RECLAMATION
Managing Water in the West

Mid-Pacific Region
Cachuma Project

The Cachuma Project is one of three large-scale federal water projects in the Southwest California region; the other two are the Santa Maria and the Ventura River Projects. These "seacoast projects" capture the seasonal floodwaters for use by the water-deficient communities of the south coast area. The Cachuma project was authorized on March 4, 1948, by the Secretary of the Interior to store and divert floodwaters of the Santa Ynez River. Along with irrigation water, the project supplies municipal water to approximately 150,000 individual users in the Cities of Santa Barbara, Goleta, Montecito, and Carpinteria located in Santa Barbara County on the southern slope of the Santa Ynez Mountains.


Lake Cachuma

Bradbury Dam

Bradbury Dam is located on the Santa Ynez River approximately 25 miles northwest of the city of Santa Barbara. It is a zoned earthfill structure with a crest length of 3,350 feet, a height of 279 feet and a storage capacity of 186,636 acre-feet. Construction of Bradbury Dam was started in 1950 and completed in 1953. A significant seismic retrofit was also completed at the facility in 2006. Cachuma Reservoir, created by the Bradbury Dam, covers 2,933 acres when full and has 42-miles of recreational shoreline.


Bradbury Dam

Tecolote Tunnel

The Tecolote Tunnel extends 6.4 miles through the Santa Ynez Mountains from Cachuma Reservoir to the headworks of the South Coast Conduit. Construction of the Tecolote Tunnel began on March 30, 1950, and was completed in 1956. The horseshoe-shaped tunnel is seven feet high and has a capacity of 100 cubic feet per second.

South Coast Conduit

The South Coast Conduit conveys water from the Santa Ynez River from the Tecolote Tunnel through the South Coast water districts. The conduit is a high-pressure concrete pipeline that extends 24 miles from the Tecolote Tunnel outlet across the steep canyons, rolling hills, and highly-developed residential and estate areas of the South Coast. It terminates at the Carpinteria Regulating Reservoir in the heart of the Carpinteria Valley Water District's service area. The conduit includes a total of four regulating reservoirs: the Glen Anne, the Lauro, the Ortega, and the Carpinteria reservoirs, which were all built between 1951 and 1954.

Regulating Reservoirs and Distribution Systems

Lauro (Santa Barbara), the Ortega (Summerland), and the Carpinteria reservoirs were constructed along and integrated with the South Coast Conduit. The fourth regulating reservoir, the Glen Anne, was located below the outlet portal of the Tecolote Tunnel and serves as overflow storage for the conduit.

Lauro Dam and Reservoir

Lauro Dam and Reservoir

Lauro Dam and Reservoir are located on Diablo Creek near Santa Barbara. The dam is an earthfill structure with a crest length of 540 feet and a height of 137 feet. The reservoir has a capacity of 640 acre-feet.

Ortega Dam and Reservoir

Ortega Reservoir near Summerland is a concrete-lined basin with a capacity of 60 acre-feet. The dam is an earthfill structure 131 feet high with a crest length of 430 feet.

Carpinteria Dam and Reservoir

Carpinteria Reservoir near Carpinteria is a concrete-lined basin and serves as a terminal reservoir. The dam is an earthfill structure 31feet high with a crest length of 1,350 feet and a capacity of 40 acre-feet.

Glen Anne Dam and Reservoir

Glen Anne Dam and Reservoir

Glen Anne Reservoir, with a capacity of 470 acre-feet, is located on the west fork of the Glen Anne Canyon Creek below the outlet of the Tecolote Tunnel. Glen Anne Dam is an earthfill structure with a crest length of 240 feet and a height of 135 feet. A portion of the land included in the Goleta Water District is served directly from this reservoir.

Sheffield Tunnel

Sheffield Tunnel is horseshoe-shaped, 6-feet-high, and was bored through a high ridge within the city limits of Santa Barbara. The South Coast Conduit, 30 inches in diameter at this point, extends through the 5,968-foot-long tunnel.

Distribution Systems
The last phase of the construction of the Cachuma Project included three separate, localized water distribution systems constructed by Reclamation for direct delivery to Goleta, Carpinteria, and Summerland County Water District consumers. The systems were constructed by Reclamation from 1952 to 1956. In these primarily agricultural areas, the landscape called for small pumping plants to serve lateral pipelines. In Carpinteria, a 50,000 gallon elevated water tank ensured delivery to more difficult-to-reach areas. These systems were all operable by early 1956.

Operating Agencies
Each individual district for which a distribution system was constructed is responsible for its operation and maintenance. Reclamation operates Bradbury Dam. Member units acting through an operation and maintenance board (Cachuma Operation and Maintenance Board) operate the remainder Cachuma Project facilities.

Benefits

Although it was initially thought that the project might double the amount of irrigated land within the water district, urban growth has outpaced agricultural development, encroaching on formerly agricultural lands. The total acreage irrigated by the project has stayed relatively flat since the mid-1970's, fluctuating from 10,000 to 12,000 acres annually. Principal irrigated crops are citrus and other fruits, irrigated pasture, alfalfa hay, and other hay.

For More Information:
MP Region Public Affairs
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September 2012