

May  
2020

# Delta Conveyance Project: *A Proposal to Protect Water Supplies for the Future*



“We must get this done—for the resilience of our mighty rivers, the stability of our agriculture sector, and the millions who depend on this water every day.”

— Governor Newsom, 2019 State of the State Address



“...California’s main system of water conveyance, which moves a large portion of the state’s surface water supply, continues to be under threat from flood, subsidence, earthquake, and climate change.

Our state-led water system that captures precipitation from the Sierra Nevada mountains and the Sacramento and San Joaquin rivers to provide drinking water to 27 million Californians faces major vulnerabilities as it travels through the Sacramento-San Joaquin Delta.”

— Draft Water Resilience Portfolio (2019)







# 3 of 5 Californians Depend on Water that Flows Through the Delta

The Delta is where rain and snowmelt from the Sierra Nevada mountains collect. It is where the state's main water distribution infrastructure — the State Water Project (SWP) — is located, distributing essential fresh water to homes, businesses and farmlands throughout California, allowing our state to become the 5th largest economy in the world.



## State Water Project

2/3 of California's water originates in the Sierra Nevada mountains

50% of California's water supply flows through the Delta

29 State Water Contractors purchase and distribute water through the SWP

27m people receive clean, affordable water from the SWP

750k acres of farmland are irrigated with SWP water





# SWP Water Reaches Taps and Farms from North to South

High-quality, affordable water supplied by the SWP through the Delta is a primary source of water security for regions throughout California.



6 million

people in disadvantaged communities depend on this affordable water supply

## Region and % Water Supply through Delta

16% San Francisco Bay Area

82% East Bay Communities

30% Southern California

25 – 33% Central Valley

47% Central Coast

30% Desert Communities

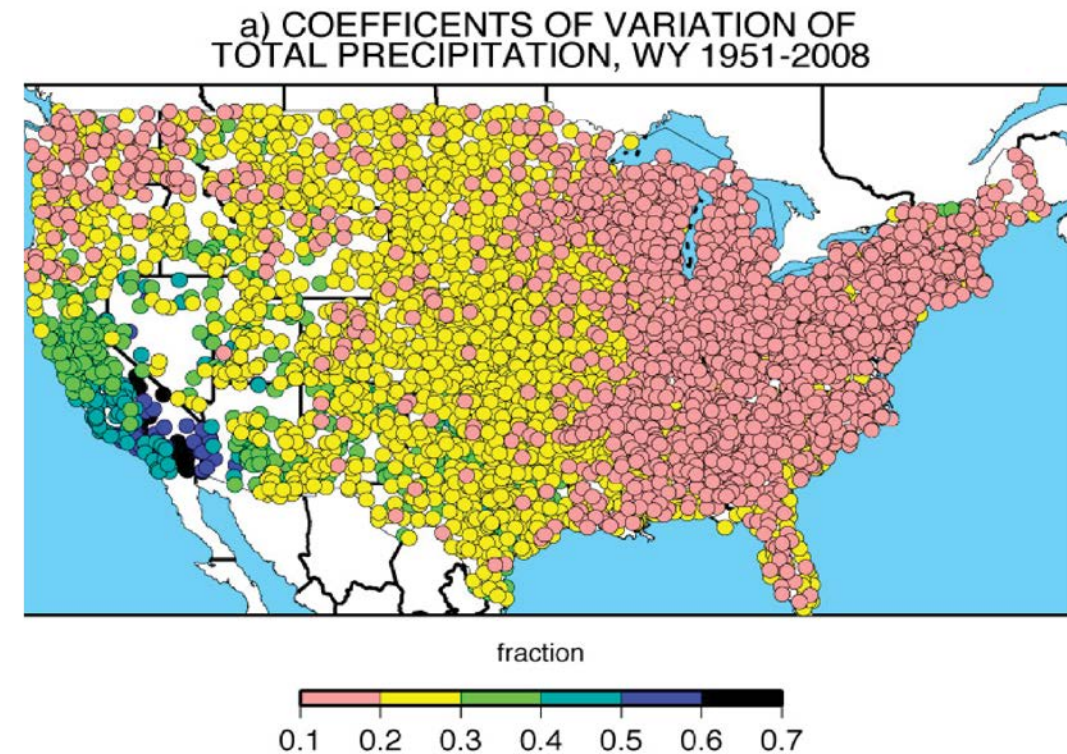
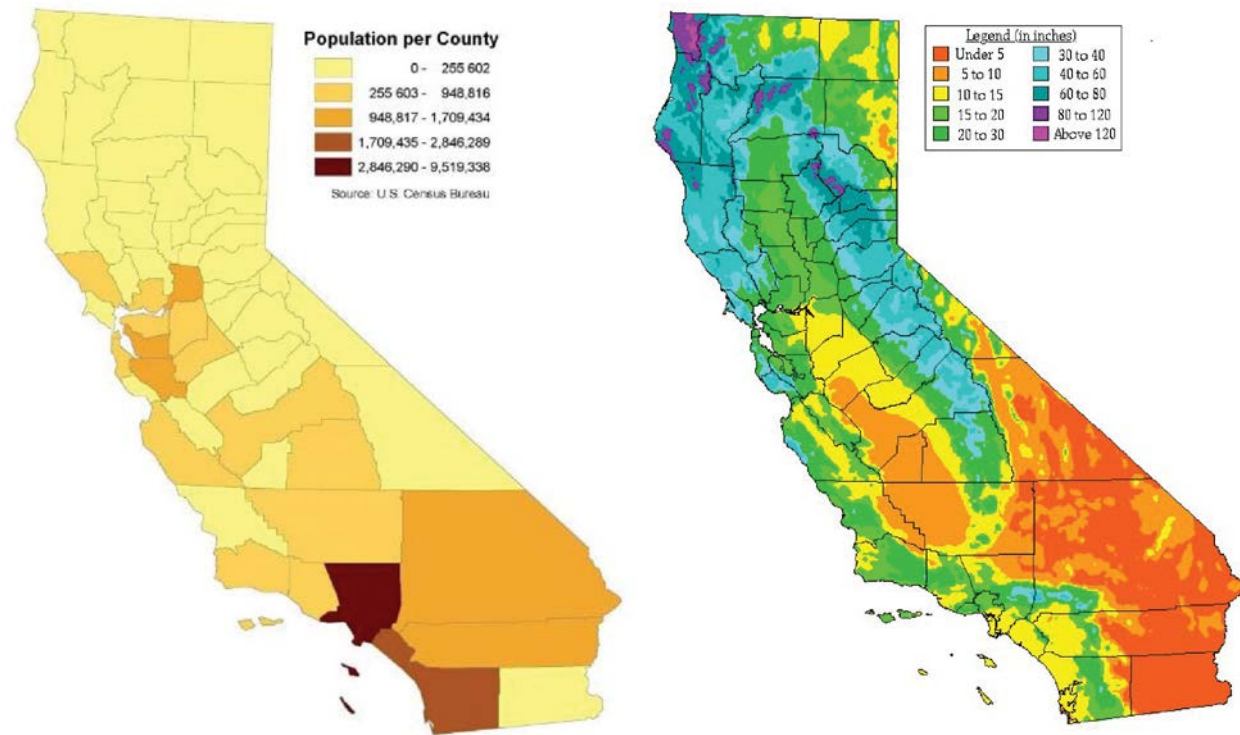




# Unique California Hydrology Presents Challenges

- Rain and snow fall in the north, but the major population centers are in the south

- No other state in the nation faces such extreme variability in precipitation





# Conveyance Infrastructure Remedies Hydrologic Challenges



Even with implementation of the Governor's Water Resilience Portfolio, the Delta will continue to be a critical water infrastructure hub to the state of California.

- Reservoirs, canals, pumps and other infrastructure help collect, store and move water throughout the state.
- This infrastructure requires modernization over time to ensure reliability and to maintain performance.





# Operations Guided by Delta Regulations

The way State Water Project Delta export facilities are operated (meaning when and how much water can be moved at any given time) is guided by numerous state and federal regulations to protect species and water quality.

## State Water Board Water Quality Control Plan

- Municipal and Industrial
- Agricultural
- Fish and Wildlife

- Numeric targets
- Varies by month
- Specific criteria vary by Year Type classification or previous month's runoff

## Federal and State Endangered Species Protections

- Protections for endangered fish species
- Ecological Triggers
- Range of Flow Targets (Real-Time Observations)

- Numeric targets similar to the State Board standards in that they are water year based
- The Old and Middle River (OMR) Flow Objectives are generally managed within a range
- Specific weekly OMR Flow target is determined by ecological triggers and real-time observations

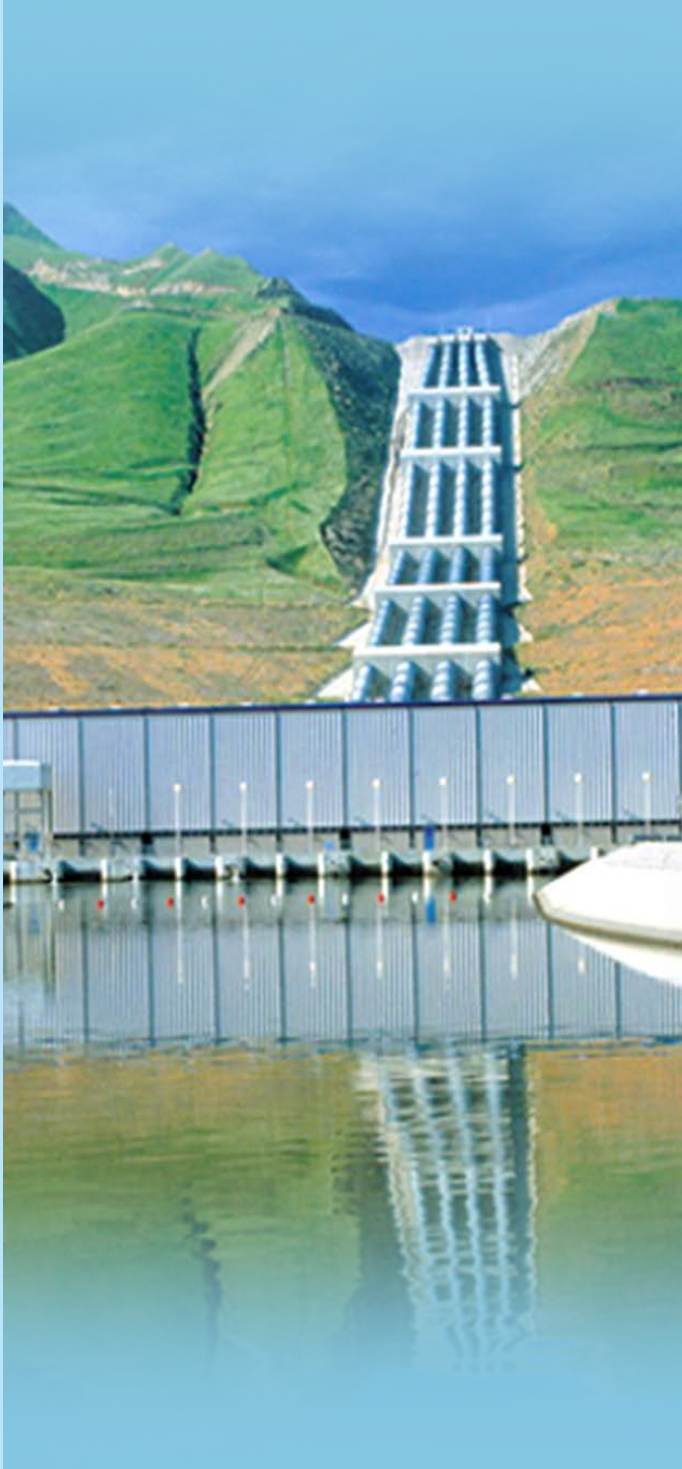


# Local Water Resiliency Plans Depend on the SWP

The SWP is an important foundation for an entire suite of water supply and resiliency programs of local water agencies and the participating State Water Contractors.

Continued stability of the State Water Project helps agencies develop and maintain:

- Local storage
- Groundwater recharge
- Recycling
- Water quality
- Conservation





# Time to Modernize Now – Risks are Mounting

The infrastructure that protects, collects and moves water through the Delta to California communities is outdated and at risk. A major disruption would create a significant public health crisis.

Primary Risks to SWP conveyance infrastructure in the Delta:

- Seismic activity, and risk of major earthquake
- Climate change and sea level rise





# The Earthquake Risk is Real



## Seismic Facts:

- The US Geological Survey predicts a 72% chance of a 6.7 magnitude quake or greater in the next 25 years
- Major active faults in nearby Bay Area and minor faults in Delta
- 1000 miles of levees—many not in condition to withstand significant shaking
- Possible 6- to 12-month outage in water supply delivery





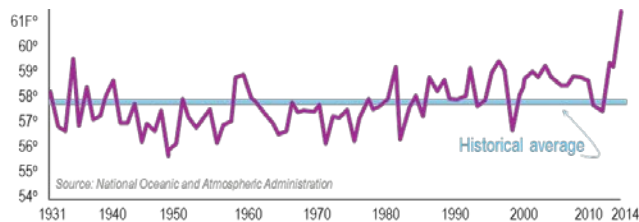


# The CA Ocean Protection Council predicts significant sea level rise by 2100

## Climate Change Realities:

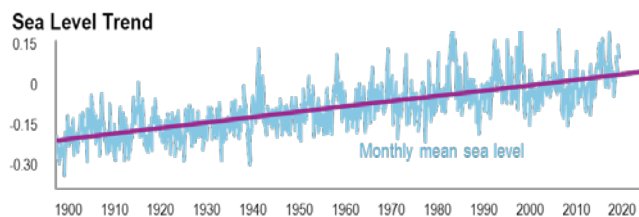
- Triple Threat: sea level rise + storms + subsidence
- Levees may not meet height standards by 2050-2080
- Significant operations changes to maintain Delta water quality due to salinity intrusion, even at 1ft sea level rise
- Delta exports likely reduced, especially in droughts
- Sea level rise, extended droughts, and reduced snowpack best addressed by capturing, moving and storing water when it is available

Annual Average Temperature



Sea Level Trend

9414290 San Francisco, California 1.96 +/- 0.18 mm/yr



# Current Status and Next Steps

- DWR is preparing an Environmental Impact Report in compliance with the California Environmental Quality Act.
- DWR will also work to obtain all additional required state and federal approvals, including but not limited to Endangered Species Act compliance, adding points of diversion to existing water rights and Delta Plan consistency.
- There will be several opportunities for public participation throughout the course of the environmental review and planning process.





# Ways to Stay Informed

Learn more on the DWR website and stay up to date with news and more on social media.



[water.ca.gov](http://water.ca.gov)

- Programs
  - State Water Project
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