

NOTICE TO STATE WATER PROJECT CONTRACTORS




Date: MAY 10 2018

Number: 18-04

Subject: Criteria for Bulletin 132-2018

From:



Joel Ledesma
Deputy Director, State Water Project
Department of Water Resources

Attached for your information are copies of "Criteria for Bulletin 132-2018 Project Operations Studies" and "Interest and Escalation Rates for Preparing Bulletin 132-2018."

These criteria are being used by the Department of Water Resources (DWR) to prepare information for Bulletin 132-2018, "Management of the California State Water Project" and to determine Water Contractors' Statement of Charges for the year 2019.

If you have any questions, please contact Pedro Villalobos, Chief of DWR's State Water Project Analysis Office, at (916) 653-4313, or you may call Susan Lee of his staff at (916) 653-1894.

Attachment

CRITERIA FOR BULLETIN 132-2018 STATE WATER PROJECT OPERATIONS STUDIES

These criteria provide summaries of the basic operations assumptions to be used in developing the 2019 Statements of Charges. Actual SWP operations may ultimately be different and contractor billings will be adjusted as appropriate.

1. **Water Deliveries:** Water demands for the water operations studies will be based on the short-range, five-year (2018-2022) requests submitted by the SWP Contractors (Contractors) in October 2017 and the long-range (2023-2035) requests submitted by the Contractors in October 2017.

2. **Water Supply:** The water and power operations studies will reflect compliance with the long-term NMFS Salmonids, Green Sturgeon and Killer Whales Biological and Conference Opinion issued June 4, 2009; the long-term USFWS Delta Smelt Biological Opinion issued December 15, 2008; the Incidental Take Permit for Longfin Smelt issued February 23, 2009; and the March 15, 2000 revision of the December 1999 Water Right Decision 1641. Additionally, Feather River Service Area Settlement Contractors' water demand is included in all studies and is based on historical water delivery patterns. Due to the February 2017 Lake Oroville spillway incident, a Winter Operations Plan has been implemented for Lake Oroville. The plan incorporates limited flow on the partially restored Flood Control Outlet gated spillway between November 2017 and April 2018. The water supply assumed for water and power operation studies will be as follows:
 - (a) **2018:** The initial operations study for 2018 will assume hydrology sufficient to deliver 2.490 MAF (60 percent of Contractors' projected Table A requests). Projections of power generation at Oroville will be based on the Oroville Reservoir inflow from the same hydrology. For generation at Pine Flat Reservoir, lower quartile inflow will be assumed. The 2018 water deliveries and water and power operations studies will be reviewed and finalized in May 2018 when the final water supply forecast based on May 1, 2018 snow surveys becomes available.
 - (b) **2019:** SWP operations projected for 2019 are the basis for the 2019 Statements of Charges. The study will assume hydrology sufficient to deliver 2.484 MAF (60 percent of Contractors' projected Table A requests). Lower quartile inflow will be assumed for Pine Flat generating facilities.
 - (c) **2020:** The 2020 studies will assume hydrology sufficient to deliver 2.483 MAF (60 percent of Contractors' projected Table A requests). Lower quartile inflow will be assumed for Pine Flat generating facilities.
 - (d) **2021:** Assume hydrology sufficient to deliver 60 percent of Contractors' projected Table A requests of 2.483 MAF.
 - (e) **2022:** Assume hydrology sufficient to deliver 60 percent of Contractors' projected Table A requests of 2.483 MAF.

- (f) 2023-2035: Assume hydrology sufficient to deliver 60 percent of Contractors' projected Table A requests of an average 2.483 MAF.

3. **Water Supply Augmentation:**

- (a) Delta Pumps. The total capacity of Banks Pumping Plant is 10,300 cfs; however, the actual daily allotment for Clifton Court Forebay will be limited as stated in the U.S. Army Corps of Engineers Public Notices 5820A, October 1981, and 19990715, May 2000.
- (b) South Delta Improvements Program (SDIP). This program was originally scheduled for implementation as one of the components of Stage 1 of the CALFED Bay-Delta Program to address local and SWP water supply problems in the South Delta. Construction of the permanent operable gates and the channel dredging were proposed to be implemented under Stage 1 of the SDIP. Stage 2 of the SDIP, which would have included increasing diversions, was deferred indefinitely in view of the pelagic organism decline in the Delta. Due to DWR requirements included in the 2009 NMFS Long-Term Operations of the Central Valley Project and State Water Project Biological Opinion (BiOp) all SDIP related work was delayed until completion of the Temporary Barriers salmonid effects study. This study is nearing completion, and Bay-Delta Office staff intend to begin SDIP planning and evaluation work as early as calendar year 2018 to determine if SDIP could be re-conceptualized to address the issues identified in the BiOp. Facilities in the SDIP concept may include the following:
- ◆ Construction of three flow control structures (gates). These gates are proposed in South Delta channels to control water levels and circulation in the South Delta. A fourth gate that would provide protection for salmon migrating along the San Joaquin River, is being planned separately under California WaterFix.
 - ◆ Selected channel dredging in the South Delta and modification of local diversion structures. Several miles of river channels would be evaluated for proposed dredging to reduce the need to operate gates for water stage. Twenty-four shallow agricultural diversions would be evaluated for extension to ensure access to water.
- (c) Ground Water Programs. On August 9, 1996, ownership of the Kern Fan Element Property and the La Hacienda Facilities was transferred to Kern County Water Agency (KCWA) and Dudley Ridge Water District through the Kern Water Bank Authority (KWBA) as part of the Monterey Amendment. Fifty percent of any SWP water remaining in storage from the Berrenda Mesa Demonstration Program and the La Hacienda Water Purchase Program was also transferred to KWBA. The SWP retains the right to recover 15,000 acre-feet under the recovery agreement with KCWA. Additionally, under the 1990 Demonstration Program, the SWP retains the right to 20,065 acre-feet currently stored in Semitropic Water Storage District.

(d) Other Project Yield. For purposes of preparing water and power studies for future years, it will be assumed that the SWP will deliver 60 percent of full Table A requests based on the latest reliability study prepared by the Bay-Delta Office.

4. **Power Operations:** With the changing of price patterns in the energy markets, energy prices are forecasted to be highest during non-solar hours and summer months. To minimize power costs, aqueduct operation will be optimized by minimizing pumping during expensive hours within operating criteria constraints.

For Bulletin 132-2018, forecasted SWP power resources for the study period will be based on existing SWP generation and power purchases including the contract to purchase 3MW of output from the Boulder Canyon Project (aka Hoover) from October 1, 2017 through September 30, 2067.

Project Order 36, State Power Contract for the Use of Oroville Power, will continue to be applied for the purposes of the “Criteria for Bulletin 132-2018 State Water Project Operations Studies” memo. Project Order 36 was issued in 1994 to address the continuation of DWR’s charges to the contractors for Oroville power.

5. **Future Project Facilities:** The schedule for initial operation of future project facilities to be used when preparing information for Bulletin 132-2018 is shown in the following table.

FUTURE PROJECT FACILITIES	Dates for Initial Operation	
	Bulletin 132-2017	Bulletin 132-2018
CALIFORNIA AQUEDUCT – EAST BRANCH		
East Branch Enlargement – Stage 2		
Alamo Power Plant – Unit 2 (1,506 cfs)	December 2023	Postponed
East Branch Extension – Phase II	December 2017	December 2017
Perris Dam Remediation	December 2017	December 2018
DELTA FACILITIES		
Sherman and Twitchell Island Fish screens	December 2019	December 2019
NORTH BAY AQUEDUCT		
Alternate Intake – Phase I	TBD pending EIR outcome	June 2018

TABLE 1

**INTEREST RATES TO BE USED IN PREPARING DATA AND
INFORMATION FOR BULLETIN 132-2018
WATER CONTRACTORS' STATEMENTS OF CHARGES FOR 2019
AND DWR FINANCIAL ANALYSIS STUDIES**

<u>Item</u>	<u>Interest Rate¹ Per Year</u>
1. Interest Rates on future general obligation "Offset" bonds (If assumed sold) ²	2.950 (3.250)
2. Interest Rate for future Water System Revenue Bonds ²	2.800 (3.150)
3. Project Interest Rate for determining Statements of Charges for 2018	4.610 (4.610)
4. Interest Rate on future short-term investment of project funds ³	1.170 (0.611)

¹For the purposes of DWR studies, these rates are to be used as the effective rates of interest. Figures in parentheses are Bulletin 132-2017 assumptions.

²Future bonds are assumed to be repaid by the end of the Project repayment period (2035) or sooner, with maturities commencing in the year following the date of sale and with equal annual bond service for the principal repayment period.

³Based on the expected rate of return for funds invested in the State's Surplus Money Investment Fund.

TABLE 2
BULLETIN 132-2018
COST ESCALATION RATES
FOR SWP FACILITIES
TO BE USED FOR FINANCIAL ANALYSIS STUDIES

<u>Item</u>	<u>Percent Increase</u> <u>Per Year¹</u>			
	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021-2035</u>
<u>Capital Costs</u>				
State Operations (Salaries and Benefits) ²	4(4.5)	4(4.5)	4(4.5)	4(4.5)
Construction, Direct Pay	5(5.0)	5(5.0)	5(5.0)	5(5.0)
Relocation, Direct Pay	4(4.0)	4(4.0)	4(4.0)	4(4.0)
Land and Rights, Direct Pay	4(4.0)	4(4.0)	4(4.0)	4(4.0)
<u>Operations and Maintenance Cost³</u>				
State Operations (Salaries and Benefits) ²	4(4.5)	4(4.5)	4(4.5)	4(4.5)

¹ Figures in parentheses are Bulletin 132-2017 assumptions.

² Reflects agreed salary and benefit adjustments. Escalation rate should be considered preliminary. Continuing labor negotiations may change rate.

³ Operation and Maintenance costs in the Statements of Charges for 2019 and in Bulletin 132-2018 are to be escalated through 2020 and then escalated one percent for the remainder of the Project repayment period. For specific Project studies requiring escalated costs, continue the percent rate for 2021-2035.