



Water Resources ♦ Flood Control ♦ Water Rights

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April 17, 2001

Mr. Michael Bonner, Program Manager
Yuba Feather Flood Protection Program
Department of Water Resources (DWR)
1416 9th Street, Room 1623
Sacramento, CA 95814- 5509

Subject: Yuba Feather Flood Protection Program – Oroville Operation

Dear Mr. Bonner:

The Yuba Feather Flood Protection Program Feasibility Study has been funded with Proposition 13 funds, and we are now initiating our studies. It is important as we move forward to accurately define the likely future conditions along the Feather and Yuba Rivers to establish the “without project” flood damages.

The operation of Oroville Reservoir is critical in determining the existing level of protection along the Feather and Yuba Rivers. In our meeting with DWR and the Corps of Engineers (Corps) on January 12, 2001, the current flood control operation requirements at Oroville Reservoir were discussed. The primary issue was how the dam should be operated when a flood is large enough to potentially cause the reservoir to surcharge above elevation 901 feet, the crest of the emergency spillway. It was pointed out that the flood control manual for Oroville Reservoir depicted such an event on Chart 32 (copy attached). This chart shows that under “Present Conditions” (no Marysville Reservoir) the downstream objective flows are maintained by allowing the reservoir to rise above the emergency spillway crest (elevation 901 feet) to a maximum storage of 3,710,000 acre-feet (elevation 910.7 feet). In addition, Paragraph 28 (Page 25) of the flood control manual states:

“During the interim period until storage is provided on the Yuba River, control is achieved by use of maximum surcharge at Oroville Dam.”

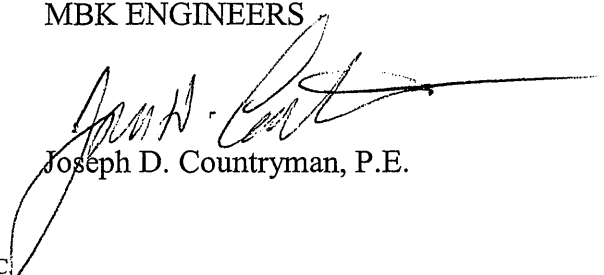
Based on the above information, we believe the proper “without project” condition for Oroville Reservoir is to assume that the downstream objective flow targets (300,000 cfs Feather River below the Yuba River) will be met by using surcharge storage above elevation 901 feet. It

is clear that this operation rule is an important element of the existing level of protection along the Feather River. The surcharge storage available between elevation 901 feet and elevation 910 feet amounts to 144,000 acre-feet of flood space and is about 19% of the designated flood space below elevation 901 feet. Mr. Paul Pugner, Chief Water Control Branch at the Corps, has confirmed that the reservoir should be operated to surcharge above elevation 901 feet for flood management until additional reservoir flood control space can be constructed on the Yuba River.

We are anxious to proceed with our studies and need written confirmation from DWR that the most likely "without project" baseline operation for Oroville Reservoir includes flood management surcharge operation above elevation 901 feet.

We appreciate the DWR's commitment to flood management on the Feather and Yuba Rivers and look forward to your reply.

Sincerely,
MBK ENGINEERS



Joseph D. Countryman, P.E.

JDC/mv

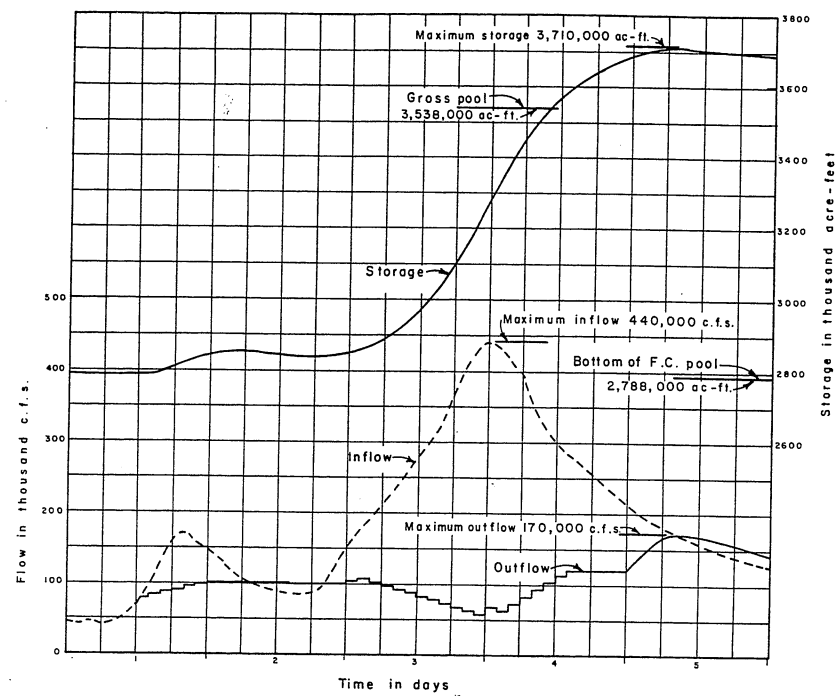
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Enclosure

cc: Curt Aikens, Yuba County Water Agency

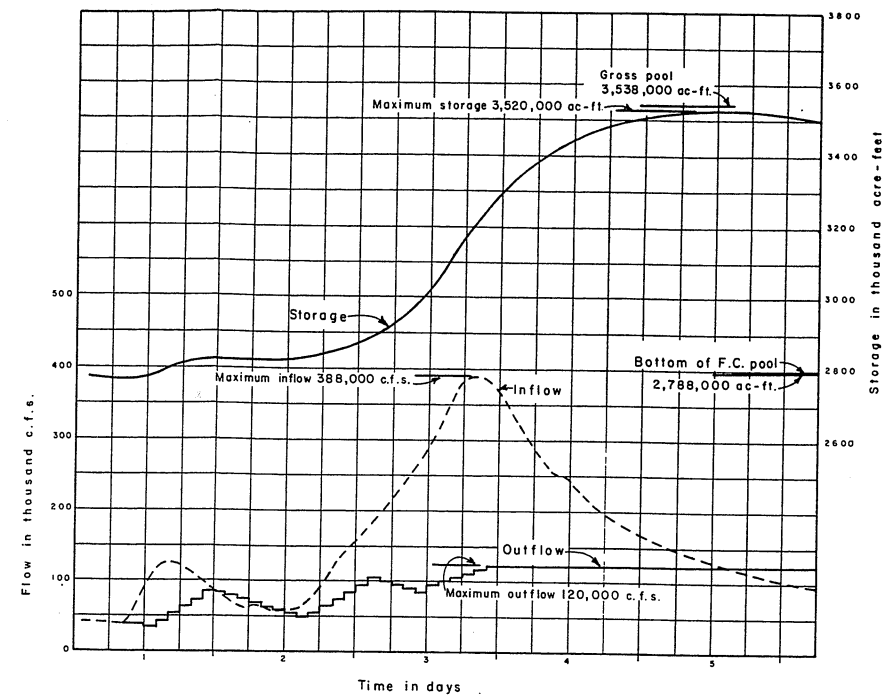
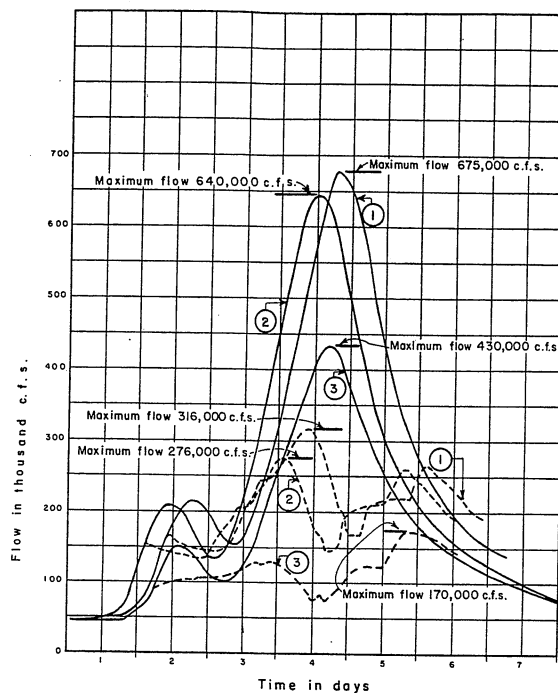
bcc: Herb Greydanus
David Ford
Bill Rettberg
Ron Stork

VALUE ENGINEERING PAYS



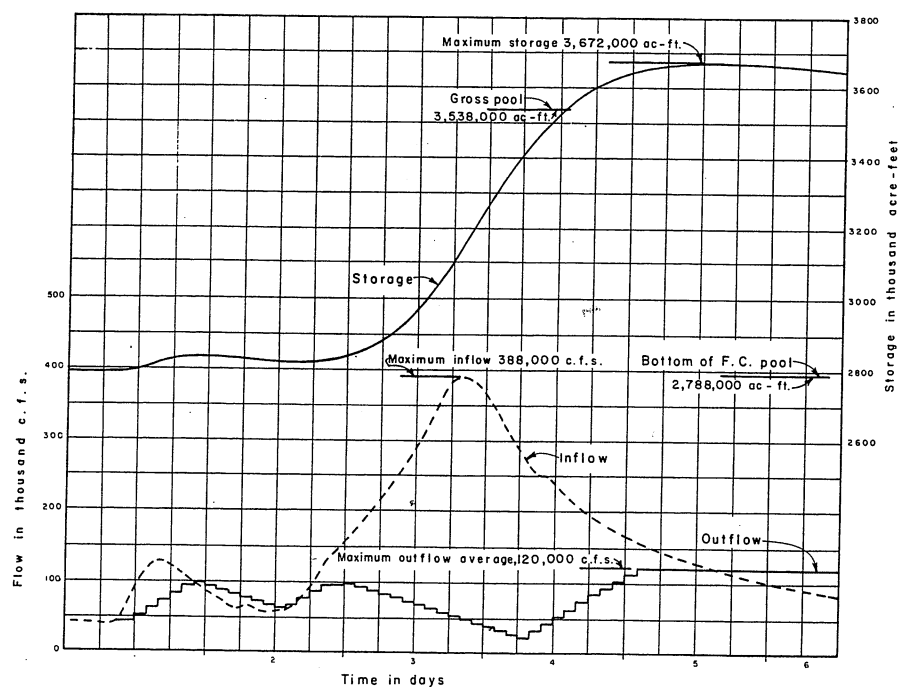
ROUTING NO. 1 (PRESENT CONDITIONS)

(Primary standard project storm centered on Feather River above Oroville Dam)
(Regulation by Oroville and New Bullards Bar Reservoirs)



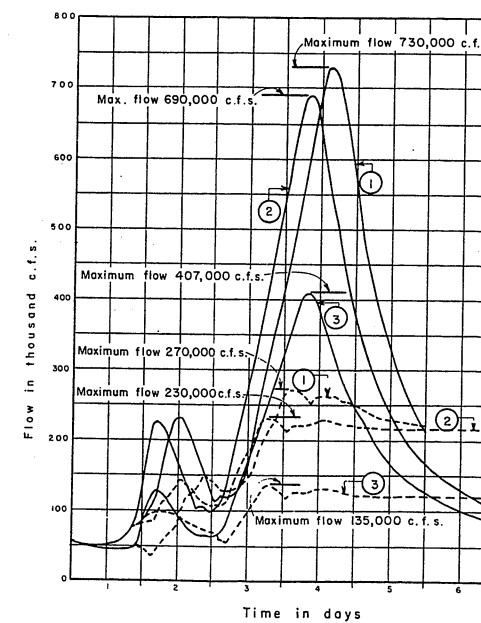
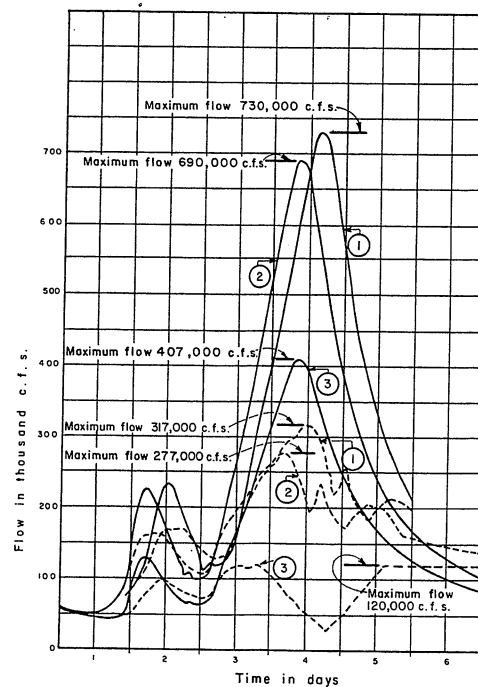
ROUTING NO. 3 (FUTURE CONDITIONS)

(Primary standard project storm centered on Yuba River below New Bullards Bar Dam)
(Regulation by Oroville, New Bullards Bar and Marysville Reservoirs)



ROUTING NO. 2 (PRESENT CONDITIONS)

(Primary standard project storm centered on Yuba River below New Bullards Bar Dam)
(Regulation by Oroville and New Bullards Bar Reservoirs)



LEGEND

- Regulated ----- Unregulated -----
- ① Feather River below Bear River
- ② Feather River below Yuba River
- ③ Feather River above Yuba River

NOTES:

1. All Oroville routings are based on criteria on Chart A-1 and in paragraph 16.
2. The following assumptions were made to allow for contingencies of operation:
 - (a) 25 percent error in forecasting of Yuba River local flow below Marysville Reservoir.
 - (b) 80 percent of objective flows (Feather River = 120,000 c.f.s.; Yuba River = 96,000 c.f.s.)
3. Maximum Bear River flow assumed = 40,000 c.f.s.

OROVILLE DAM AND RESERVOIR
Feather River, California

STANDARD PROJECT FLOOD ROUTINGS

CORPS OF ENGINEERS SACRAMENTO, CALIFORNIA
Prepared: D.D.D. Date: September 1968
Drawn: L.R.B.