

The logo for the Los Vaqueros Reservoir Expansion Project is positioned in the upper right quadrant of the image. It features the words "LOS VAQUEROS" in a bold, blue, sans-serif font. Below this, the words "RESERVOIR EXPANSION PROJECT" are written in a green, sans-serif font. To the right of the text is a vertical graphic element consisting of four stacked, trapezoidal shapes that resemble a dam or a reservoir cross-section, with the top being the narrowest and the bottom the widest. The colors transition from blue at the top to green at the bottom.

LOS VAQUEROS RESERVOIR EXPANSION PROJECT

The text "DSRSD Board Meeting" and "September 21, 2021" is centered in the lower half of the image. It is written in a white, sans-serif font. The background for this text is a scenic view of the Los Vaqueros Reservoir, showing the blue water, the concrete dam structure, and the surrounding green hills under a clear sky.

DSRSD Board Meeting
September 21, 2021

Existing LV Reservoir

- Los Vaqueros (LV) Reservoir is an off-stream reservoir in Contra Costa County with a capacity of 160 TAF
- Contra Costa Water District (CCWD) operates LV in conjunction with four Delta intakes and an intertie with the East Bay Municipal Utility District (EBMUD)
- Benefits:
 - Water quality improvement
 - Drought supply reliability
 - Emergency supply
 - Delta fishery protection



LVE Project Components

Storage

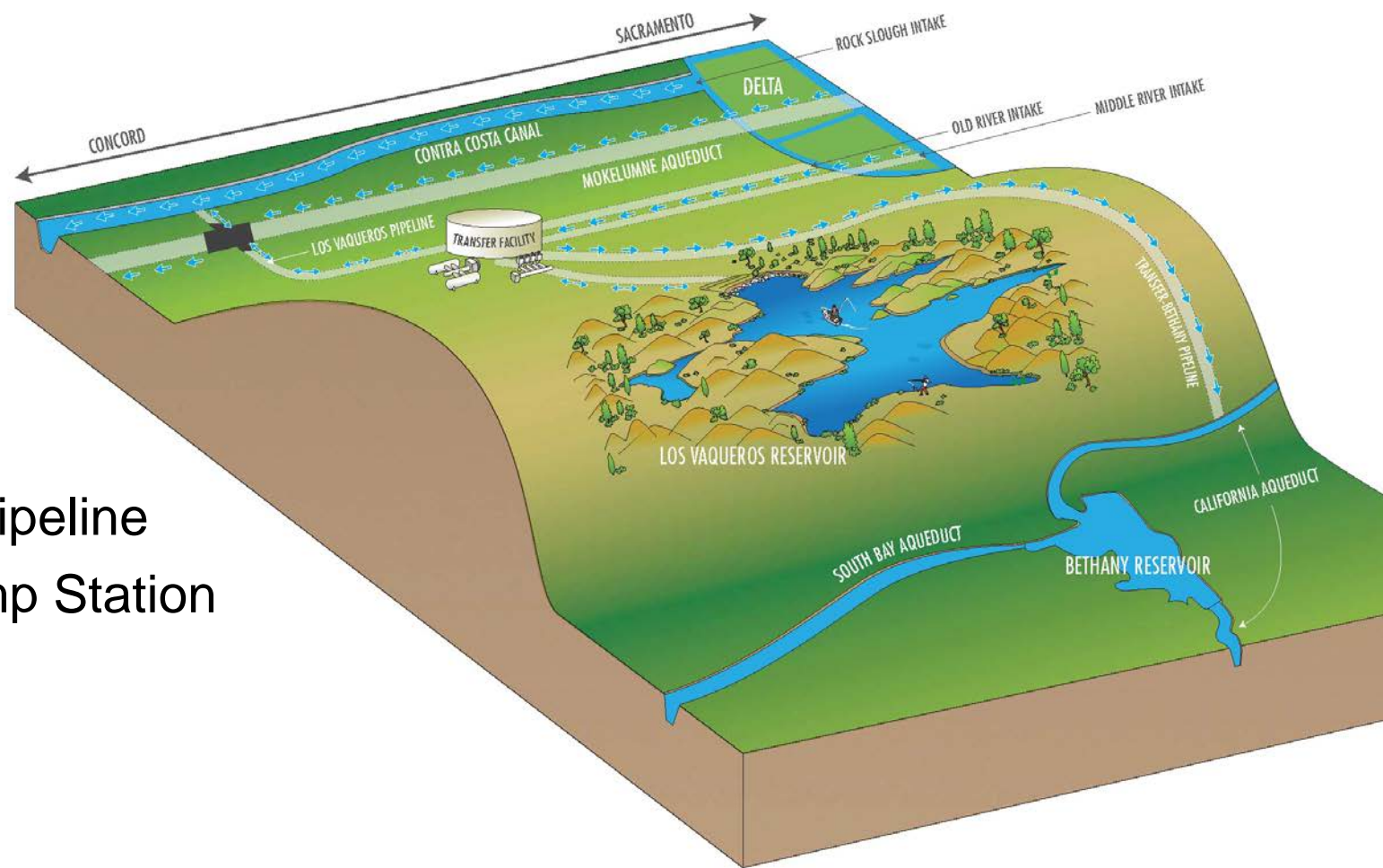
- Expand Reservoir from 160 to 275 TAF
- Upgrade Transfer Facility

Conveyance

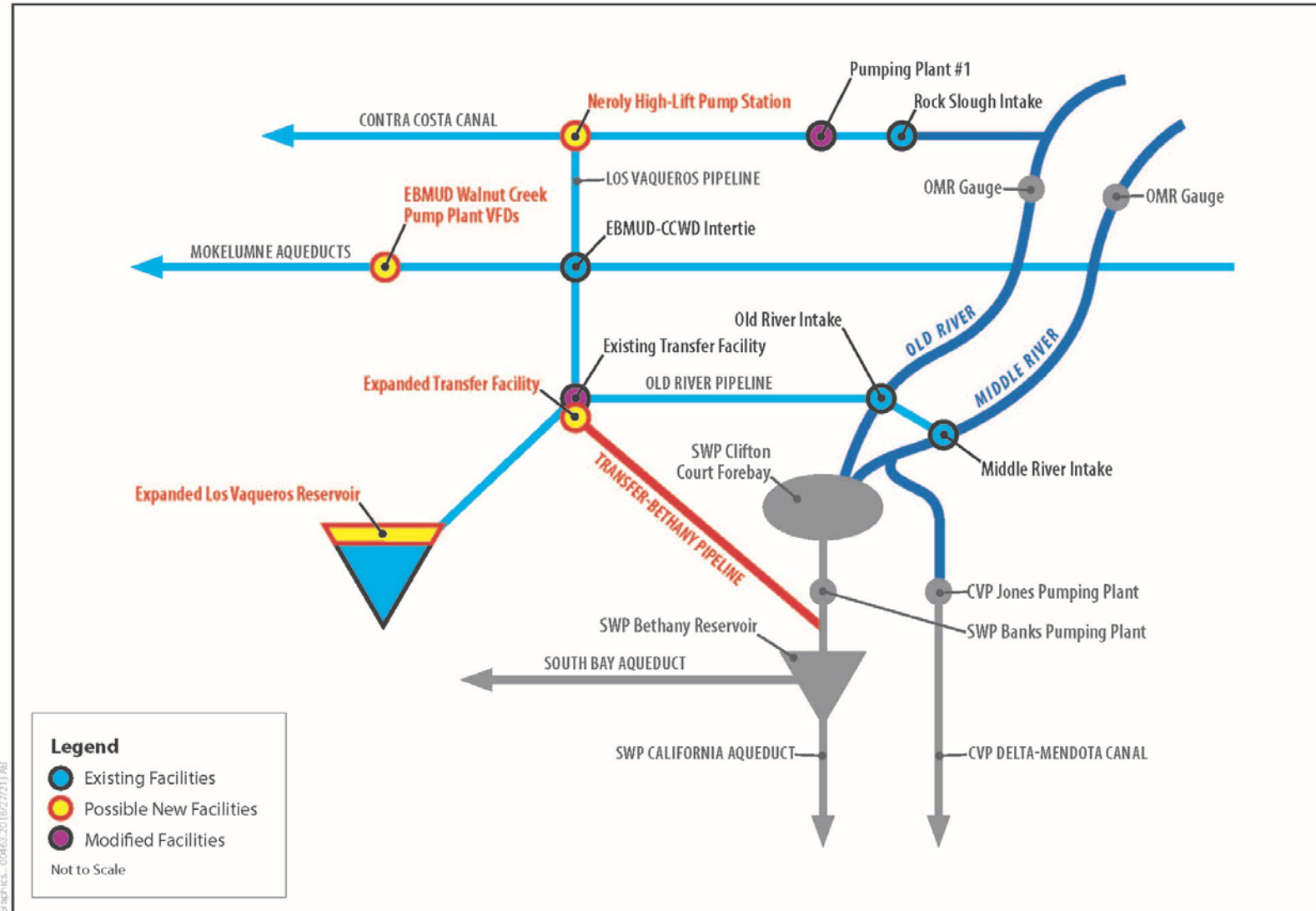
- Transfer-Bethany Pipeline
- Neroly High-lift Pump Station

Recreation

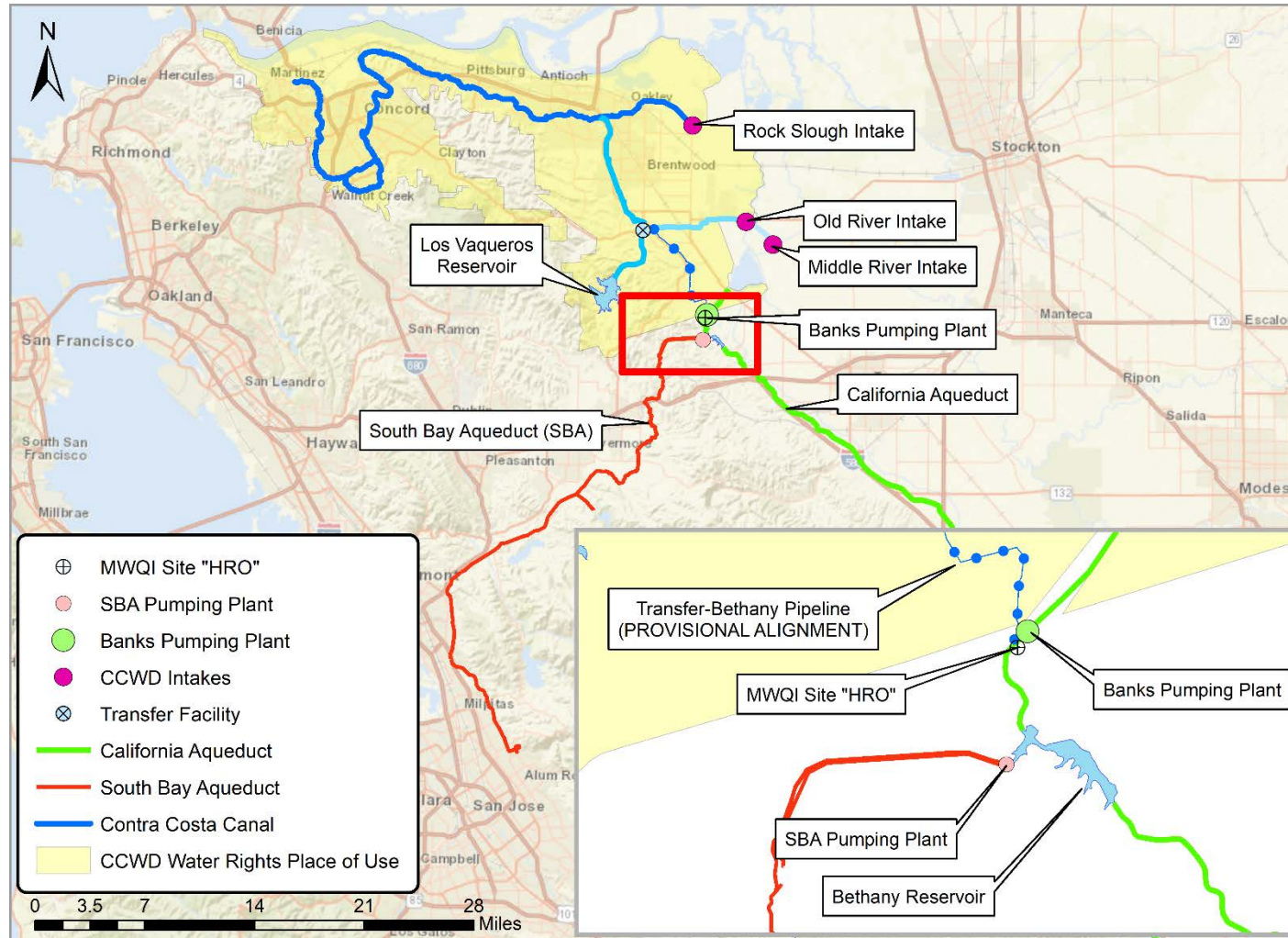
- Trails
- Interpretive Center
- Marina



Existing and New Facilities



Location of Transfer-Bethany Pipeline Turn-in to Cal. Aqueduct



State Funded Public Benefits

Ecosystem

- Increased water supply for San Joaquin Valley wildlife refuges
- Improved survival of salmonids migrating through Delta

Emergency Response

- Catastrophic emergency
- Drought emergency

Recreation

- Enhance recreation at LV Reservoir & Watershed



Non-Public Benefits

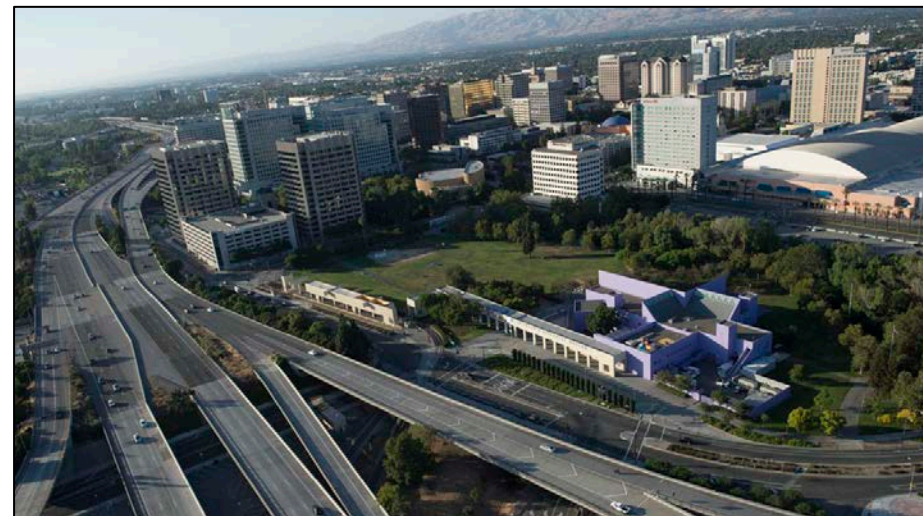
Increased Supply Reliability

- Bay Area Municipal & Industrial
- South-of-Delta CVP Agricultural

Improved Drinking Water Quality

Enhanced Regional Collaboration

- Leverage Existing Facilities
- Facilitate Transfers
- Diversify Regional Supplies
- Improve Climate Change Resiliency



Local Agency Partners (LAPs)

- Alameda County Water District (ACWD)
- Contra Costa Water District (CCWD)
 - City of Brentwood
- East Bay Municipal Utility District (EBMUD)
- Grassland Water District (GWD)
- San Francisco Public Utilities Commission (SFPUC)
 - Bay Area Water Supply and Conservation Agency (BAWSCA)
- San Luis & Delta-Mendota Water Authority (SLDMWA)
 - Byron-Bethany Irrigation District
 - Del Puerto Water District
 - Panoche Water District
 - Westlands Water District
- Santa Clara Valley Water District (Valley Water)
- Zone 7 Water Agency



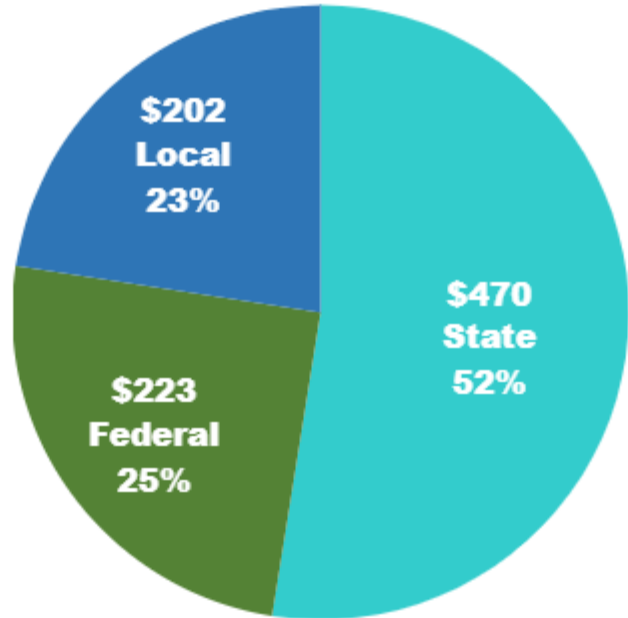
LAP Options for Participation

- Dedicated Storage
 - Reserved for individual agency use
- Pooled Storage
 - Unreserved for use by any LAP
- Conveyance Only
 - Utilize existing and future conveyance facilities
- LAPs are currently evaluating various scenarios of participation that best meet their needs and retain future flexibility
- Methodology and pricing under development

Sources of Water Supply

- CCWD Los Vaqueros Water Right (Delta surplus)
- Central Valley Project
- State Water Project
- Potential new sources
 - Water transfers
 - Recycled water
 - Advanced treatment (surface or groundwater supplies)
 - Regional Desalination Project

Preliminary Cost Allocation



- **Cost allocation shown in million dollars**
- **Cost estimates from Final Feasibility Report (August 2020)**
- **State allocation based on 2015 dollars with initial inflation adjustment**
 - In January 2021 the State award was increased by 2.5%; additional increases are possible
 - Dual classification (Reservoir Reoperation and CALFED Surface Storage) allows State award by the California Water Commission (CWC) greater than 50% of total cost



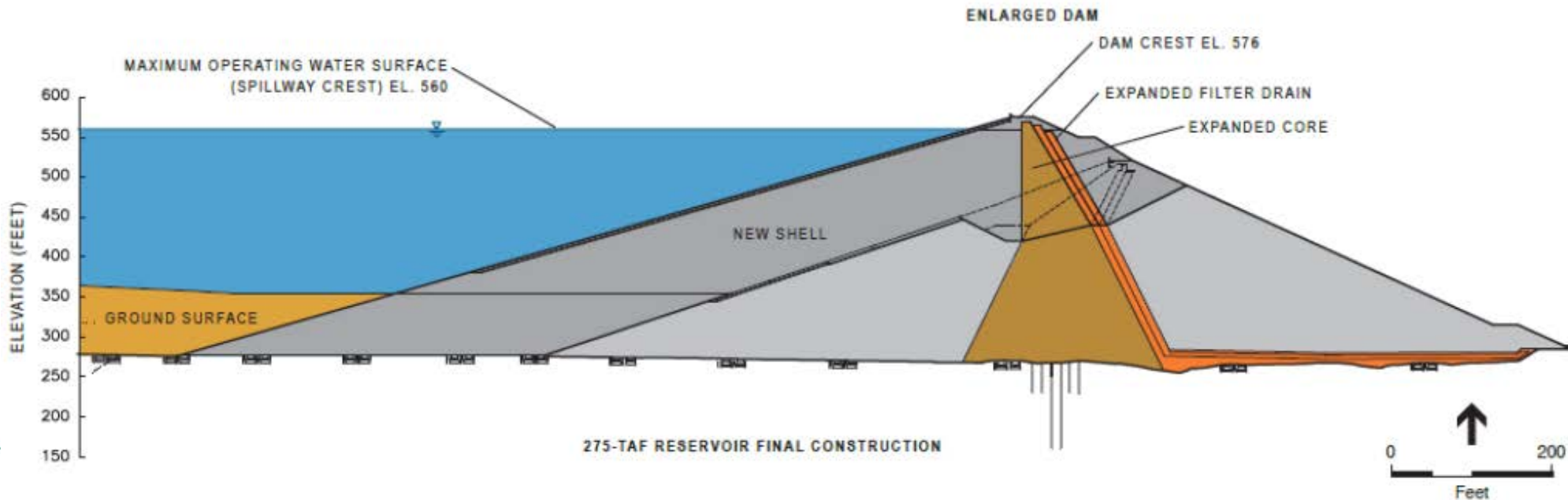
Los Vaqueros Reservoir Joint Powers Authority (JPA) Formation

- CCWD and LAPs have approved formation of a new JPA
- JPA Role
 - Enter into contracts for administration of public benefits
 - Enter into final funding agreement with CWC
 - Finance Local Agency Partner share of construction costs
 - Coordinate partner requests for service
 - Monitoring and reporting
- CCWD will continue to operate LVE system and provide additional services to JPA as required

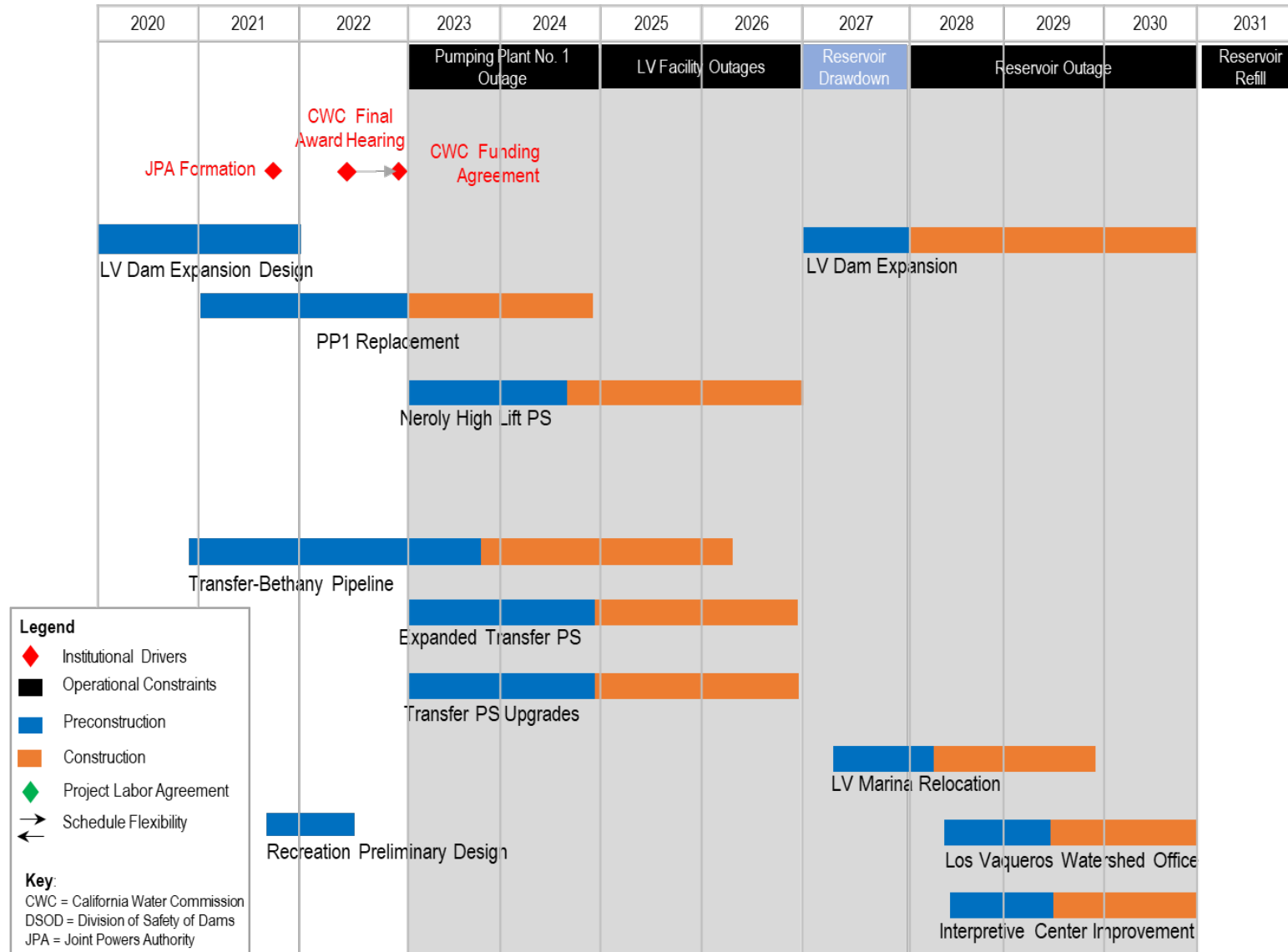


Design

- LV Dam Expansion
 - 90% Design submitted for DSOD review
- Contra Costa Canal Pumping Plant No. 1 Replacement
 - Completed Preliminary Design
- Transfer-Bethany Pipeline
 - Final Design in progress



Construction Schedule



Thank You

Questions?

Project Information

www.ccwater.com/lvstudies

Contact Information

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**WATER
AGENCY**

Los Vaqueros Reservoir Expansion Project

Amparo Flores, P.E., Ph.D.
Integrated Planning

September 21, 2021
DSRSD Board Meeting

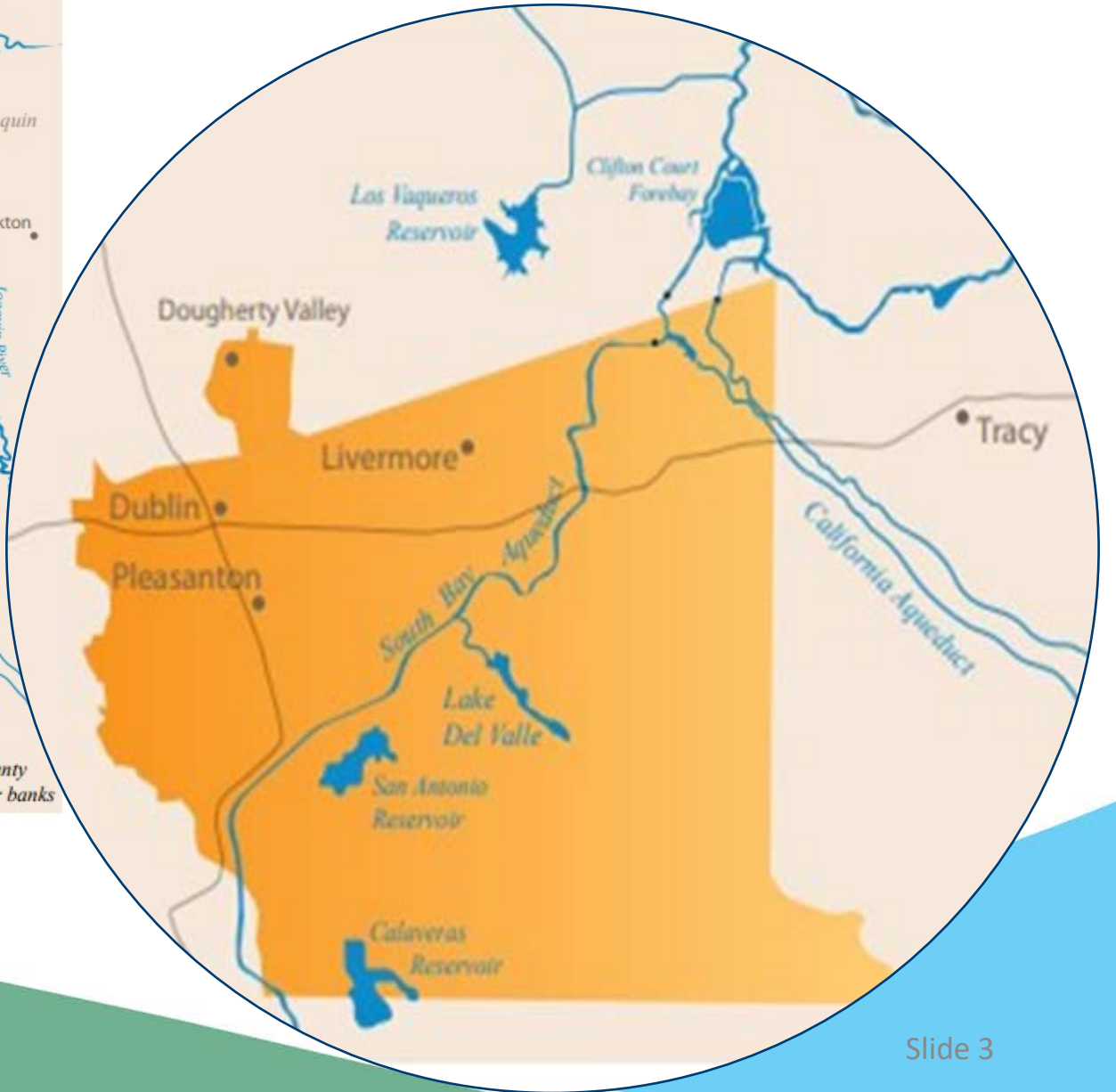
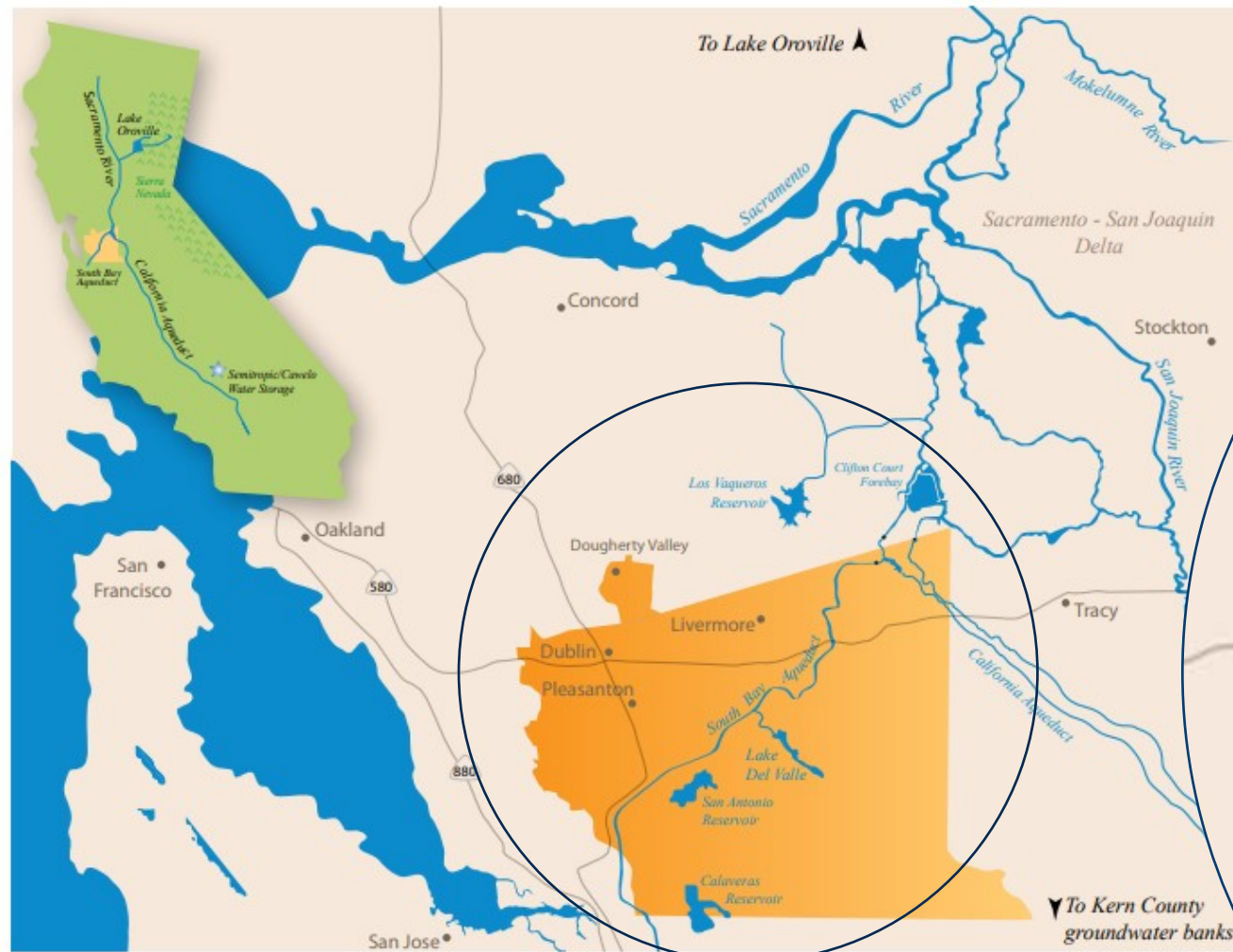
Zone 7 is pursuing water supply, storage, and conveyance alternatives to bolster the reliability of the Tri-Valley's water supply system.

2019 Water Supply Evaluation Update – Alternatives Considered

- Delta Conveyance Project
- **Los Vaqueros Reservoir Expansion**
- Potable Reuse
- Regional Desalination
- Sites Reservoir
- Water Transfers



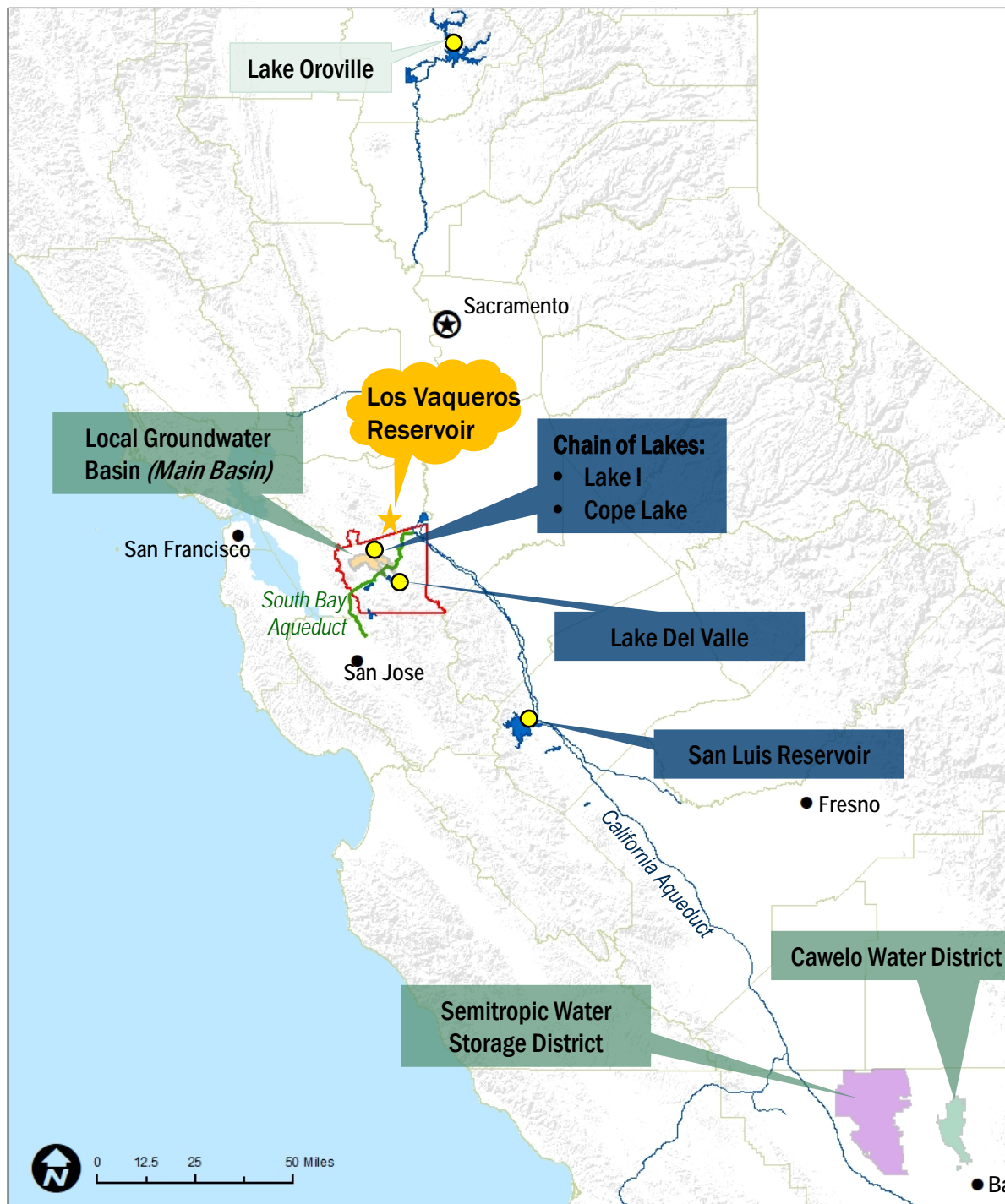
Los Vaqueros Reservoir



Zone 7 Participation in Los Vaqueros Reservoir Expansion (LVE)

- Potential storage of 10,000-20,000 acre-feet upstream of Zone 7
- Zone 7 could store State Water Project or other water and gain new emergency/alternative conveyance via the Transfer-Bethany Pipeline
- Zone 7 has been participating in the Project since 2016 along with other water agencies
- \$1.3 million in investments through December 31, 2021

Zone 7's Storage System



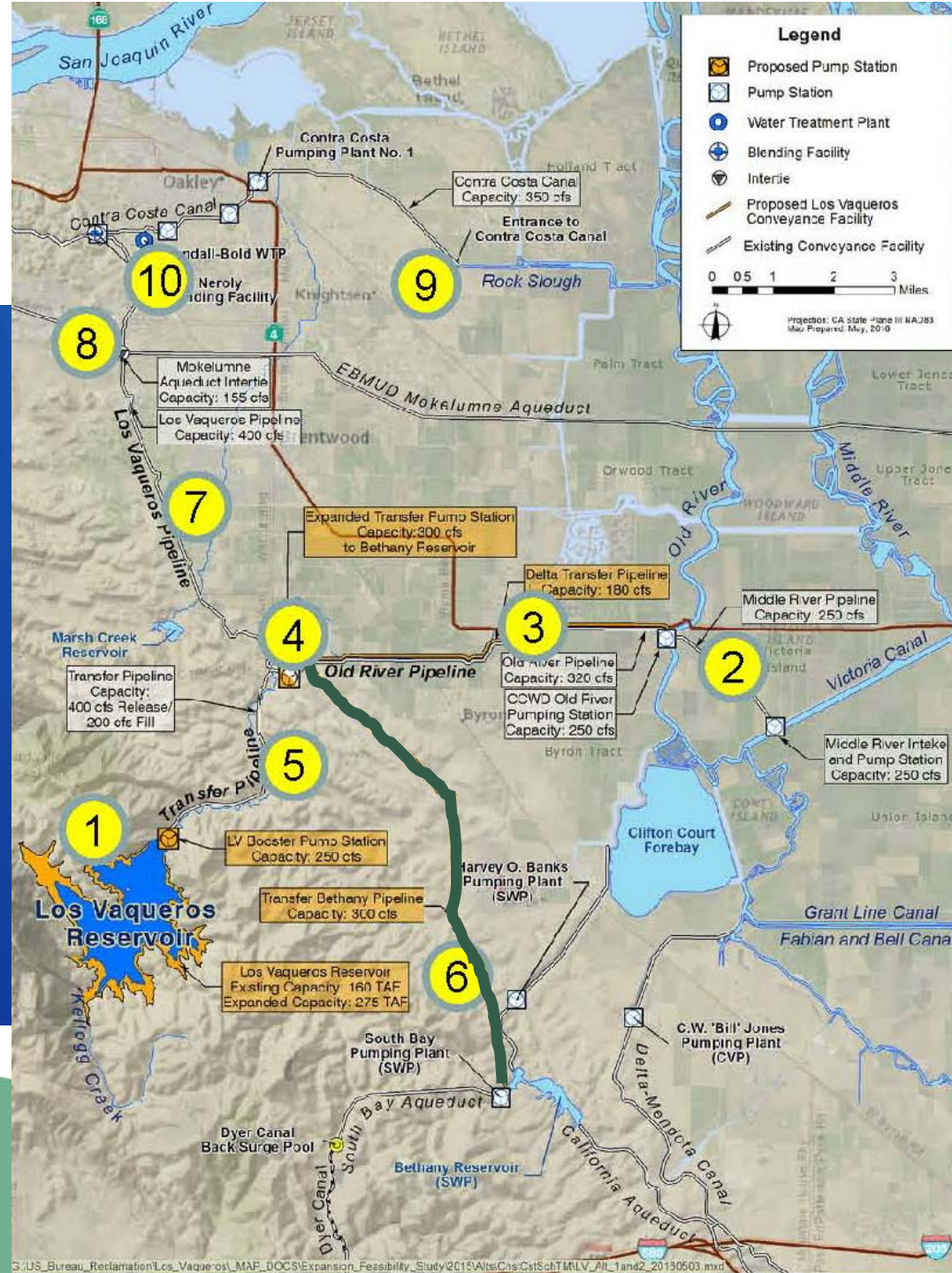
Storage	Zone 7's Operational Storage (acre-feet)
Surface Water	
San Luis Reservoir	10,000-15,000
Lake Del Valle	7,500
Lake I	10,800
Cope Lake	4,500
Groundwater	
Livermore Valley Groundwater Basin ("Main Basin")	126,000 (+128,000 of emergency storage)
<i>Kern County Groundwater Banks:</i>	
Semitropic Water Storage District	78,000
Cawelo Water District	120,000

Los Vaqueros Reservoir (potential Zone 7 share) 10,000-20,000 AF



Existing and Proposed Facilities

1. Los Vaqueros Reservoir **Proposed 115 TAF additional storage**
2. Old River & Middle River Intakes
3. Old River Pipeline & **Proposed Delta-Transfer Pipeline**
4. Transfer Pump Station
5. Transfer-LV Pipeline
6. **Proposed Transfer-Bethany Pipeline**
7. Los Vaqueros Pipeline
8. CCWD-EBMUD Intertie
9. Rock Slough Intake
10. **Proposed Neroly High-Lift Pump Station**



Proposed Transfer-Bethany Pipeline:

- direct connection to Bethany Reservoir and the South Bay Aqueduct (bypassing Delta/Banks Pumping Plant)
- 300 cubic feet per second, similar to South Bay Aqueduct

LVE's Benefits to the Tri-Valley



Additional storage 10,000-20,000 AF upstream of Zone 7



Operational flexibility for timing of water deliveries from the Kern County groundwater banks



Alternative conveyance option during Delta outages



Insurance against Delta outage emergencies and drought conditions

LVE's Costs to the Tri-Valley

- \$1.3 million through 2021 + \$0.9 million for 2022
- Future costs:
 - Project development costs
 - Debt service for capital costs
 - Fixed and variable operation and maintenance costs
 - Usage fees to EBMUD and CCWD for use of their existing facilities
 - Joint Powers Authority (JPA) administrative costs
 - *Allocation to JPA members will depend on storage amounts and operational scenarios.*
- November 2019 estimates: \$400 to \$3,300/AF (2018 \$), with Zone 7 at about \$1,300/AF
- Annual costs to Zone 7 likely in the \$1.4M to \$2.3M range once operational
- Costs to be updated over the coming months

Next Steps – Zone 7 and LVE

- Multi-Party Agreement Amendment No. 3 to the Zone 7 Board on October 20, 2021
 - Covers next phase: January 1-December 31, 2022
 - Cost: \$900,000 of additional funding from Zone 7
 - Zone 7 staff plans to recommend execution to allow for continued evaluation of the costs and benefits of LVE to the Tri-Valley.
- Joint Powers Authority formation (Fall 2021): Board President Ramirez Holmes to represent Zone 7
- Key tasks in 2022 include environmental planning and engineering feasibility (including refinement of cost estimates)
- Zone 7 plans to explore different scenarios for use of Los Vaqueros to optimize the benefits to the Tri-Valley
- Findings will be incorporated in the next Water Supply Evaluation Update (early 2022)



QUESTIONS?