

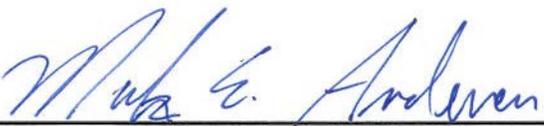
NOTICE TO STATE WATER PROJECT CONTRACTORS



Date: FEB 04 2016

Number: 16-02

Subject: Criteria for Bulletin 132-16

From: 
Mark E. Andersen
Acting Deputy Director
Department of Water Resources

Attached for your information are copies of "Criteria for Bulletin 132-2016 Project Operations Studies" and "Interest and Escalation Rates for Preparing Bulletin 132-2016."

These criteria are being used by the Department of Water Resources (DWR) to prepare information for Bulletin 132-2016, "Management of the California State Water Project" and to determine Water Contractors' Statements of Charges for the year 2017.

If you have any questions, please contact Pedro Villalobos, Acting Chief of DWR's State Water Project Analysis Office, at (916) 653-5117, or you may call Susan Lee of his staff at (916) 653-1894.

Attachment

CRITERIA FOR BULLETIN 132-2016 STATE WATER PROJECT OPERATIONS STUDIES

These criteria provide summaries of the basic operations assumptions to be used in developing the 2017 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 (2016-2020) requests submitted by the SWP Contractors (Contractors) in October 2015 and the long-range (2021-2035) requests submitted by the Contractors in October 2015.

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. The water supply assumed for water and power operation studies will be as follows:
 - (a) **2016** – The initial operations study for 2016 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 2016 water deliveries and water and power operations studies will be reviewed and finalized in May 2016 when the final water supply forecast based on May 1, 2016 snow surveys becomes available.
 - (b) **2017** – SWP operations projected for 2017 are the basis for the 2017 Statements of Charges. The study will assume hydrology sufficient to deliver 2.482 MAF (60 percent of Contractors' projected Table A requests). Lower quartile inflow will be assumed for Pine Flat generating facilities.
 - (c) **2018** – The 2018 studies will assume hydrology sufficient to deliver 2.482 MAF (60 percent of Contractors' projected Table A requests). Lower quartile inflow will be assumed for Pine Flat generating facilities.
 - (d) **2019** – Assume hydrology sufficient to deliver 60 percent of Contractors' projected Table A requests of 2.480 MAF.
 - (e) **2020** – Assume hydrology sufficient to deliver 60 percent of Contractors' projected Table A requests of 2.481 MAF.

- (f) 2021-2035 – Assume hydrology sufficient to deliver 60 percent of Contractors' projected Table A requests of an average 2.481 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 is 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 are proposed to be implemented under Stage 1 of the SDIP. Stage 2 of the SDIP which would include increasing diversions, has been deferred indefinitely in view of the pelagic organism decline in the Delta. Facilities in the SDIP include the following:
- ◆ Construction of four flow control structures (gates). Three gates are proposed in South Delta channels to control water levels and circulation in the South Delta. The fourth gate will provide protection for salmon migrating along the San Joaquin River (SDIP Stage 1).
 - ◆ Selected channel dredging in the South Delta and modification of local diversion structures. Several miles of river channels are proposed to be dredged to reduce the need to operate gates for water stage. Twenty-four shallow agricultural diversions will be extended to ensure access to water (SDIP Stage 1).
- (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:** Energy prices in the western states' power market have historically been highest during the on-peak hours and summer months. To minimize power costs, aqueduct operation will be optimized by minimizing on-peak pumping within operating criteria constraints.

For Bulletin 132-2016, forecasted SWP power resources for the study period will be based on existing SWP generation and power purchases including the purchase of the output of the 45 MW renewable energy Columbia solar project, as well as recent renewable resource acquisitions DWR has made including the 51.4 MW Metropolitan Water District small hydro contract (2016-2020), and the two new solar projects that will come online in December 2016: Solverde 85 MW solar project and Pearblossom 10 MW solar project.

5. **Future Project Facilities:** The schedule for initial operation of future project facilities to be used when preparing information for Bulletin 132-2016 is shown in the following table.

FUTURE PROJECT FACILITIES	Dates for Initial Operation	
	Bulletin 132-15	Bulletin 132-16
CALIFORNIA AQUEDUCT – EAST BRANCH		
East Branch Enlargement – Stage 2 Pearblossom Pumping Plant – Units 10 & 11 (375 cfs) Alamo Power Plant – Unit 2 (1,506 cfs)	Postponed Indefinitely December 2021	Postponed Indefinitely December 2023
East Branch Extension – Phase II	June 2017	June 2017
Perris Dam Remediation	December 2017	December 2017
DELTA FACILITIES		
South Delta Improvement Program Facilities Permanent Operable Barriers	Postponed Indefinitely	Postponed Indefinitely
Delta Habitat Conservation and Conveyance Program	December 2029	December 2029
Sherman and Twitchell Island Fishscreens	June 2018	January 2019
NORTH BAY AQUEDUCT		
Alternate Intake	December 2021	December 2025

TABLE 1

INTEREST RATES TO BE USED IN PREPARING DATA AND
INFORMATION FOR BULLETIN 132-2016
WATER CONTRACTORS' STATEMENTS OF CHARGES FOR 2017, 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	3.25 (3.75)
2. Interest Rate for future Water System Revenue Bonds ²	3.15 (3.5)
3. Project Interest Rate for determining Statements of Charges for 2016	4.610 (4.610)
4. Interest Rate on future short-term investment of project funds ³	0.33 (0.25)

¹For the purposes of DWR studies, these rates are to be used as the effective rates of interest. Figures in parentheses are Bulletin 132-2015 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 132-2016
COST ESCALATION RATES
FOR SWP FACILITIES
TO BE USED FOR FINANCIAL ANALYSIS STUDIES

<u>Item</u>	<u>Percent Increase</u> <u>Per Year</u> ¹			
	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019-2035</u>
<u>Capital Costs</u>				
State Operations (Salaries and Benefits) ²	7.5 (7.0)	5.0 (4.5)	5.0 (4.5)	5.0 (4.5)
Construction, Direct Pay	5 (5)	5 (5)	5 (5)	5 (5)
Relocation, Direct Pay	4 (4)	4 (4)	4 (4)	4 (4)
Land and Rights, Direct Pay	4 (4)	4 (4)	4 (4)	4 (4)
<u>Operations and Maintenance Cost</u> ³				
State Operations (Salaries and Benefits) ²	7.5 (7.0)	5.0 (4.5)	5.0 (4.5)	5.0 (4.5)

¹ Figures in parentheses are Bulletin 132-2015 assumptions.

² Reflects agreed salary and benefit adjustments.

³ Operation and Maintenance costs in the Statements of Charges for 2017 and in Bulletin 132-2016 are to be escalated through 2018 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 2019-2035.