

CALIFORNIA AQUEDUCT



The California Aqueduct, a critical part of the State Water Project, carries water from the Sacramento-San Joaquin Delta to the San Joaquin Valley and Southern California.

Established as part of a \$1.75 billion bond passed by voters in 1960, the 444-mile long California Aqueduct (formally known as the Edmund G. Brown California Aqueduct) begins at the Harvey O. Banks Pumping Plant and parallels Interstate 5 south to the Tehachapi Mountains.

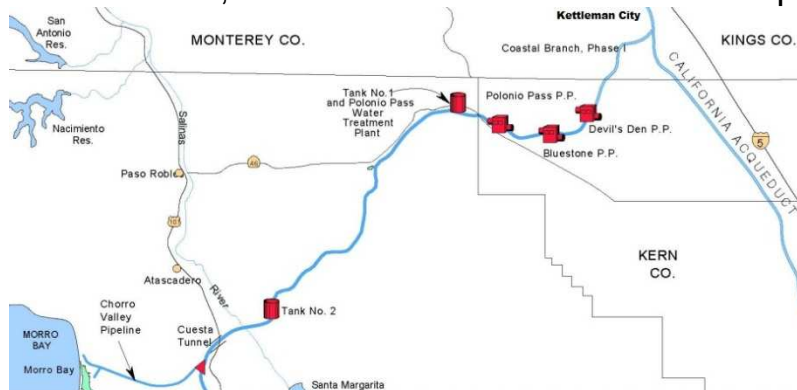
To cross the Tehachapi Mountains into Southern California, a huge amount of water is lifted some 2,000 feet at the A. D. Edmonston Pumping Plant – it's more water pumped higher than anywhere else in the world.

California Aqueduct Overview

The SWP's most visible facility, the California Aqueduct is an artificial river shaped like an inverted trapezoid. Varying in bottom width from 12 feet to 85 feet and an average of 30 feet deep, the concrete channel Aqueduct uses check structures with an innovative "controlled volume flow" system to move water through an open canal much as a pipeline would. The aqueduct was constructed using specially designed equipment to build its massive sloping walls.

About 30 percent of SWP water is delivered to San Joaquin Valley farms and cities via the California Aqueduct. The largest single customer in this area is the Kern County Water Agency, whose contract allows it to receive as much as 1 million acre-feet of water per year.

Just southeast of Kettleman City, the **Coastal Branch** diverges from the main Aqueduct to deliver water to Kern, Santa Barbara and San Luis Obispo counties.



The main construction phase ended at the Vandenberg Space Force Base. Coastal Branch facilities include 5 pumping stations, the Cuesta Tunnel, and treatment plants.

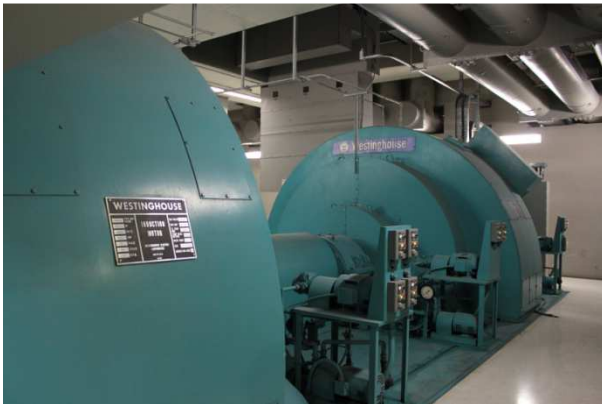


An extension continued the branch thru Lompoc, Buellton, and Solvang terminating at Lake Cachuma.





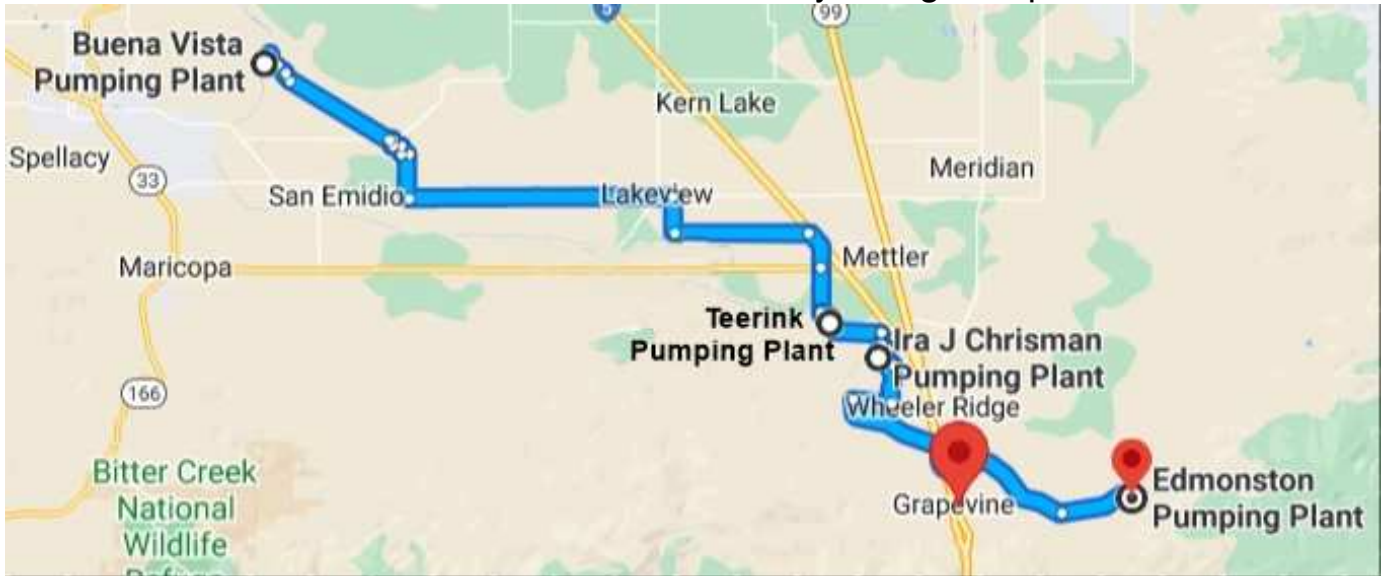
By the time the California Aqueduct reaches A.D. Edmonston Pumping Plant at the northern edge of the Tehachapi Mountains, there is still as much as 2.5 million acre-feet of water to be delivered to 13 Southern California water contractors.



Fourteen pumps lift the water almost 2,000 feet over the mountains, where it is split into two aqueducts that serve Southern California.



Water from the **West Branch Aqueduct** is stored in Pyramid Lake and Castaic Lake for distribution to Los Angeles and surrounding cities. The 4 pumping stations of the West Branch are called the Valley String Pump Plants.



The **East Branch Aqueduct** passes through Palmdale and Lancaster ending in Yucaipa. It stores water in Silverwood Lake and Lake Perris for distribution to Inland Empire cities such as San Bernardino and Riverside.



The California Aqueduct East Branch distributes water to more remote desert areas through several pipelines, like the Morongo Valley Pipeline, and the Mojave River Pipeline, which injects water into the ground under the course of the Mojave River, where the aquifer is nearly depleted.