

RECLAMATION

Managing Water in the West

Delta Cross Channel

The Delta Cross Channel (DCC), located in Walnut Grove, California, is a feature of the Bureau of Reclamation's (Reclamation) Central Valley Project Delta Division. It is operated by the San Luis Delta-Mendota Water Authority.

The DCC is a controlled diversion channel on the left bank of the Sacramento River, about 30 miles downstream of Sacramento, which diverts water from the river into a branch of the Mokelumne River.

On January 12, 1945, Reclamation announced the final location for the DCC on a route that follows the plan chosen by the state of California's Chief Engineer. The channel and its gates were completed in 1951.



The Delta Cross Channel, with the Sacramento River and the town of Walnut Grove in the foreground.

The channel is 6,000 feet long, and has a bottom width of 210 feet and a capacity of 3,500 cubic feet per second. The gates extend about 245 feet across the channel. The two radial gates, each 60 x 30 feet and weighing a total of 243 tons, open to allow water to flow down the channel, or close to prevent endangered fish species from being drawn into the interior Delta.

The channel is key to maintaining a water quality balance with the transfer of controlled releases from northern Central Valley Project storage reservoirs, such as Shasta and Folsom, to the Sacramento-San Joaquin Delta and to the headworks of the Delta-Mendota and Contra Costa Canals.

When the gates are open, fresh water is drawn from the Sacramento to Snodgrass Slough and the Mokelumne River for a distance of 15 miles to the San Joaquin River, then another 35 miles through Middle and Old Rivers to the Tracy Pumping Plant intake channel. The water is used to combat salt water intrusion in the Delta and to dilute local pollution, and to improve the quality of irrigation supplies in the Central Valley.



U. S. Department of the Interior
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Reclamation believed the Delta Cross Channel was necessary to prevent the highly polluted low water flows of the San Joaquin from getting into the Tracy Pumping Plant. The intrusion could raise salinity in the adjoining waters above the standards set in the Water Exchange Contract for low water flow.

Reclamation closes the control gates of the Delta Cross Channel during high water to prevent flood stages in the San Joaquin section of the Delta. After the flood danger passes, Reclamation opens the gates to allow Sacramento River water through to the Tracy Pumping Plant, which Reclamation operates.

The Delta Cross Channel gates are operated in accordance with State Water Resources Control Board Decision 1641, as follows:

1. From November 1 through January 31: The gates will be closed for a total of up to 45 days for fisheries protection as requested by the US Fish & Wildlife Service (USFWS), U.S. Oceanographic and Atmospheric Administration Fisheries Service (USOAA), and Department of Fish & Game (DFG). The gates may be closed on very short notice and may be closed on weekends.
2. From February 1 through May 20: The gates will be closed.
3. From May 21 through June 15: The gates will be closed for a total of 14 days for fisheries protection as requested by the USFWS, USOAA, and DFG. The gates may be closed on very short notice. Whenever possible, the gates will be open on the weekends (Saturday and Sunday) and the weekday holiday on Memorial Day weekend, but this cannot be guaranteed.
4. From June 16 through October 31: The gates will generally be open, but this cannot be guaranteed. Fishery experiments have been conducted in the past and may continue in the future. These often require intermittent closures.
5. High flows on the Sacramento River, unforeseen fishery protection actions or water quality compliance in the Delta may necessitate a short term closure.



The Cross Channel gates in the raised position.

Reclamation standing operating procedures call for gate closure when flow on the Sacramento River reaches the 20,000 to 25,000 cubic feet per second range. Gate opening and closing times are approximate. The opening and closing of the gates generally takes 30 minutes to one hour.

For More Information

Call the Mid-Pacific Region Office of Public Affairs at 916-978-5100.