



# Anderson Dam Seismic Retrofit Project Update

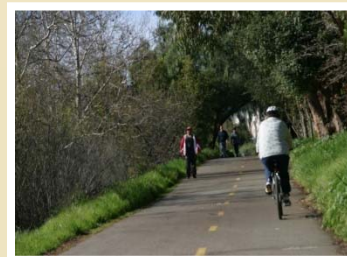
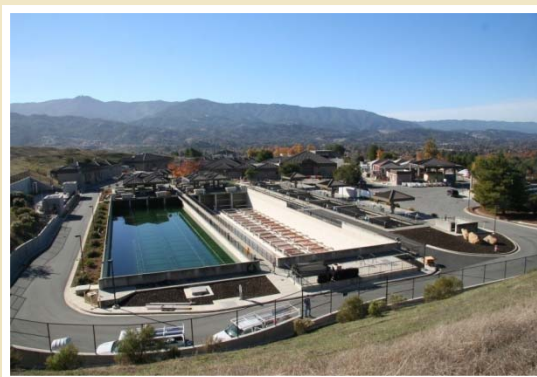
Public Outreach Meeting | September 13, 2017

# Agenda

- ▶ **About Santa Clara Valley Water District and Anderson Dam**
- ▶ **Anderson Dam Seismic Retrofit Project Update**
- ▶ **Question and answer session**

# Mission of the Water District

The mission of the Santa Clara Valley Water District is to provide Silicon Valley safe, clean water for a healthy life, environment, and economy.



# Santa Clara Valley Water District serves...

**2 million** people

**15** cities

**4,700** well owners

**13** water retailers





# Anderson Dam: Key to County Water Supply

**Total Countywide Storage: 169,000 Acre-Feet**



Almaden



Guadalupe



Calero



Lexington



Coyote

**Anderson: 90,000 Acre-Feet**



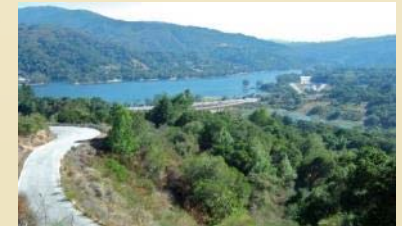
Chesbro



Uvas



Vasona



Stevens Creek

# Anderson Dam Existing Configuration

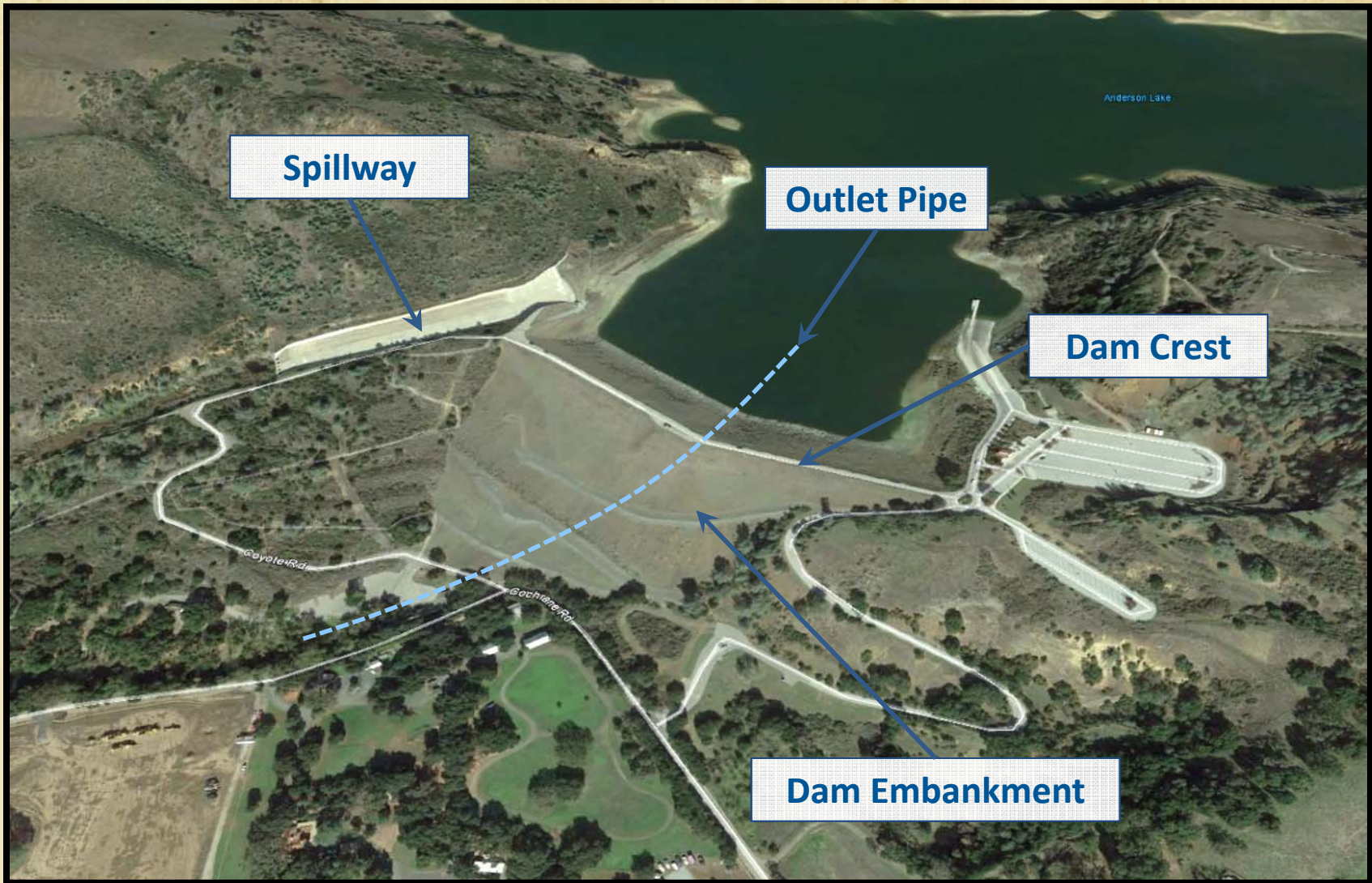
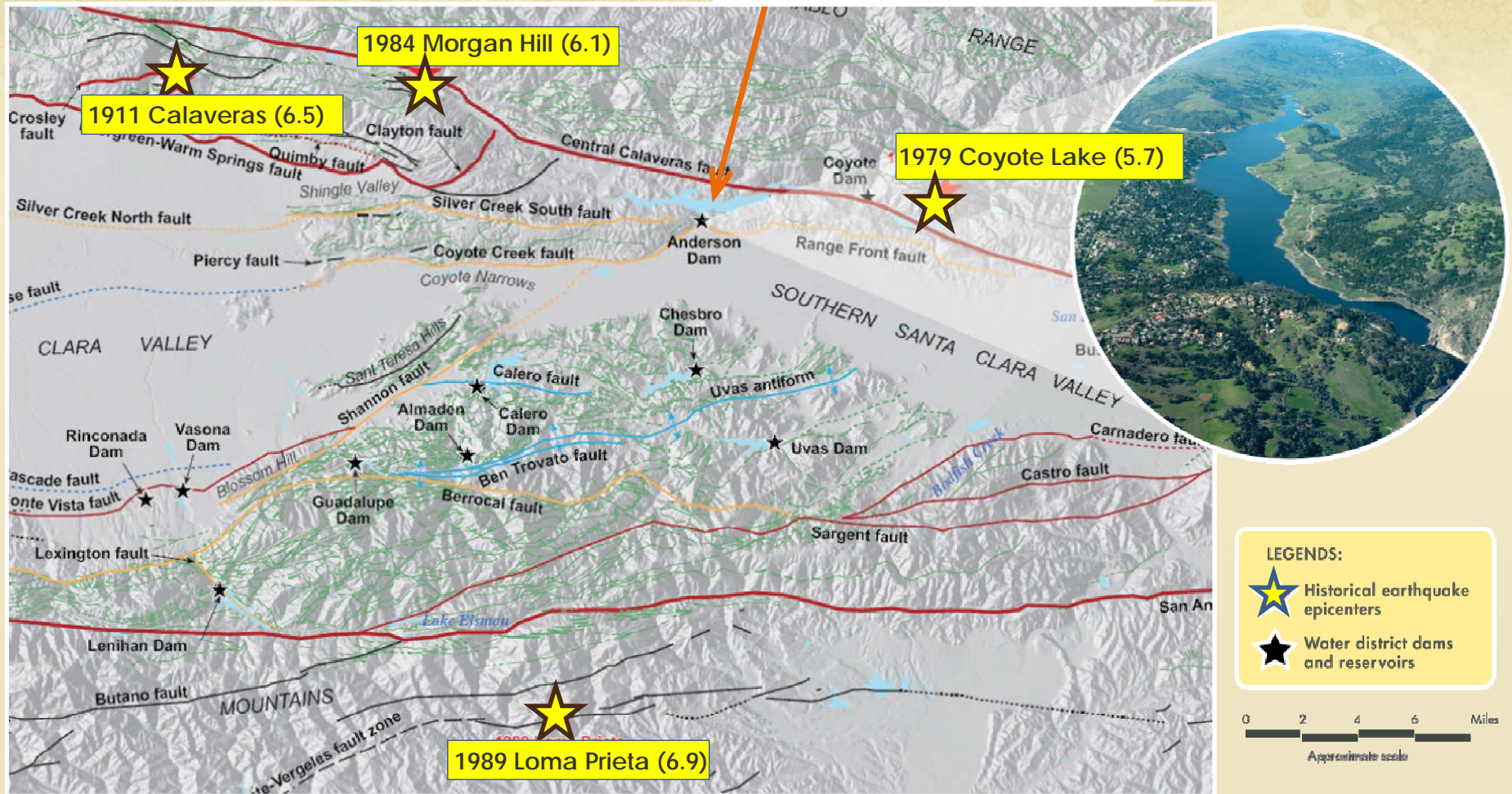


Image Source: Google Earth

# Anderson Dam Deficiencies

## Seismic environment

### Anderson Dam/Reservoir





# Initially Identified Deficiencies

- ▶ **Magnitude 7.2 Earthquake on the Calaveras Fault or Magnitude 6.6 on the Coyote Creek Fault**

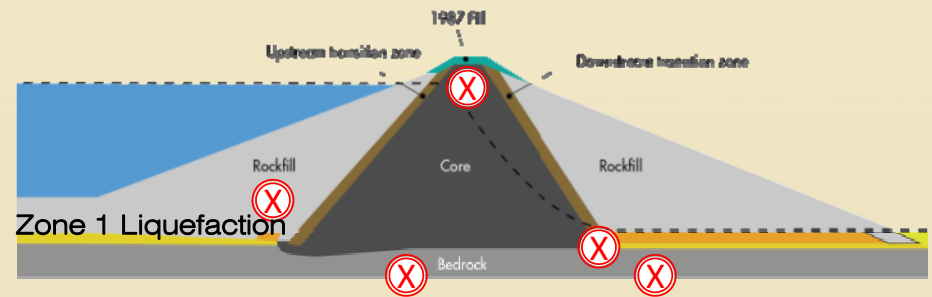
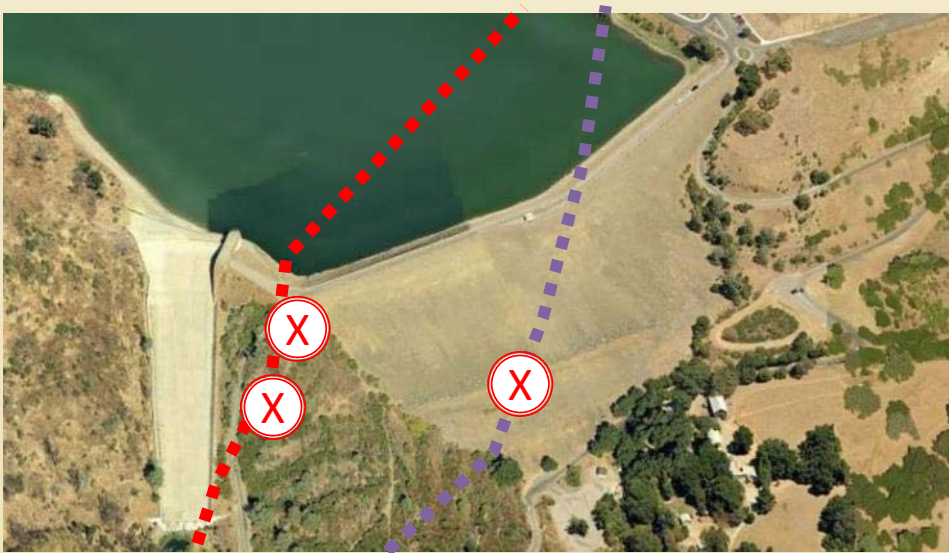
- ▶ Embankment slumps up to 25 feet due to liquefaction of lower fine fill and alluvium
- ▶ Outlet conduit buckles up to 4 feet due to fault rupture on the Range Front Fault

- ▶ **Changes in Regulatory Requirements (DSOD and FERC)**

- ▶ Outlet works does not meet current emergency drawdown criteria
- ▶ Spillway undersized for Probable Maximum Flood

# Additional Deficiencies Identified During Design

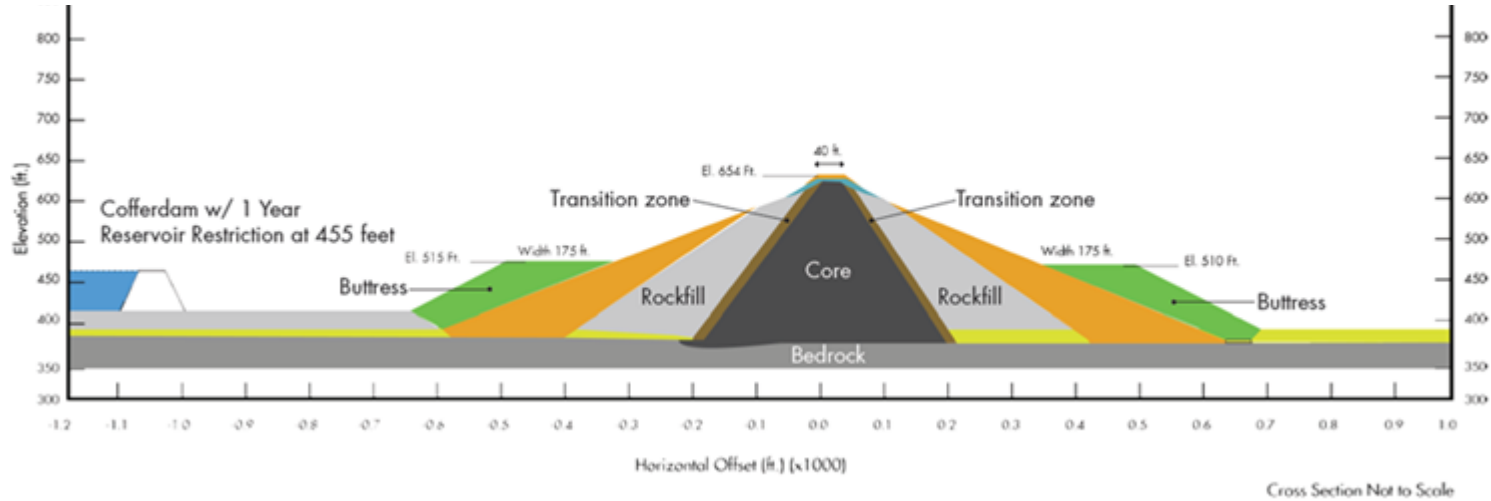
- ▶ **Entire upstream shell potentially liquefiable**
  - ▶ Subject to large deformations and internal erosion due to strong ground shaking and fault rupture
- ▶ **Inadequate outlet capacity**



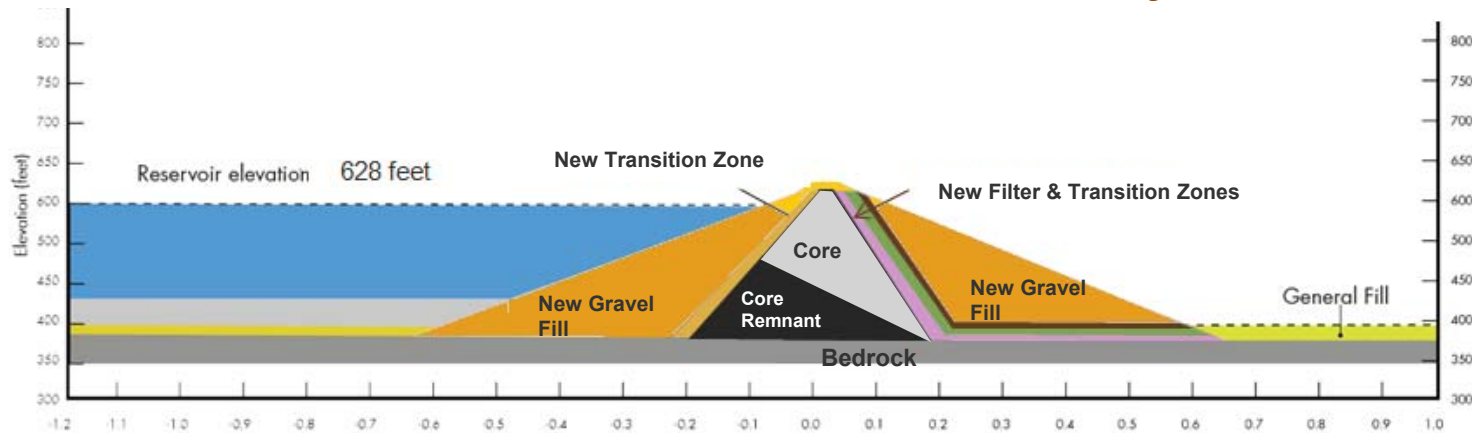
*Shown:  
Mapped traces of Coyote Creek Fault*

# Modified Project

## Cross-Section: 2013 Recommended Project



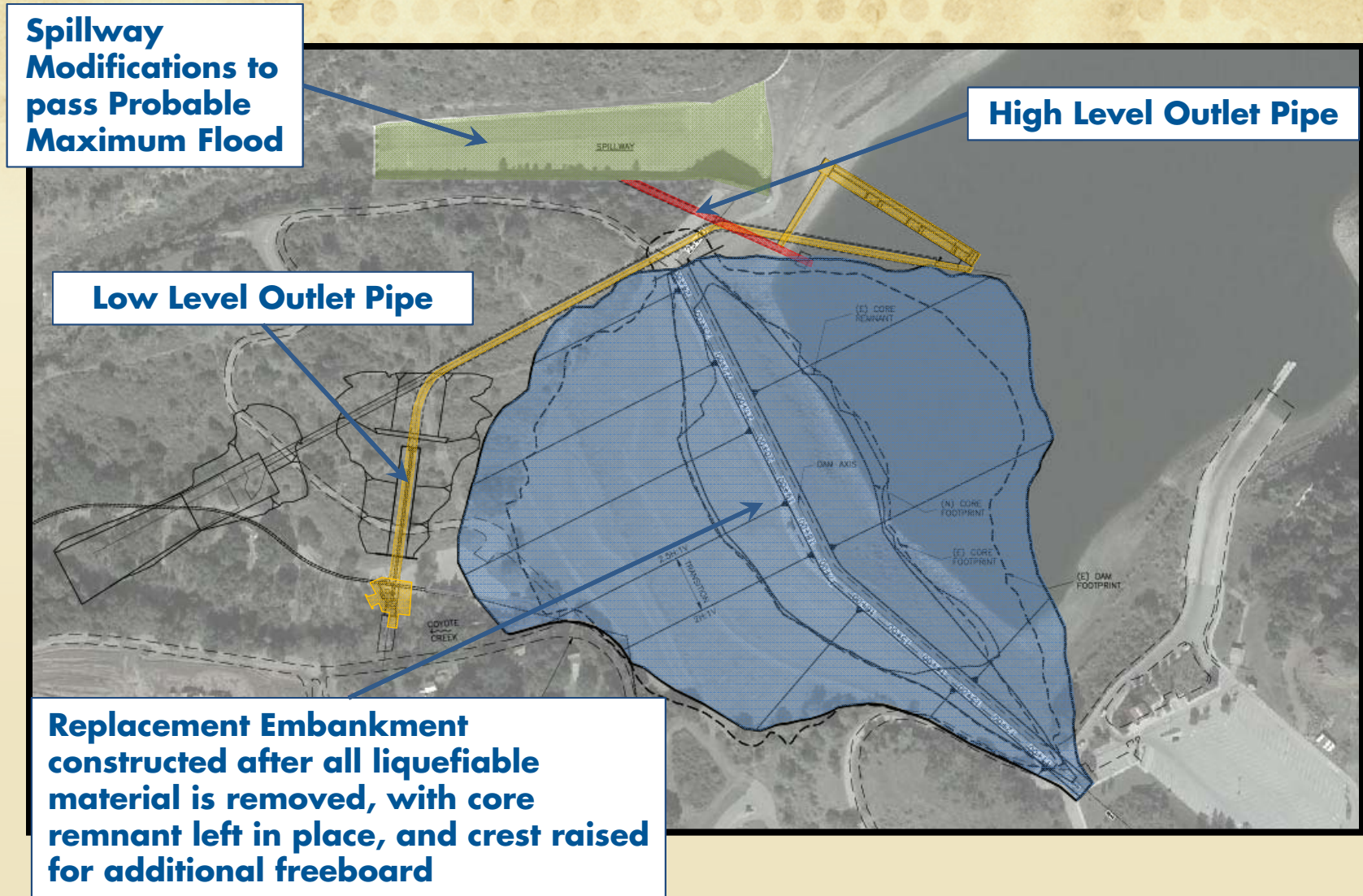
## Cross-Section: 2016 Modified Project



# Project Status

- ▶ **30% Design complete**
- ▶ **30% Construction Sequencing Plan complete**
- ▶ **Environmental studies (CEQA process) are underway**
- ▶ **Upcoming geotechnical investigations to support the 60% design**

# Project Components



# Staging and Temporary Stockpile Areas



# Haul Road - Dam to Stockpile Area A



# Haul Route for Imported Materials

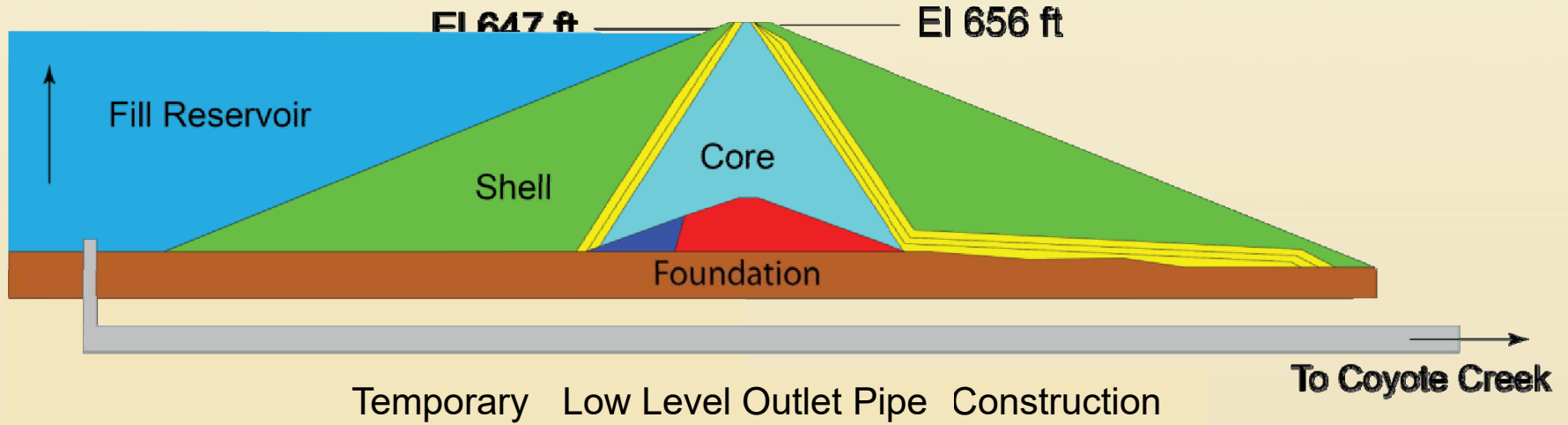




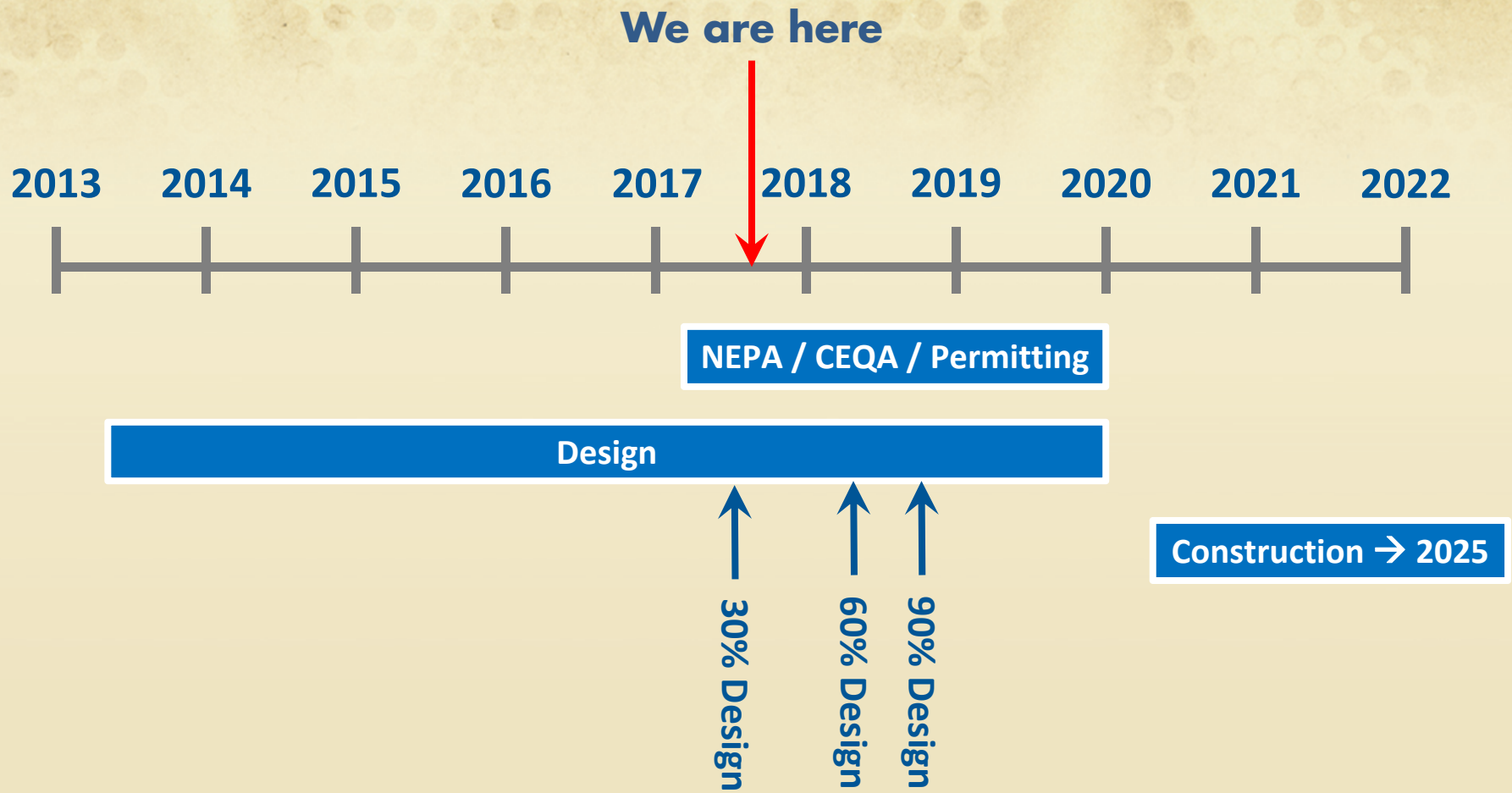
# Construction Sequence

**Year 8**  
**April to October**

**Starting Construction**



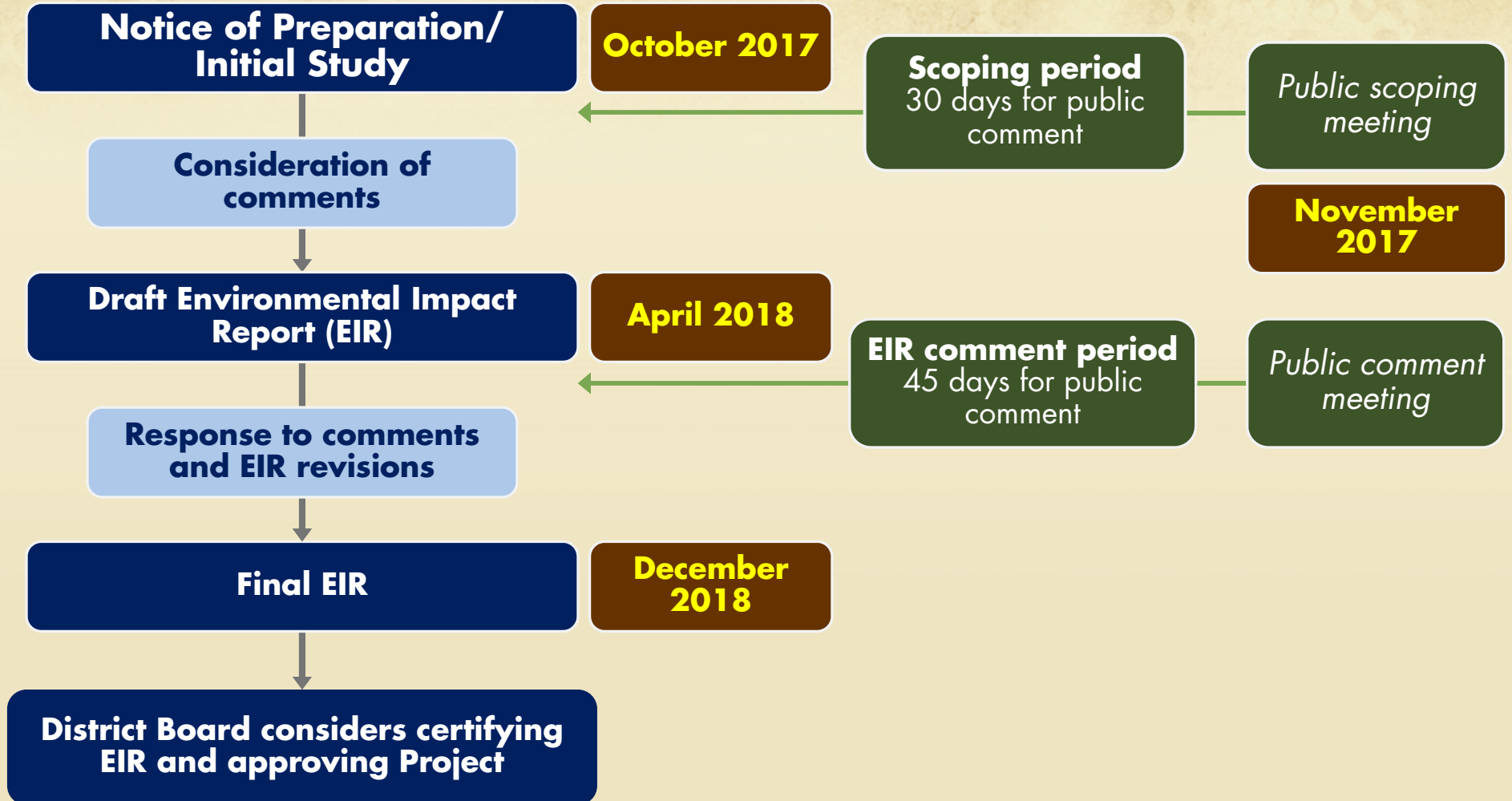
# Project Schedule



# CEQA Schedule

## CEQA process

## Public involvement



# Next Steps and Public Meetings

- ▶ **Public scoping meeting November 2017**
- ▶ **60% Design – Early 2018**
  - ▶ Public meeting in Spring 2018
- ▶ **Draft Environmental Impact Report (EIR) for Public Review – Spring 2018**
  - ▶ Public meeting for Draft EIR Summer 2018
- ▶ **90% Design – Summer 2018**
  - ▶ Pre-construction meetings in 2019-2020
- ▶ **Start of Construction – 2020**

# Question and answers



# Stay Informed

<http://www.valleywater.org/Services/AndersonDamAndReservoir.aspx>

- ▶ Sign up to receive project updates via email.
- ▶ View project reports, maps, history and other information.
- ▶ Coming later in early 2018: project blog

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