California-Great Basin Region, Central Valley Project

Overview

The Central Valley Project (CVP) extends 400 miles through California, from the Cascade Range in the north near Redding to the Tehachapi Mountains near Bakersfield in the south. The CVP’s complex, multi-purpose network of dams, reservoirs, canals, hydroelectric powerplants and other facilities serve agriculture, municipal and industrial needs, and fish and wildlife in the semi-arid Central Valley. The CVP also provides flood risk reduction, produces electrical power and offers recreational opportunities.

The project is a major asset to California’s economy, providing water for most of the top agricultural producing counties in the nation’s leading farm state. More than one-third of the country’s vegetables and two-thirds of the country’s fruits and nuts are grown in the Central Valley.

The CVP also supplies domestic and industrial water in the valley, as well as, to major urban centers in the Greater Sacramento and San Francisco Bay areas. The project also provides water to restore and protect fish and wildlife, and to enhance water quality. It is a major source of water for 19 national wildlife refuges. Five of the refuges are in Northern California’s Sacramento Valley and 14 are in Central California’s San Joaquin Valley.
Facilities

Construction of major CVP facilities began in 1938 with breaking of ground for Shasta Dam on the Sacramento River near Redding in Northern California. Over the next five decades, the CVP was expanded into a system of 20 dams and reservoirs that together can hold nearly 12 million acre-feet. The CVP includes 500 miles of canals and aqueducts and 11 hydroelectric powerplants. In Sacramento, the Central Valley Operations Office jointly controls, with the California Department of Water Resources, the CVP and its companion, the State Water Project.

Benefits

The CVP has long-term agreements to supply water to more than 250 contractors in 29 of California’s 58 counties. Deliveries by the CVP include providing an annual average of 5 million acre-feet of water for farms; 600,000 acre-feet of water for municipal and industrial uses (enough water to supply about 2.5 million people for a year); and water for wildlife refuges and maintaining water quality in the Sacramento-San Joaquin Delta.

The CVP also benefits farm-related jobs and its powerplants produce about 4.5 million megawatt hours in an average water year. (A megawatt hour is continuous production of one megawatt over an hour.)

Major CVP Facilities: Dam & Reservoir - System - Capacity

- Shasta Dam & Reservoir - Sacramento River (system) - 4,552,100 af (acre-feet storage capacity)
- Trinity Dam & Reservoir - Trinity River - 2,448,000 af
- Folsom Dam & Reservoir - American River - 966,823 af
- New Melones Dam & Reservoir - Stanislaus River - 2,420,000 af
- Friant Dam & Millerton Reservoir - San Joaquin River - 520,500 af
- San Luis Dam & Reservoir (federal share) - Offstream storage - 966,000 af

Major CVP Facilities: Canal - Length - Design Capacity

- Corning Canal - 21 miles (long) - 500 cfs (cubic feet per second design capacity)
- Tehama-Colusa Canal - 110.9 miles - 2,530 cfs
- Contra Costa Canal - 47.7 miles - 350 cfs
- Folsom South Canal - 26.7 miles - 3,500 cfs
- Delta-Mendota Canal - 117 miles - 4,600 cfs
- Friant-Kern Canal - 151.8 miles - 5,000 cfs
- Madera Canal - 35.9 miles - 1,250 cfs
- Coalinga Canal - 11.6 miles - 1,100 cfs
- San Luis Canal (joint federal/state) - 102.5 miles - 13,100 cfs