

CALIFORNIA DEPARTMENT OF WATER RESOURCES

The California State Water Project



CA Department of Water Resources Mission

To manage the water resources of California, in cooperation with other agencies, to benefit the state's people and to protect, restore, and enhance the natural and human environments.



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#1 The Department of Water Resources manages and operates the State Water Project.

- The State Water Project has been in operations since the 1960's.
- One of the largest public water and power utilities in the world.
- Nation's largest state built, owned, and operated water delivery system.
- The Department of Water Resources is not to be confused with the California Water Resources Control Board.



Benefits of the State Water Project

- **Flood Control:** The flood of 1955 that submerged Yuba City is what kicked off the building of Oroville Dam
- **Power Generation:** The SWP produces hydroelectric power to operate pumping facilities required to move water throughout California.
- **Recreation:** SWP lakes and reservoirs provide numerous recreation opportunities
- **Fish and Wildlife Habitat:** The SWP is operated to protect fish and wildlife with fish hatcheries, fish screens and passages, mitigation agreements, fish surveys and monitoring, a fish salvage facility, habitat restoration, and restricted pumping schedules.



#2 The State Water Project is one big system designed to deliver water across California.



- More than 700 miles of aqueducts, canals, tunnels and pipelines
- 36 storage facilities, 21 pumping plants, 26 dams, 4 pumping-generating plants, 5 hydroelectric powerplants
- 4th largest power generator and largest power user in the state of California
- Delivers water to 29 state water contractors
- Supplies water to 27 million Californians and 750,000 acres of farmland



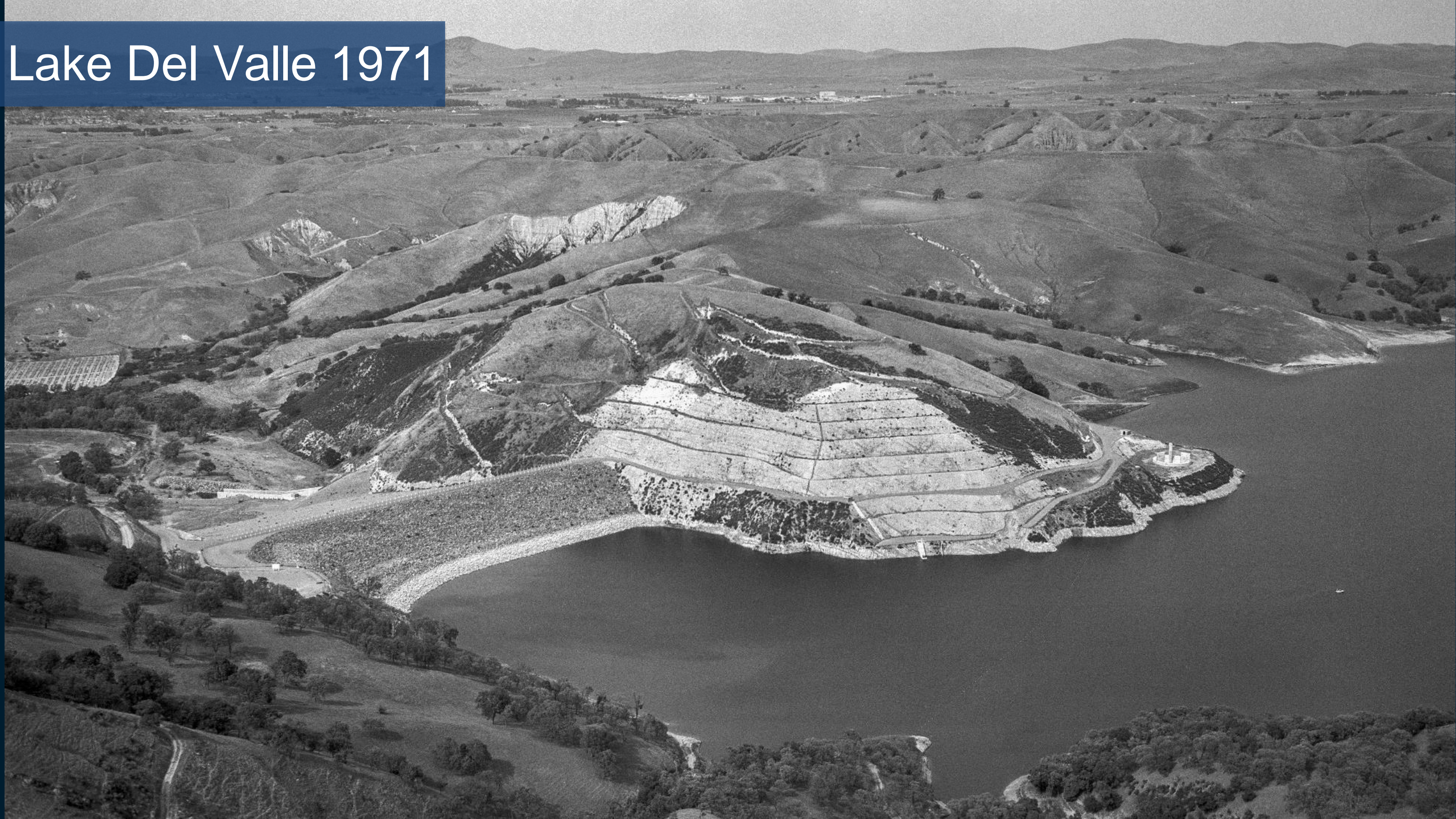
Oroville Dam 1963



Oroville Dam today



Lake Del Valle 1971



Lake Del Valle 2003



The valley before Castaic Dam was built



Castaic Lake today



Perris Dam after completion 1973



Perris Dam today



Santa Ana Pipeline – Riverside County 1973



Riverside County today



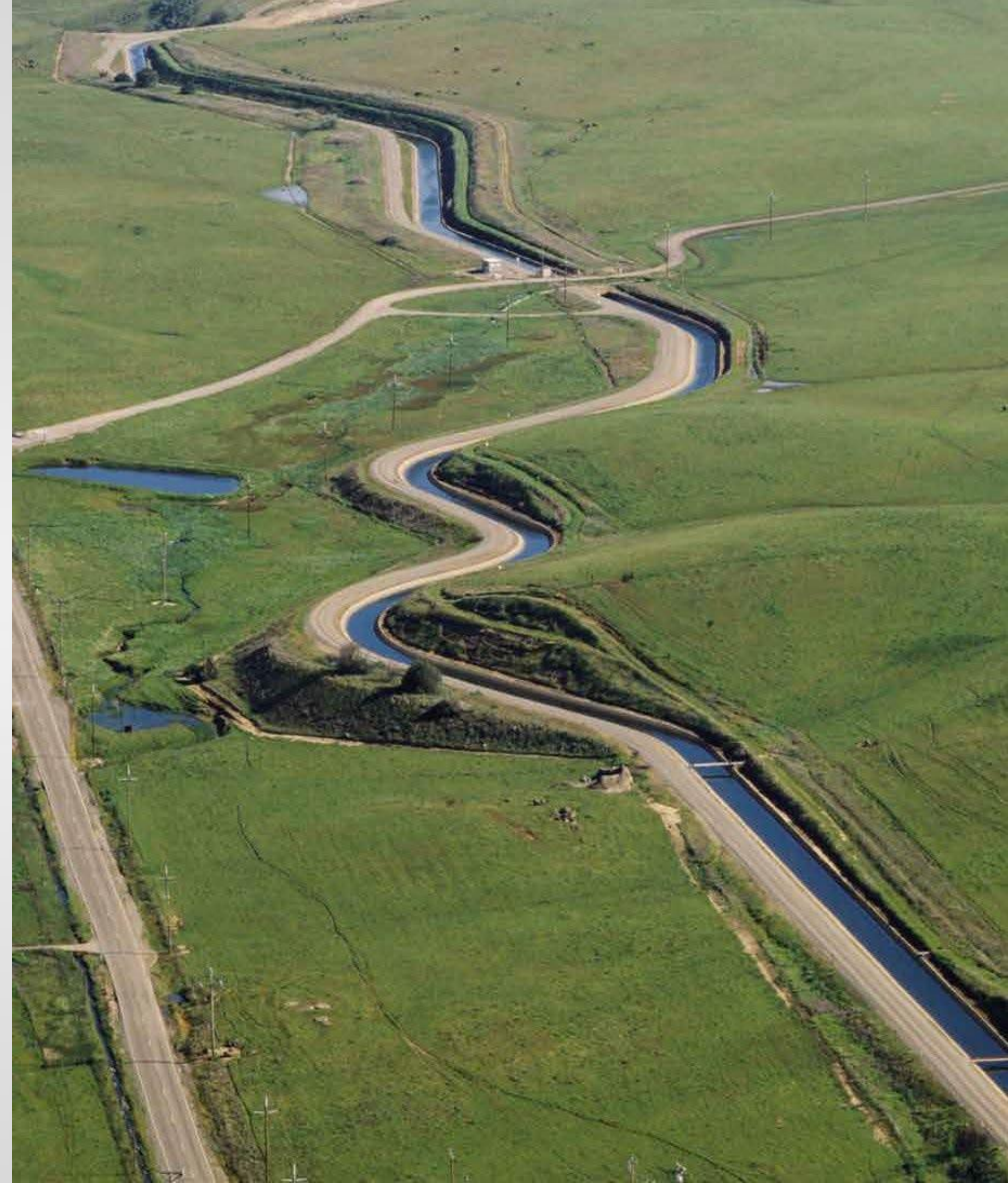
#3 There are 29 State Water Contractors that receive water from the State Water Project

- For the last 20 years, SWP's average water goes to **34 percent** for agricultural use **66 percent** for urban users.
- **Valley Water** can receive up to 100,000-acre feet of water in its yearly allocation from the State Water Project. However, the average is about 60,000-acre feet per year.



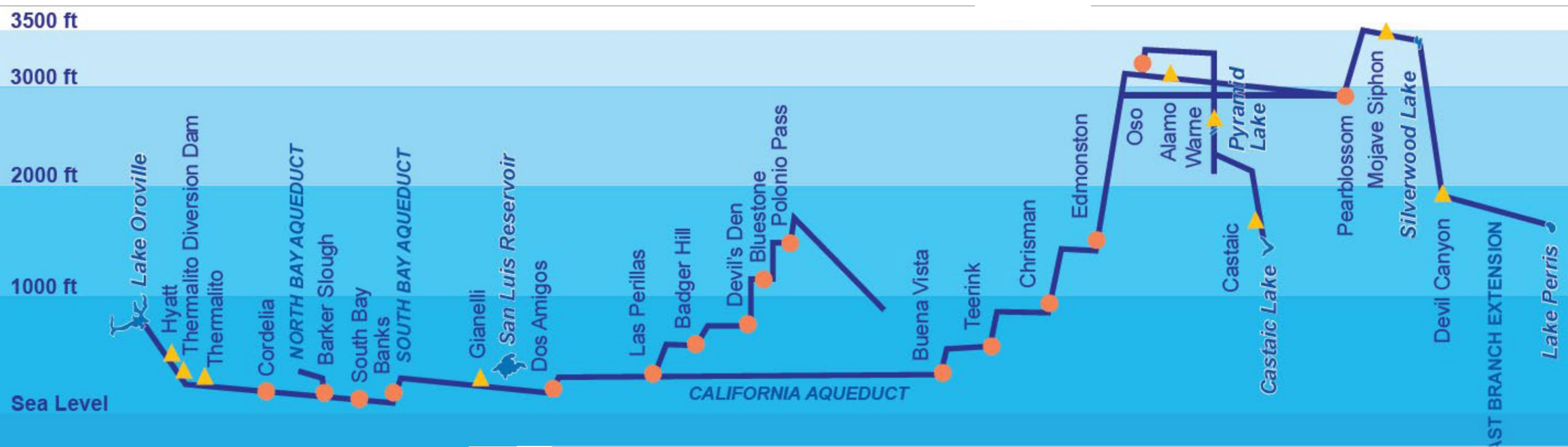
South Bay Aqueduct

- **First delivery system** completed in the SWP
- Water Deliveries began to Alameda (1962) and Santa Clara (1965) counties
- **42.9-mile system** consisting of:
 - 8.4 miles of canals
 - 32.9 miles of pipeline
 - 1.6 miles of tunnels



#4 The Department of Water Resources is the biggest energy consumer in the State

- It takes a lot of electricity to move water.
- The State Water Project, the fourth largest zero emissions hydropower energy producer in the State is also the single largest consumer of the State.
- The State Water Project's power portfolio currently consists of 70 percent carbon-free resources, including solar facilities, and will be 100 percent by 2035.



#5 There are other “water projects” that deliver water to the people of California

- Federal – Central Valley Project (CVP)
- Local projects
 - Hetch Hetchy - San Francisco
 - East Bay MUD - Mokelumne Aqueduct-Berkeley and Oakland
 - Los Angeles Aqueduct
 - Colorado River Aqueduct
- Other sources of drinking water
 - Groundwater
 - Recycled water- potable reuse
 - Desalination plants



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#6 The Department of Water Resources is actively addressing key issues that impact us today

- Climate change
- Drought and flood control
- EcoRestore - fish, wildlife, vegetation
- Aging infrastructure
- Balance of water distribution
- Water quality
- Salinity - CA Delta
- Groundwater management - SGMA, subsidence, and aquifer recharge
- Voluntary agreements - Delta water users, state agencies, and non-profit organizations
- Delta conveyance - single tunnel project
- Algal Blooms



Resources

- CA Department of Water Resources <https://water.ca.gov/>
- DWR California Data Exchange Center <http://cdec.water.ca.gov/>
- Water Resilience Portfolio <http://waterresilience.ca.gov/>
- Water Plan <https://water.ca.gov/Programs/California-Water-Plan>
- Sustainable Groundwater Management <https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management>
- Water Resources Control Board <https://www.waterboards.ca.gov/>



Questions?

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Public Affairs Office

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CADWR



CA_DWR



calwater



cadepartmentofwaterresources



CALIFORNIA DEPARTMENT OF
WATER RESOURCES



Valley Water

Clean Water • Healthy Environment • Flood Protection



Providing water for Silicon Valley

Presented by: Gina Adriano

Our Mission

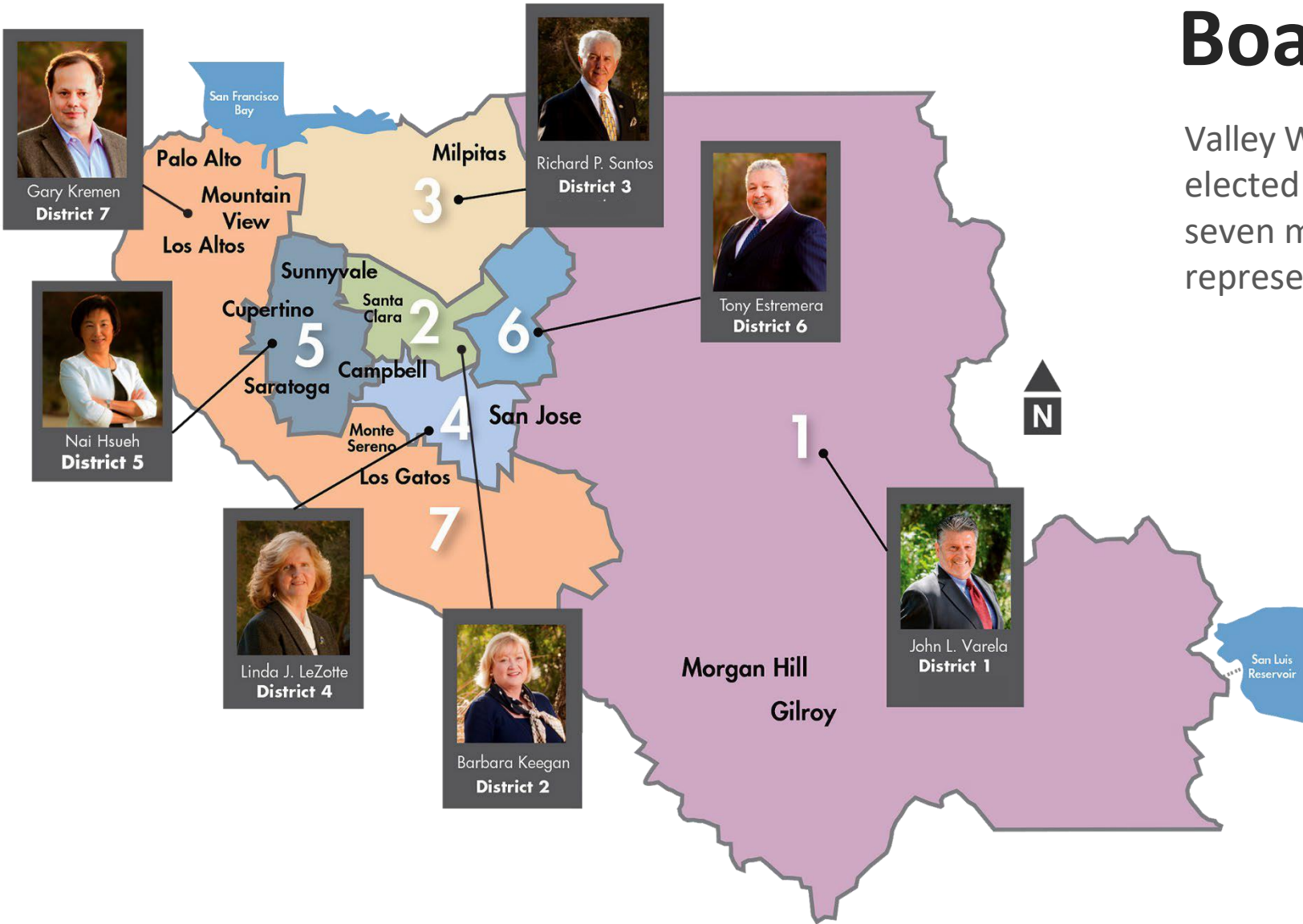


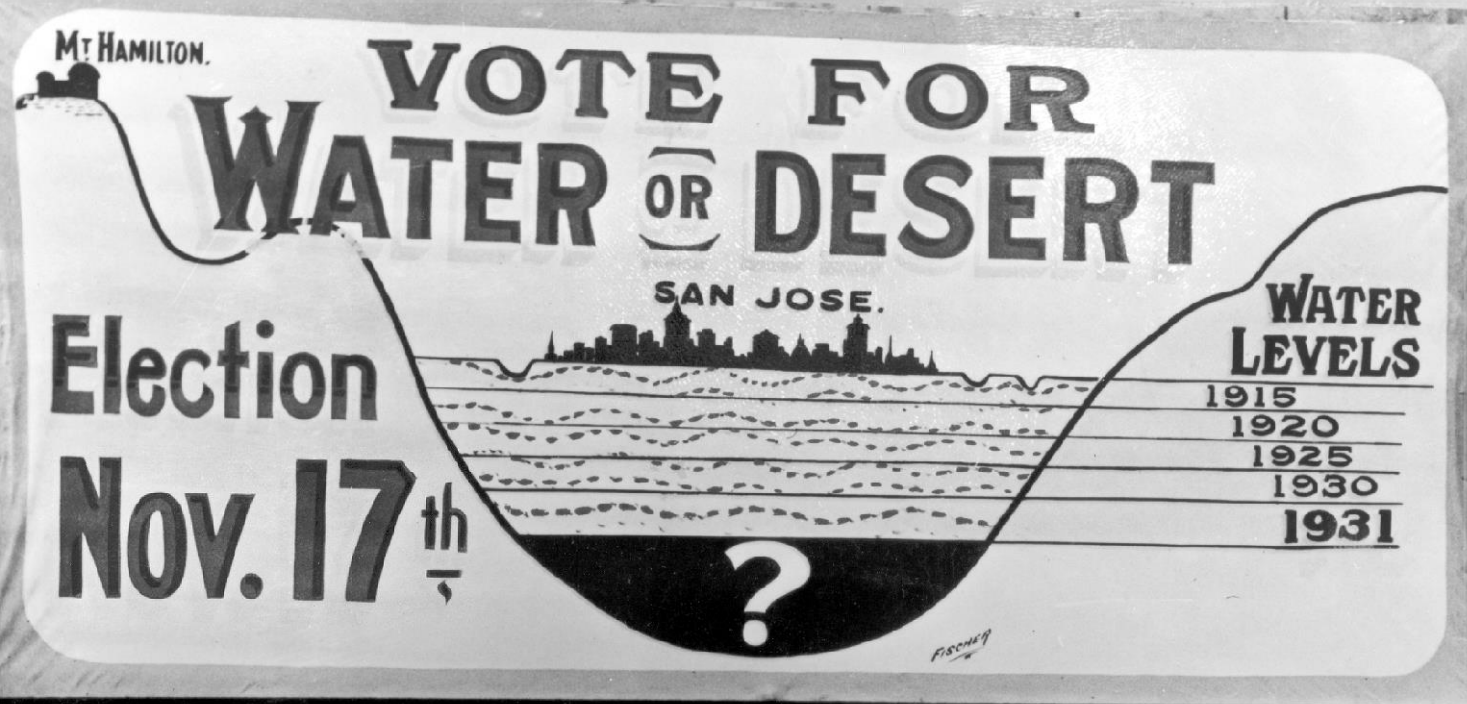
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valleywater.org

Board of Directors

Valley Water is governed by an elected Board of Directors, comprising seven members. The directors represent divided geographic regions.



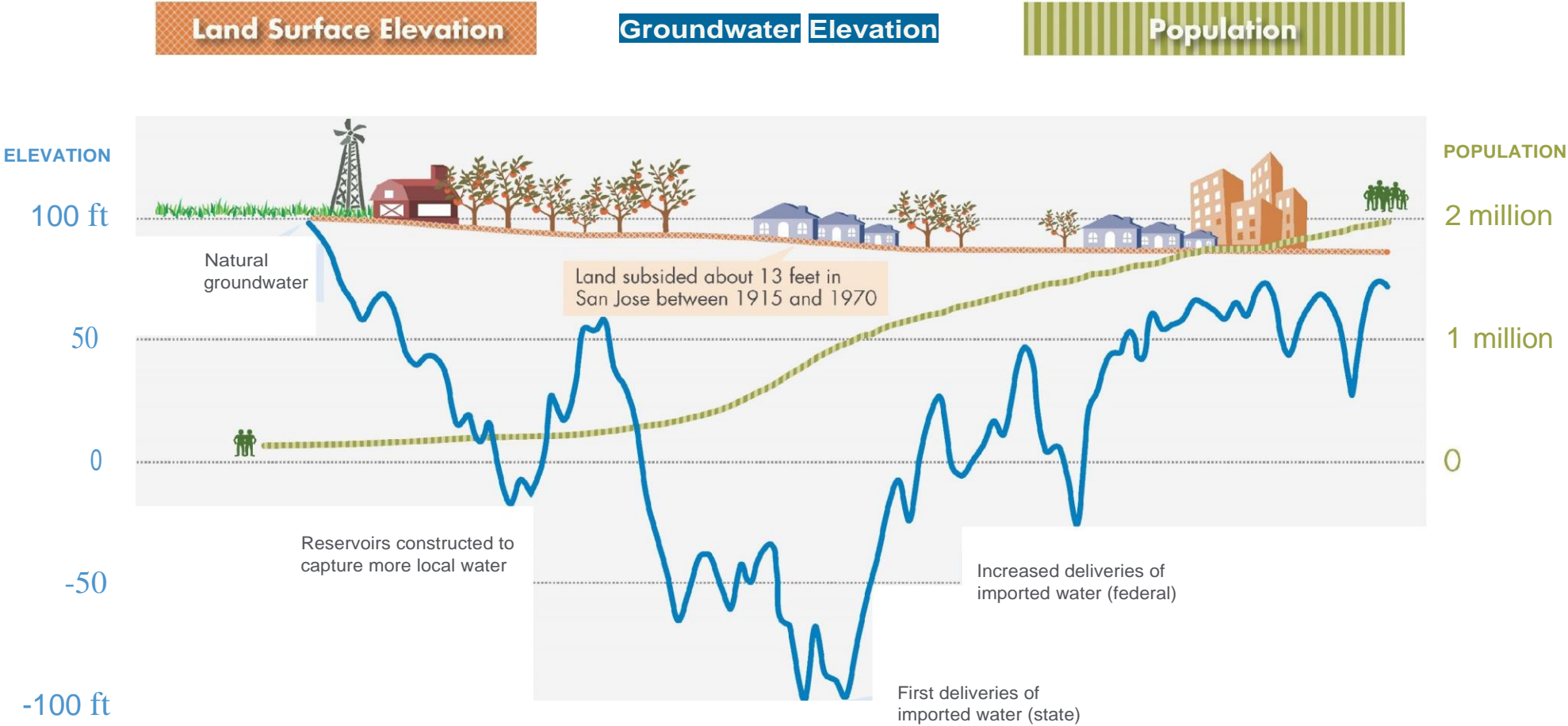


A history of
groundwater
management

SANTA CLARA COUNTY GROUNDWATER AT-A-GLANCE

a graphic representation not intended as a technical exhibit

Valley Water



Year @lt•M

1920

1940

lit

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Water supply diversity ensures reliability

Our water supply is not all local. We import water from outside our county, through the Sacramento-San Joaquin Delta, and that forms an important part of our water portfolio, helping us weather droughts and meet demand.

Local Water (30%)

- Groundwater aquifer
- Reservoirs

Imported Water (50%)

- Delta conveyed – 40%
 - Hetch Hetchy – 10%
- (Proposed cut of 50% for this dry year)***

Recycled Water (5%)

- Wastewater Treatment
- Advanced Purification

Conservation (15%)

- Residential
- Commercial, Agriculture

Local Water

- Groundwater aquifer – Limited water to put in as well as take out
- Reservoirs – Without Anderson Reservoir for the next 10 years, making us more reliant on imported water

Imported Water

- State Water Project – 15% allocation. CV Project – 0% and 25%.
- Even emergency water supplies are hard to purchase and convey
- Hetch Hetchy – Facing proposed cut of 50% of our allocation
- Potential difficulties with our banked water supply

Recycled Water

- Less water in our system mean less recycled water

Conservation

- Contingent on public participation
- Valley Water does not have ability to regulate water usage





Sacramento-San Joaquin Delta Conveyance

Formerly known as California Waterfix

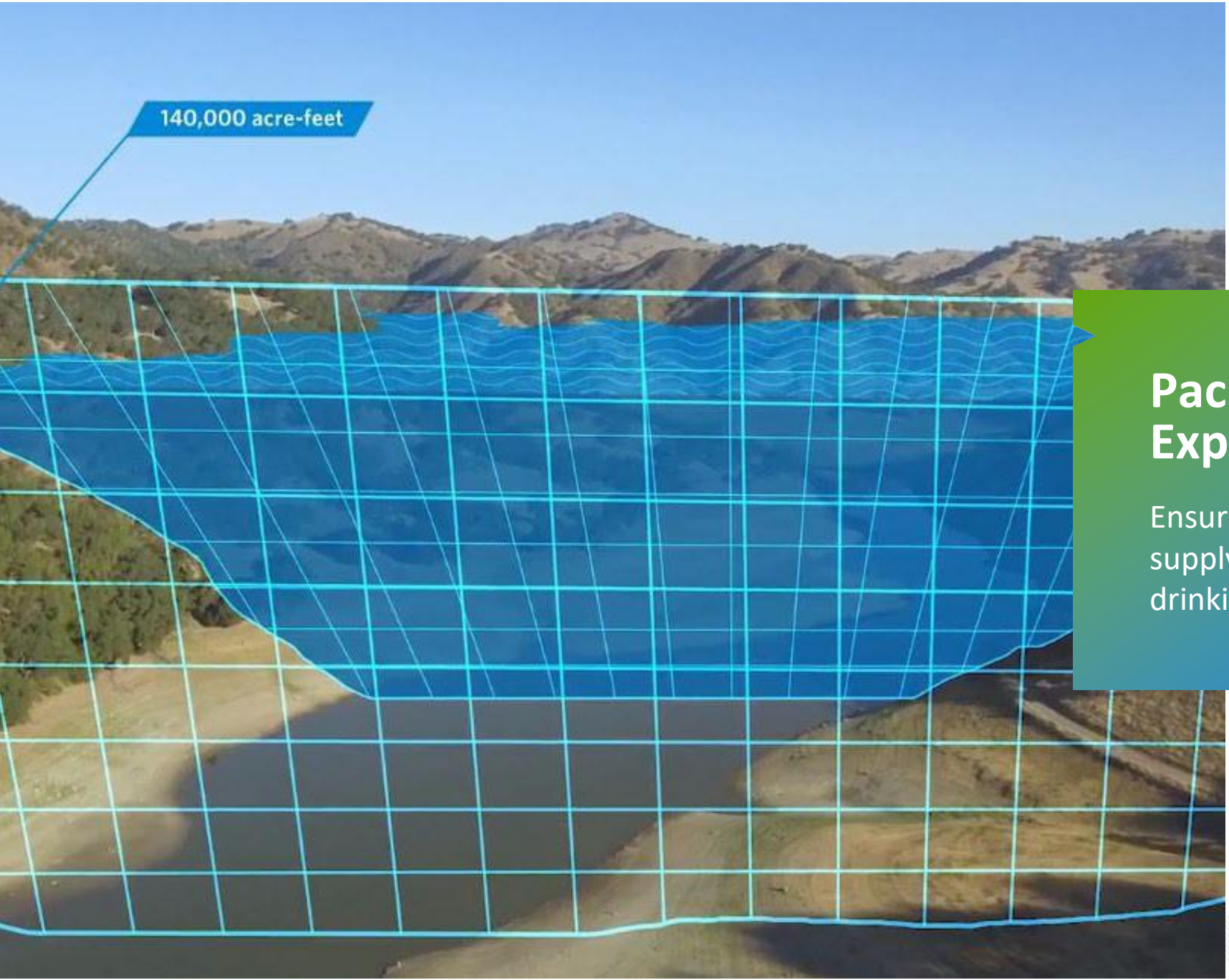
Our Comprehensive Water System



Aging infrastructure

Valley Water's Capital Improvement Program describes projects planned or underway for the next five years.





140,000 acre-feet

Pacheco Reservoir Expansion Project

Ensuring a more reliable supply of safe, clean drinking water



Purifying water for a reliable supply

We offer free tours of the Purification Center. You can sign up via info@purewater4u.org



We must make conservation a way of life

We don't know when a drought will return, so it's important to make conservation a way of life.



Half of water used in homes is used outdoors

To help encourage the public to save water, we provide a variety of rebates and programs.

Measuring water quality at our state-of-the-art lab

We test water from each of our three treatment plants, Advanced Water Purification Center, our reservoirs and groundwater basins at the Water Quality Lab.



Valley Water provides flood protection

Valley Water's work is founded on three pillars. Second is providing clean, reliable water.





Record rain followed a punishing drought



Maintaining streams helps prevent flooding

Our Stream Maintenance Program ensures that streams with completed flood protection projects continue to function as designed to protect homes and businesses.

GET FLOOD READY

- ✓ Know your risk
- ✓ Prepare your home
- ✓ Get flood insurance

ValleyWater.org/FloodReady



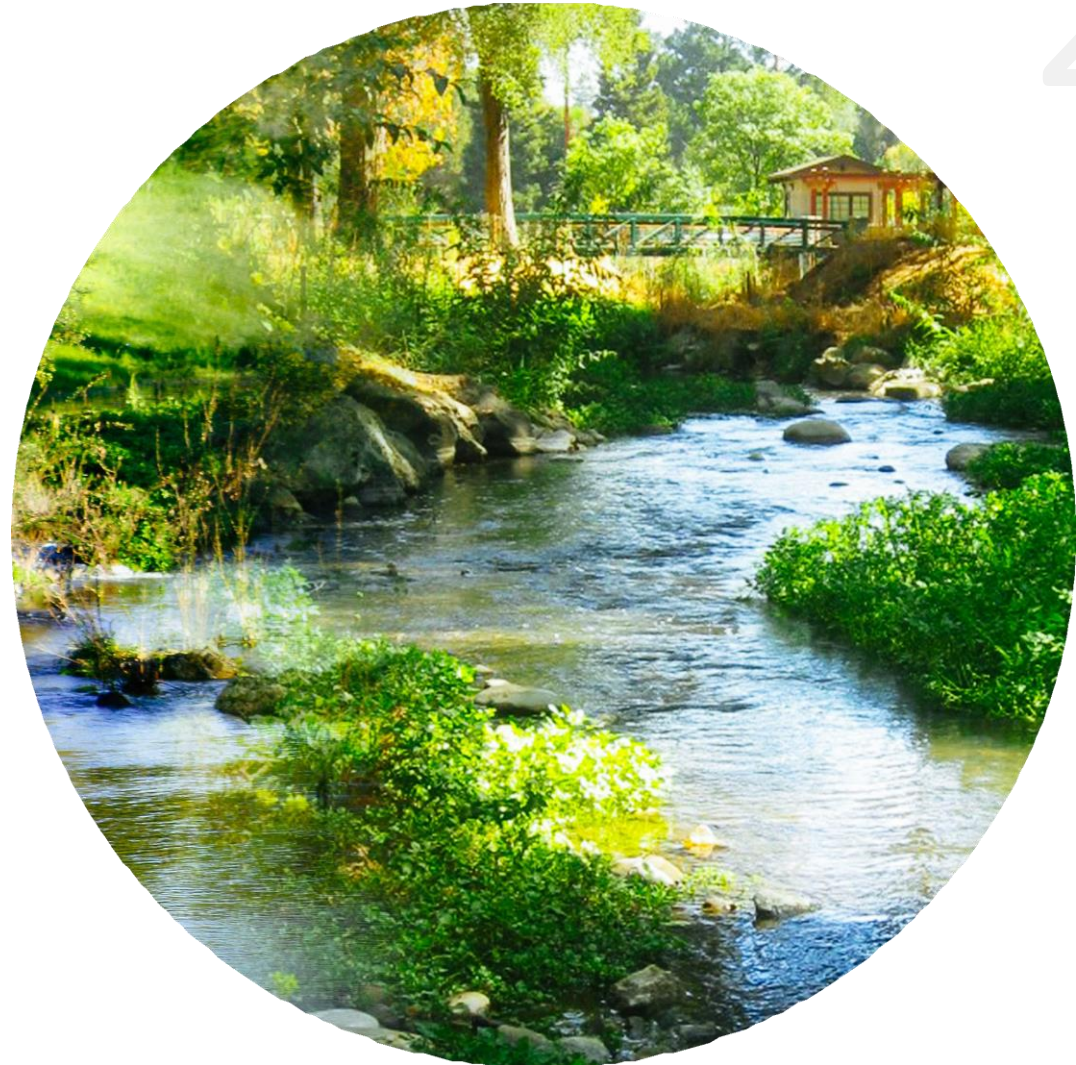
valley water

Increasing community awareness

Our flood protection activities get us and our partners points from the federal government that wind up saving the community money on flood insurance in participating communities.

Healthy environment

Enhance. Protect. Restore. Our third pillar is providing healthy creeks and ecosystems.





Creek Stewardship and Civic Engagement



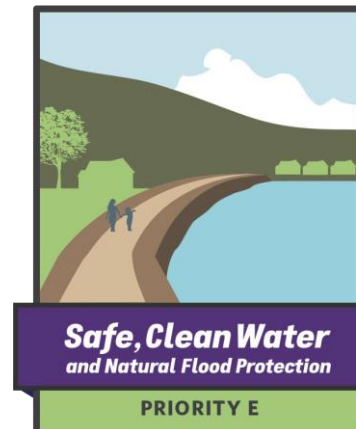
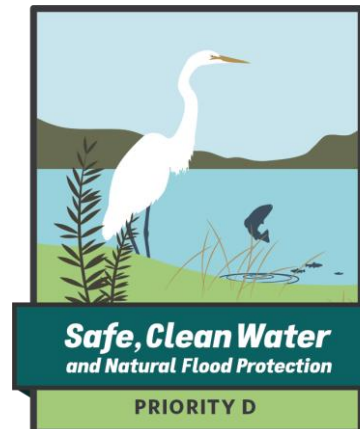
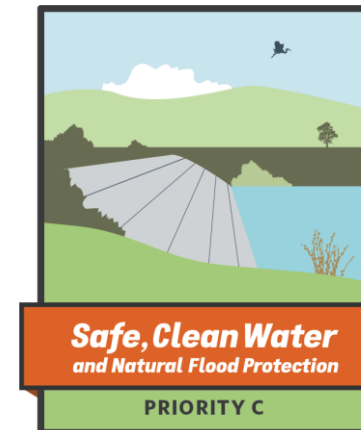
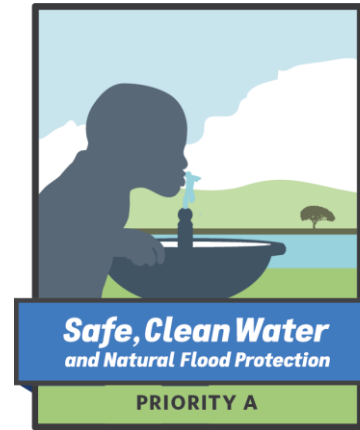
Preparing future water stewards

Our outreach staff and water educators engage thousands of students and members of the public every year to build critical awareness about water and related environmental issues and to keep our waterways and environment clean.

Safe, Clean Water and Natural Flood Protection Program

Made possible by the voters of Santa Clara County

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Valleywater.org | purewater4u.org | cleanacreek.org

Thank you and Questions

