



# Valley Water

Clean Water • Healthy Environment • Flood Protection

Valley Water PPT Template  
Version Release v.2.02



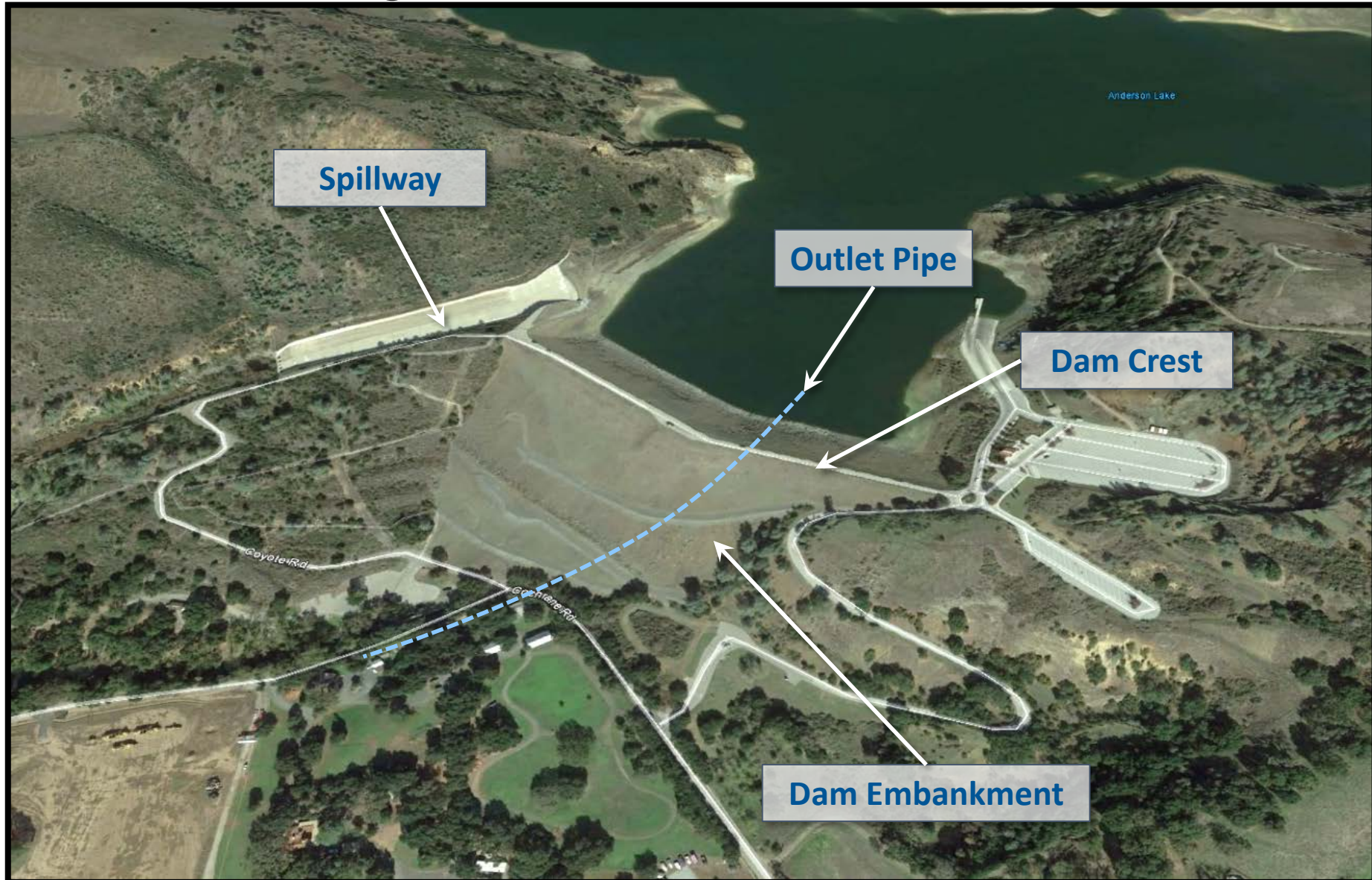
# Anderson Dam Seismic Retrofit Project (ADSRP)

February 4, 2020

# Anderson Dam Project Goals

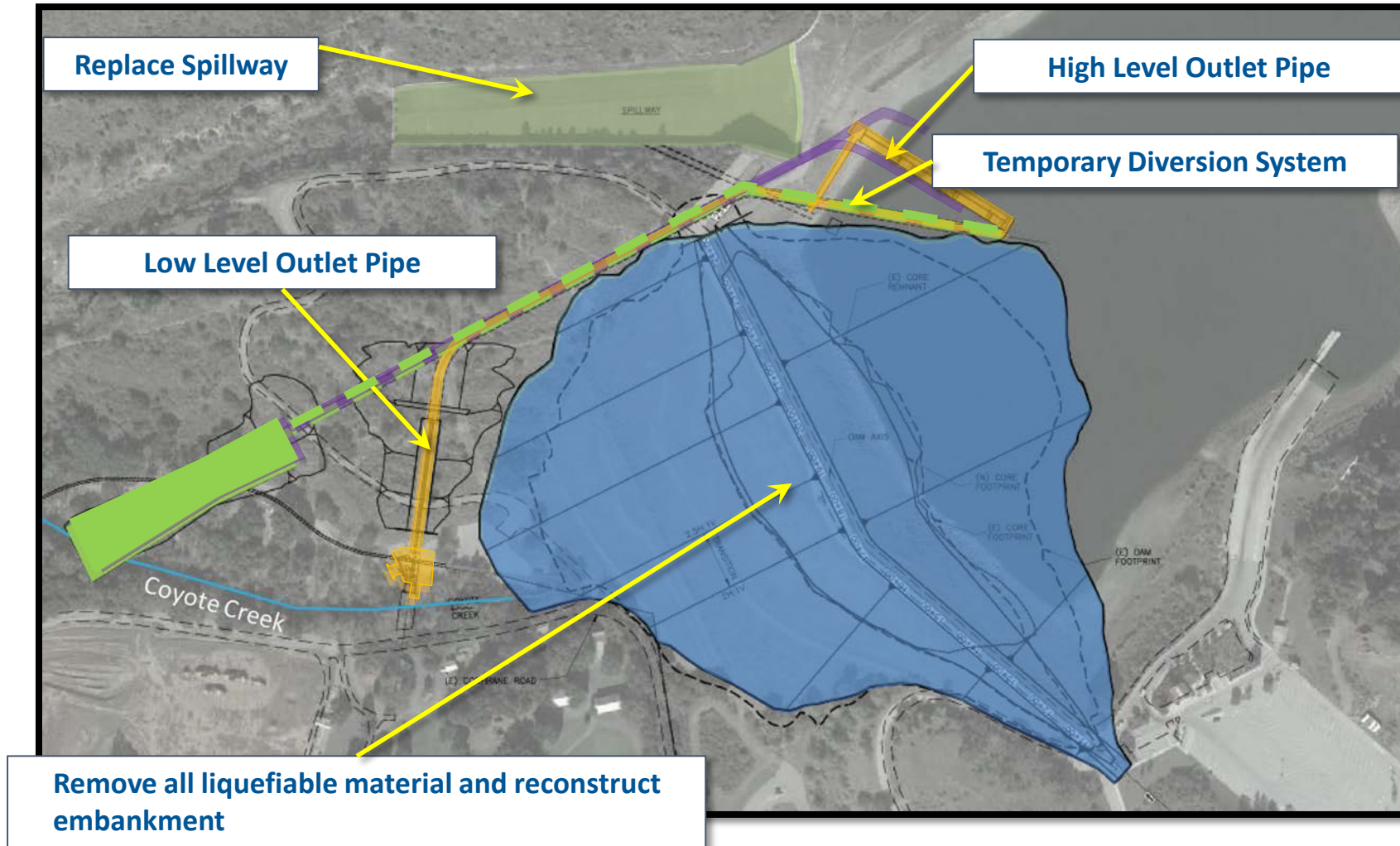
- **Public Safety:** Expeditiously complete the project to safeguard against loss of life and reduce property damage due to earthquake and/or subsidence.
- **Water Supply:** Ensure a resilient water system to benefit the community's access to safe, clean, and reliable water while supporting a healthy groundwater basin.
- **Environmental Enhancements:** Protect the creek habitat during construction and provide improved habitat after construction.
- **Financial Sustainability:** Use resources prudently to build a reliable, long lasting project for the community.

# Anderson Dam Existing Components





# Anderson Dam Project Components



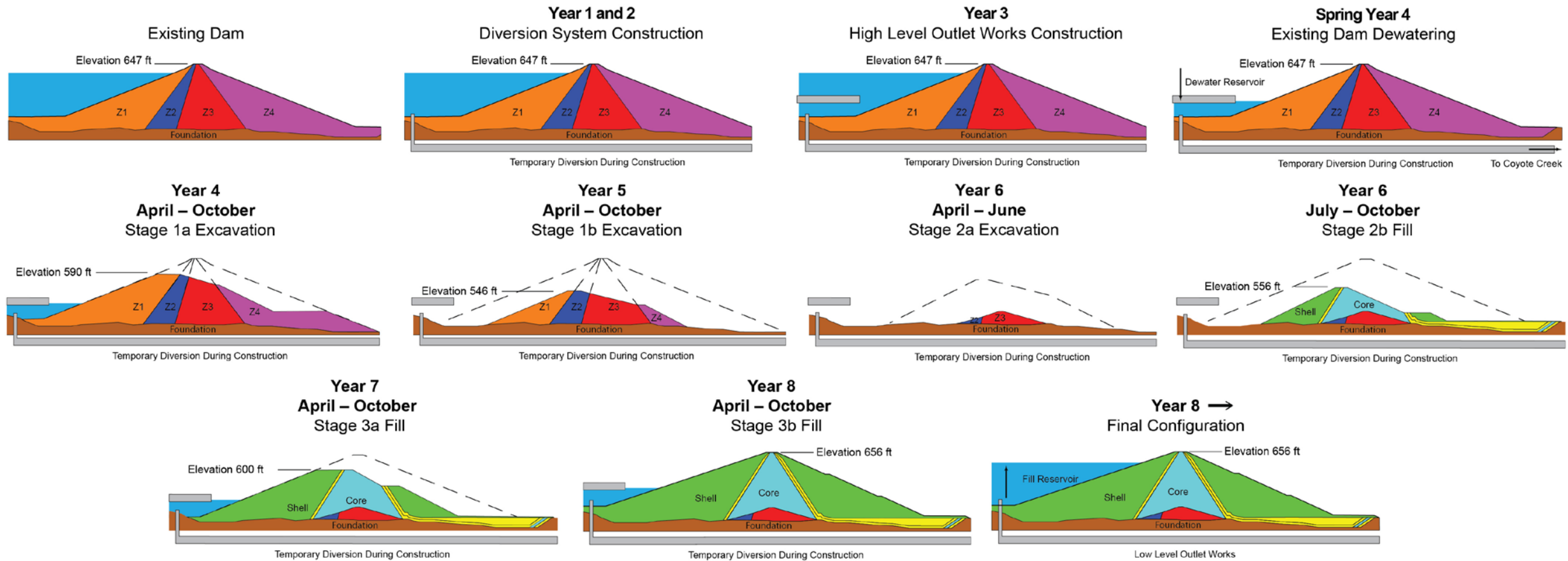
# Recent Design Developments

- In April 2018 the 60% design proposed a 5-year construction schedule.
- A constructability analysis subsequently found a very low probability of achieving safe interim dam heights during construction as required by DSOD and FERC with the 5-year schedule.
- In December 2019, Valley Water moved forward with a revised alternative which increased the construction timeline, as follows.

# Revised Construction Sequence

- Increases dam replacement duration to 9 years
- Years 1 & 2: Low Level Diversion System
- Years 3 - 5: High Level Outlet Works (HLOW) and embankment removal
- Years 6 – 8: Embankment reconstruction and Low Level Outlet Works (LLOW)
- Year 9: Minor site improvements/demobilization and refill reservoir

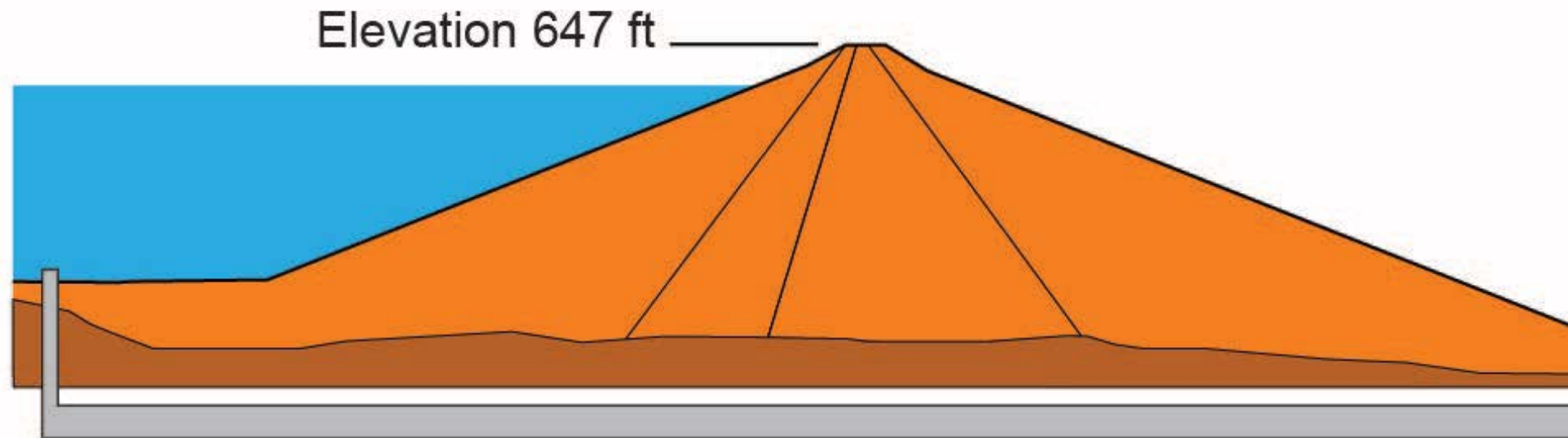
# Construction Sequence





# Updated Construction Sequence

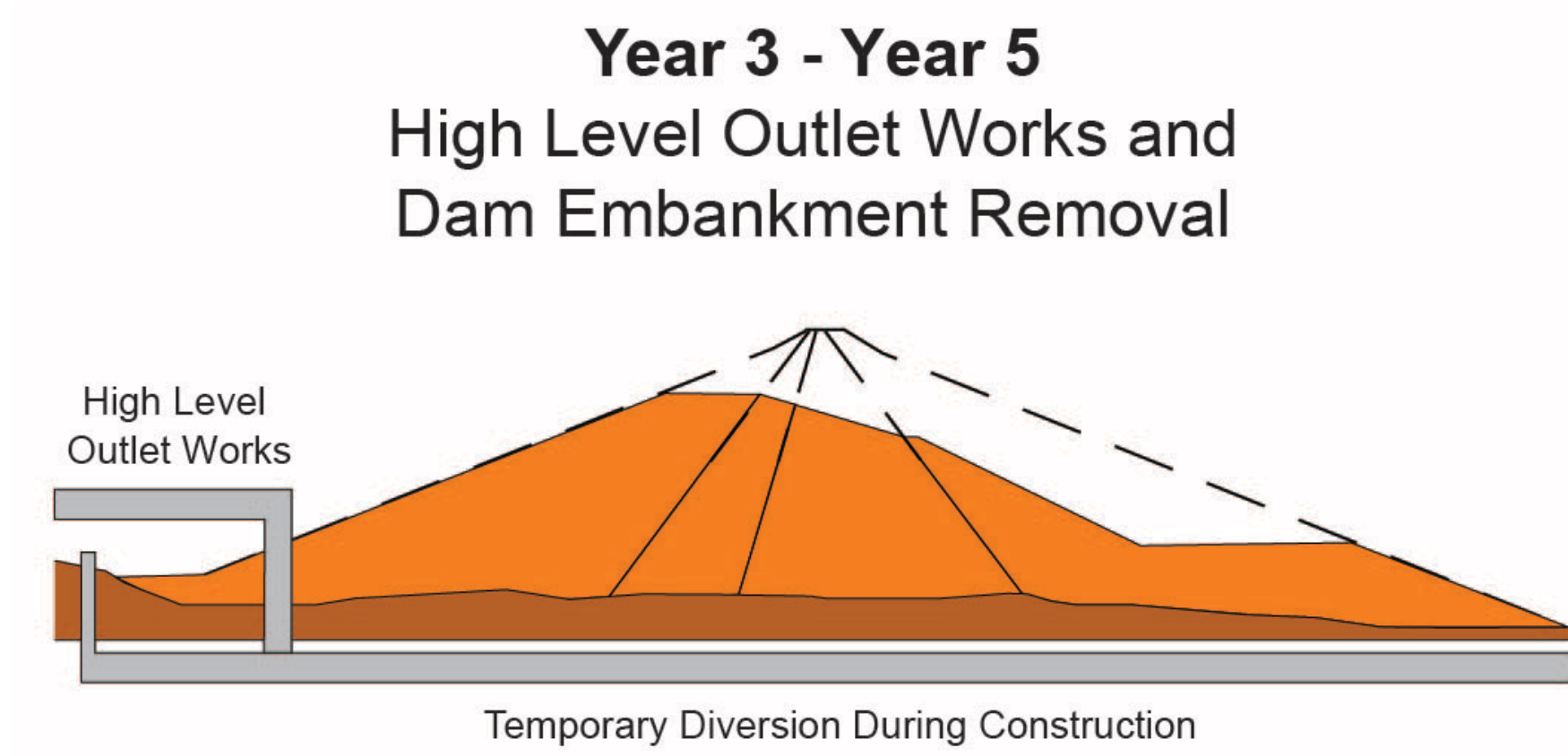
## Years 1 and 2 Diversion Construction



Temporary Diversion During Construction

Temporary diversion system will pass flows into Anderson Reservoir to Coyote Creek during construction, to prevent dam overtopping and to dewater the reservoir.

# Updated Construction Sequence

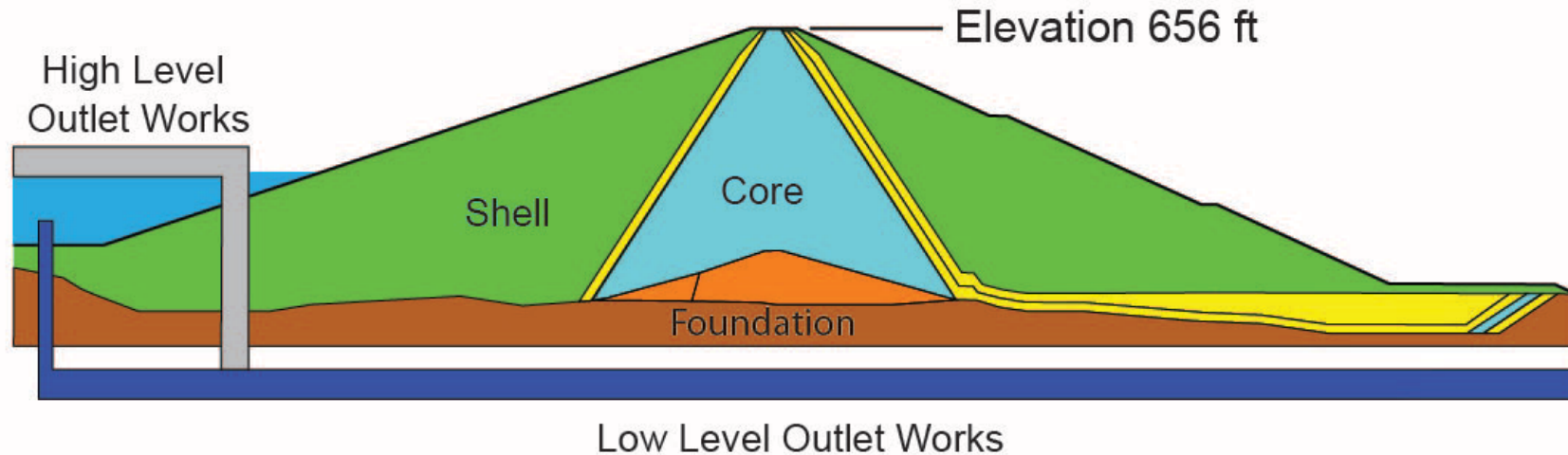


- Each winter the dam embankment will be left at a safe interim dam height to reduce the risk of downstream flooding.
- HLOW and Diversion System will pass flows in lieu of having an operating spillway.

# Updated Construction Sequence

## Year 6 – Year 8

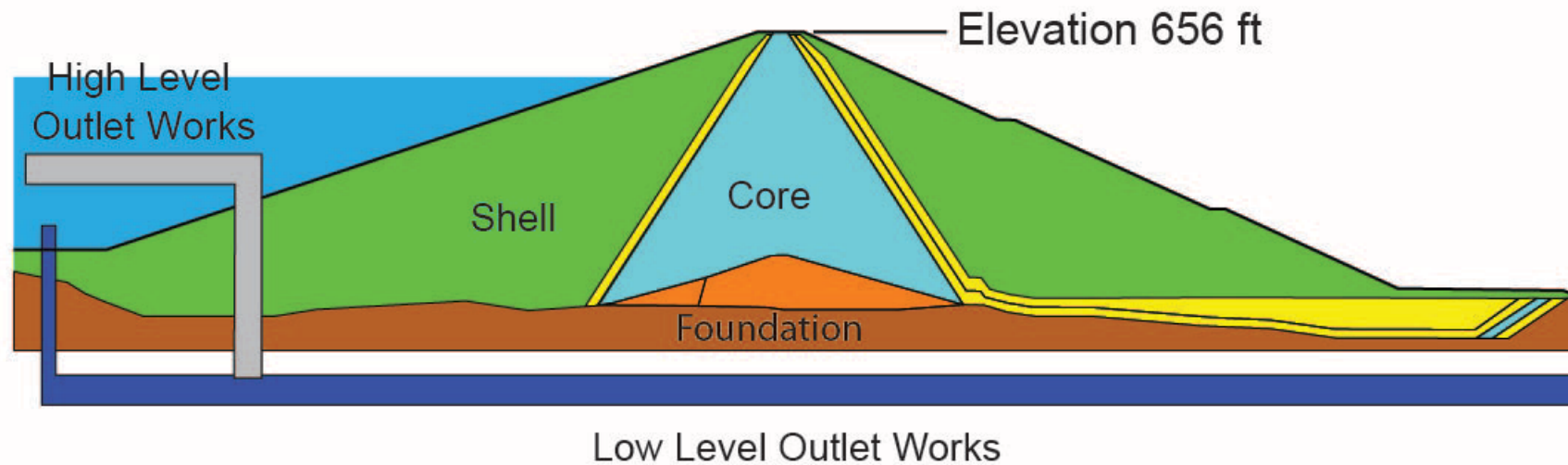
Convert Temporary Diversion to Low Level Outlet Works  
and Embankment Reconstruction



- Each winter the dam embankment will be left at a safe interim dam height to reduce the risk of downstream flooding.
- HLOW and Diversion System will pass flows in lieu of having an operating spillway.
- By the end of Year 8, spillway (not shown) will be reconstructed and operational.

# Updated Construction Sequence

## Year 9 Minor Site Improvements and Restore Reservoir Operations



- Demobilization
- Permanent Roads
- Parks Restoration

# Necessary Permits

- **Federal**

- FERC: Amendment to Exemption for Licensing
- USACE: CWA Section 404 Permit
- USFWS: Incidental take permit (VHP – see below)
- NMFS: Incidental take permit (steelhead trout)

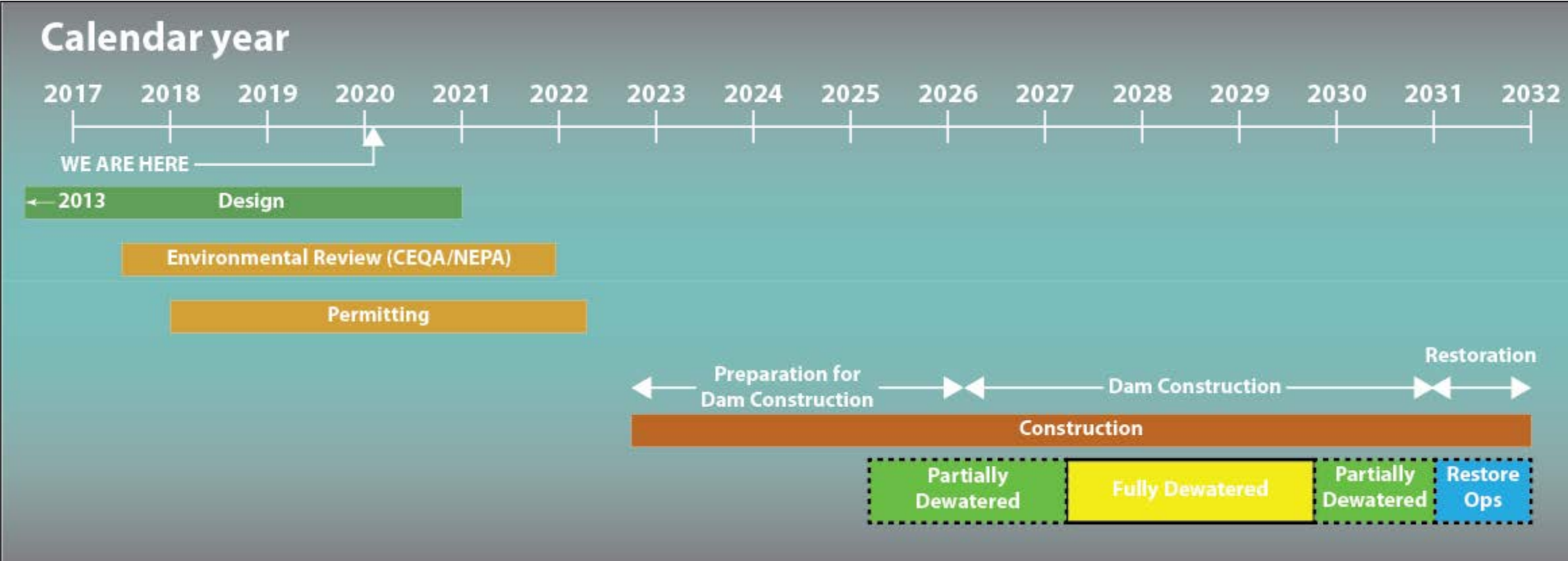
- **State**

- DSOD: New dam application
- CDFW: LSAA
- VHP: Incidental take authorization (covered species for state and federal ESA)
- SWRCB: General Construction NPDES Stormwater Permit
- SWRCB/SFRWQCB: CWA Section 401 Water Quality Certification
- SHPO: Section 106 of the NHPA

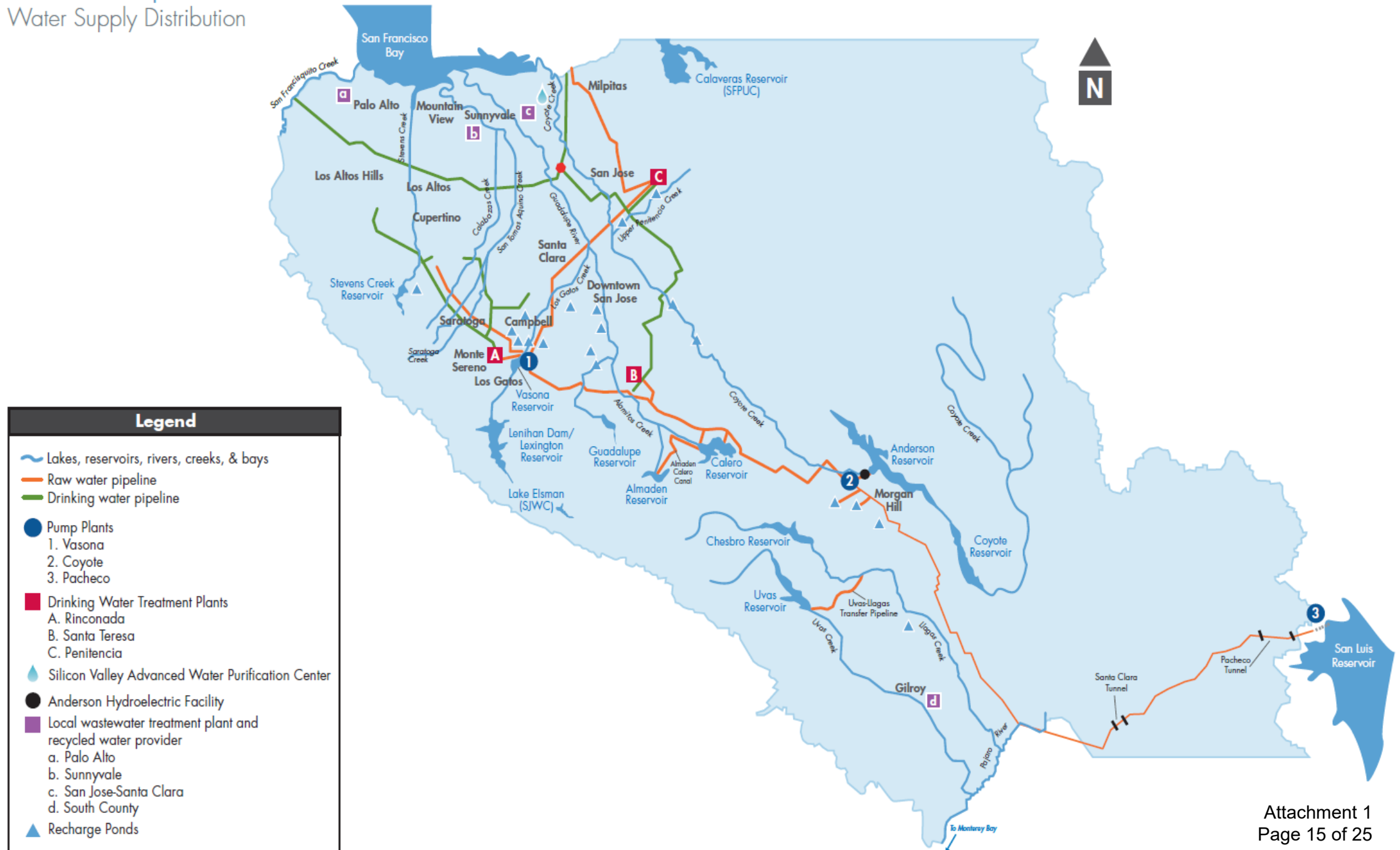
- **Local** – municipal approvals, encroachment permits, temporary rights of way.

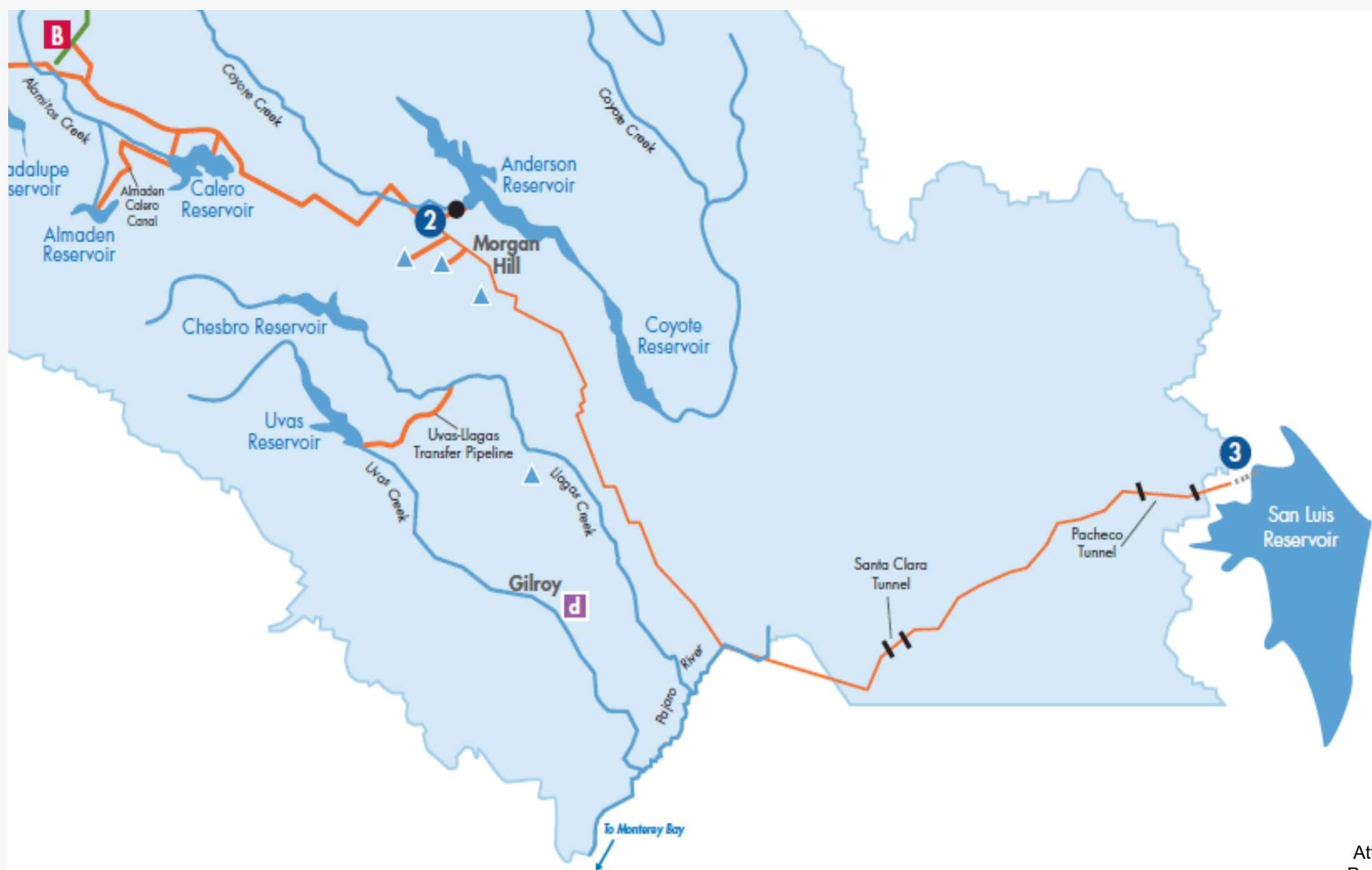


# ADSRP Project Schedule

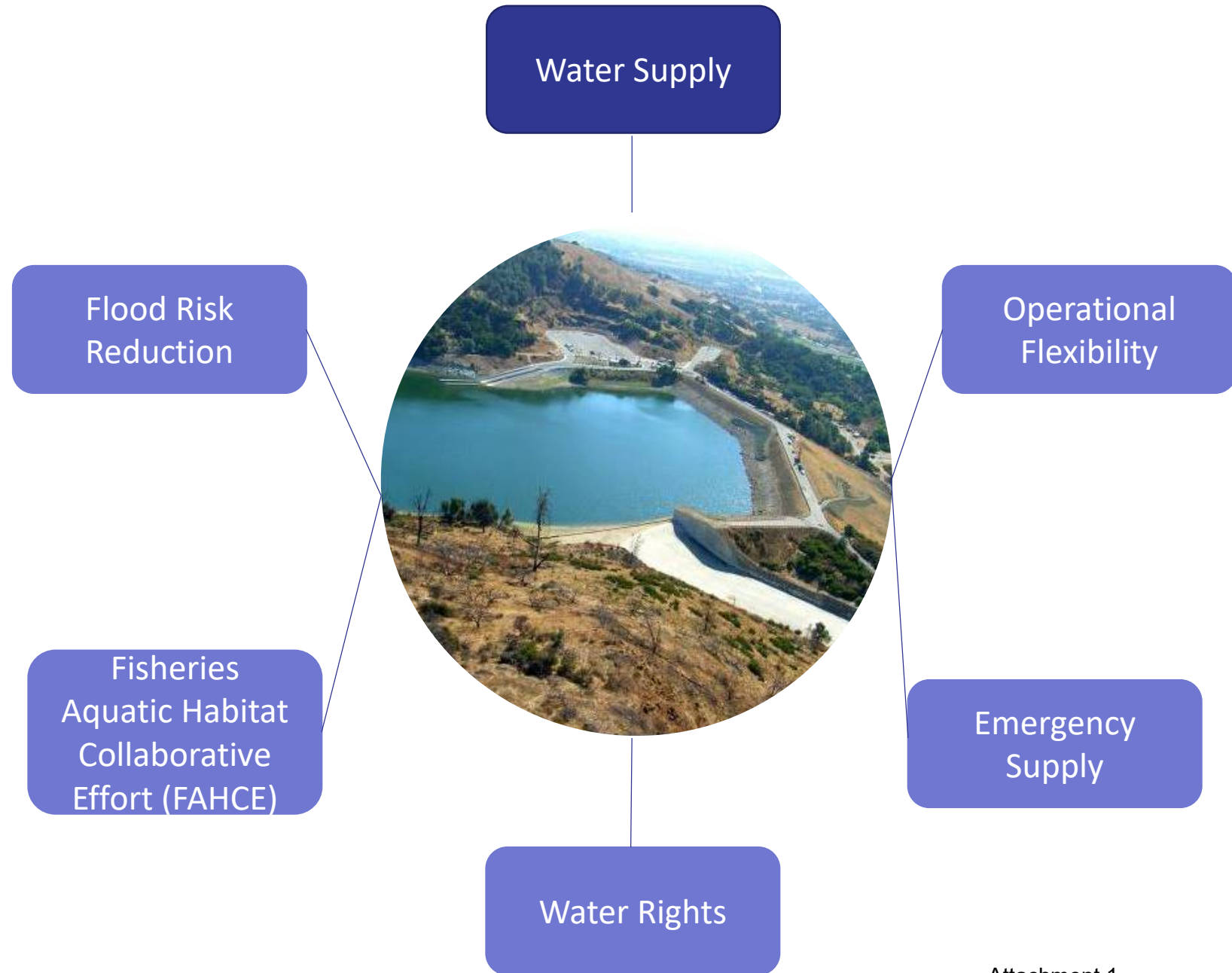


## Water Supply Distribution





# Anderson Reservoir Benefits and Other Considerations



# Water Supply Master Plan

- Ensure Sustainability Strategy:

1. Secure existing supplies and infrastructure
2. Expand conservation and reuse
3. Optimize the system

- Includes dam seismic retrofits, pipeline maintenance and repair, securing imported water supplies
- Protects past investments
- Secures the foundation upon which new projects will be built:
  - 55,000 acre-feet per year (AFY) of natural groundwater recharge
  - 85,000 AFY of local surface water supply







# Coyote Creek Flood Protection Project (CCFPP)

February 2017 Coyote Creek at Montague Expwy



# Coyote Creek Flood Protection Project

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Project Objectives as revised by Board in June 2017:

- Project Reach: 9 miles between Montague Expressway and Tully Road
- Level of flood risk reduction: February 21, 2017 event (or higher), approximately a 20 to 25-year event

Post project capacity would exceed expected ADSRP dewatering and construction bypass flows



Feb 2017 Flood at William Street



# Coyote Creek Flood Protection Project

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## Expedited Project Schedule:

- Planning completed March 2020
- Design, CEQA and Permitting: CY 2020 and 2021
- Construction: CY 2022 through 2024



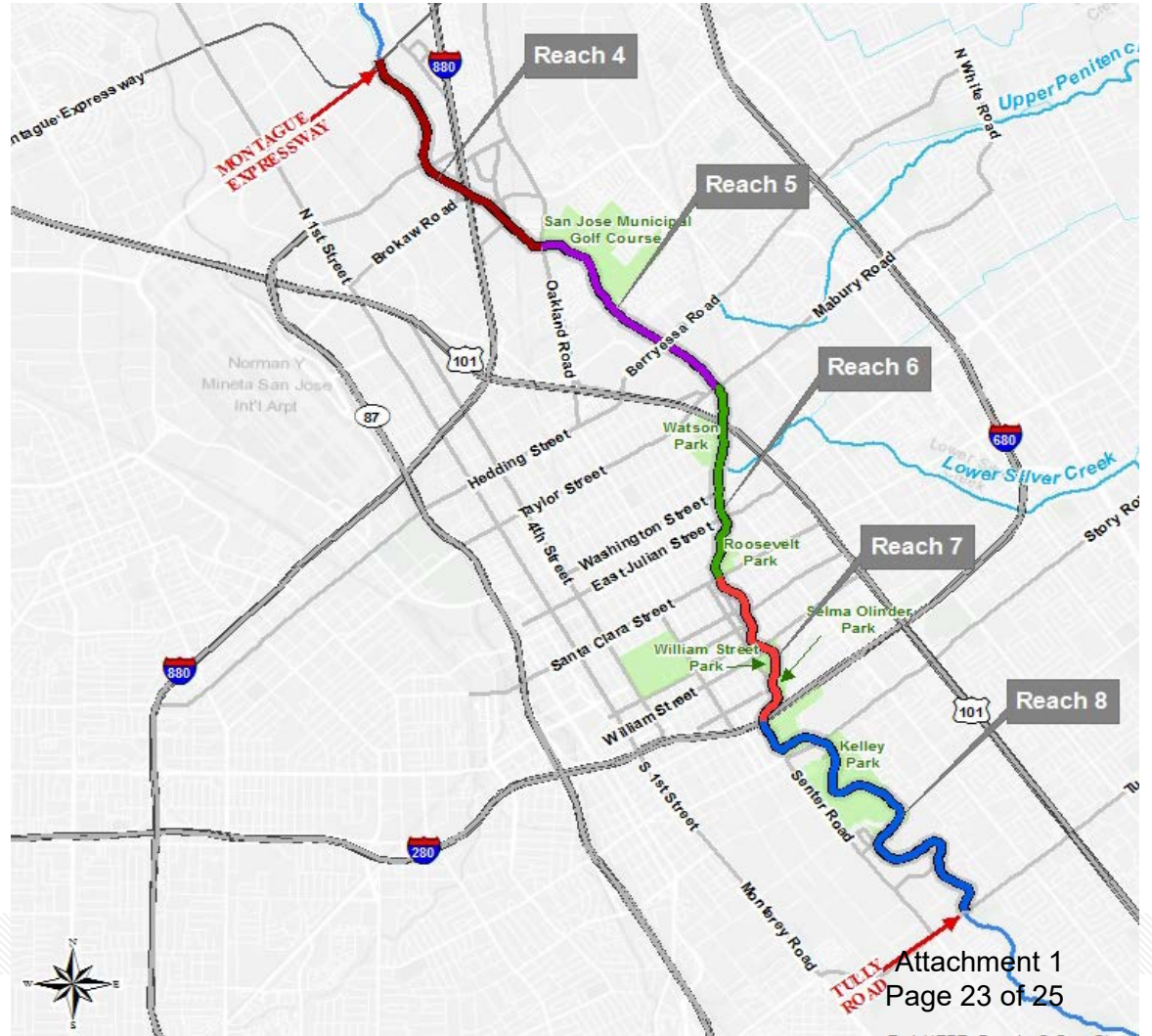
Feb 2017 Flood in Rock Springs Area

# ADSRP & CCFPP Coordination



# Downstream Flood Impacts – Coordination with Coyote Creek Flood Protection Project

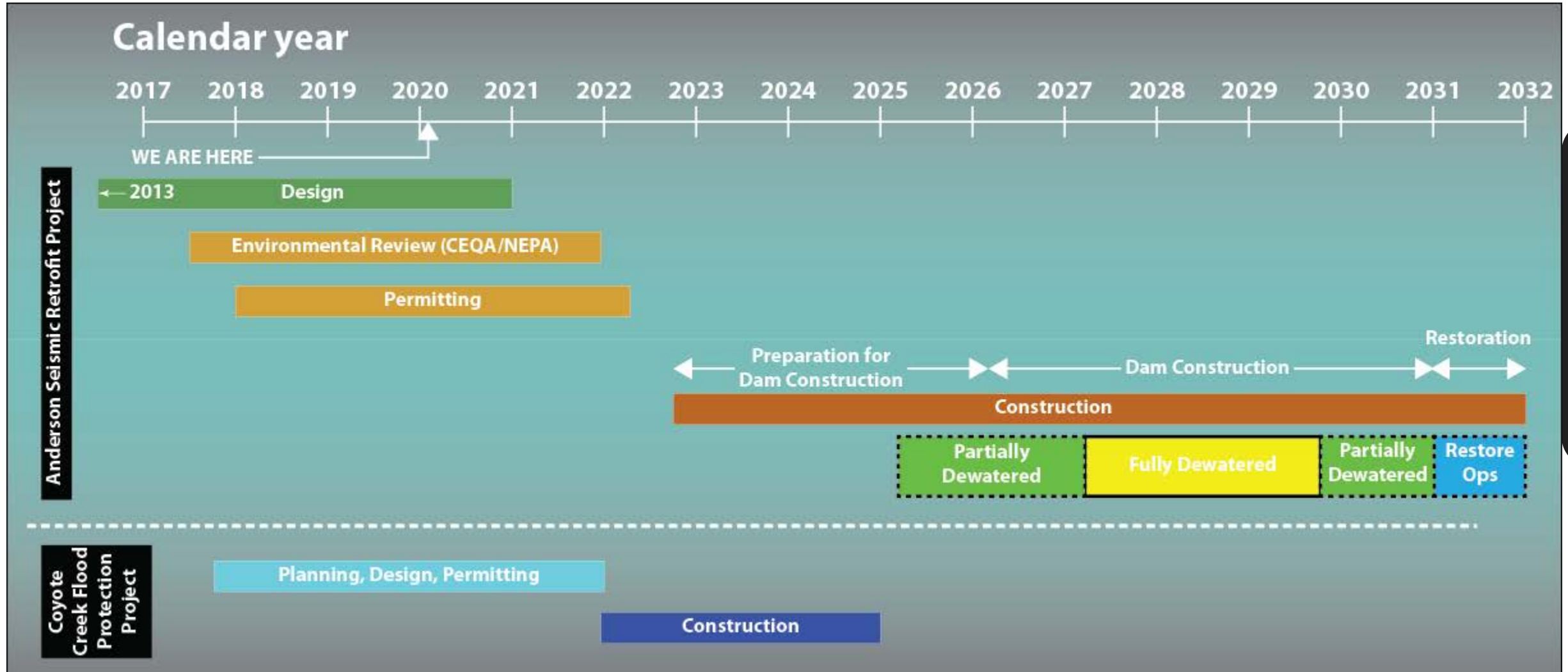
- ADSRP is coordinating with Valley Water's Coyote Creek Flood Protection Project to minimize impacts to downstream communities from the dewatering event at Anderson Reservoir
- Construction of CCFPP will be completed by end of 2024, a year prior to partial draining of Anderson Reservoir





# ADSRP and CCFP Project Schedules

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# Questions?

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