



State Water Resources Control Board

April 7, 2021

Kristin White
Operations Manager
Central Valley Operations Office
United States Bureau of Reclamation
via email to knwhite@usbr.gov

Dear Ms. White,

WATER RIGHTS DECISION 1641 SAN JOAQUIN RIVER FLOWS COMPLIANCE

This letter addresses U.S. Bureau of Reclamation (Reclamation) compliance with terms and conditions of its water rights permits¹ that require Reclamation to achieve river flows on the San Joaquin River at Vernalis pursuant to State Water Resources Control Board (State Water Board) Decision 1641 (D-1641). The San Joaquin River flow requirements in D-1641 implement the San Joaquin River flow objectives adopted in the 1995 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta (Bay-Delta Plan). The 1995 San Joaquin River flow objectives include spring flows (February 1 – April 14 and May 16 – June 30, monthly and weekly average), April-May spring pulse flow (31-day average), and October fall pulse flow (monthly average).

The State Water Board assigned interim responsibility to Reclamation for achieving the San Joaquin River flow objectives identified in Table 3 (p. 184), pursuant to Condition 2 in D-1641 (p. 161), until the State Water Board assigns permanent responsibility for achieving the San Joaquin River flow objectives. The 1995 Bay-Delta Plan San Joaquin River flow objectives were replaced with new and revised flow objectives with the adoption of the 2018 Bay-Delta Plan, however the 1995 San Joaquin River flow requirements in D-1641 remain in regulatory effect until the State Water Board completes actions to implement the new and revised flow objectives. Accordingly, Reclamation maintains responsibility for the D-1641 San Joaquin River flow requirements at Vernalis until the State Water Board assigns responsibility for the new and revised flow objectives.

In calendar year 2020, San Joaquin River flows at Vernalis were lower than D-1641 flow requirements resulting in a deficit of 99,846 acre-feet of river flows that were not

¹ Permit numbers 16597 and 16600, Applications 1485A and 19304, respectively.

available to support San Joaquin River salmon and steelhead and other fish and wildlife beneficial uses. Since the expiration of the San Joaquin River Agreement (SJRA)² and the termination of the Vernalis Adaptive Management Program in 2011, D-1641 April-May spring pulse flows have not been reliably achieved while monthly and weekly spring flows and fall pulse flows were generally achieved.³ Non-compliance with D-1641 San Joaquin River flow requirements expanded in 2020 to include flows that fell below the monthly and weekly spring flow requirements in February (3,000 acre-feet deficit; State Water Board, 2020), the April-May spring pulse flow requirement (81,313 acre-feet flow deficit),⁴ and the October pulse flow requirement (18,533 acre-feet flow deficit).⁵ Achieving these flows last year would have reduced storage in New Melones Reservoir this year. However, this year's storage levels would still be near long term average levels of around 1.4 million acre-feet (MAF), given that current storage levels are over 1.5 MAF, avoiding the temperature and other issues experienced during the prior drought years of 2014 and 2015.

The declining population trend of San Joaquin River salmonids since the adoption of the 1995 Bay-Delta Plan demonstrates that the D-1641 flow requirements have been inadequate to support fish and wildlife beneficial uses. Continued non-compliance with D-1641 minimum flow requirements likely exacerbates declining salmon and steelhead populations and amplifies extirpation risks of these populations from the San Joaquin Valley. The continued decline or loss of San Joaquin River salmon and steelhead also threatens the resilience of the remaining Central Valley populations which are also in decline.

Complying with terms and conditions of water right permits that implement flow-dependent water quality objectives is important to ensure reasonable protection of beneficial uses under the California Porter-Cologne Water Quality Control Act (Porter-Cologne). Reclamation's obligations to achieve D-1641 flow requirements pursuant to Porter-Cologne are not exchangeable with other regulatory requirements such as the Stanislaus River flow requirements in the National Marine Fisheries Service Biological Opinion pursuant to the federal Endangered Species Act. Accordingly, the State Water Board would like to work cooperatively with Reclamation to identify actions to avoid further D-1641 compliance issues this year and associated impacts to fish populations.

² The SJRA identified commitments to purchase and provide experimental flows identified in the Vernalis Adaptive Management Program in lieu of achieving the D-1641 April-May flow requirements (San Joaquin River Group Authority, 1999).

³ An exception for 2014-2016 which operated to temporary urgency change orders.

⁴ San Joaquin River flows during the April-May pulse flow period were required to be 3,276 cubic feet per second (cfs) average daily flow; observed flows during pulse flow period were 1,951 cfs average daily flow. The spring pulse flow requirement was calculated using a critical water year type for April 1-30 with 5 days of maximum daily average electrical conductivity of 2.64 mmhos/cm west of Chipps Island ("Chipps days"), May 1-8 critical water year type with 11 Chipps days, and May 9-10 with a Dry water year type and 11 Chipps Days.

⁵ The required October pulse flow was 1,456 cfs average daily flow; observed flows during the October fall pulse flow period were 1,154 cfs average daily flow.

The current water year has been much drier than average which suggests continued difficulty in achieving the D-1641 San Joaquin River flow requirements. Reclamation and the Department of Water Resources prepared a Drought Contingency Plan (DCP) in February 2021 and March 2021. The 2021 DCPs provide an initial outline of project operations. The 2021 DCPs suggest that Reclamation does not plan to achieve the D-1641 San Joaquin River at Vernalis April-May pulse flows, but otherwise plans to achieve D-1641 San Joaquin River flow requirements. Flow planning for the Stanislaus River anticipates that San Joaquin River flows at Vernalis will be less than 2,000 cfs during the April-May pulse flow period in 2021. The D-1641 flow requirement for a critically dry water year ranges between 3,110 cfs (31-day average) and 3,540 cfs (31-day average), depending on Delta outflow conditions, which would result in a deficit below the flow requirement of approximately 80,000 acre-feet or more.

The State Water Board would like to work with Reclamation to develop a strategy to alleviate compliance issues. In the future, the State Water Board plans to move forward with implementation of updated Lower San Joaquin River flow objectives included in the 2018 Bay-Delta Plan, including possible consideration of voluntary agreements. Implementation of these objectives is expected to result in a more equitable distribution of responsibility with respect to New Melones Reservoir and the Lower San Joaquin River at large. Additionally, implementation of the new flow objectives will require lower flows on the Stanislaus River than compliance with D-1641 during the driest years easing Reclamation's regulatory burden relative to D-1641 when water resources are scarce. The State Water Board continues to support efforts to develop voluntary agreements that could provide for sooner implementation of the 2018 Bay-Delta Plan Lower San Joaquin River flow objectives, as well as complimentary nonflow actions.

State Water Board staff are available to provide consultation and work cooperatively with Reclamation. If you have any questions please contact Diane Riddle at Diane.Riddle@Waterboards.ca.gov.

Sincerely,



Eileen Sobeck
Executive Director