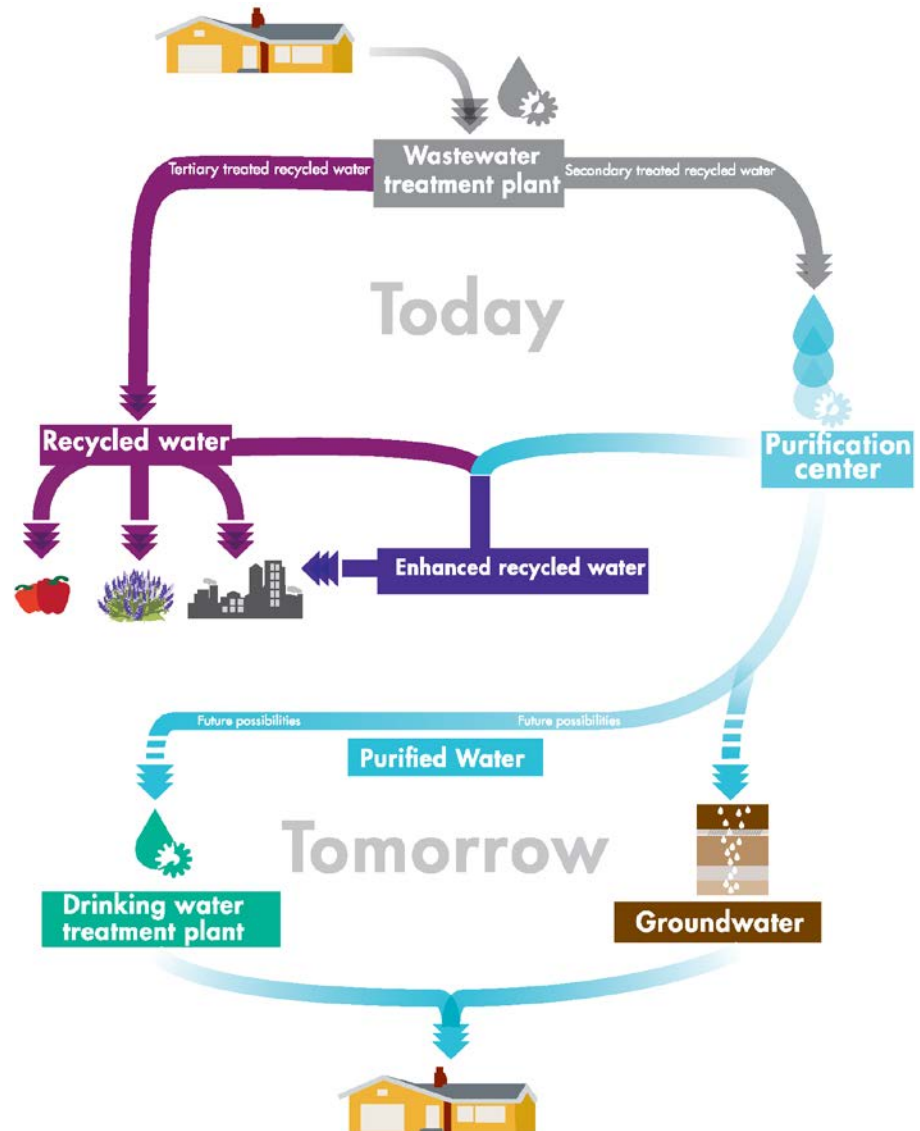
Current Recycled Water Use



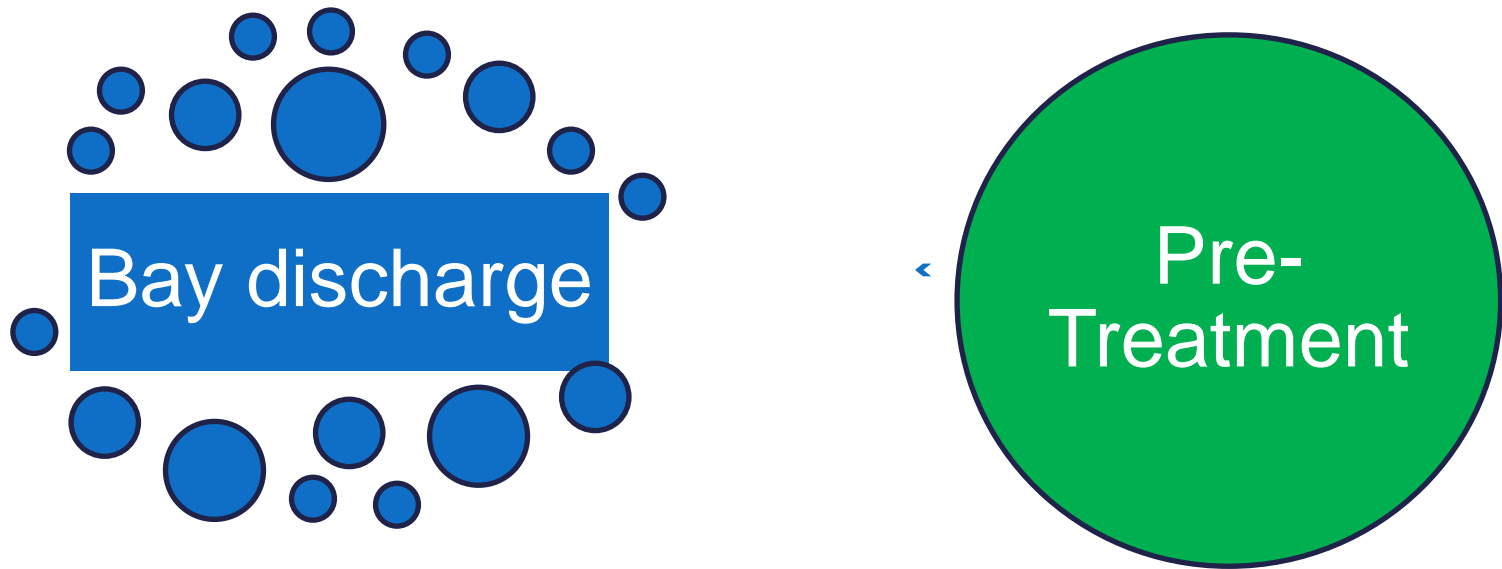
Facility	Avg. 2015 Wastewater Treated (AF)	CY 2015 Recycled Water (AF)
San Jose/Santa Clara Regional Wastewater Facility	110,000	13,760 (13%)
Palo Alto Regional Water Quality Control Plant	30,000	3,296 (11%)
Sunnyvale Water Pollution Control Plant	19,000	967 (5%)
South County Regional Wastewater Authority	8,000	2,367 (30%)
TOTAL	167,000	20,390 (12%)

Path to Potable Reuse

- ▶ Demonstrate technology at Silicon Valley Advanced Water Purification Center
- ▶ Conduct potable reuse studies
- ▶ Collaboration with recycled water producers
- ▶ Engage the public
- ▶ Select & build projects

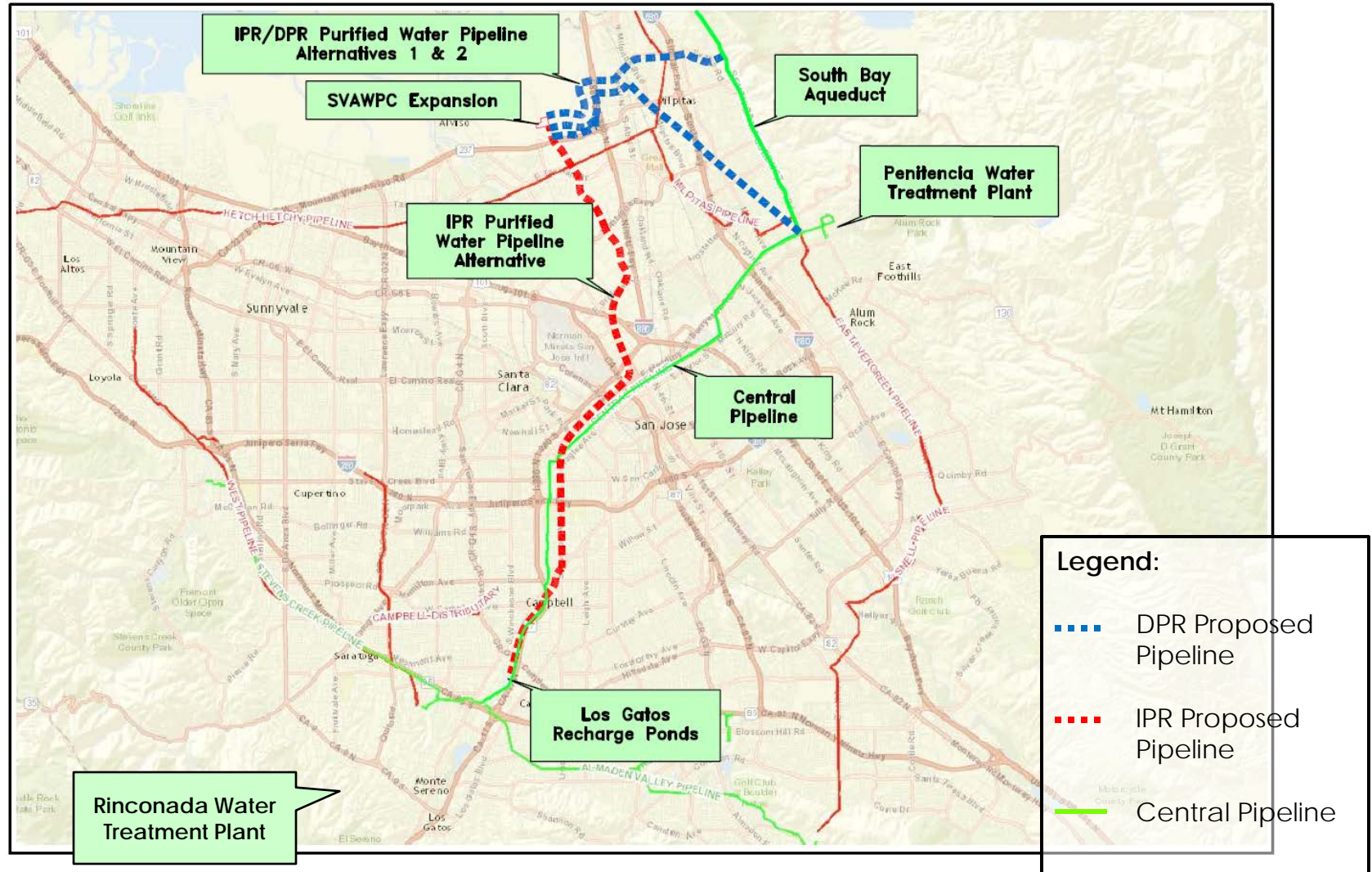


Challenge: RO Concentrate Management



- RWF's existing shallow water outfall (*fastest and least expensive*)
- Existing deep water outfall (East Bay Dischargers Authority)
- New deep water outfall

Raw Water Augmentation Alternatives



Potable Reuse Outreach



1. Tour Program

- Public Tours & Open Houses
- Taste Tests Events
- Multi-cultural tours/ open houses
- Youth/ School tours

2. Stakeholder Engagement

- Supporter Campaign
- Tours/ briefings with key public health, environmental groups, etc.

3. Community Outreach

- Community/ multi-cultural events
- Speaker's Bureau events
- University class partnership
- Water 101 Academy

4. Public Information/ Media

- Pure Water Silicon Valley program materials
- Website and social media campaign
- Positive news media stories

Potable Reuse Program Strategies

- ▶ Complete and implement master plans
- ▶ Promote and conduct research to promote potable water reuse
- ▶ Integrate potable reuse with groundwater management
- ▶ Build community stakeholder support for potable reuse
- ▶ Investigate initial development of direct potable reuse
- ▶ RO Concentrate Study