In 1945, the California Legislature authorized an investigation of statewide water resources. The work, conducted by the Division of Water Resources (DWR's predecessor) under the Department of Public Works, led to the publication of three important bulletins: Bulletin 1 (1951), "Water Resources of California," a collection of data on precipitation, unimpaired stream flows, flood flows and frequency, and water quality statewide; Bulletin 2 (1955), "Water Utilization and Requirements of California," estimates of water uses and forecasts of "ultimate" water needs; and Bulletin 3 (1957), "The California Water Plan," plans for full practical development of California's water resources, both by local projects and a major State project to meet the State's ultimate needs.

The Division also completed studies that culminated in the Feather River Project presented to the Legislature in 1951 by State Engineer A. D. Edmonston. The initial proposal included a multipurpose dam and reservoir near Oroville complete with a power plant, an afterbay dam and power plant, a Delta Cross Channel (i.e., a peripheral canal), an electric power transmission system, an aqueduct to transport water from the Delta to Santa Clara and Alameda counties, and another aqueduct to carry water from the Delta to the San Joaquin Valley and Southern California.

After additional surveys and investigations, the Division submitted a revised Feather River Project in 1955. The revised project added the San Luis Reservoir and proposed a South Bay Aqueduct serve San Benito County. The North Bay Aqueduct was included in the project in 1957.

On November 8, the Burns-Porter Act was narrowly approved by the slim margin of 173,944 votes from about 5.8 million ballots counted. Only one northern county supported the proposition--Butte County, site of Oroville Dam. But one fact was certain, construction was soon to begin on what is now the nation's largest state-built water and power development and distribution system, which would forever change the face and future of a once virgin land.

Construction on the Oroville site actually began even before the passage of the Burns-Porter Act. A \$25 million emergency appropriation was passed in 1957 after a record late 1955-early 1956 flood, which devastated Northern and Central California. Statewide, 64 deaths were recorded, most in Sutter County and Yuba City, and more than \$200 million of property damage.

In May 1957 work began on the construction of two tunnels on the Western Pacific Railroad relocation to clear the site for the dam and reservoir. Appropriations continued year to year for the relocations and to begin building the South Bay and California aqueducts in 1959.

After the legislative passage of the Burns-Porter Act and the voters' approval of the bond issue, construction started in earnest, with facilities built from north to south. To reduce costs, some facilities were built in stages with additional units or facilities added as demands required.

Construction first began in 1957 to relocate what is now Highway 70 and the Western Pacific Railroad. Work on the dam site began in 1961. The embankment was topped out in 1967, and the official dedication ceremony was held the next year.



Oroville Dam

Lake Oroville is a keystone facility of the State Water Project and its largest reservoir with a capacity of 3.5 million acre-feet. (One acre-foot equals 325,900 gallons.)

Lake Oroville and Oroville Dam are part of a complex which includes Hyatt Power plant, Thermalito Diversion Dam and Power plant, the Feather River Fish Hatchery, Thermalito Power Canal, Thermalito Forebay, Thermalito Pumping- Generating Plant, Thermalito Afterbay, and the Lake Oroville Visitors Center.



Map of Oroville-Thermalito Complex

With the beginning of the construction of the Oroville Dam it was necessary to relocate the Western Pacific Railroad which otherwise would be inundated by the impounds waters of the Feather River. In the process of making an archeological site survey of the relocation right-of-way a series of archeological sites was recorded (see Map 1)

The Archeology of the Western Pacific Railroad Relocation, Oroville Project, Butte County, California by W.H. Olsen and F.A. Riddell was prepared in February 1963. (The Resources Agency of the California, Department of Parks and Recreation, Division of Beaches and Parks)



## 'Almanor, The Belles of Belden'



The three daughters of the late Guy C. Earl, vice president of Great Western Power Co., flip the ceremonial switches to put Belden Powerhouse online in August 1969 as PG&E president Shermer L. Sibley looks on. It was Earl's drive that got the Big Meadows hydroelectric dam on the North Feather River built (1912-1914), creating the vast Lake Almanor. The name was an amalgam of Guy's daughter's names: from right to left, Alice, Martha and Elinore. Almanor was the key reservoir for the river's hydro system of which Belden was the ninth and final installation.

In the summer of 1969, Belden was the final step in PG&E's Feather River "Stairway of Power," the ninth hydro plant along the husky river with Lake Almanor at its head end upstream. Belden's 117,000 kw unit, with most of its working parts underground, was fueled by water that came directly from Caribou Afterbay through nearly seven miles of pipe dropping 770 vertical feet along the way.

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Pacific Gas and Electric Company "Almanor, The Belles of Belden"