TRINITY RIVER DIVISION -- CENTRAL VALLEY PROJECT

SUMMARY OF PRELIMINARY DATA

AUGUST 1955

The Trinity River Diversion Project as recently authorized is a division of the Central Valley Project, Ultimate Plan, California. It is designed to divert surplus waters of the Trinity River, a major tributary of the Klamath River, to the Sacramento Valley providing additional irrigation water and power generating capacity for Northern and Central California. The principal products of the project are: water, power and recreation facilities. There are no specific provisions for flood control reservations, however, there will be incidental flood protection inherently provided. Although the project independently accomplishes only those things mentioned above, by integration with other features of the Central Valley Project such functions as navigation, salinity control and fish preservation on the Sacramento River are indirectly involved.

The following paragraphs are a summary of the individual features of the Trinity Project, Clear Creek alternates and Bella Vista Unit.

Trinity River is a major tributary of the Klamath River with an average annual flow of about 3½ million acre feet as compared to the annual flow at the mouth of the Klamath River of about 13 million acre feet. The Upper Basin affected by the diversion project consists of 720 square miles which produces an average runoff of about 1,100,000 acre feet annually. This flow has varied from a minimum of 266,000 acre feet during water year 1924 to a maximum of 2,547,000 acre feet in 1941. The maximum and minimum daily flows have varied from 40,000 cubic feet per second as measured at the Lewiston gauge, on February 28, 1940, to 23 cubic feet per second on July 30, 1924.

Trinity Dam to be constructed on Trinity River, about 1 mile south of the confluence with Stuart Fork, will be an earth fill type structure about 450 feet in height. A concrete lined spillway designed for a maximum flow of 180,000 cubic feet per second would carry flood waters away from the main structure. Materials for the construction of the dam are available 3 miles north of the dam site in the general area of the Minersville Placer operations.

Trinity Lake at its highest elevation (2,384 plus or minus 10) will have a surface area of about 17,000 acres with a storage capacity of 2,500,000 acre feet of water.

Trinity Power Plant will be located immediately below Trinity Dam and will have a total generating capacity of 90,000 kilowatts at a design head of 381 feet.

Lewiston Diversion Dam located on Trinity River about 3 miles north of the town of Lewiston will be a concrete gravity structure about 100 feet in height. This dam would serve as a diversion structure for the Tower House Tunnel as well as to form the afterbay for the Trinity Power Plant. The lake formed by the dam will have a total capacity of about 45,000 acre feet with 2,000 acre feet of active storage in the top two feet. The active storage will be used to re-regulate the releases from the Trinity Power Plant before diversion.

Lewiston Power Plant will be located at Lewiston Diversion Dam to generate a maximum of 2,000 kilowatts of power from the releases made for down stream requirements in the Lower Trinity Basin. These releases would consist primarily of those required for the preservation of the fishery resources in the Lower Trinity River.

Tower House Tunnel with a capacity of 1,700 cubic feet per second and a length of 8 miles would extend from Lewiston reservoir to Tower House Power Plant on Clear Creek. The inside diameter of this tunnel would be 14 foot 7 inches.

Tower House Power Plant would be located on Clear Creek about 1½ miles north of Highway 299W, and with a design head of 556 feet would develop a capacity of 66,000 kilowatts.

Tower House Diversion Dam located immediately below Tower House Power Plant would be a low concrete gravity structure designed to divert releases from the power plant and also useable flows of Clear Creek to Matheson tunnel.

Matheson Tunnel with a capacity of 1,700 cubic feet per second and a length of 9 miles would serve to carry water from Clear Creek to the Matheson Power Plant located on the edge of Keswick reservoir.

Matheson Power Plant would operate under a design head of 641 feet and have an installed capacity of 75,000 kilowatts.

Clear Creek Alternates

A report published by Shasta County, June 1954, entitled "Clear Creek Alternates for Trinity River Development", suggests certain modifications to the lower portion of the Trinity River Diversion Project. In this report

there are two alternates outlined in detail, neither of which alter feature of the Trinity River Diversion Project Plan above the Tower House Power Plan on Clear Creek.

The following paragraphs are a summary of the individual features of Alternate Plan B.

Willow Dam and Power Plant located on Clear Creek about 4 miles down stream from the Tower House Power Plant would be an earth fill or rock fill type structure 150 feet in height. Water in this reservoir would be backed up to and serve as afterbay to the Tower House Power Plant. A power plant would be built at the dam with an installed capacity of 23,000 kilowatts.

Whiskeytown Dam located on Clear Creek about 3 miles southeast of the town of Whiskeytown would be an earth fill or rock fill structure 200 feet in height creating a reservoir with a storage capacity of 100,000 acre feet.

Spring Creek Tunnel extending from Whiskeytown reservoir to Spring Creek Power Plant on the Spring Creek arm of Keswick Lake, would be 3½ miles in length, with a diameter of 15.2 feet. The tunnel would have a capacity of 1,700 cubic feet per second.

Spring Creek Power Plant utilizing the fall between the Whiskeytown and Keswick reservoirs of 576 feet would have an installed capacity of 94,000 kilowatts and would be located on the Spring Creek arm of Keswick Lake about 2½ miles northwest of Keswick Dam.

Bella Vista Unit

As an adjunct to the trans-basin diversion, the Trinity Authorization provides for the construction of conveyance and storage facilities necessary to bring about maximum beneficial use of project water supplies in the area adjacent to Redding and between the Sacramento River and Cow Creek. There are no definite project plans for developing the area as yet. However, the Reclamation Bureau using available data from previous investigations and additional studies as may be required, will proceed with the development of project plans in the very near future. It is estimated that about 20,000 acres of land in this area are suitable for irrigation and could be developed.