SJC-095

[SUMMARY OF FINAL SUBMITTED VERSION]

PROGRESS REPORT BY PERMITTEE FOR 2015

Primary Owner: CALIF DEPT OF WATER RESOURCES
Primary Contact: Nancy Quan

Date Submitted: 2016-06-29

Application Number: A014443
Permit Number: 016479

Source(s) of Water	POD Parcel Number	County
FEATHER RIVER		Butte
FEATHER RIVER		Butte
FEATHER RIVER		Butte
SACRAMENTO SAN JOAQUIN DELTA CHANNELS		Contra Costa

MAX Direct Diversion Rate: 7545.0 CFS
MAX Collection to Storage: 3542100.0 AC-FT
Face Value: 9004510.2 AC-FT

Permitted Use(s)	Acres	Direct Diversion Season	Storage Season
Domestic	0.0	01/01 to 12/31	09/01 to 07/31
Fish and Wildlife Protection and/or Enhancement	0.0	01/01 to 12/31	09/01 to 07/31
Incidental Power	0.0	01/01 to 12/31	09/01 to 07/31
Industrial	0.0	01/01 to 12/31	09/01 to 07/31
Irrigation	999999.9	01/01 to 12/31	09/01 to 07/31
Municipal	0.0	01/01 to 12/31	09/01 to 07/31
Recreational	0.0	01/01 to 12/31	09/01 to 07/31

1. Permit Review	
I have reviewed my water right permit	Yes

2. Compliance with Permit Terms and Conditions	
I am complying with all terms and conditions	Yes
Description of noncompliance with terms and conditions	

3. Changes to the Project	
Intake location has been changed	
Description of intake location changes	
Type of use has changed	
Description of type of use changes	
Place of use has changed	
Description of place of use changes	
Other changes	
Description of other changes	

4-6. Permitted Project Status	

Project Status	Not Complete
6a. Construction work has commenced	Yes
6b. Construction is completed	Yes
6c. Beneficial uses of water has commenced	Yes
6d. Project will be completed within the time period specified in the permit	No
6e. Explanation of work remaining to be done	Additional time is required to maximize the total annual diversion and beneficial use authorized under the permits governing SWP operations on the Feather River and in the Delta. Annual diversions to storage are dependent on numerous factors including end of season storage, annual hydrology, SWP demands and regulatory constraints. Maximum diversion rate, total annual diversion to storage and maximum annual use are expected to increase as demands within the SWP service area increase. DWR filed a Petition for Time Extension with the SWRCB on December 31, 2009. There are a number of factors creating uncertainty as to the ultimate demands for project water and the quantities available and timing of diversions including the Bay-Delta Conservation Plan (BDCP) process, currently California WaterFix (CWF) and EcoRestore. Following completion of the CWF process DWR should be better able to estimate future demands for Project water. DWR filed a joint Petition for Change with the Bureau of Reclamation to add three new points of diversion in the north Delta to allow the construction of the CWF facilities. In addition to the proposed CWF facilities, construction of the East Branch Extension of the California Aqueduct is not yet complete. The facilities link the SWP at the Devil Canyon power plant to the eastern part of San Bernardino Valley Municipal Water District and San Gorgonio Pass Water Agency. Phase 1 of the East Branch Extension project is complete. DWR certified the Final Environmental Impact Report for Phase 2 of the East Branch Extension and approved the project on March 2, 2009. Work has begun on Phase 2 with completion of major construction activities currently projected for mid-2017. Other facilities may be required depending on the outcome of current efforts to address issues in the Sacramento/San Joaquin Delta.
6f. Estimated date of completion	12/31/2035

7. Purpose of Use	
Industrial	Mixed Industrial
Recreational	boating, fishing, water contact sports
Fish and Wildlife Protection and/or Enhancement	Streamflow Enhancement, Fish & Wildlife Protection
Irrigation	750000 Acres Mixed Crop Types
Incidental Power	1876 MW
Municipal	25000000

8. Amount of Water Diverted and Used			
Month	**Amount directly diverted (Acre-Feet)**	**Amount diverted or collected to storage (Acre-Feet)**	**Amount used (Acre-Feet)**
January	39342	42100	39342

February	35926	8520	35926
March	59932	58180	59932
April	28298	19813	67563
May	0	0	2835
June	0	0	0
July	0	0	0
August	0	0	0
September	0	0	0
October	0	0	0
November	0	0	0
December	0	0	0
Total	163498	128613	205598
Type of Diversion	Both Direct Diversion and Diversion to Storage		
Comments			

Water Transfers	
8e. Water transfered	No
8f. Quantity transfered (Acre-Feet)	
8g. Dates which transfer occurred	/ to /
8h. Transfer approved by	

Water Supply Contracts	
8i. Water supply contract	No
8j. Contract with	
8k. Other provider	
8l. Contract number	
8m. Source from which contract water was diverted	
8n. Point of diversion same as identified water right	
8o. Amount (Acre-Feet) authorized to divert under this contract	
8p. Amount (Acre-Feet) authorized to be diverted in 2015	
8q. Amount (Acre-Feet) projected for 2016	
8r. Exchange or settlement of prior rights	
8s. All monthly reported diversion claimed under the prior rights	
8t. Amount (Acre-Feet) of reported diversion solely under contract	

9. Maximum Rate of Diversion for each Month	
Month	**Maximum Rate of Diversion (CFS)**
January	5026
February	6101
March	4615
April	695
May	0
June	0
July	0
August	0
September	0
October	0
November	0
December	3944

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10. Storage					
Reservoir name	**Spilled this year**	**Feet below spillway at maximum storage**	**Completely emptied**	**Feet below spillway at minimum storage**	**Method used to measure water level**
Oroville	No	49.51	No	164.08	Nitrogen Bubbler

Conservation of Water	
11. Are you now employing water conservation efforts?	Yes
Description of water conservation efforts	Since 1979 DWR has implemented a program to provide water conservation information and assistance to water users. The Department's Division of Statewide Integrated Water Management provides expertise to local agencies and individuals regarding agricultural and urban water and energy conservation, reclamation and reuse of water, land and water use, and drainage management. The office also manages the California Irrigation Management Information System (CIMIS), assists in establishing mobile laboratories that conduct irrigation system evaluations, carries out data analysis, demonstration projects, and research to achieve energy and water use efficiency, and provides loans and grants to make more efficient use of water and energy resources. In addition to DWR's efforts, the agencies receiving SWP water implement local water conservation programs.
12. Amount of water conserved	

Water Quality and Wastewater Reclamation	
13. During the period covered by this Report, did you use reclaimed water from a wastewater treatment facility, water from a desalination facility, or water polluted by waste to a degree which unreasonably affects the water for other beneficial uses?	No
14. Amount of reclaimed, desalinated, or polluted water used	

Conjuctive Use of Groundwater and Surface Water	
15. During the period covered by this Report, were you using groundwater in lieu of available surface water authorized under your permit?	No
16. Amounts of groundwater used	

Additional Remarks
See Attached Remarks

Attachments		
File Name	**Description**	**Size**
14443 Remarks-15.pdf		28 KB

Contact Information of the Person Submitting the Form	
First Name	Nancy
Last Name	Quan
Relation to Water Right	Primary Owner of Record
Has read the form and agrees the information in the report is true to the best of his/her knowledge and belief	Yes

Remarks

All data is preliminary and subject to change.

Water diversion and use have been allocated to the individual Permits 16478, 16479, 16481, 16482, and 16483 governing the primary operations of the State Water Project (SWP) consistent with the water rights priorities. However, SWP operations are not segmented by individual permit. The SWP facilities are separated by significant distances and movement of water from one facility to another involves travel time. In addition, water may be stored in Oroville and later rediverted to one of 5 different off-stream reservoirs in the Central Valley and Southern California. The flexibility within the SWP can also be operated in coordination with local groundwater banking facilities in the San Joaquin Valley to facilitate extraction and delivery of previously stored SWP and local water. In order to allow allocation of diversion and use to individual permits as directed by the State Water Resources Control Board (SWRCB), for purposes of annual reporting, project operations were assumed to be instantaneous at any location throughout the project on any given day. Only water diverted under DWR's permits are reported in the annual reports. Beneficial use of water is reported in the year water is delivered to a contractor's service area whether for direct use or storage. Groundwater recovery is not included in the annual reporting to avoid duplicate reporting. The simplifying assumptions used were reviewed by SWRCB staff and are considered sufficient for annual reporting purposes. The SWP is operated as a single coordinated project consistent with the joint terms and conditions specified in Water Rights Decision 1641 (D1641) and the criteria specified in the biological opinions for the protection of Delta smelt and anadromous fishes (BiOps) and the incidental take permit. Operations are also coordinated with the Bureau of Reclamation (Reclamation) consistent with the provisions of the Coordinated Operations Agreement (COA) dated November 24, 1986. 2015 was a critically dry year based on the water year classification and the continuing drought conditions presented significant operational challenges. Throughout 2015, DWR worked closely with Reclamation, the SWRCB, the National Marine Fisheries Service, U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife, and used the operational flexibility of the coordinated operations of the SWP and Central Valley Project (CVP) to minimize the effects of the severe drought on water supply, fisheries resources and the Delta. Interagency coordination included frequent meetings of the Real-Time Drought Operations Management Team (RTDOT). DWR and Reclamation developed a Drought Contingency Plan (DCP) which was provided to the SWRCB. The SWP and CVP operated under a Temporary Urgency Change Order during significant portions of 2015.

Item 2: SWP water rights permit terms and conditions are specified in D1641. Due to the historically dry conditions, the Governor declared a state of emergency on January 17, 2014 and issued subsequent proclamations and executive orders throughout the drought to address critical issues related to the historic drought. Project Delta operations were very challenging due to the continuing drought conditions and low reservoir storage. DWR and Reclamation jointly filed a Temporary Urgency Change Petition (TUCP) on January 23, 2015 to temporarily modify some of the requirements in D1641inlcuding Delta

Outflow, Delta Cross Channel Gate operations, Minimum San Joaquin River Flow and export limits. The changes were necessary to preserve upstream storage to aid in meeting temperature, instream flow and salinity requirements later in the year and to ensure delivery of minimum health and safety supplies to municipalities served by the SWP. The SWRCB issued an order approving the TUCP on February 3, 2015. DWR and Reclamation filed subsequent requests for changes to additional D-1641 criteria including the Western Delta compliance location, Rio Vista flows, further changes to the San Joaquin River minimum flows and flexibility in the export limits. The order was subsequently modified by the SWRCB as necessary to adapt to the unique conditions presented by the drought. The TUC remained in effect through the end of 2015. The joint petitions, SWRCB orders and supporting information including the DCP and correspondence with the fisheries agencies can be viewed at http://www.waterboards.ca.gov/waterrights/water_issues/programs/drought/tucp/ DWR and Reclamation also filed a joint petition for change to consolidate the SWP and CVP places of use downstream of the Banks and Jones Pumping plant in order to facilitate exchanges between SWP and CVP south of Delta contractors (CPOU). The SWRCB issued an order approving the petition on April 27, 2015. The water exchanged under that order has reported to the Board separately as required by the order approving the CPOU. DWR operations throughout 2015 were consistent with the provisions of D-1641 (as modified by the TUCP), the BiOps, the COA and the CPOU.

The SWRCB issued notices declaring Term 91 conditions to exist on April 30, 2015. Due to the critically dry conditions, Term 91 conditions were in effect until the SWRCB issued notices of water availability on December 15, 2015. More information on Term 91 accounting is available on the SWRCB Term 91 website at http://www.waterboards.ca.gov/water_issues/programs/delta_watermaster/term91.shtml

There were some exceedences of the EC objectives in 2015 due to influences beyond the control of DWR. Due to localized degradation in the south Delta channels and poor San Joaquin River quality, the southern Delta agricultural EC objectives at Old River near Tracy Road Bridge, Old River near Middle River and the San Joaquin River at Brandt Bridge were exceeded during several periods in 2015. DWR does not contribute towards and has no ability to control salinity levels within the south Delta. Each exceedance was reported to the SWRCB.

The eastern Suisun Marsh objective EC high tide monthly average at Collinsville was exceeded for the month of May (11.8 vs 11.0 mS/cm) due to the drought conditions. There were also two exceedences of the western Delta agricultural objectives; the EC 14-day average at Three Mile Slough (as modified under the July 3, 2015 TUCP order) was exceeded from July 7 through July 21, 2015, and the EC 14-day average at Jersey Point was exceeded from July 9 through July 16 due to tidal and weather conditions and

the severe drought conditions. DWR and Reclamation have limited options available to influence water quality quickly when Delta exports are at minimum pumping. All exceedences were reported to the SWRCB.

Item 7: The SWP is a large complex water supply system consisting of 29 dams, 30 pumping and generating plants and approximately 675 miles of aqueducts. DWR diverts water under its permits for irrigation, industrial, municipal, domestic, incidental power, recreation, salinity control and fish and wildlife enhancement purposes. The SWP delivers water to 29 long-term water supply contractors serving approximately 25 million people and providing irrigation to approximately 750,000 acres of farmland. Recreation opportunities at SWP facilities include boating, fishing, water contact sports, camping, and equestrian among others. DWR generates incidental power under permits 16478, 16479, 16481, and 16482 at the Gianelli, Alamo, Warne, Mojave Siphon, and Devil Canyon powerplants. (total installed capacity 626 MW) Power is also generated by the flows appropriated under the above permits at the Castaic Powerplant owned and operated by Los Angeles Department of Water and Power (1250 MW). Specific information regarding SWP operations and deliveries are contained in DWR Bulletin 132. The Division of Water Rights receives a copy of Bulletin when it is released. It is also available online at http://www.water.ca.gov/swpao/bulletin.cfm.

Item 8: The quantities shown in Item 8 reflect diversion and use allocated to Permit 16479 only for irrigation, domestic, municipal, and industrial purposes. Significant quantities of SWP water is used each year for salinity control, recreational and fish and wildlife enhancement purposes however the water used for non-consumptive purposes is not included in the quantities shown for beneficial use in item 8. Over 500,000 acre-feet of SWP storage releases were dedicated to salinity control and fish and wildlife enhancement purposes in 2015.

The authorized season of diversion to storage at Oroville under Permit 16479, September 1 through July 31, does not coincide with the annual reporting period of January 1 through December 31. The calendar year reporting period encompasses portions of the 2014/2015 and 2015/2016 water years. The season for direct diversion is January 1 through December 31 of each year. The quantities shown in item 8 reflect the water directly diverted or diverted to storage consistent with the terms and conditions of Permit 16479 during each month of calendar year 2015 for all authorized purposes of use. Total diversion to storage in 2015 at Lake Oroville under Permits 16478 and 16479 was 574,301 acre-feet. Total diversion for the 2014/2015 water year at Lake Oroville was 903,956 acre-feet. The quantities shown for beneficial use include beneficial use of water diverted in 2015 as well as water stored in a previous year.

Item 9: Direct diversion is authorized under Permit 16479 at both the Oroville/Thermalito complex and in the Delta.

Item 10: Water level at minimum storage during 2015 was 649.52 feet, 164.08 feet below the sill of the gated spillway for Oroville Dam (Elevation 813.60 feet). Water level at maximum storage was 764.09 feet, 49.51 feet below the sill of the gated spillway. Normal operating maximum elevation for Oroville Reservoir is 899.0 feet.

The SWP reservoirs south of the Delta are built for offstream storage and are operated to avoid spill. Water may be directly diverted from the Delta channels or rediverted from Lake Oroville. Water levels fluctuate substantially throughout the year as DWR diverts or rediverts water to individual reservoirs depending on Project supplies and regional demands.