

EXCERPTS FROM ISABELLA PROJECT  
REPORT ON COST ALLOCATION STUDIES  
CORPS OF ENGINEERS

Authorized project. - The Isabella Project was authorized by the Flood Control Act of 1944, approved 22 December 1944, the pertinent portion of which follows:

"The project for the Isabella Reservoir on the Kern River for flood control and other purposes in the San Joaquin Valley, California, is hereby authorized substantially in accordance with the recommendations of the Chief of Engineers in his report dated 26 January 1944, contained in House Document Numbered 513, Seventy-eighth Congress, second session....."

In House Document No. 513, referred to in the above authorization, the Chief of Engineers makes the following statements pertinent to cost allocation for the Isabella Project:

"13. Regulation of stream flow by the reservoir would be of value to existing downstream power developments. The Federal Power Act provides that the Federal Power Commission shall fix a reasonable and equitable annual charge to be paid to the United States for such benefits.

"14. In accordance with the policy indicated by existing legislation the cost of the Isabella Reservoir should be borne jointly by the United States and the water users, the United States bearing the cost for flood protection and the water users the cost for irrigation, with proper payments for power benefits as discussed in the preceding paragraph . . . Continuing studies by the Bureau of Reclamation, this Department, and the local organizations will establish the best plan of operation and appropriate cost allocations. Under these conditions it is considered appropriate that provision be made for the construction of the reservoir with Federal funds, and that after completion and when use thereof is made conservation interests be required to pay the United States for the beneficial use of the conservation capacity, either in lump sum or annual installments.

"15.....Authority to construct should be understood to include authority to make modifications of the plans, to construct the reservoir at Federal cost, and to make arrangements for payment by the State or other responsible agency to the United States for the conservation storage when used."

Description of project. The Isabella Project consists of a main dam, auxiliary dam, and reservoir, with appurtenant structures. The main



dam, located on Kern River about one mile below the confluence of the North and South Forks, is an earthfill structure about 185 feet high and 1,725 feet long. The ungated spillway, with a crest length of 140 feet and a discharge capacity of 53,000 c.f.s., is located on the left abutment. The main dam outlet works are in a tunnel under the left abutment. The auxiliary dam, also of earthfill construction, is located in Hot Springs Valley, about 1/2 mile east of the main dam. It is about 100 feet high and 3,257 feet long. Outlet facilities for the existing Borel Power Canal are included in the auxiliary dam. The reservoir capacity is 570,000 acre-feet at spillway crest, elevation 2,605.5. No power generating facilities are being provided at this time. If power installation is found economically feasible in the future, facilities can be provided by constructing intake works and a tunnel under one of the abutments, and a downstream power house. No navigation or fishway facilities are contemplated. No separate or specific features for any project function will be constructed. However, it is contemplated that 35,000 acre-feet of space in the reservoir will be used for flood control and for incidental uses other than irrigation. Consequently, this 35,000 acre-feet of space is considered to be a separable facility for flood control.

Operational requirements. - Flood control is the primary consideration in the operation of Isabella Reservoir. Reservations for winter rain floods have been established, and whenever encroachment on these reservations occurs, maximum safe releases (without exceeding channel capacities) will be made. During exceptionally wet years some residual flood damage will still occur in the Tulare Lake area. Larger winter reservations have been established to provide for possible later heavy snow-melt floods, and these reservations will be met when possible without causing flood damage anywhere. During the snow-melt season (from 1 February to 31 July) the reservoir will be operated on the basis of snow-melt predictions and anticipated irrigation diversions, with the general objectives of preventing exceedance of channel capacities and eliminating or minimizing undesired (damaging) flow into Tulare Lake.

Irrigation use of Isabella Reservoir will be made subject to the requirements of flood control. Irrigation interests participating in the project will be allowed to store their water in the reservoir and have it released on demand, so long as such storage does not conflict with flood-control reservations or operations. The entire 570,000 acre-foot capacity of the reservoir will be available for irrigation storage, and 35,000 acre-feet of space at the bottom of the reservoir will be reserved for flood control and other functional requirements. The 535,000 acre-feet of storage can be used at times for both flood control and irrigation, as waters stored to prevent flood damage can often be released later for irrigation use. This is particularly true of snow-melt waters, as the reservoir can be filled at the end of the snow-melt season and the stored waters, or a part thereof, later used for irrigation.