

# **Calleguas Municipal Water District**

## **Member Agency Presentation to Metropolitan Water District**

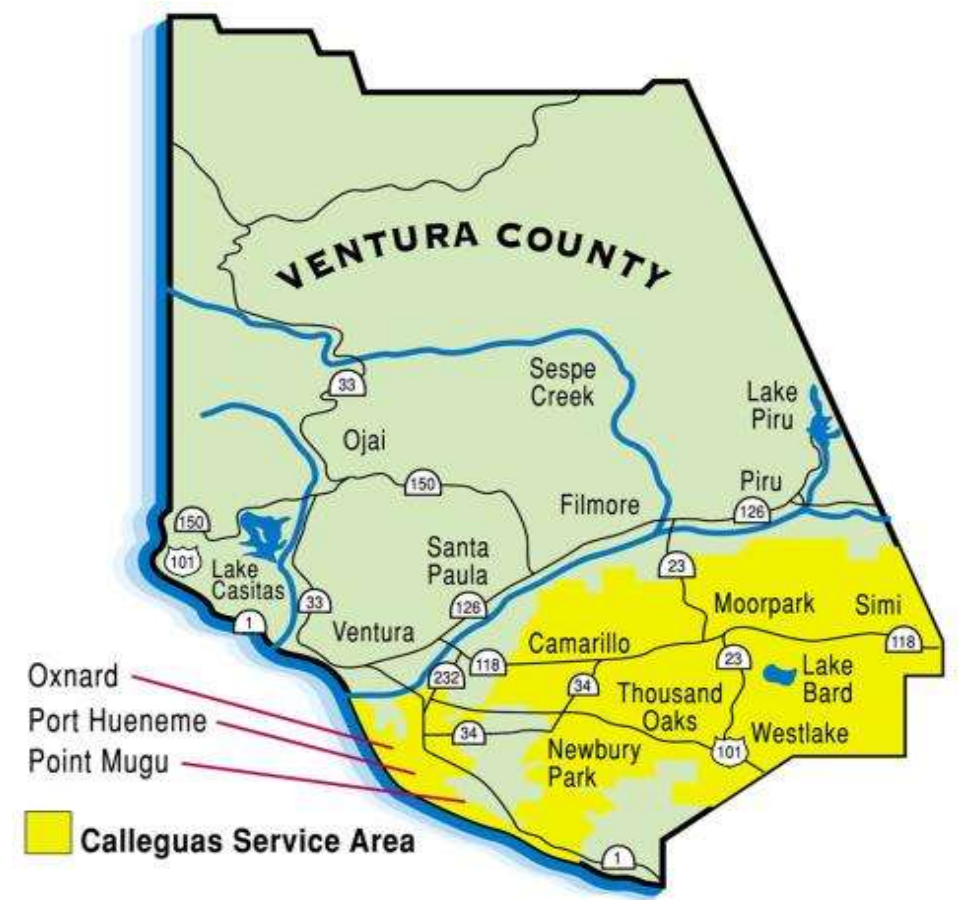
### **Board of Directors**





# Calleguas MWD

- ◆ Formed in 1953 by local communities to develop supplemental water supplies
- ◆ Joined the Metropolitan Water District in 1960
- ◆ An imported water wholesaler (of primarily State Water) to 19 water agencies and cities serving about 670,000 people
- ◆ Governed by a five-member elected board
- ◆ Annual budget (2021): \$160M
- ◆ 70 employees



# Calleguas is a SWP Dependent Agency

TUESDAY MORNING  
April 25  
1972

## Feather River water reaches faucets here

Water from Northern California streams should begin flowing through Camarillo faucets sometime today, according to Archie Hill, engineer-manager of Calleguas Municipal Water District.

Calleguas began receiving the Feather River water from Metropolitan Water District Monday. First to get the new water--significantly softer than Colorado River water--was Simi Valley followed by Thousand Oaks.

Water from the State Water Project began flowing into the Calleguas service area in 1972. 5 years following the introduction of water from the CRA.

Salinity presents challenges within the Calleguas service area, which includes the Calleguas Creek Watershed and Oxnard Plain.

Calleguas only receives full-service treated water supplies from Metropolitan.

Calleguas maintains a single point of connection with Metropolitan.



# Single Point of Connection: Santa Susana Tunnel

## HOW TO BUILD A 7000-FOOT TUNNEL THROUGH SANTA SUSANA MOUNTAINS

By Gerald Olsen, Editor ...  
Just how do you build a 7000-foot tunnel through a mountain of rock?

This is the problem Simon Perlter, of the engineering firm of Perlter and Soring, is facing. The firm has been hired by the Calleguas Municipal Water District to handle the engineering on the MWD water importation project.

Perliter is an old hand at tunnels having assisted in the building of many for the Metropolitan Water District.

This tunnel, 7000 feet long, will go through the Santa Susana Mountains and bring life-giving water to the Calleguas district from the MWD.

### South of SP tunnel ...

The tunnel will be built south of the existing Southern Pacific Railroad tunnel and south of Highway 101 that crosses Santa Susana Pass.

The SP tunnel was built in 1904 with timber strengthening and lined with concrete in 1922.

The hole for the Calleguas tunnel will be "driven" from the western side or western portal. The project will take 18 months to complete and require men working 16 hours per day.

It will be driven by drilled holes into the rock, filling the holes with dynamite and blasting the rock which will be removed. About 17,000 yards of rock will be taken out of the tunnel.

### 25 Trains Per Day ...

No blasting can take place



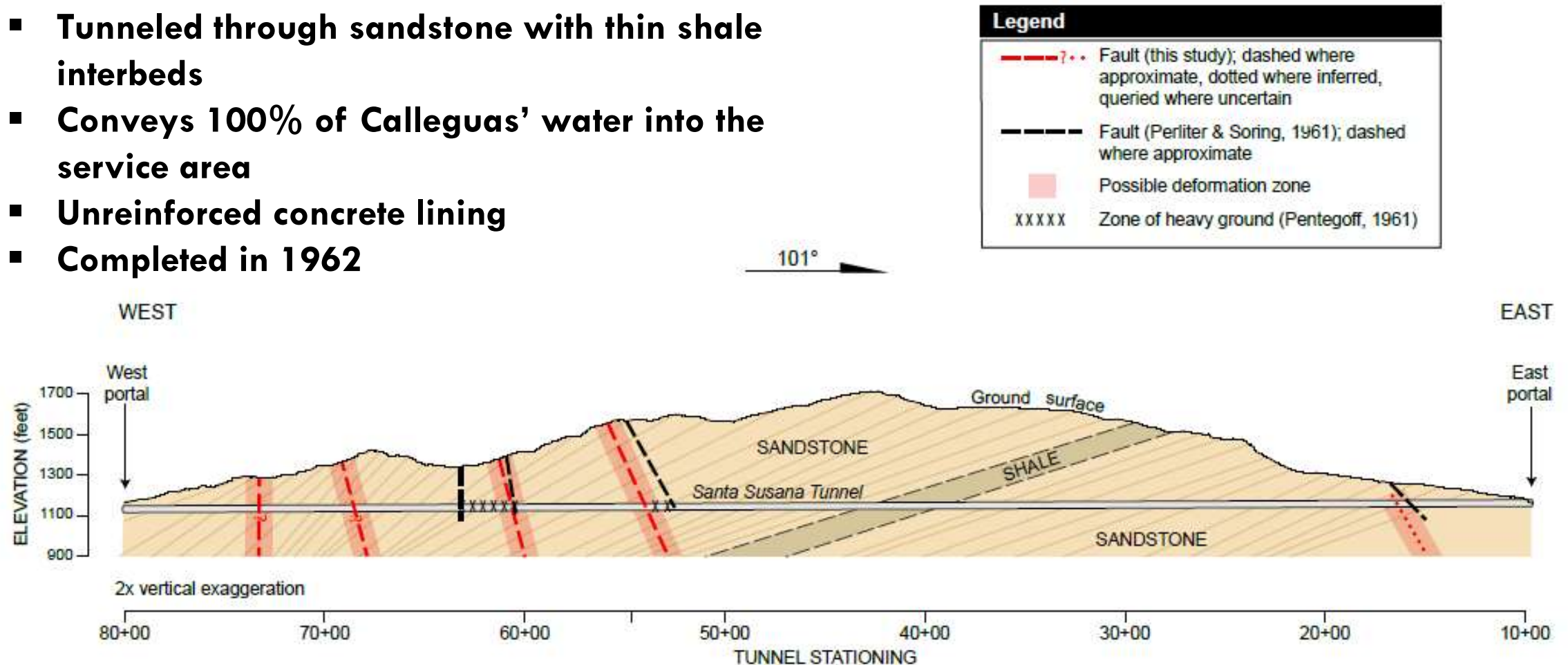
**EXPLAINS TUNNEL ROUTE** — Simon Perlter, of the engineering firm of Perlter and Soring, explains the route the water tunnel will take through the Santa Susana Mountains. The engineering firm is handling the engineering on the \$22 million pipeline from MWD for the Calleguas Municipal Water District.

— Camarillo News Photo



# Santa Susana Tunnel

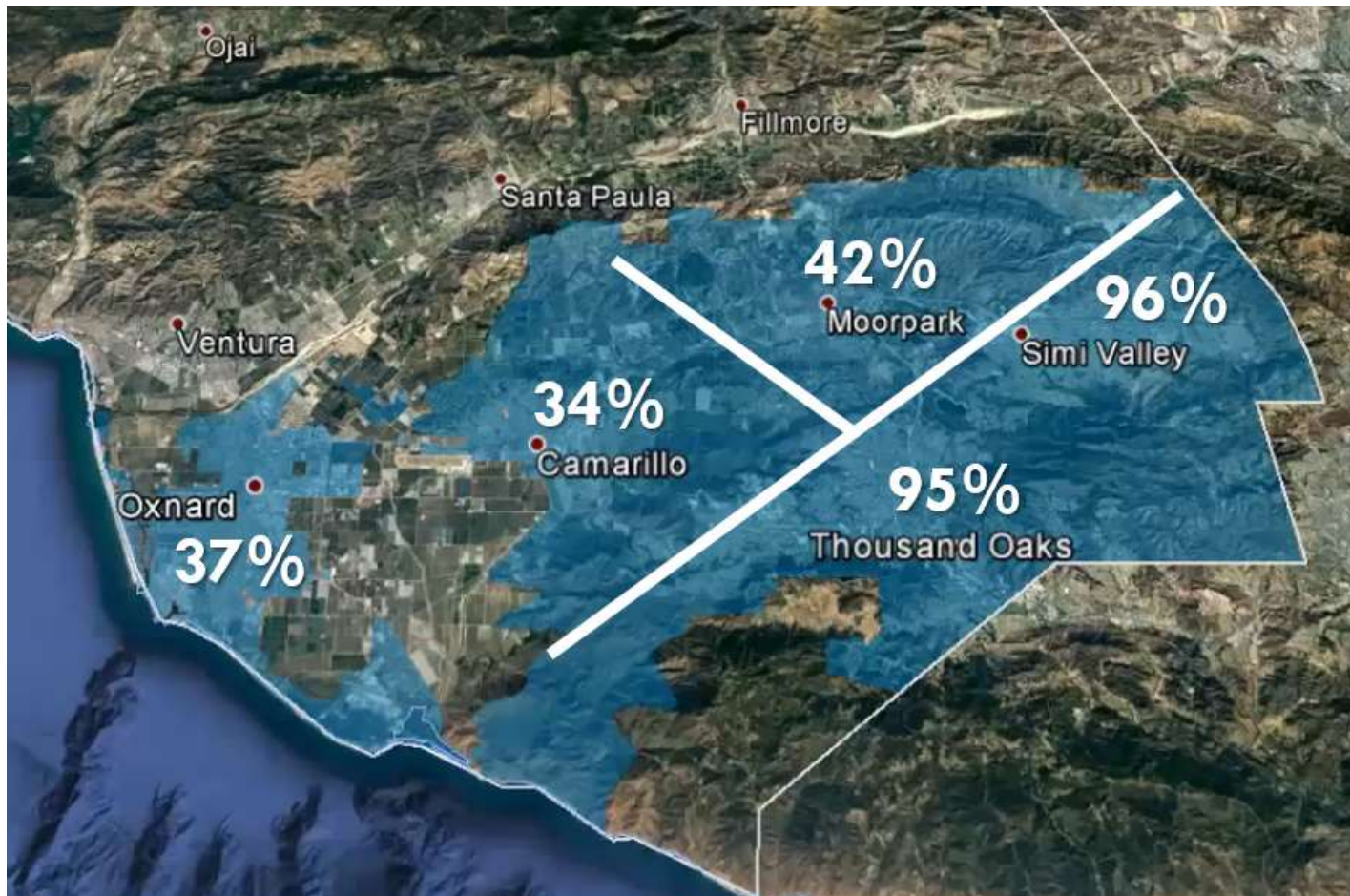
- 1.3 miles long and 96 inches in diameter
- Tunneled through sandstone with thin shale interbeds
- Conveys 100% of Calleguas' water into the service area
- Unreinforced concrete lining
- Completed in 1962





# Calleguas Purveyors

## Dependence on Imported Water Supplies



## Upper Zone:

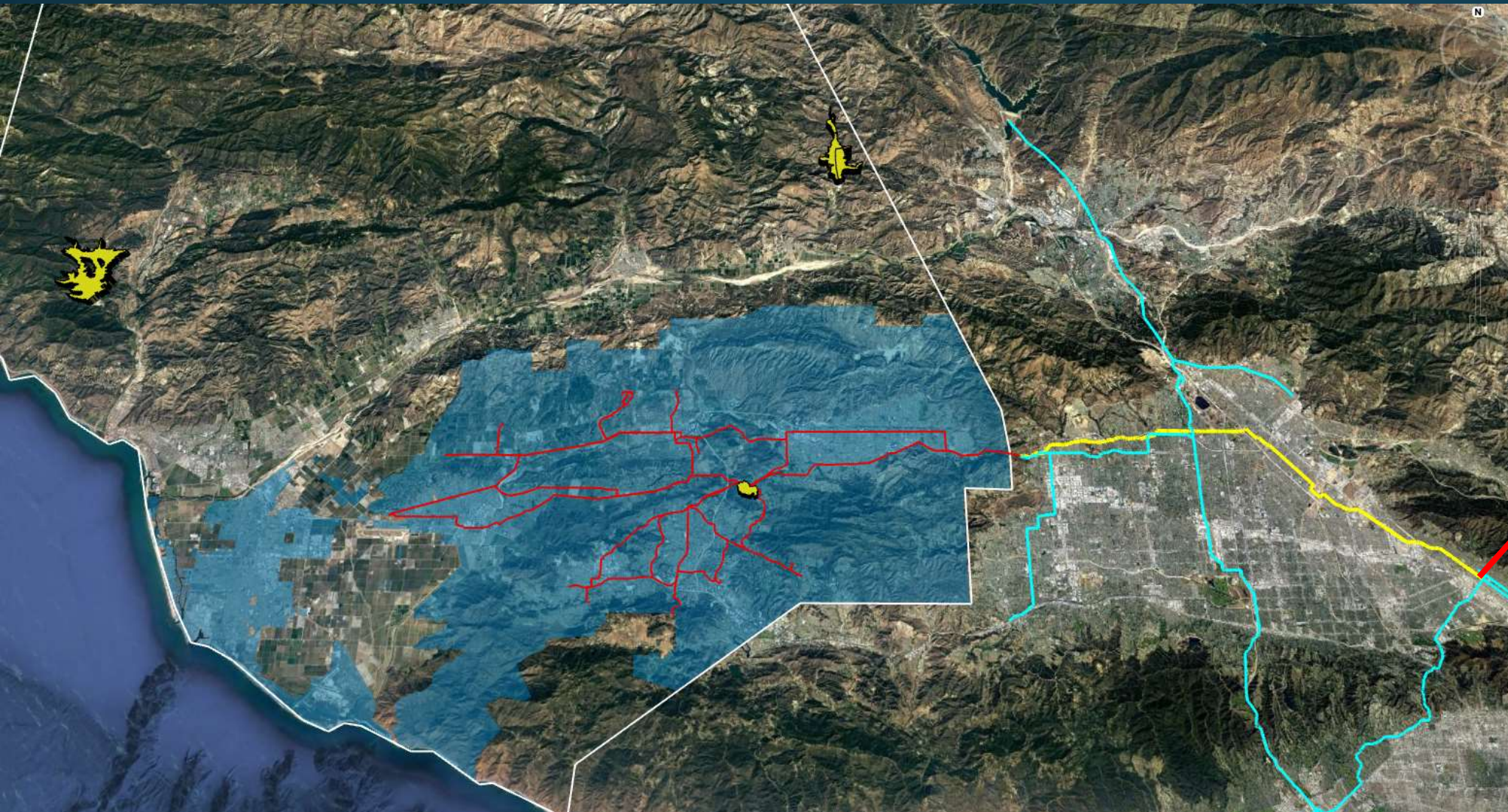


## Lower Zone:





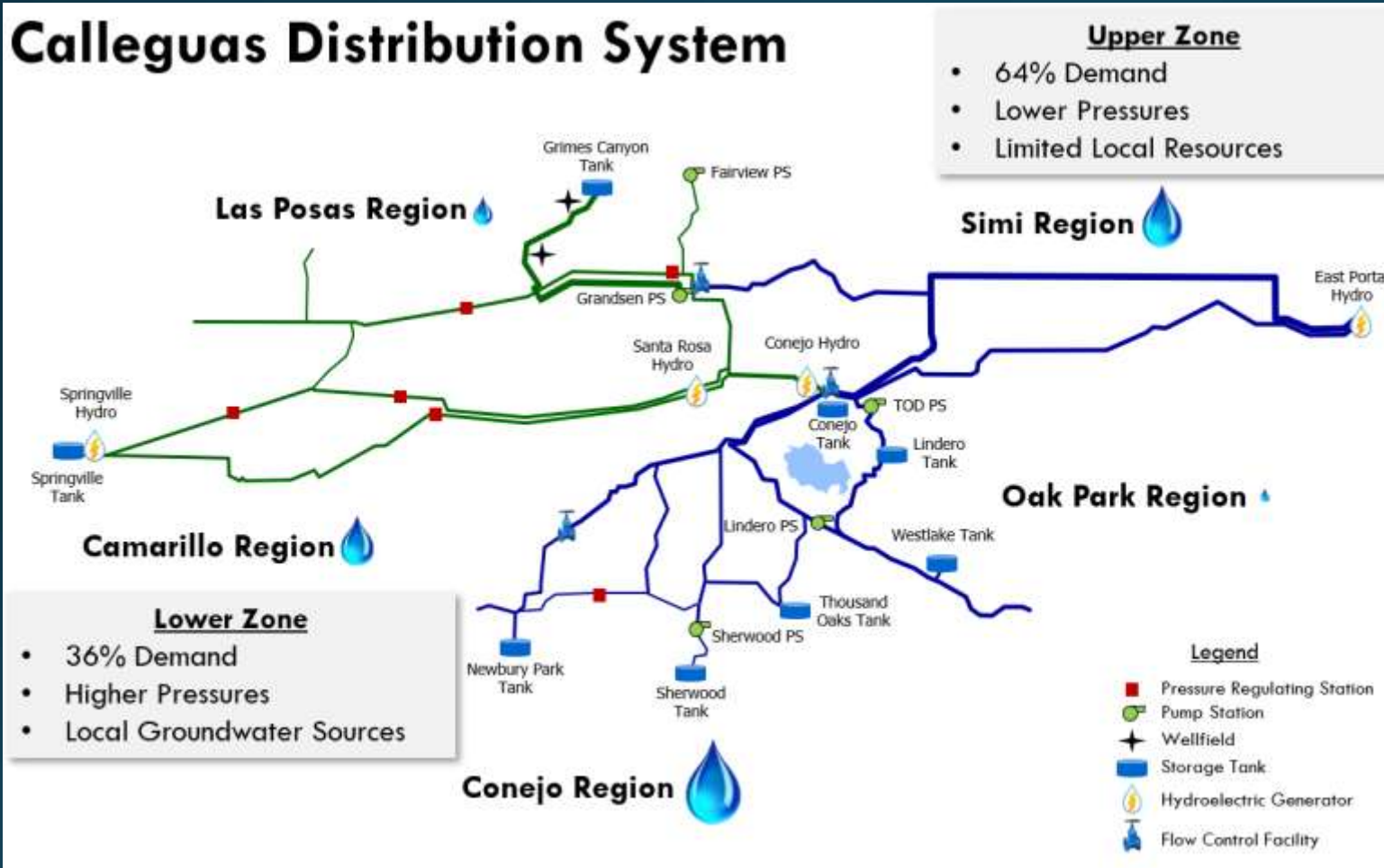
# Calleguas Distribution System





# Calleguas Distribution System

## Calleguas Distribution System

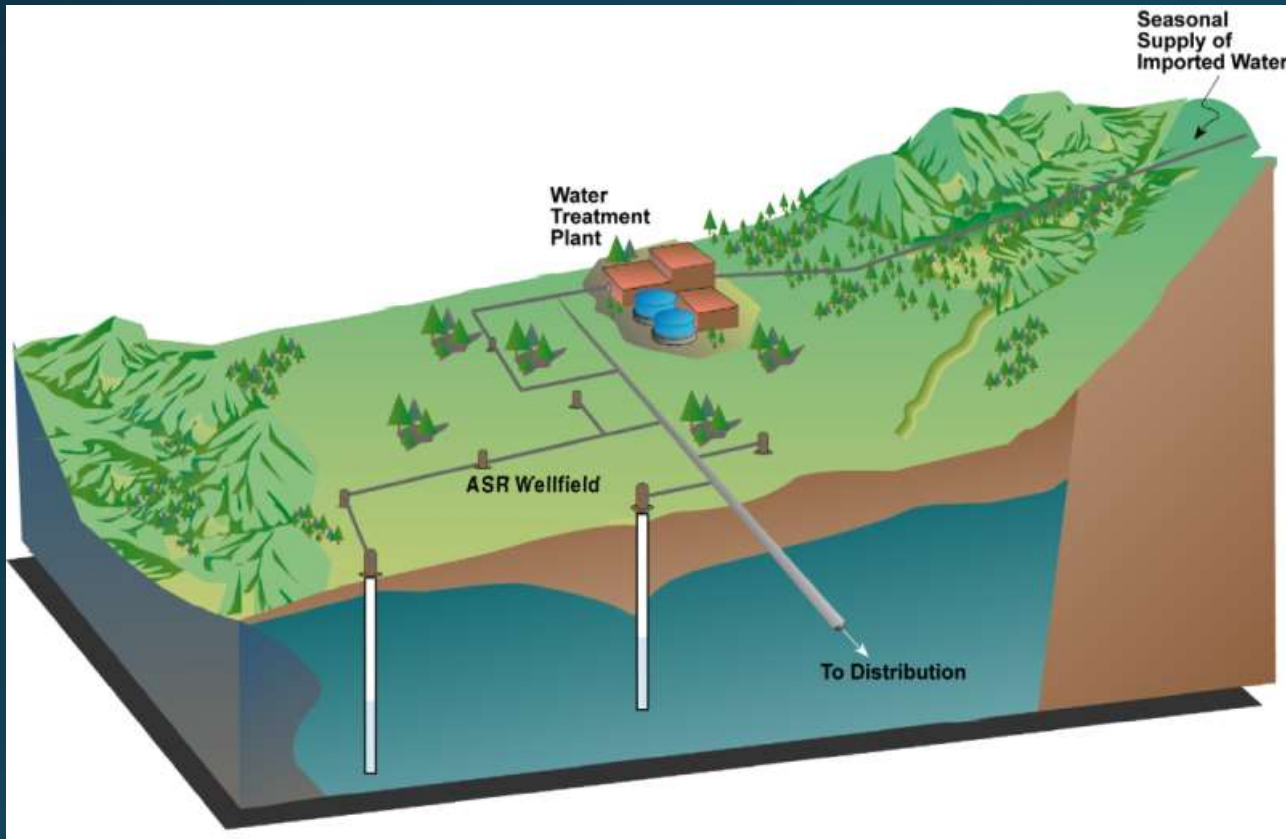


- 2 significant points of storage for outages: Las Posas ASR and Lake Bard
- 130 miles of pipeline (78 to 14-inch diameter)
- 5 hydroelectric generators
- 6 pump stations
- Salinity Management Pipeline





# Las Posas Aquifer Storage & Recovery Project

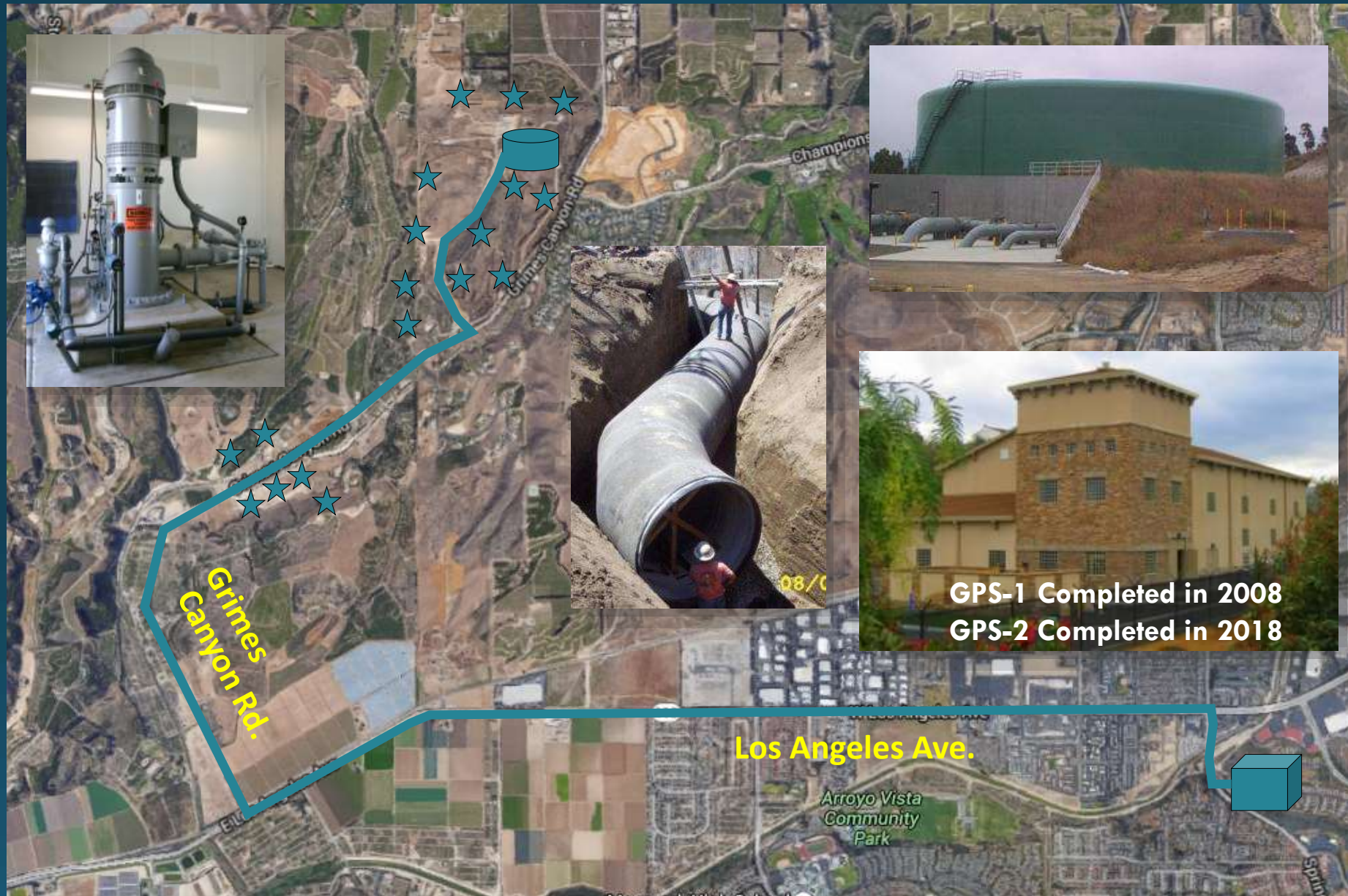


Metropolitan co-funded Las Posas ASR facilities and established Las Posas Groundwater Storage CUP in 1995.

Intended to increase Metropolitan's storage capacity and address system redundancy for Calleguas.

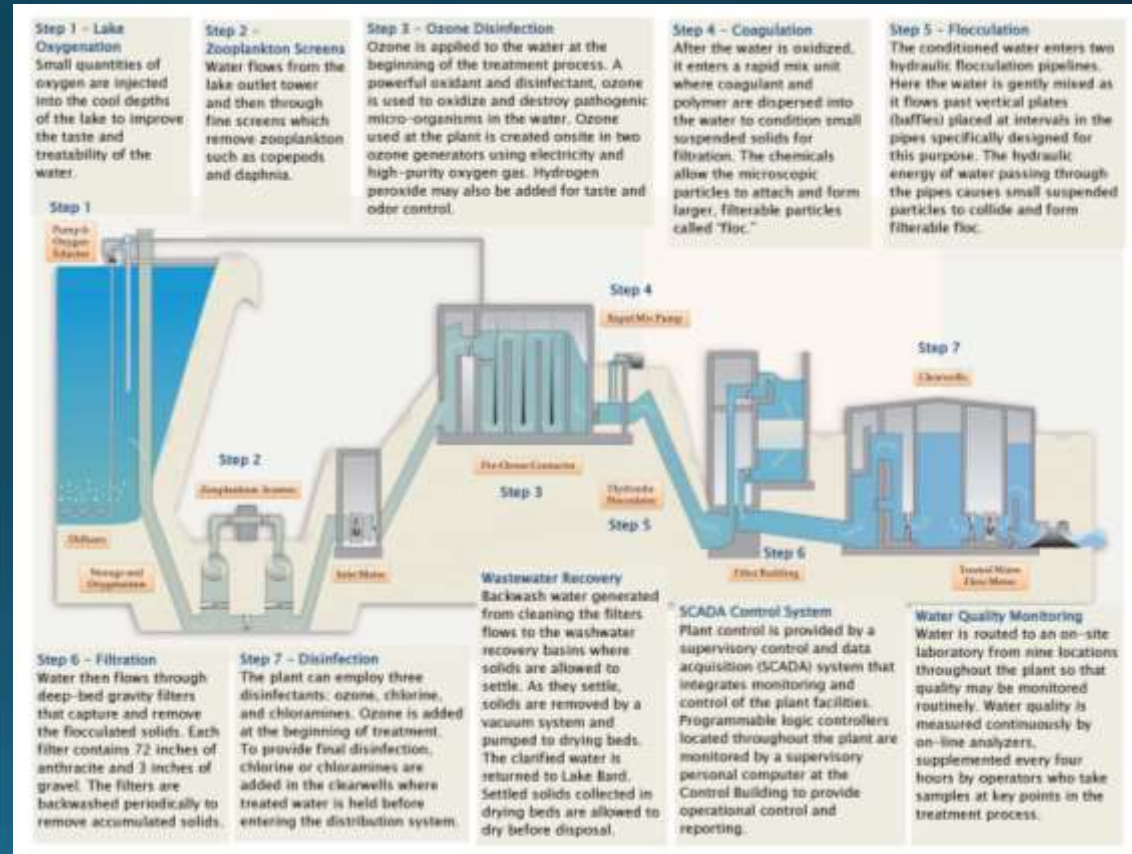
Las Posas Groundwater Storage CUP terminated in 2011 with Calleguas buy-out of Metropolitan's rights and interests in the program.

# Las Posas ASR Project Facilities

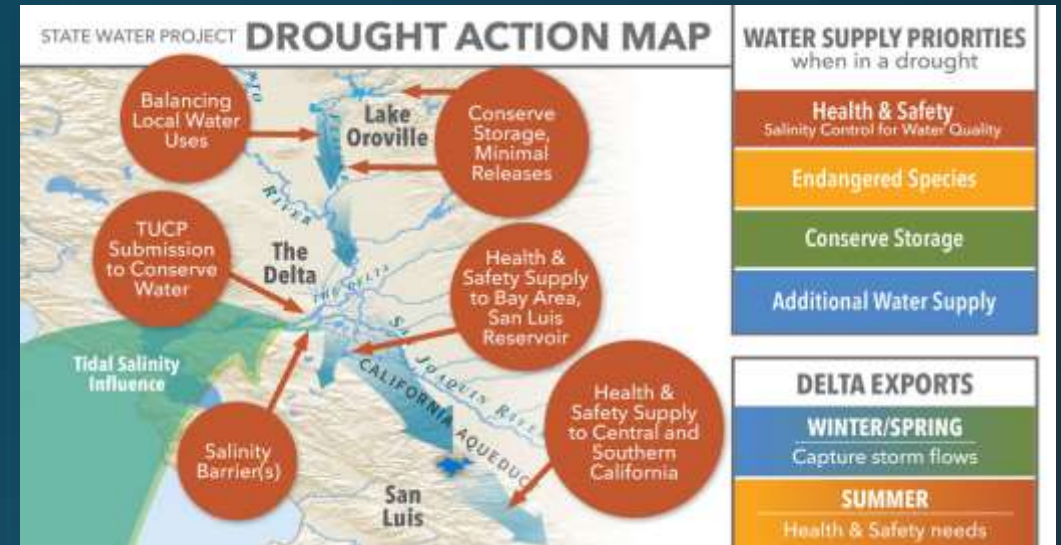
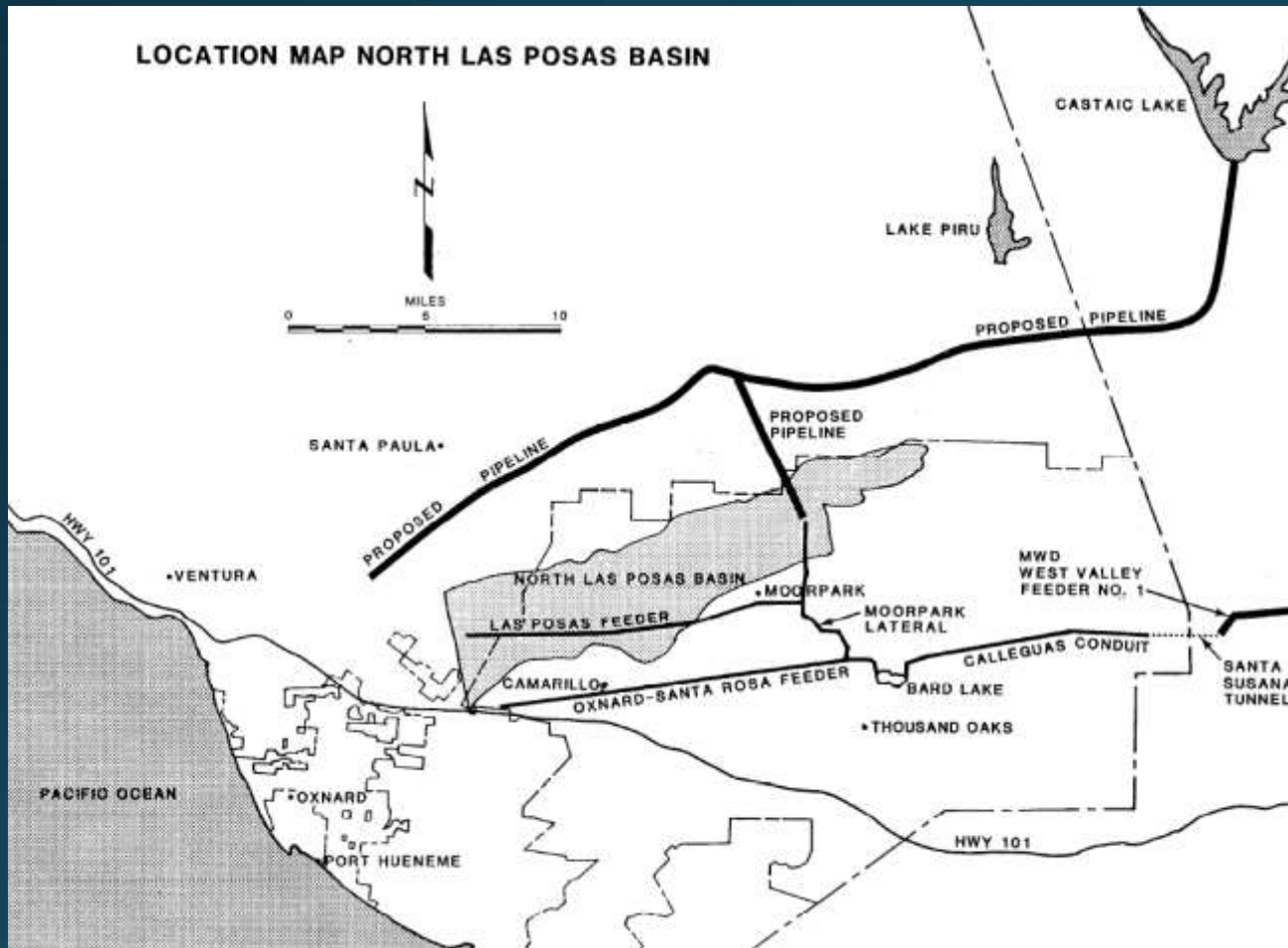




# Lake Bard and the Lake Bard Water Filtration Plant

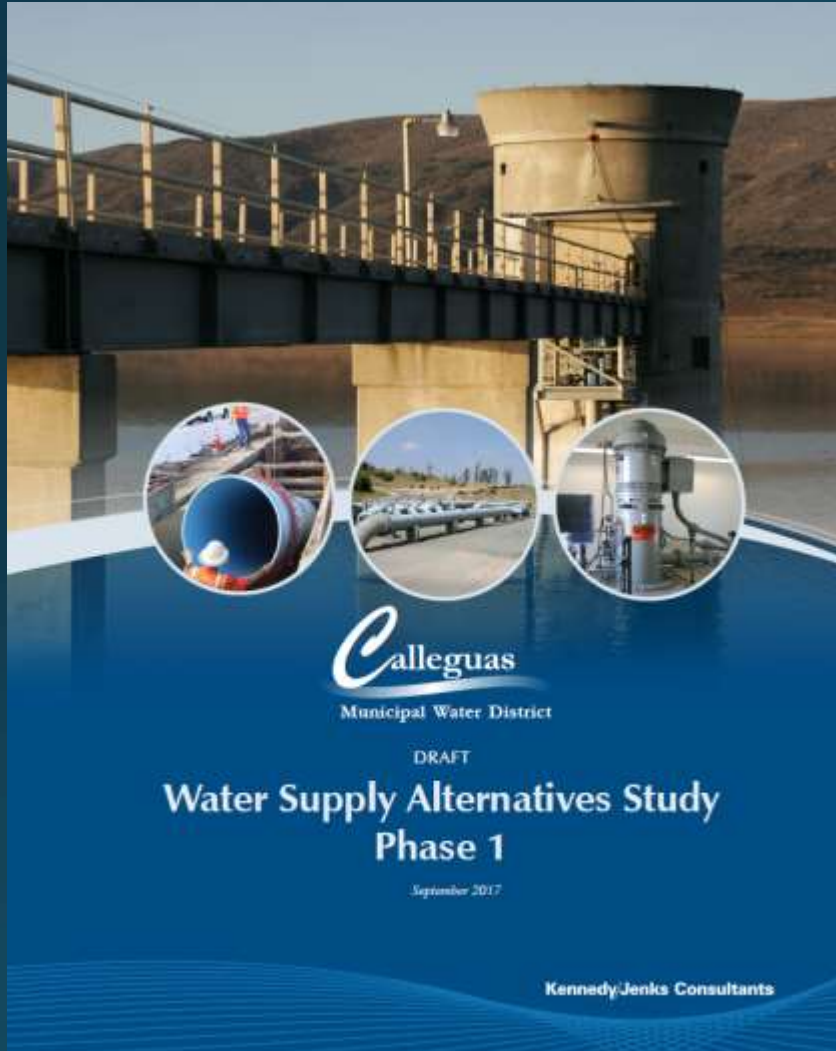


# System Redundancy and Water Supply Challenges





# Water Supply Alternatives Study



Evaluate and recommend ways to meet Calleguas' demands during an extended outage of imported supplies. Over 120 project concepts evaluated.

**Key Question: “How can we reduce demands and increase local supplies to meet our purveyor’s needs in a 6-month outage?”**

**Opportunities for collaboration outside of the traditional Calleguas network.**

**Original problem statement for the WSAS shifting to also address drought and long-term water supply reliability.**

# New System Interconnections



CALLEGUAS MUNICIPAL WATER DISTRICT  
THOUSAND OAKS, CALIFORNIA

**CALLEGUAS-CRESTVIEW INTERCONNECTION**  
PROJECT NO. 552





# What does a “One Water Strategy” look like for Ventura County?





**Thank You!**

**CALLEGUAS**

**MUNICIPAL WATER  
DISTRICT**