



Proposed South Delta Gates Project

Enhancing Water Quality, Fishery Health, and Water Levels in the Delta

2025

Project Background

The Sacramento-San Joaquin Delta is vulnerable to the effects of climate extremes, including longer droughts, changing precipitation patterns and river flows, sea level rise, and intense storms. These threats require collaboration to protect public safety, water quality, water supply, and the ecosystem, and to strengthen local economic drivers including recreation and agriculture.

Responding to these extremes, the Department of Water Resources (DWR) is providing funding for south Delta resilience projects in planning, permitting, design, and construction, including the South Delta Gates Project, Mossdale Tract Project, and the Paradise Cut Bypass Expansion and Channel Restoration. Our approach prioritizes transparency, community input, and partnerships.

The purpose of the proposed South Delta Gates project is to improve water quality, fisheries conditions, and water level protection in the south Delta compared to operations with the existing temporary rock barriers. Since 1991, temporary rock barriers have been constructed annually for water level protection in the south Delta. The barriers are installed to minimize adverse water level impacts to local agricultural diverters within the South Delta Water Agency. However, annual construction and removal of these barriers is costly, can impact fish species, and results in increased greenhouse gas emissions from construction-related equipment.

DWR is exploring the construction of new, state-of-the-art, permanent operable gates that could provide all the benefits of the temporary barriers while adding the benefits described below. The U.S. Bureau of Reclamation operates the federal Central Valley Project that also diverts water from the south Delta. Therefore, DWR is seeking federal funding opportunities for this proposed project.

POTENTIAL BENEFITS

- Improve water quality
- Improve fish passage
- Maintain water levels for agricultural diversions
- Reduce environmental impacts

SCHEDULE

2024-2025

Establish State and Federal cost share agreement

2024-2027

Planning – including funding, studies including geotechnical exploration, environmental documents, permitting, and analysis of alternatives

Design – surveys, final design

2028-2030

Construction



Challenges in the South Delta

Multiple environmental factors such as geology, tides, and San Joaquin River inflow, can cause salinity levels in the south Delta to fluctuate, leading to poor water quality. Human factors, including agricultural and urban runoff, also play a role. Climate change effects, including sea-level rise and extreme weather, add to these complex challenges, with far-reaching impacts affecting municipal, industrial, agricultural, and environmental water uses. Combined, these factors can result in:

- Reduced water quality
- High salinity levels
- Excessive growth of algae and aquatic weeds
- Displacement of native plants
- Aquatic vegetation obstruction of irrigation systems and navigation channels

To help combat these challenges, more robust management strategies, including options such as operation of the proposed South Delta Gates, could improve responses to changing conditions.

Project Benefits

The construction impacts of installing and removing the temporary barriers annually would be eliminated with the one-time construction of permanent operable gates. Unlike the temporary barriers, the South Delta Gates would remain in the channels year-round and could be operated when needed. The South Delta Gates could be designed to be capable of providing multiple local and statewide benefits, including the ability to:

- Improve water quality by inducing circulation and increasing tidal flow
- Protect listed fish species and improve fish passage
- Improve water levels protection for agricultural and local diversions
- Manage to climate variabilities such as sea level and salinity intrusion
- Enable future operational flexibility to respond quickly to hydrologic conditions and adapt to a hotter, drier climate

FUNDING (for planning, design, and permitting)

STATE

By appropriations from:

- Proposition 13, Safe Drinking Water, Clean Water, Watershed & Flood Protection Act, Ch.9, Section 79190(d)(2)(B)(iv) &(vi).
- Proposition 50, Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002.

FEDERAL

- DWR and USBR are currently working together to identify Federal funding opportunities

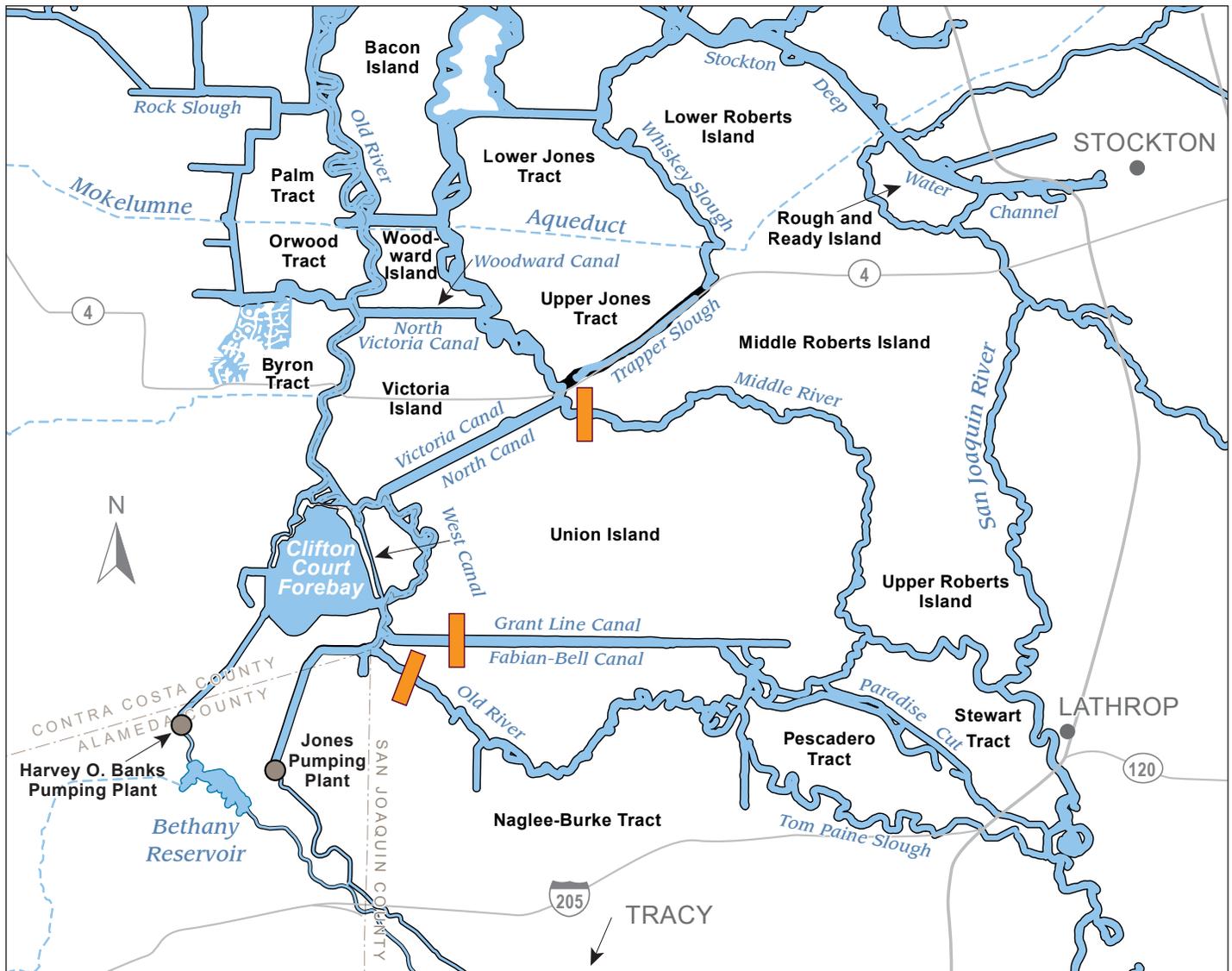
The potential installation of South Delta Gates is being considered at the following locations:

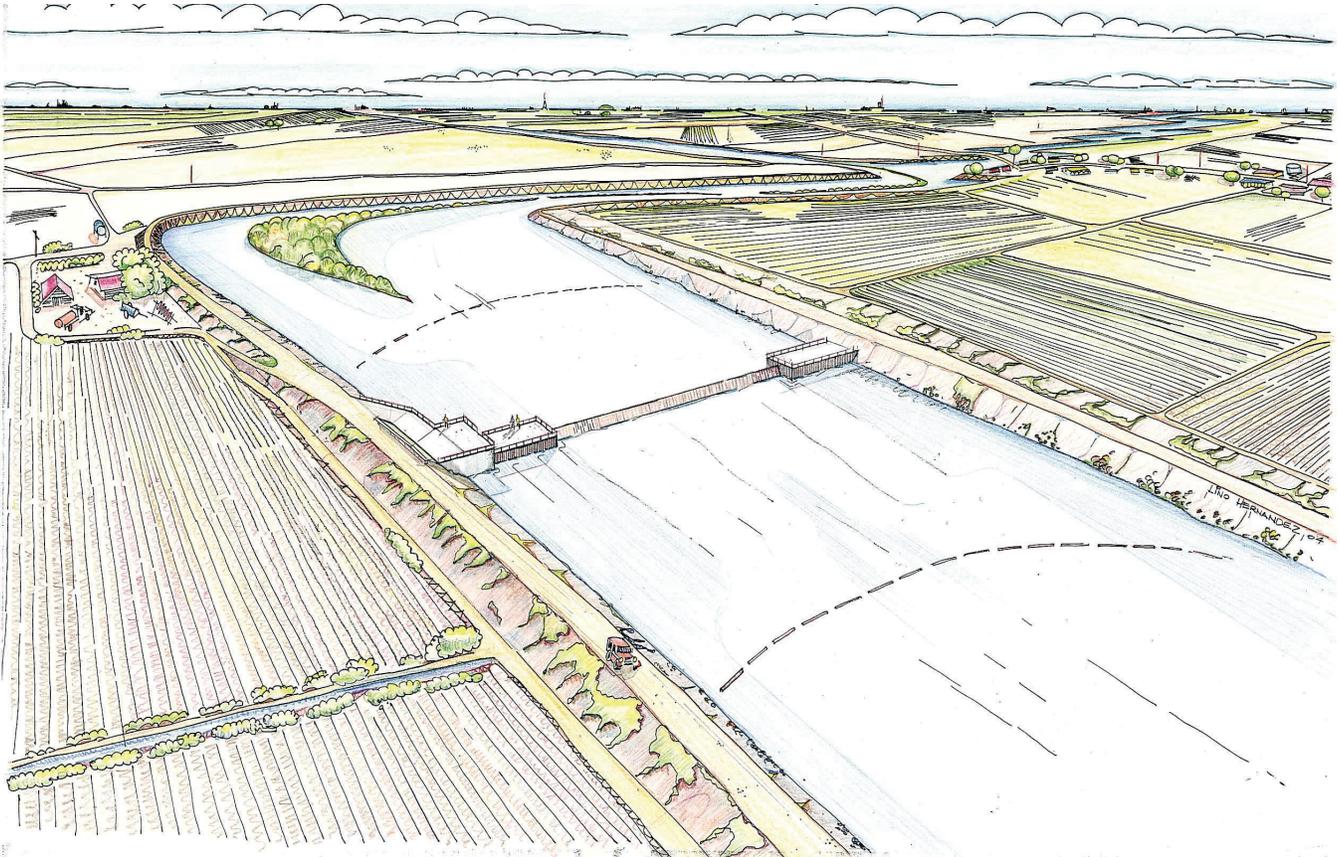
- Middle River (near the confluence of Middle River with Victoria Canal)
- Grant Line/Fabian-Bell Canals (near the confluence of the canals and Old River)
- Old River (near Jones Pumping Plant)

COMPLEMENTARY DWR PROJECTS IN THE SOUTH DELTA

- Mossdale Tract Project
- Planning for Paradise Cut Bypass Expansion and Channel Restoration

- Potential Location — South Delta Gate
- State/Federal Water Projects Pumping Plants





Conceptual Drawing | South Delta Gate, Middle River Location; DWR, 2005



FOR MORE INFORMATION

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