

Date: JAN 1 8 2017

Number: 17-01

Subject: 2017 State Water Project Allocation - 60 Percent

From:

Mark E. Andersen Acting Deputy Director Department of Water Resources

The Department of Water Resources (DWR) is increasing the allocation of 2017 State Water Project (SWP) water for long-term contractors from 1,894,645 acre-feet to 2,536,267 acre-feet. Based on recent precipitation, runoff, and current water supply conditions, SWP supplies are projected to be 60 percent of most SWP contractors' 2017 requested Table A amounts, which totals 4,172,786 acre-feet. Attached is the revised 2017 SWP 60 percent allocation table.

This allocation increase is made consistent with the long-term water supply contracts and public policy. DWR's approval considered several factors including existing storage in SWP conservation reservoirs, SWP operational constraints such as the conditions of the recent Biological Opinions for delta smelt and salmonids, and the longfin smelt incidental take permit, and 2017 contractor demands. DWR may revise allocations if warranted by the year's developing hydrologic and water supply conditions.

Unless SWP contractors submit revised schedules, DWR will use the initial 60 percent delivery schedules that were previously submitted in October 2016. DWR will send the updated monthly water delivery schedules to the long-term SWP contractors.

If you have any questions or need additional information, please contact Craig J. Trombly, Acting Chief, State Water Project Analysis Office, at (916) 653-4547.

2017 STATE WATER PROJECT ALLOCATION (ACRE-FEET)

SWP CONTRACTORS	TABLE A	REQUEST		PERCENT INITIAL REQUEST APPROVED (3)/(2)
	(1)	(2)	(3)	(4)
FEATHER RIVER				
County of Butte	27,500		27,500	100%
Plumas County FC&WCD	2,700		1,620	60%
City of Yuba City	9,600		8,160	85%
	total 39,800	39,800	37,280	
NORTH BAY		1.000		
Napa County FC&WCD	29,025		24,671	85%
Solano County WA	47,756	***************************************	40,593	85%
	total 76,781	76,781	65,264	
SOUTH BAY				
Alameda County FC&WCD, Zone 7	80,619	20	48,371	60%
Alameda County WD	42,000		25,200	60%
Santa Clara Valley WD	100,000		60,000	60%
	total 222,619	222,619	133,571	
SAN JOAQUIN VALLEY				
Oak Flat WD	5,700		3,420	60%
County of Kings	9,305		5,583	60%
Dudley Ridge WD	45,350	5. E	27,210	60%
Empire West Side ID	3,000	3,000	1,800	60%
Kern County WA	982,730	Contraction of the second s	589,638	60%
Tulare Lake Basin WSD	87,471	87,471	52,483	60%
Sub	total 1,133,556	1,133,556	680,134	
CENTRAL COASTAL		· · · · · · · · · · · · · · · · · · ·		
San Luis Obispo County FC&WCD	25,000	25,000	15,000	60%
Santa Barbara County FC&WCD	45,486	45,486	27,292	60%
Sub	total 70,486	70,486	42,292	
SOUTHERN CALIFORNIA				
Antelope Valley-East Kern WA	144,844	144,844	86,906	60%
Castaic Lake WA	95,200	95,200	57,120	60%
Coachella Valley WD	138,350	138,350	83,010	60%
Crestline-Lake Arrowhead WA	5,800	5,800	3,480	60%
Desert WA	55,750	55,750	33,450	60%
Littlerock Creek ID	2,300	2,300	1,380	60%
Metropolitan WDSC	1,911,500	1,911,500	1,146,900	60%
Mojave WA	85,800	85,800	51,480	60%
Palmdale WD	21,300		12,780	60%
San Bernardino Valley MWD	102,600	and a first state of the second state of the s	61,560	60%
San Gabriel Valley MWD	28,800		17,280	60%
San Gorgonio Pass WA	17,300	17,300	10,380	60%
Ventura County WPD	20,000	20,000	12,000	60%
Sub	total 2,629,544	2,629,544	1,577,726	
TOTAL	4,172,786	4,172,786	2,536,267	



Date: JAN 2 5 2017

Number: 17-02

Subject: 2017 Article 21 Water Program

From:

Mark E. Andersen Acting Deputy Director Department of Water Resources

The Department of Water Resources (DWR) will administer a program during 2017 in accordance with Article 21 of the long-term Water Supply Contracts. The 2017 Article 21 Water Program (Program) is available to those State Water Project contractors who have signed the Monterey Amendment, and is subject to the attached criteria.

Due to the current water conditions and storage in San Luis Reservoir, it is likely that Article 21 water may become available south of the Sacramento-San Joaquin Delta during 2017. Should Article 21 water become available in 2017, the 2017 Program will be administered similarly to 2011 with minor modifications to facilitate communication of Article 21 availability and any related carryover spill accounting.

The Program participants have the responsibility to follow the intent of the Article 21 contract criteria and to not defer previously scheduled Table A deliveries for later in the year. Contractors are encouraged to regularly update and submit their delivery schedules to DWR.

To participate in the Program and be on the notification list, a contractor must sign and date the attachment to this Notice to State Water Project Contractors and return it to Mahmoud Mabrouk, State Water Project Analysis Office, Department of Water Resources, Post Office Box 942836, Sacramento, California 94236-0001.

If you have any questions or need additional information, please contact Pedro Villalobos, Chief, State Water Project Analysis Office, at (916) 653-5117.

2017 ARTICLE 21 WATER PROGRAM

CRITERIA

- 1. Delivery of Article 21 water shall not impact allocation or delivery of approved Table A water to State Water Project (SWP) contractors in 2017.
- 2. Water under this Program shall be SWP water that is available to SWP contractors as determined by the Department of Water Resources (DWR). This water is limited to amounts not needed for fulfilling contractors' approved Table A deliveries, as set forth in their approved water delivery schedules furnished pursuant to Article 12, or for meeting SWP operational requirements, including reservoir storage goals for the current or following years.
- 3. Delivery to specific contractors may be limited by operational capacity in SWP facilities or as a result of changed operational conditions.
- 4. The delivery of Article 21 water is not intended in any way to adversely impact any SWP operations. If DWR determines there has been an adverse impact during the period when Article 21 water is being delivered to a contractor, Article 21 water may be reclassified as approved 2017 Table A water to keep the SWP whole.
- 5. Article 21 water shall be used within the service area of a requesting contractor, for the same reasonable and beneficial uses as Table A water. Article 21 water may be delivered outside the service area of a participating contractor for storage as long as it is later returned for use in the service area. A separate written agreement will be required for delivery outside of a contractor's service area.
- 6. Article 21 water shall not be stored by DWR in SWP reservoirs for later delivery to a requesting contractor.
- 7. This Program is not intended to allow a contractor to shift or defer delivery of allocated scheduled 2017 Table A water and substitute delivery of Article 21 water for scheduled 2017 Table A water in a way that would adversely impact allocation or delivery of Table A water to other contractors in 2017 or in any subsequent year, or adversely affect SWP storage of water.

SCHEDULING AND CHARGES

8. DWR will notify the contractors by email when Article 21 water is available. DWR will request that contractors periodically provide updated schedules of carryover, Table A and other non-Article 21 water demands and will use such schedules to determine Article 21 water availability.

- Participating contractors shall email a schedule indicating Article 21 water requests to Mahmoud Mabrouk at <u>mmabrouk@water.ca.gov</u> of the State Water Project Analysis Office. The schedule shall include the amount of other SWP supplies requested in addition to Article 21 water.
- 10. Daily allocations of Article 21 will be provided to contractors, preferably on a weekly basis. DWR may discontinue availability of Article 21 water upon short notice.
- 11. If necessary, the supply of Article 21 water will be allocated among requesting contractors in proportion to the 2017 Table A amounts of those contractors.
- 12. A contractor taking delivery of Article 21 water may stop or suspend participation in the Program by notifying Mahmoud Mabrouk at (916) 653-4635.
- 13. Conveyance charges for Article 21 water delivered under this Program shall be the same as for Table A water and shall include transportation, variable operation, maintenance, power, and replacement (OMP&R) component charges, Off Aqueduct power facility charges, and any incremental OMP&R costs, as determined by DWR.
- 14. All contractors participating in the Program are responsible for coordinating delivery points and rates through their normal contacts at the various DWR field divisions.
- 15. The 2017 Article 21 Water Program shall not be a precedent for future programs.

In order to participate in the 2017 Article 21 Water Program, please sign below in the space provided and return all three pages of this attachment to the State Water Project Analysis Office. A contractor's signature indicates acceptance of the criteria, procedures, and charges established for this Program.

ACCEPTED:

Authorized Representative

Signature

Title

Agency

Date

AGENCY CONTACT:

Authorized Representative

Name

Email

Telephone



Date: FFB 1 0 2017

Number: 17 - 03

Subject: 2017 Turn-Back Water Pool Program

From:

Mark E. Andersen Acting Deputy Director Department of Water Resources

The Department of Water Resources (DWR) is offering a 2017 Turn-Back Water Pool Program pursuant to Article 56 of the Water Supply Contracts. This Program is available to interested State Water Project (SWP) contractors who have signed the Monterey Amendment, and is subject to the attached terms and conditions (Attachment A).

DWR will administer two Turn-Back Water Pools: Pool A and Pool B. A SWP contractor may choose to sell or buy Turn-Back Pool Water in one or both of these Pools. This Program is separate from any other water sale or purchase program that DWR may administer during 2017.

To participate in the 2017 Turn-Back Water Pool Program and be on the notification list, a contractor must complete, sign and date the commitment (Attachment A) attached to this notice, and return all pages of the attachment to Mark Risney, State Water Project Analysis Office, Department of Water Resources, Post Office Box 942836, Sacramento, California 94236-0001. To meet the commitment due date, contractors can email signed notices to Mark Risney at Mark.Risney@water.ca.gov, as long as the original notice is also mailed. A schedule for this Program (Attachment B) is included as a reference.

If you have any questions or need additional information about this Program, please contact either Mark Risney at (916) 653-3711 or Mahmoud Mabrouk at (916) 653-4635.

Attachment A 2017 Turn-Back Water Pool Program

Terms and Conditions

- 1. The 2017 Turn-Back Water Pools are subject to Article 56 of the Water Supply Contracts.
- A SWP contractor may sell allocated 2017 Table A water that it will not use, provided that: (1) the contractor has not elected to store project water outside of its service area in 2017, and (2) the contractor has not elected to carry over Table A water from 2016 pursuant to Article 12(e) or Article 56 of its Water Supply Contract.
- 3. Sales and purchases of Turn-Back Water Pool water shall not affect the 2017 allocation of Table A water to any SWP contractors.
- Turn-Back Pool water purchased by a contractor will be delivered to the contractor's service area from the SWP facilities, or as otherwise arranged, consistent with the contractor's Water Supply Contract.
- 5. DWR may limit or delay delivery of Turn-Back Pool water due to either (a) limits on the operational capacity of SWP facilities, or (b) changing operational conditions.
- 6. Delivery priority of Turn-Back Pool water will be the same as for Table A water (Priority 1), as described in Article 12(f) of the long-term Water Supply Contracts so long as the total amount of project water does not exceed the contractor's 2017 Table A amount. Delivery priority of Turn-Back Pool water in excess of the contractor's Table A amount will be Priority 6.
- 7. Contractors selling Turn-Back Pool water shall submit a revised water delivery schedule to DWR reflecting changes due to the sale of their water. Likewise, a contractor purchasing Turn-Back Pool water should submit its revised delivery request to DWR as soon as possible after being allocated the Turn-Back Pool water. All water schedules shall be prepared in accordance with Article 12 of the contractor's Water Supply Contract.
- 8. Turn-Back Pool water may be stored outside of the purchasing contractor's service area for later use inside of the contractor's service area consistent with Article 56. The location of this storage may be inside or outside of the SWP service area, but it must be consistent with water rights permits for the SWP.
- The 2017 Turn-Back Water Pool Program shall not be a precedent for future programs.
- 10. A SWP contractor offering to sell Turn-Back Pool water in either Pool A or in Pool B must submit a completed and signed copy of this Agreement for each Pool as appropriate (see last two pages of this Agreement). Sellers shall indicate the

amount of water they want to sell in Pool A and/or Pool B using the chart provided with the signature page. DWR must receive a signed Agreement on or before <u>12:01 p.m., February 15, 2017</u> for Pool A water sales and on or before <u>12:01 p.m., March 15, 2017</u> for Pool B water sales. It is acceptable to submit a signature page by e-mail to Mark Risney at <u>Mark. Risney@water.ca.gov</u> and Mahmoud Mabrouk at <u>Mahmoud.Mabrouk@water.ca.gov</u> in order to meet the deadline; however, an original signature must be submitted as soon as possible afterwards.

- 11. A SWP contractor offering to buy Turn-Back Pool water in either Pool A or in Pool B must submit a completed and signed copy of this Agreement for each Pool as appropriate (see last two pages of this Agreement). Buyers shall indicate the amount of water they want to purchase in Pool A and/or Pool B using the chart provided with the signature page. DWR must receive a signed Agreement on or before <u>12:01 p.m., March 1, 2017</u> for Pool A water purchases and on or before <u>12:01 p.m., April 3, 2017</u> for Pool B water purchases. It is acceptable to submit a signature page by e-mail to Mark Risney at <u>Mark.Risney@water.ca.gov</u> and Mahmoud Mabrouk at <u>Mahmoud.Mabrouk@water.ca.gov</u> in order to meet the deadline; however, an original signature must be submitted as soon as possible afterwards.
- 12. The price for Pool A water will be <u>\$34.44</u> (50 percent of the 2017 Delta Water Rate) for each acre-foot of water purchased or sold. Also, the price for Pool B water will be <u>\$17.22</u> (25 percent of the 2017 Delta Water Rate) for each acre-foot of water purchased or sold. In addition to the charge per acre-foot, the purchasing Contractor shall pay DWR the 2017 Transportation Variable Operations, Maintenance, Power, and Replacement Component charges and the Off-Aqueduct Power Facilities Charges for Turn-Back Pool water delivered, plus any incremental costs identified by DWR as described in Article 56(d)(7).
- 13. DWR will notify all participating contractors by e-mail after the current sales and allocation information at each stage of the Program. These notifications will be sent out within three working days of each of the above milestone dates.
- 14. DWR will invoice each purchasing contractor for the purchase price of the water, with payment due 30 days from the date of the invoice. Likewise, DWR will pay each selling contractor for their water within 30 days after DWR has received payment from all the purchasers.
- 15. All sales and purchases through Pool A are irrevocable even if DWR reduces or increases Table A allocations on or after <u>February 15, 2017</u>.
- 16. DWR will finalize the allocation of sales and purchases of Pool B water on <u>June 1, 2017</u>. The percentage of Table A allocations in effect on this date will determine the final amounts. Only contractors who were active participants in this Program on <u>April 3, 2017</u> will be allowed to participate. No reallocation of sales or purchases will be done after <u>June 1, 2017</u>.

- 17. In the event that any water remains unsold in either Pool, the offering contractor may cancel its offer to sell its share of unsold water in writing. A cancellation letter or advance copy sent by e-mail must be received no later than <u>12:01 p.m., March</u> <u>15, 2017</u> for Pool A water and by no later than <u>12:01 p.m., April 15, 2017</u> for Pool B water.
- DWR shall decide by <u>April 21, 2017</u> whether to purchase any portion of Pool A water remaining unsold on that date.

AGREEMENT TO SELL/PURCHASE 2017 TURN-BACK POOL WATER IN POOL A

In order to sell or purchase Turn-Back Pool water under Article 56 of the contractors' long-term Water Supply Contracts, please fill in the information required below, sign in the space provided, and return all pages of this Attachment A to the State Water Project Analysis Office. A contractor's signature indicates acceptance of all of the terms and conditions of this Program as set forth in this Attachment A.

Purchasers of Turn-Back Pool A water may either check the following box to receive the full allocation of water offered or fill in the chart below for specific purchase amounts.

() We agree to purchase all available Turn-Back Pool A water.

Table A Allocation As of February 15, 2017 (Percent)	Amount to Sell (Acre-Feet)	Amount to Buy (Acre-Feet)
5		
10		
15		
20		
25		
30		
35		
40		
45		
50		
55		
60		
65		
70		
75		
80		
85		
90		
95		
100		

Authorized Representative Signature

STATE OF CALIFORNIA DEPARTMENT OF WATER RESOURCES

Chief, State Water Project Analysis Office

Agency

Date

Contact Person

Email

Telephone

AGREEMENT TO SELL/PURCHASE 2017 TURN-BACK POOL WATER IN POOL B

In order to sell or purchase Turn-Back Pool water under Article 56 of the contractors' long-term Water Supply Contracts, please fill in the information required below, sign in the space provided, and return all pages of this Attachment A to the State Water Project Analysis Office. A contractor's signature indicates acceptance of all of the terms and conditions of this Program as set forth in this Attachment A.

Purchasers of Turn-Back Pool B water may either check the following box to receive the full allocation of water offered or fill in the chart below for specific purchase amounts.

() We agree to purchase all available Turn-Back Pool B water.

Table A Allocation As of June 1, 2017 (Percent)	Amount to Sell (Acre-Feet)	Amount to Buy (Acre-Feet)
5		
10		
15		
20		
25		
30		
35		
40		
45		
50		
55		
60		
65		
70		
75		
80		
85		
90		
95		
100		

Authorized Representative Signature

STATE OF CALIFORNIA DEPARTMENT OF WATER RESOURCES

Chief, State Water Project Analysis Office

Agency

Date

Contact Person

Email

Telephone



Date: MAR 2 2017

Number: 17-04

Subject: Criteria for Bulletin 132-2017

From:

Mark E. Andersen Acting Deputy Director Department of Water Resources

Attached for your information are copies of "Criteria for Bulletin 132-2017 Project Operations Studies" and "Interest and Escalation Rates for Preparing Bulletin 132-2017."

These criteria are being used by the Department of Water Resources (DWR) to prepare information for Bulletin 132-2017, "Management of the California State Water Project" and to determine Water Contractors' Statement of Charges for the year 2018.

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.

CRITERIA FOR BULLETIN 132-2017 STATE WATER PROJECT OPERATIONS STUDIES

These criteria provide summaries of the basic operations assumptions to be used in developing the 2018 Statements of Charges. Actual SWP operations may ultimately be different and contractor billings will be adjusted as appropriate.

- 1. <u>Water Deliveries:</u> Water demands for the water operations studies will be based on the short-range, five-year (2017-2021) requests submitted by the SWP Contractors (Contractors) in October 2016 and the long-range (2022-2035) requests submitted by the Contractors in October 2016.
- 2. <u>Water Supply:</u> 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) <u>2017</u> The initial operations study for 2017 will assume hydrology sufficient to deliver 2.465 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 2017 water deliveries and water and power operations studies will be reviewed and finalized in May 2017 when the final water supply forecast based on May 1, 2017 snow surveys becomes available.
 - (b) <u>2018</u> SWP operations projected for 2018 are the basis for the 2018 Statements of Charges. The study will assume hydrology sufficient to deliver 2.470 MAF (60 percent of Contractors' projected Table A requests). Lower quartile inflow will be assumed for Pine Flat generating facilities.
 - (c) <u>2019</u> The 2019 studies will assume hydrology sufficient to deliver 2.474 MAF (60 percent of Contractors' projected Table A requests). Lower quartile inflow will be assumed for Pine Flat generating facilities.
 - (d) <u>2020</u> Assume hydrology sufficient to deliver 60 percent of Contractors' projected Table A requests of 2.477 MAF.
 - (e) <u>2021</u> Assume hydrology sufficient to deliver 60 percent of Contractors' projected Table A requests of 2.480 MAF.

(f) <u>2022-2035</u> – Assume hydrology sufficient to deliver 60 percent of Contractors' projected Table A requests of an average 2.480 MAF.

3. Water Supply Augmentation:

- (a) <u>Delta Pumps</u>. 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) <u>Ground Water Programs</u>. 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) <u>Other Project Yield</u>. 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 pumping during expensive hours within operating criteria constraints.

For Bulletin 132-2017, 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 RE Camelot solar project, as well as recent renewable resource acquisitions DWR has made including the 51.4 MW MWD small hydro contract (2016-2020), and the two new solar projects that came online in December 2016: Solverde 85MW solar project and Pearblossom 10MW solar project.

5. **Future Project Facilities:** The schedule for initial operation of future project facilities to be used when preparing information for Bulletin 132-2017 is shown in the following table.

FUTURE PROJECT FACILITIES	Dates for Initial Operation		
	Bulletin 132-16	Bulletin 132-17	
CALIFORNIA AQUEDUCT – EAST BRANCH			
East Branch Enlargement – Stage 2			
Alamo Power Plant – Unit 2 (1,506 cfs)	December 2023	December 2023	
East Branch Extension – Phase II	June 2017	December 2017	
Perris Dam Remediation	December 2017	December 2017	
DELTA FACILITIES			
Sherman and Twitchell Island Fishscreens	January 2019	December 2019	
NORTH BAY AQUEDUCT			
Alternate Intake	December 2025	TBD pending EIR outcome	

TABLE 1

INTEREST RATES TO BE USED IN PREPARING DATA AND INFORMATION FOR BULLETIN 132-2017 WATER CONTRACTORS' STATEMENTS OF CHARGES FOR 2018 AND DWR FINANCIAL ANALYSIS STUDIES

	Item	Interest Rate ¹ <u>Per Year</u>
1.	Interest Rates on future general obligation "Offset" bonds (If assumed sold) ²	3.250 (3.250)
2.	Interest Rate for future Water System Revenue Bonds ²	3.150 (3.150)
3.	Project Interest Rate for determining Statements of Charges for 2017	4.610 (4.610)
4.	Interest Rate on future short-term investment of project funds ³	0.611 (0.330)

¹For the purposes of DWR studies, these rates are to be used as the effective rates of interest. Figures in parentheses are Bulletin 132-2016 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 132-2017 COST ESCALATION RATES FOR SWP FACILITIES TO BE USED FOR FINANCIAL ANALYSIS STUDIES

ltem	Percent Increase <u>Per Year¹</u>				
	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020-2035</u>	
<u>Capital Costs</u> State Operations (Salaries and Benefits) ²	5.5 (5.0)	4.5 (5.0)	4.5 (5.0)	4.5 (5.0)	
Construction, Direct Pay	5.0 (5.0)	5.0 (5.0)	5.0 (5.0)	5.0 (5.0)	
Relocation, Direct Pay	4.0 (4.0)	4.0 (4.0)	4.0 (4.0)	4.0 (4.0)	
Land and Rights, Direct Pay	4.0 (4.0)	4.0 (4.0)	4.0 (4.0)	4.0 (4.0)	
Operations and Maintenance Co	` '				
State Operations (Salaries and Benefits) ²	5.5 (5.0)	4.5 (5.0)	4.5 (5.0)	4.5 (5.0)	

¹ Figures in parentheses are Bulletin 132-2016 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 2018 and in Bulletin 132-2017 are to be escalated through 2019 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 2020-2035.



Date: APR 1 4 2017

Number: 17-05

Subject: 2017 State Water Project Allocation - 85 Percent

From:

Mark E. Andersen Acting Deputy Director Department of Water Resources

The Department of Water Resources (DWR) is increasing the allocation of 2017 State Water Project (SWP) water for long-term contractors from 2,536,267 acre-feet to 3,563,951 acre-feet. Based on recent precipitation, runoff, and current water supply conditions, SWP supplies are projected to be 85 percent of most SWP contractors' 2017 requested Table A amounts, which totals 4,172,786 acre-feet. Attached is the revised 2017 SWP 85 percent allocation table.

This allocation increase is made consistent with the long-term water supply contracts and public policy. DWR's approval considered several factors including existing storage in SWP conservation reservoirs, SWP operational constraints such as the conditions of the recent Biological Opinions for delta smelt and salmonids, and the longfin smelt incidental take permit, and 2017 contractor demands. DWR may revise allocations if warranted by the year's developing hydrologic and water supply conditions.

To come up with the new 85 percent schedule, DWR will use the current longterm SWP contractors' 100 percent schedules that they submitted in October, 2016 as part of their initial request, unless contractors submit updated schedules. DWR will send the approved monthly water delivery schedules to the long-term SWP contractors.

If you have any questions or need additional information, please contact Pedro Villalobos, Chief, State Water Project Analysis Office, at (916) 653-4313.

2017 STATE WATER PROJECT ALLOCATION (ACRE-FEET)

SWP CONTRACTORS	TABLE A	INITIAL REQUEST	APPROVED ALLOCATION	PERCENT INITIAL REQUEST APPROVED (3)/(2)
	(1)	(2)	(3)	(4)
FEATHER RIVER County of Butte	27 500	27,500	27,500	100%
Plumas County FC&WCD	27,500 2,700	2,700	2,295	85%
· 사람은 것 같아요. 가지 않아요. 안 집 것은 이 것에 많아서 한 것 같아요. 이 것은 것은 사람이 가지 않아요. 이 집 가지 않아요. 이 집 가지 않아요. 이 집 가지 않아요. 이 집 가지 않아	9,600	9,600	9,600	100%
City of Yuba City Subto		39,800	39,395	100%
	Jai 39,000	39,000	39,395	
NORTH BAY Napa County FC&WCD	29,025	29,025	29,025	100%
Solano County WA	47,756	47,756	47,756	100%
CONTRACTOR AND A CONTRACTOR AND AN AND A CONTRACTOR AND		76,781	76,781	100 %
South BAX	10,701	70,701	70,701	
SOUTH BAY	80,619	80,619	68,526	85%
Alameda County FC&WCD, Zone 7 Alameda County WD	42,000	42,000	35,700	85%
Santa Clara Valley WD	100,000	100,000	85,000	85%
Start Make Landston and Start And St		222,619	189,226	0576
Subto	222,019	222,019	105,220	
	5,700	5,700	4,845	85%
Oak Flat WD	9,305	9,305	7,909	85%
County of Kings		45,350	38,548	85%
Dudley Ridge WD	45,350		2,550	85%
Empire West Side ID	3,000 982,730	3,000 982,730	835,321	85%
Kern County WA Tulare Lake Basin WSD	87,471	87,471	74,350	85%
Subto		1,133,556	963,523	0370
	iai 1,155,550	1,155,550	303,323	
CENTRAL COASTAL	25.000	25 000	21,250	85%
San Luis Obispo County FC&WCD	25,000 45,486	25,000 45,486	38,663	85%
Santa Barbara County FC&WCD		70,486	59,913	0570
Subto	otal 70,486	70,400	59,915	
	144 944	144,844	123,117	85%
Antelope Valley-East Kern WA	144,844		80,920	85%
Castaic Lake WA	95,200 138,350	95,200 138,350	117,598	85%
Coachella Valley WD Crestline-Lake Arrowhead WA	5,800	5,800	4,930	85%
Desert WA	55,750	55,750	47,388	85%
Littlerock Creek ID			1,955	85%
Metropolitan WDSC	2,300 1,911,500	2,300 1,911,500	1,624,775	85%
Mojave WA	85,800	85,800	72,930	85%
Palmdale WD	21,300	21,300	18,105	85%
San Bernardino Valley MWD	102,600	102,600	87,210	85%
San Gabriel Valley MWD	28,800	28,800	24,480	85%
San Gorgonio Pass WA	17,300	17,300	14,705	85%
Ventura County WPD	20,000	20,000	17,000	85%
Subte		2,629,544	2,235,113	0376
50000	L. 2020,044	2,020,077	2,200,110	
TOTAL	4,172,786	4,172,786	3,563,951	



Date: FEB 1 4 2017

Number: 17-06

Subject: Summary of the 2017 Statements of Charges Preparation

From:

Pedro Villalobos Chief, State Water Project Analysis Office Department of Water Resources

Attached for your information is the "Summary of the 2017 Statements of Charges Preparation."

This summary document of the preparation of the 2017 Statements of Charges contains year-over-year comparison of 2017 projected costs and actual charges to the Re-Bill 2016, 2017 process changes, Contractor requested projects, and a detailed component-by-component analysis.

If you have any questions, please contact me at (916) 653-4313, or you may call Dave Paulson of my staff at (916) 653-7402.

State of California

Memorandum

JAN 3 1 2017 Date:

Mark E. Andersen To:

Acting Deputy Director

Pedro Villalobos, Chief State Water Project Analysis Office From: Department of Water Resources

Summary of the 2017 Statements of Charges Preparation Subject:

> Attached is a document that summarizes the preparation of the 2017 Statements of Charges. The document contains a year-over-year comparison of 2017 projected costs and actual charges to the Re-Bill 2016, 2017 process changes, Contractor requested projects, factors, and a detailed component-by-component analysis.

With your approval, the State Water Project Analysis Office will finalize the document and distribute it to the State Water Project Contractors via a Notice to Contractors.

If you have any questions or need additional information, please contact Dave Paulson of my staff at (916) 653-7402.

APPROVAL RECOMMENDED:

Mark E. Andersen Acting Deputy Director

1.25.17

Date

Summary of 2017 Statements of Charges

The 2017 total Statements of Charges (SOCs) for State Water Project (SWP) Capital Components, Minimum Components and other charges is \$1.199 billion. This represents a \$10 million (approximately one percent) decrease from the Re-Bill 2016 SOCs of \$1.209 billion.

Table 1 is a comparison of the 2017 SOCs to the 2016 Re-Bill and a summary view of SWP planned expenditures with associated annual charges by major cost component. The "Projected Costs" columns represent the water supply costs billable to the SWP Contractors from the programs discussed at the Department-SWP Contractor meetings. The charges the SWP Contractors pay are based on the allocated projected costs and any prior year adjustments.

		2017 SOCs (Thousands of \$)			2016 Re-Bill (Thousands of \$)		
Components	Projected Costs	Prior Year Adjustments	Amortized Charge	Projected Costs	Prior Year Adjustments	Amortized Charge	Charge
Capital							
Transportation Component	73,148	-	153,629	71,424	-	152,146	1,484
Debt Service Projects	14,018	-	60,320	30,022	-	61,998	
East Branch Enlargement	-	-	38,580	-	(3)	37,141	1,439
Conservation Component	177,833	-	88,964	197,284	-	98,804	(9,840)
WSRB Surcharge	-	-	85,949	-	-	81,446	4,503
Capital Subtotal	264,999		427,442	298,729	(3)	431,534	(2,414)
Minimum							
Transportation Component	329,947	(49,309)	280,638	280,147	7,256	287,403	(6,765)
Conservation Component	215,203	-	198,603	205,389	-	199,629	(1,026)
EBE Minimum Component	9,877	1,060	10,936	8,892	(2,103)	6,789	4,147
Conservation RAS	-	-	(363)	-	-	(2,381)	2,018
Minimum Subtotal	555,027	(48,249)	489,814	494,428	5,153	491,440	(1,626)
Other (Various)							
Off-Aqueduct Power	-	-	4,300	-	-	15,121	(10,821)
Variable Component	278,462	(11,648)	266,814	263,956	404	264,359	2,454
Transportation RAS	7,730	2,581	10,311	2,046	4,462	6,508	3,803
Subtotal	286,192	(9,067)	281,425	266,002	4,866	285,988	(4,563)
Grand Total			1,198,681			1,208,963	(10,281)

Table 1. Comparison of 2017 Statements of Charges to the 2016 Re-Bill (November 2015)

* Conservation costs shown are for the respective bill year only.

SWP water contracting agencies (SWP Contractors) and their representatives independently review and analyze the annual SOCs in detail. This memorandum documents the major differences between the Bulletin 132-16 (B132-16) used to calculate the 2017 SOCs and the 2016 charges projected in last year's Bulletin 132-15. The data to support the SOCs are published in the annual Bulletin 132, Appendix B, which was mailed to the SWP Contractors for their use in analyzing the 2017 SOCs.

Formulation of the 2017 SOCs

In preparation for the 2017 SOCs, SWP divisions submitted preliminary Bulletin 132-16 cost projections that were shared with the SWP Contractors over several meetings in early February 2016. The meetings resulted in revised Bulletin 132-16 SWP cost projections which were utilized in developing the 2017 May Estimates. The May Estimates projected an increase in total charges of \$71 million compared with the 2016 Re-Bill charges, reflecting the overall increase in SWP program and project cost projections.

Upon review of 2015 actual expenditures and a comparison to the 2016 SWP Contractors' charges, the Department of Water Resources (Department) determined it prudent to enact rate reducing measures in the SWP Contractors' 2017 SOCs calculations that are applied to SWP program and project manager planned budgets. In late June, the State Water Project Analysis Office (SWPAO) completed the determination of the SWP Contractors' 2017 SOCs. The SOCs were mailed to the SWP Contractors on July 1, 2016. Even though the total cost projections received from SWP program/project managers increased in aggregate relative to 2016, the rate reducing measures enabled the Department to decrease the 2017 SOCs by \$81 million (approximately eight percent) relative to the 2017 May Estimate, leading to a decrease of \$10 million compared to the Re-Bill 2016 charges.

Process Changes for 2017

Several procedural changes were incorporated into the 2017 SOCs process. These changes include: the distribution of the Division of Operations and Maintenance's (O &M) projected baseline costs, the inclusion of 2015 and 2016 flow purchases, the inclusion of projected power credits and costs in the Delta Water Charge and future Variable Charges, and the inclusion of conservation power facility debt service obligations in the Water Systems Revenue Bond (WSRB) Surcharge calculation. These changes are discussed in detail below.

O&M Projected Baseline Costs

Last year during the 2016 SOCs calculation, a single year (2014) of actual costs was used to distribute the projected O&M baseline cost projections. When calculating the 2017 SOCs, the Department used a 2-year average (2014-2015) of actual expenditures to distribute the 2016 and 2017 O&M baseline cost projection. This process change is an attempt to reduce significant variances in individual repayment reach projected costs.

The goal is to move to a 3-year trend for the 2018 SOCs once enough historic data is available under the new process while remaining flexible enough to deviate from rote historic trend data analysis to accommodate significant and unexpected material changes that may arise from the Governor's Office directives, regulatory changes, emergencies, and other unforeseen events.

Flow Purchases

In late 2015 additional flow release purchases from Oakdale Irrigation District/South San Joaquin Irrigation District (OID/SSJID) were negotiated by the SWP Contractors for delivery to the Delta in years 2015 and 2016, with no discussion of additional flow purchases in 2017. The cost recovery for these purchases was requested by the SWP Contractors to be collected on a pay-as-you-go basis. The program costs are recovered under a line item adjustment to the transportation minimum charges in billing attachment 4B, similar to the 2014 SOCs' inclusion of the San Joaquin River Augmentation program costs. Even though these are conservation related expenditures, there is no impact to the Delta Water Rate for 2017 because the calculation did not include costs for the OID/SSJID water purchases following the agreed upon cost recovery method. To further reduce charges, the Department did not include any planned 2017 OID/SSJID water purchase costs in the 2017 SOCs.

Projected Power Credits and Costs in the Delta Water Charge and Future Variable Charges

In prior years, the Department has included all projected capital conservation costs in the determination of the capital portion of the Delta Water Rate (DWR). However, this process did not reflect offsetting credits for power related construction activities that are collected through the variable billing component. For the 2017 SOC, the Department included a projected debt service obligation credit into the rate calculation for projected conservation power projects. The result of this credit is a net decrease to the capital Delta Water Rate and an equal offsetting increase to the variable billing component in future years for the projected debt service obligation.

Inclusion of Conservation Power Facility Debt Service in the WSRB Surcharge Calculation

In the 2017 SOCs, the Department also included conservation power facility debt service obligations into the calculation of the WSRB Surcharge calculation. This process change is intended to ensure the Department is meeting bond resolution obligations for revenue coverage requirements (cover). Typically, conservation power facility debt service is included in the variable melded unit rate calculation for cost recovery. The transportation variable component is reliant upon water deliveries for revenue collection and therefore is not a guaranteed revenue stream to meet bond resolution power debt service in the WSRB surcharge calculation for the current billing year, and then credit the SWP Contractors in the same proportion the following year because the debt service will have been collected through the transportation variable component.

Additional Comparative Factors and Contractor Requested Projects Included in 2017 SOCs

The total charges for 2017 are \$1.199 billion, approximately one percent (\$10.3 million) lower than for 2016. This net change is primarily due to:

- 1. Decreased Delta Water Charges of nearly \$11 million due to the following rate reduction measures:
 - a. Revised cost projections from Division of Environmental Services, Delta Compliance Program, and Bay-Delta Office.
 - b. Elimination of labor escalation for transportation and conservation minimum programs.¹
 - c. Global conservation minimum reductions totaling \$60 million.
 - d. Inclusion of projected debt service credit in the Delta Water Rate capital component to properly account for conservation capital power facilities cost recovery through the variable billing component.
 - e. Decrease in 2015 actual conservation capital costs of \$46 million and reduced cost projections for 2016 of \$37 million.
- 2. Reduced 2017 O&M baseline cost projection by \$10 million.
- 3. Return of significant historical year overpayments related to the Transportation Minimum Operations, Maintenance, Power & Replacement (OMP&R) billing component driven primarily by calendar years 2013, 2015, and 2016.
- 4. Decreased Off-Aqueduct Power (OAP) facilities cost due to the defeasance of all remaining OAP facilities bonds in June 2016.
- 5. Increased WSRB Surcharge resulting from the sale of \$109.3 million in Series AU Water System Revenue Bonds.
- 6. Increased WSRB Surcharge resulting from the inclusion of 2017 conservation power debt service to meet bond resolution revenue requirement obligations.

The 2017 SOCs include the following SWP Contractor requested projects:

- Oakdale Irrigation District/South San Joaquin Irrigation District flow release purchases (2015: \$5.75 million, 2016: \$11.75 million, totaling \$18.6 million with interest)
- Lake Perris Seepage Recovery Project (2016: \$3.25 million, 2017: \$4.0 million, totaling \$7.4 million with interest)
- 3. South Bay Aqueduct (SBA) Penitencia Compression Vault (2016: \$5.3 million, 2017: \$3.36 million, totaling \$8.7 million)

Projected capital costs totaled \$265 million and the projected Minimum costs totaled \$555 million. However, due to amortization of costs and prior year adjustments, the charges for Capital and Minimum components were \$427 million and \$490 million, respectively. Prior year adjustments for the Minimum components totaled \$48 million and the "Other Charges" prior year adjustments totaled \$9 million.

¹ Labor escalation for calendar years 2016 (7.5%), 2017 (5%), and 2018 (5%) was included for Transportation Capital, Conservation Capital, Transportation RAS, and Conservation RAS billing components.

Details of Statement Components

Delta Water Charges

The Department implemented rate reduction measures that decreased both Delta Water Rate (DWR) capital and minimum components for 2017, including the integration of updated cost projections that SWPAO received from certain divisions after the May estimates were released. The rate reduction measures utilized in the 2017 SOCs process include:

- 1. Conservation Minimum Rate Reductions (\$60 million reduction from 2016-2018)
- 2. Elimination of labor escalation for 2016-2018 baseline and extraordinary cost projections
- 3. O&M baseline cost projection reductions (\$10 million reduction in 2017)
- Cost projection revisions for 2016-2018 by Bay-Delta Office (BDO), Division of Environmental Services (DES), and Delta Compliance Program (DCP)(\$33 million in capital projections and \$30 million in minimum projections reductions from the 2017 May estimates)

The DWR used in computing the charges for 2017 is \$68.88 per acre-foot for the signers of the Monterey Amendment (signers). This rate is \$2.64 per acre-foot lower than the 2016 DWR Re-Bill rate of \$71.52 per acre-foot for the signers. The DWR for non-signers of the Monterey Amendment (non-signers) decreased \$2.73 per acre-foot to \$67.86 for 2017 from the 2016 Re-Bill rate of \$70.59 per acre-foot.

The capital component of the DWR decreased \$2.36 per acre-foot to \$21.32 per acre-foot in 2017 from \$23.68 per acre-foot in 2016 for the signers. The decrease in rate is primarily due to the inclusion of projected debt service credits for conservation power facility cost projections. The debt service credit contributed a reduction in the rate by \$4.32 per acre-foot.

SWPAO received updated cost projections from BDO, DES and DCP that reduced projected capital costs by approximately \$33 million from the May estimates which included a \$23.3 million reduction for Delta Compliance Program Yolo Bypass Restoration, and an \$8 million reduction in Salmon Protection Technology Studies. Additionally, the Department received \$20 million in funding from the Cap and Trade program to support two conservation capital projects, Hyatt Unit 1 and Thermalito Unit 1 turbine upgrades and refurbishments. The \$20 million in funding offsets the cost projections for those projects for years 2016-2017 and reduces overall capital DWR charges.

The minimum component of the DWR decreased by \$0.29 per acre-foot, from \$47.84 per acre-foot in 2017 to \$47.56 per acre-foot in 2017 for signers. B132-16 program cost projections received for 2016 through 2018 increased in total from the prior year projections. However, the implementation of the rate reduction measures highlighted above decreased the DWR minimum component for 2017. The major programs and projects contributing to the increase in conservation minimum cost projections include: Yolo Bypass Program (2016: \$14.989 million), Interagency Ecological Program Contracts (2016: \$6.36 million, 2017: \$7.95 million, 2018: \$8.303 million), Suisun Marsh Compliance Program (2016: \$7.95 million, 2017: \$6.793 million, 2018: \$6.853 million), Temporary Barriers Program (2016: \$7.95 million, 2017: \$8.0 million, 2018: \$8.75 million).

The third component of the Delta Water Charge is the conservation replacement accounting system (RAS) charge. The calculation of the conservation RAS component for the 2017 SOCs determined a net credit of \$363 thousand be returned to the SWP Contractors. The credit was primarily due to not having any conservation RAS projects included in the B132-2016 cost projections and the true-up of 2011 through 2014 historical costs. Historical cost corrections continue to reduce prior year expenditures for calendar years 2011 and 2013. The conservation RAS calculation includes a reserve amount of \$4 million.

Transportation Capital Component

The project interest rate remained unchanged at 4.610%. Total charges under the transportation capital billing component for 2017 totaled \$213.9 million, an increase of \$194 thousand from last year's charges. The slight increase in charge is primarily due to the Perris Dam Remediation Program (2016 \$42 million, 2017 \$22 million) and Perris Right of Way Program (2016 \$2.7 million).

2017 cost projections increased for projects at Gianelli Pumping Plant including: Radial Gates at \$2.8 million, Unit 7 motor at \$2.4 million, Butterfly Valve at \$930 thousand, and Protective Relays at \$1.7 million. Dos Amigos Pumping Plant also had Protective Relays projected at \$3 million, and Fire Systems Modernization at \$8 million. Edmonston Pumping Plant decreased in cost projections from the previous year, but the main work is Unit 14 Motor and Pump Refurbishment totaling \$5.9 million. Lake Perris projects continue to ramp up as projections for Dam Remediation and Environmental work increase to \$28 million. In 2018, work is projected to continue on the canal at various locations along the California Aqueduct totaling approximately \$5.4 million. Buena Vista Pumping Plant cost projections increased by \$1.4 million due to Valve Refurbishment work. Edmonston Pumping Plant has \$11 million in decreased projections, while Lake Perris has \$5.7 million and Castaic Lake nearly \$7 million in decreased cost projections. The 2019 cost projections show decreased in activity at Edmonston Pumping Plant, Devil's Canyon, Lake Perris, and Castaic Lake totaling \$80 million less in projections compared to the previous bill year. In the previous bill year, cost projections went out as far as 2026. This year's projections are only reaching 2019, so there are fewer cost projections that impact the capital bills at this time. Historical cost true-ups have also moved between reaches related to a water treatment plant in South Bay Reaches 1, 2, and 4 as well as Reach 1 and 7 of the California Aqueduct.

The current bill year shows increases to SWP Contractors that have been involved in permanent Table A sales. Coachella Valley Water District, Kern County Water Agency, and Metropolitan Water District of Southern California had the largest change in their current bill year charges, and all three are involved in multiple Table A sales. Permanent Table A sales have increased associated downstream costs resulting in increased charges by \$6.2 million. These charges will be credited in the SOCs to each SWP Contractor that participates in reaches that include permanent Table A sales. Historically these funds were retained until 2015 when a credit procedure was implemented. The refunds of the permanent Table A sales downstream credits are reflected in Attachment 11 of the SOCs.

All adjustments for over payments or under-collections of past transportation capital component charges are amortized to 2035 as required under provisions of the 1987 WSRB amendments to the water supply contracts. Currently the over/under payments are \$33.7 million for all SWP Contractors combined.

Transportation Minimum OMP&R Component

The OMP&R component charge for the 2017 SOCs totaled \$281 million, a decrease of approximately \$6.8 million from the 2016 SOCs. While the total charges decreased year-over-year, the bill year calculated component increased by approximately \$23 million.

The 2017 Division of Operations and Maintenance (O&M) baseline budget totaled \$273.6 million, which is \$12 million higher than the 2016 SOCs baseline cost projection. The 2017 O&M extraordinary cost projections totaled \$40 million primarily driven by the following projects: Southern Field Division Security Camera project at \$7.725 million, Refurbish/Remodel 6th Floor of Resources Building at \$3.84 million, and Power Markets Initiatives at \$3.162 million. New projects included in the 2017 cost projections are Edmonston Pumping Plant Cable Trench and Slope Repair for \$2.03 million. Other contributing cost increases include the Division of Fiscal Services 2017 cost projection totaling \$36.2 million, an increase of \$3.8 million from 2016.

As mentioned before, the Department implemented rate reduction measures for the 2017 SOC calculation. The following measures impacted the transportation minimum billing component:

- 1. Labor was not escalated for transportation minimum cost projections.
- 2. 2017 O&M Baseline reduction of \$10 million.

The 2017 SOCs include a prior year adjustment over-collection of \$49.3 million. The 2017 SOCs historical over-collection is primarily due to 2013 and 2015 actual cost true-ups of \$4.3 million and \$28.3 million respectively. The 2016 cost projection decreased by an additional \$4.1 million. Flexible storage changes increased costs in Lake Castaic by \$7.9 million. Reservoir storage values were updated to reflect the projected payback water for prior year flexible withdrawals from Lake Perris and Lake Castaic.

Additionally, the following SWP Contractor requested projects are included as line items in Attachment 4B of the 2017 SOCs: OID/SSJID Flow Release Purchase of \$18.6 million (2015: \$6.3 million, 2016: \$12.3 million), Lake Perris Seepage Recovery Project of \$7.4 million (2016: \$3.4 million, 2017: \$4.0 million)

The 2017 calculated component increased, primarily driven by cost projections and additional SWP Contractor projects. The net cost increase was offset by the rate reduction measures and prior year over-collections included in the 2017 SOCs, resulting in a net decrease in charges of \$33.2 million from the 2016 SOCs.

Transportation Variable OMP&R Component

The transportation variable OMP&R charge for 2017 is \$266.8 million, which is \$2.5 million higher than in 2016. These charges are based on 60% of maximum Table A water deliveries for 2017, with total turnout deliveries of 2.48 million acre-feet (MAF) and 2.3 MAF delivered through Dos Amigos Pumping Plant. The total energy requirement for pumping deliveries increased by approximately 8% from the 2016 SOC to the 2017 SOC, slightly increasing total power costs. The inclusion of projected debt service for conservation power projects increased costs by \$6.7 million.

The 2017 SOCs include a prior years' over-collection adjustment of \$11.6 million. The 2017 SOCs overcollection is primarily due to 2015 actual cost true-ups. Cost recovery of the variable component is determined in the initial invoicing rate calculation prepared in late January each bill year. This process was implemented due to significant variances occurring in water and power operations from initial projections.

The transportation replacement accounting system (RAS) charge is also included in transportation variable OMP&R charge in SOC attachment 5. The RAS charge for 2017 is \$10.3 million, which is \$3.8 million higher than the 2016 SOC. The net increase is primarily driven by increasing cost projections for 2016 and 2017. Cost projections increased for Buena Vista Pumping Plant replacement projects for Units 1 and 7 totaling \$2.64 million in 2016 and \$3.73 million in 2017. Dos Amigos pumping plant cost projections included \$1.0 million for Unit 1 Pole Refurbishment in 2016 and \$5.1 million for Unit 1 Pole and Impeller Refurbishment in 2017. The Pearblossom Unit 3 Impeller Replacement is projected to cost approximately \$1 million in 2016 and \$924 thousand in 2017.

East Branch Enlargement Transportation Charge

The East Branch Enlargement (EBE) capital charges increased \$1.4 million to \$38.6 million for 2017, which can be attributed to a \$1.3 million increase in charges for EBE Phase 1 and an \$80 thousand increase for EBE Phase 2. The increased charges are due to adjustments to the EBE debt service and bond cover schedules for 2017 after the issuance of Series AU bonds.

The Minimum OMP&R EBE Phase 1 charge increased \$4.1 million to \$10.9 million for 2017. The increase is due to the higher cost projections for 2017 calculated component of \$985 thousand and a \$3.16 million increase in prior years' under collection adjustments primarily associated with 2015 actual cost true-ups.

Water System Revenue Bond Surcharge

The Water System Revenue Bond (WSRB) Surcharge for 2017 SOCs increased year over year \$4.5 million to \$86 million, primarily related to a billing process change. Previously, debt service projections for power projects were not included for future years. Utilizing budgets for all SWP divisions, future capital power project projections were isolated and a projected debt service repayment schedule was created to determine the WSRB surcharge in future years.

The capital power projects included in this year's surcharge are:

- 1. Thermalito Power Plant Clean-up and Recovery
- 2. FERC Relicensing for P2100 (Oroville)
- 3. FERC Relicensing for P2426 (Southern California)
- 4. Hyatt Power Plant Turbine Refurbishment (2, 4, 6)
- 5. 2014 Hyatt-Thermalito Capital Cost Movement

These power projects account for an increase \$7.5 million in debt service, and are collected under the transportation variable.

In addition to debt service, the power projects have bond cover requirements, which cannot be recovered under transportation variable. In order to meet the requirements, the cover is included in the WSRB surcharge and then will be returned to the SWP Contractors in the 2018 SOCs.

Water System Revenue Bond Issuance

Series AU Water System Revenue Bonds issued \$109.3 million in principal that were incorporated in the calculation of the 2017 SOCs. The total debt service and cover for water system projects, cover for power facilities, and debt service for power facilities needed to meet bond resolution associated with Series AU is \$167 million while the previous bond issuance of Series AT was \$159 million.

Major capitalized projects included in WSRB bond series AU consist of the following:

- 1. \$53 million for Facility Reconstruction and Improvements
- 2. \$12 million for Perris Dam Remediation
- 3. \$10 million for Thermalito Plant Recovery
- 4. \$10 million Delta Facilities Program
- 5. \$7.3 million for South Bay Aqueduct Improvements, and
- 6. \$5.6 million for SWP Protective Relay Replacement

Repayment of Off-Aqueduct Power Facilities

Off-aqueduct power facilities (OAP) costs are charged under terms of the contract amendment signed by SWP Contractors in early 1983. The Department ended the Reid Gardner Unit No. 4 (RG4) contract in July 2013. Additional costs associated with the remediation and separation of the RG4 contract are included in the OAP billing component.

The OAP charge for 2017 is \$4.3 million, which is \$10.8 million lower than the 2016 OAP charge. In June 2016, the Department defeased all remaining OAP bonds totaling \$54.1 million in remaining debt service obligations. The remaining costs to be recovered through the OAP billing component include the annual O&M costs of remaining OAP facilities and RG4 remediation costs. The Department will review OAP facility costs in 2018 and adjust SWP Contractor charges if actual costs are lower than projected in the SOCs. The Department will reallocate 2017 OAP costs in May of 2018 using updated water delivery data.



Date: SEP 2 1 2017

Number: 17-07

Subject: Project Order No. 40

From:

Joel Ledesma

Deputy Director, State Water Project Department of Water Resources

Attached for your information is Project Order No. 40 concerning the facilities known as the "California WaterFix."

The Department of Water Resources (DWR) adopted Project Order No. 40 on July 21, 2017. This Project Order adds the facilities known as the California WaterFix as units of the State's Central Valley Project, which is referenced at California Water Code Sections 11100 and following. Cindy Messer, acting as Director of Water Resources, signed the Project Order immediately after she signed the California Environmental Quality Act Notice of Determination for the California WaterFix project.

The Project Order states that the implementation of construction, operation and maintenance of the California WaterFix is subject to all applicable statutory and regulatory requirements. Accordingly, construction will not commence until the applicable statutory and regulatory requirements for construction are met and DWR provides the State Water Project Contractors notice that these requirements have been met.

If you have any questions or need additional information, please contact Pedro Villalobos, Chief, State Water Project Analysis Office, at (916) 653-4313 or Vera Sandronsky, Chief Counsel's Office, at (916) 653-5141.



State of California THE RESOURCES AGENCY DEPARTMENT OF WATER RESOURCES

PROJECT ORDER NO. 40

By virtue of the authority vested in me by law as the Chief Deputy Director of Water Resources, acting for this purpose as the Director of Water Resources, the following PROJECT ORDER is adopted:

IT IS ORDERED:

That pursuant to California Water Code Sections 11260 and 11500, the Sacramento-San Joaquin Delta features of the Central Valley Project, as authorized by California Water Code Sections 11260 and 11500 and as described in the publications referenced in California Water Code Section 11260, are hereby further modified to include the following facilities, as they may be designed and revised as the project proceeds (collectively, the "California WaterFix"):

- Three north Delta intakes with fish screens along the east bank of the Sacramento River between Clarksburg and Courtland with box conduits, sedimentation basins, gates and a drop structure;
- · A single-bore tunnel connecting two of the intakes and the intermediate forebay;
- A single-bore tunnel between the final intake and the intermediate forebay;
- An intermediate forebay on the Glannvale Tract;
- An outlet structure to convey water from the intermediate forebay into each main tunnel bore via a vertical shaft.
- Two 40-foot-inside-diameter tunnels between the intermediate forebay and two 4,500 cfs pumping plants leading to a modified Clifton Court Forebay;
- Modifications to the Clifton Court Forebay;
- · Connections and control structures to the Banks and Jones pumping plants;
- · A permanent, operable gate where the San Joaquin River and Old River diverge; and
- Associated, related and appurtenant facilities, including, but not limited to, electric transmission lines and roads;

That the California WaterFix shall be constructed, operated and maintained as one or more units of the Central Valley Project as determined by the Department, and shall be constructed, operated and maintained separate and apart from other units thereof as provided by applicable Central Valley Project revenue bond resolutions as now or hereafter adopted, supplemented, or amended, and as otherwise determined by the Department; That the California WaterFix is determined to be necessary and desirable to meet the requirements of the Central Valley Project and the State Water Resources Development System (which incorporates the Central Valley Project by reference in California Water Code Section 12931) for conservation, development, storage, distribution and utilization of water, transfer of water across the Sacramento-San Joaquin Delta, flood and salinity control, and related functions; and

That implementation of construction, operation, and maintenance of California WaterFix is subject to all applicable statutory and regulatory requirements.

Dated: July 21, 2017

Lily Messer Acting as pirector of Water Resources

Approved as to legal form and sufficiency:

Chief Counsel Department of Water Resources



Date: SEP 0 9 2017

Number: 17-08

Subject: Central Valley Project Water System Revenue Bonds, Remarketing of Series AT and AU Par Amount: Series AT \$149,245,000 and AU \$109,275,000 Closing Date: August 3, 2017

From:

Grant Davis, Director Department of Water Resources

Summary of Cash Flow Financing Results

On August 3, 2017, the Department of Water Resources (DWR) remarketed its Central Valley Project (CVP) Water System Revenue variable rate bonds Series AT and AU with par amounts of \$149,245,000 and \$109,275,000, respectively.

The variable rate bonds were remarketed in connection with upcoming mandatory tender dates resulting in DWR's election to adjust the interest rate period, for each series, of such bonds. The Series AT bonds were originally issued on November 6, 2014 and had a mandatory tender date of December 1, 2017. The Series AU bonds were originally issued on September 2, 2015 and had a mandatory tender date of September 1, 2017. As a result of this remarketing transaction, the weighted average interest rate for both series decreased 0.13% from 0.44% to 0.31%, and the weighted average remarketing term increased from 2.6 years to 4.5 years. DWR retained the Securities Industry and Financial Markets Association (SIFMA) index for calculating interest payments.

A summary of the remarketing results, comparing the original issuance, is provided in Table 1 below.



Table 1 – Financing Results Series AT & AU Remarketing

Original Bonds								
			Delivery	First Call	Mandatory	Term		Stated
Series	Par	Maturity	Date	Date	Tender Date	(Yrs.)	Index	Spread
AT	\$ 149,245,000	12/1/2035	11/6/2014	6/1/2017	12/1/2017	3.1	SIFMA	0.30%
AU	109,275,000	12/1/2035	9/2/2015	3/1/2017	9/1/2017	2	SIFMA	0.62%
Combined	\$ 258,520,000			Weighted A	Average	2.6		0.44%

	New 2017 Remarketing								
Delivery First Call Mandatory Term Sta							Stated		
Series	Par	Maturity	Date	Date	Tender Date	(Yrs.)	Index	Spread	
AT	\$ 149,245,000	12/1/2035	8/3/2017	6/1/2022	12/1/2022	5.3	SIFMA	0.37%	
AU	109,275,000	12/1/2035	8/3/2017	6/1/2020	12/1/2020	3.3	SIFMA	0.22%	
Combined	\$ 258,520,000			Weighted A	Average	4.5		0.31%	

Weighted Average Savings

0.13%

If you have any questions, please contact Vinay Behl, Chief, Division of Fiscal Services, at (916) 653-9836 or Vinay Behl@water.ca.gov.



Date: SEP 2 2 2017

Number: 17-09

Subject: Bulletin 132-16, Management of the California State Water Project

From:

Grant Davis Director Department of Water Resources

Bulletin 132-16, the fifty-fourth edition of Bulletin 132, Management of the California State Water Project has been published and is now available to the public. Bulletin 132-16 is prepared for use by the California Water Commission, State Water Project water and power users, bond underwriters, dealers and investors, and the public.

Bulletin 132-16 will be delivered within six weeks to a subset of recipients who receive this notice. All other recipients may request printed and CD-ROM copies of the bulletin from:

California Department of Water Resources Imaging and Records Management Publications Office Post Office Box 942836 Sacramento, California 94236-0001 (916) 653-1097 Email: imr-publications@water.ca.gov

Bulletin 132-16 is also available for direct download in PDF format at: http://www.water.ca.gov/swpao/bulletin_home.cfm



Date: NOV 2 9 2017

Number: 17-10

Subject: 2018 State Water Project Initial Allocation - 15 Percent

From:

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

The Department of Water Resources (DWR) is initially approving 631,115 acre-feet (AF) of Table A water for the long-term State Water Project (SWP) contractors in 2018. SWP supplies are projected to meet 15 percent of most SWP contractors' requests for Table A water, which totals 4,172,786 AF. Attached is the initial 2018 SWP allocation table.

This initial allocation is made consistent with the long-term water supply contracts and public policy. DWR's approval considered several factors including existing storage in SWP conservation reservoirs, SWP operational regulatory constraints, and the 2018 contractor demands. DWR may revise the initial and subsequent allocations if warranted by the year's developing hydrologic and water supply conditions.

DWR will use the current long-term SWP contractors' 15 percent schedules that they submitted in October 2017 as part of their initial request, unless contractors submit updated schedules. DWR will send the approved monthly water delivery schedules to the long-term SWP contractors.

If you have any questions or need additional information, please contact Pedro Villalobos, Chief, State Water Project Analysis Office, at (916) 653-4313.

2018 STATE WATER PROJECT ALLOCATION (ACRE-FEET)

SWP CONTRACTORS	TABLE A	INITIAL REQUEST	APPROVED ALLOCATION	PERCENT INITIAL REQUEST APPROVED (3)/(2)
	(1)	(2)	(3)	(4)
FEATHER RIVER				
County of Butte	27,500	27,500	5,000	18%
Plumas County FC&WCD	2,700	2,700	405	15%
City of Yuba City	9,600	9,600	1,920	20%
Subto	otal 39,800	39,800	7,325	
NORTH BAY				
Napa County FC&WCD	29,025	29,025	5,805	20%
Solano County WA	47,756	47,756	9,551	20%
Subto	otal 76,781	76,781	15,356	
SOUTH BAY				
Alameda County FC&WCD, Zone 7	80,619	80,619	12,093	15%
Alameda County WD	42,000	42,000	6,300	15%
Santa Clara Valley WD	100,000	100,000	15,000	15%
Subto	otal 222,619	222,619	33,393	
SAN JOAQUIN VALLEY				
Oak Flat WD	5,700	5,700	855	15%
County of Kings	9,305	9,305	1,396	15%
Dudley Ridge WD	45,350	45,350	6,803	15%
Empire West Side ID	3,000	3,000	450	15%
Kern County WA	982,730	982,730	147,410	15%
Tulare Lake Basin WSD	87,471	87,471	13,121	15%
Subto	otal 1,133,556	1,133,556	170,035	
CENTRAL COASTAL				
San Luis Obispo County FC&WCD	25,000	25,000	3,750	15%
Santa Barbara County FC&WCD	45,486	45,486	6,823	15%
Subto	otal 70,486	70,486	10,573	
SOUTHERN CALIFORNIA				
Antelope Valley-East Kern WA	144,844	144,844	21,727	15%
Castaic Lake WA	95,200	95,200	14,280	15%
Coachella Valley WD	138,350	138,350	20,753	15%
Crestline-Lake Arrowhead WA	5,800	5,800	870	15%
Desert WA	55,750	55,750	8,363	15%
Littlerock Creek ID	2,300	2,300	345	15%
Metropolitan WDSC	1,911,500	1,911,500	286,725	15%
Mojave WA	85,800	85,800	12,870	15%
Palmdale WD	21,300	21,300	3,195	15%
San Bernardino Valley MWD	102,600	102,600	15,390	15%
San Gabriel Valley MWD	28,800	28,800	4,320	15%
San Gorgonio Pass WA	17,300	17,300	2,595	15%
Ventura County WPD	20,000	20,000	3,000	15%
Subto	otal 2,629,544	2,629,544	394,433	
TOTAL	4,172,786	4,172,786	631,115	



Date: DEC 1 8 2017

Number: 17-11

Subject: Water Management and the Existing Long-Term Water Supply Contracts

From:

Grant Davis, Director Department of Water Resources

The recent drought in California has highlighted the importance and need for flexibility in managing the State's limited water resources. To that end, the Department encourages the State Water Project Contractors to pursue water management actions that ensure supplies from the State Water Project (SWP) are used effectively.

In particular, the existing Long-Term Water Supply Contracts (Contracts) provide flexibility as to how SWP supplies are transferred, exchanged, and managed over extended periods of time. Accordingly, Attachment A is intended to clarify the Department's considerations and objectives with respect to bona fide exchanges and multi-year water transfers. In reviewing SWP Contractor requests for water management actions, the Department will follow a similar approach it has used in past years. That is, the Department will review requests on an individual, case-by-case basis and will examine:

- 1. any adverse impact on the ability of the SWP Contractor to continue to make payments under its Contract;
- any adverse effect the action may have on the water rights permits granted to the Department for the operation of the SWP;
- any adverse impact on the ability of the Department to make deliveries to other SWP Contractors or to meet other obligations of the SWP; and
- 4. consideration of any issues identified by and compliance with the California Environmental Quality Act.

Furthermore, although the Department believes that the water management actions listed in Attachment A already are available under the terms of the existing Contracts, the Department intends to confirm and supplement its position in the public process that was initially noticed on November 21, 2014. The Department intends to resume this process to include discussion of the water management actions specified above. The Department will issue a public notice for these negotiations.

If you have any questions or need additional information, please contact Joel Ledesma at (916) 653-8043.

Attachment A

Department Considerations Related to Bona Fide Exchanges and Multi-Year Water Transfers Under the Water Supply Contracts

In reviewing and approving any proposed bona fide exchanges or multi-year transfers, the Department will apply the following considerations:

- A. <u>Bona Fide Exchanges</u>: In the review of bona fide exchanges, the Department will apply Article 56(f) of the Contracts, which provides that "an exchange of water involving a contractor and another party where the primary consideration for one party furnishing water to another is the return of a substantially similar amount of water, after giving due consideration to the timing or other nonfinancial considerations of the return."
 - 1. <u>Return Period</u>: Flexibility is provided under the existing Contracts regarding the return period, provided the return period is not greater than 10 years or does not extend beyond the expiration date of the current Contract.

If the return for the exchange cannot be completed within 10 years, the Department may approve an extension for an additional 10 years or to the end of the current Contract, whichever is shorter. The exchange parties shall provide adequate justification for the extension of the exchange agreement. Adequate justification may include reasons such as hydrologic conditions, allocation percentages, capacity/conveyance limitations, economic hardships, health and safety issues, etc.

 <u>Return Ratio</u>: Flexibility is provided under the existing Contracts regarding the exchange ratio, provided the amount of water returned is of a "substantially similar amount" and considering timing and other nonfinancial considerations. The following ratios are consistent with the above considerations, including differing hydraulic conditions, subject to review under the Department's existing authority:

> For allocations >= 50%, return ratio is up to 2 : 1 For allocations >25 & <50%, return ratio is up to 3 : 1 For allocations <25%, return ratio is up to 4 : 1

3. <u>Time of Delivery</u>: If an exchange agreement is executed in the latter half of the calendar year, capacity limitations may prohibit delivery in the year the exchange agreement is executed. To allow for delivery in the following year, the Department will allow reclassification of exchange water so long as it complies with Article 56 of the Contracts.

 <u>Cost Compensation</u>: Maximum cost compensation for a bona fide exchange may not exceed the exchanging SWP Contractor's transportation capital charges.

B. Multi-year Transfers:

- 1. All multi-year transfers must be consistent with the existing Contracts.
- Multi-year transfers pertain only to SWP Table A water (not Articles 21, 55, or 56 and area of origin supplies) in the year in which the water moves from one SWP Contractor to another for compensation, which does not need to include the return of water.
- 3. SWP Contractors can be engaged in multiple multi-year temporary transfers as a buyer or seller, provided that a Contractor cannot be both a buyer or seller in the same year.
- Compensation for multi-year transfers will be determined by the transfer proponents.
- Proponents of multi-year transfers must comply with all existing environmental (including CEQA compliance) and regulatory requirements. The Department will serve as a lead or responsible agency where applicable.
- 6. The term of each multi-year transfer must be at least two years.
- A multi-year transfer cannot be used to pay back any existing water exchange obligation.
- The Department will review and approve multi-year transfers consistent with the terms of the Contracts, including but not limited to, assuring that: (1) the terms of multi-year temporary transfer comply with the existing SWP Contracts; (2) the delivery of the water is possible/feasible considering the hydrologic conditions and delivery capacity of the SWP; and (3) the financial and operational integrity of the SWP is not impaired.
- 9. The Department retains its right to review and reconsider at any time a multiyear transfer agreement if it determines that delivery under the agreement is impairing the financial feasibility of project facilities or is impacting any other SWP Contractor's ability to deliver/store its SWP Table A.