

Delta Conveyance Project: Reducing Impacts Through Engineering

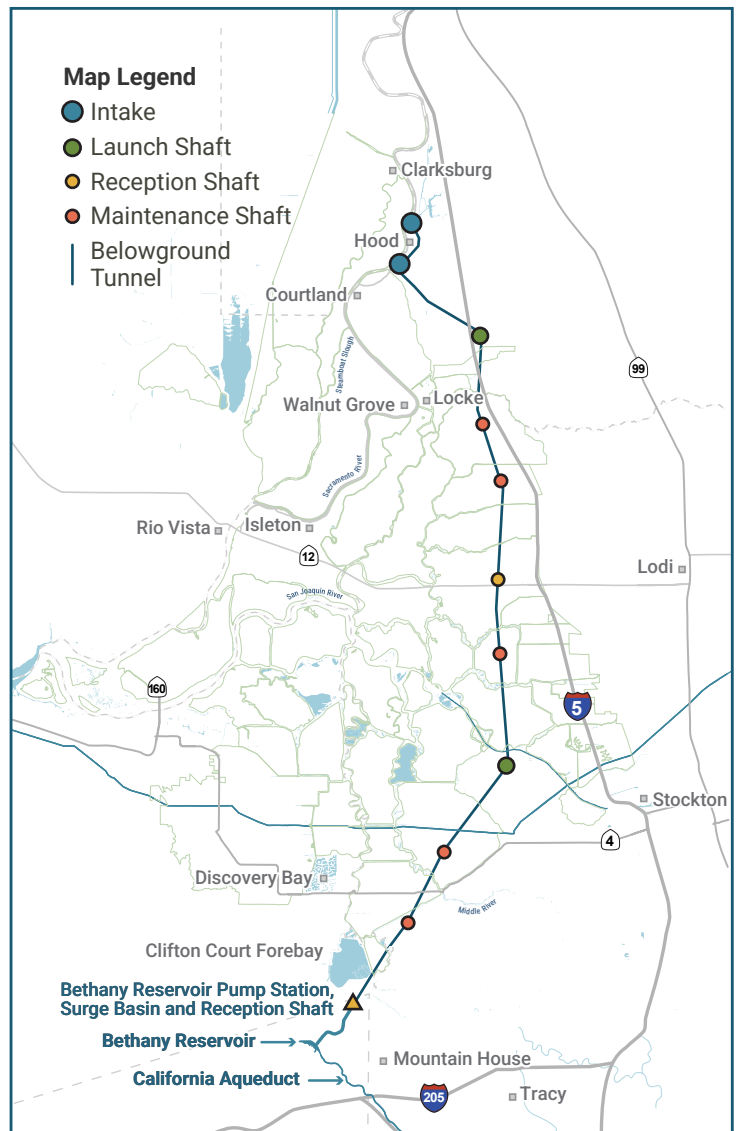
The Delta Conveyance Project (Project) is a state-of-the-art upgrade to California's water infrastructure, designed to deliver clean water to millions of residents across the state. Engineered with resilience and sustainability in mind, the Project balances the long-standing need to assure affordability and reliability to future generations in a way that minimizes the effects of the Project on the Delta, its communities and the environment.

Alignment & Design

The Project features a **single 45-mile tunnel** running underground aligned along the eastern side of the Delta roughly parallel to I-5. Water will enter the system through two intakes along the Sacramento River before traveling down the tunnel to Bethany Reservoir, where it will connect with the California Aqueduct and the remainder of the State Water Project system.

Project at a Glance

- **Length:** 45 miles
- **Depth:** 100-130 feet below the ground (as deep as a 10-13 story building)
- **Water Capacity:** Up to 6,000 cubic feet per second
- **Tunnel Diameter:** 36 feet
- **Tunnel Wall Thickness:** 18 inches



Conceptual design of the Project had to meet a rigorous set of community-focused engineering objectives set by the Department of Water Resources. These objectives prioritize public safety, environmental protection, and minimizing community impacts, and guide every aspect of the Project's development.

Public Safety

- Emergency response facilities will be located at key project sites, such as intakes, to **avoid taxing local emergency services**.
- Project facilities will be designed to **withstand extreme flood events, including future sea level rise**, using updated levee criteria standards and the 200-year flood elevation.
- The U.S. Geological Survey estimates there's about a three in four chance of a major earthquake hitting the Bay Area in the next couple of decades. The Project tunnel and infrastructure are designed with that risk in mind and are **engineered from the start to withstand an extreme seismic event and continue operating safely**.

Environmental Protection

- Wildlife and sensitive habitats will be **protected through careful planning and construction techniques**.
- The tunnel **route avoids critical areas, and underground power and communication lines will be buried using trenchless installation methods to reduce surface disruption**—especially for species like the Greater Sandhill Crane.
- Construction is also scheduled in phases to **limit disturbances to sensitive species**, with **noise-reduction strategies helping to further minimize impacts**.

Minimizing Community Impacts

- Construction traffic will use major highways and haul roads to **minimize disruptions on local roads and neighborhoods**.
- The Project will have only a few, strategically placed launch shafts and a direct connection into the existing Bethany Reservoir, **preserving farmland and reducing construction impacts to local land use**.
- Barges will be used minimally for construction so that **waterways remain open, as would the Bethany Reservoir State Recreation Area**.
- Smart design choices will reduce construction and operations noise for nearby communities**. The Project uses vibratory pile driving and drilled piers instead of louder impact pile driving, and fans and ductwork will be housed inside buildings. Concrete batch plants will be partially enclosed, and temporary sound barriers and shrouds will help minimize noise during construction.

Community Benefits Program

While the water supply benefits of the Project extend across much of the state, the impacts of construction and operation will be felt most by Delta communities. That's why it includes a \$200 million Community Benefits Program to support locally driven projects that provide meaningful, long-term economic and social benefits to the residents, businesses, and organizations in the Delta.

Engineering a Reliable Water Supply for California

Our mission is to plan, permit, design, and build a modernized state-of-the-art, sustainable, resilient, environmentally responsive, and cost-effective Delta Conveyance Project that resolves the long-standing need to assure affordable State Water Project reliability serving future generations of Californians in a way that respects the uniqueness of the Delta as a place and its communities.