CENTRAL VALLEY FLOOD PROTECTION BOARD
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January 29, 2021

California Department of Water Resources
Division of Flood Management
Attn: Ms. Stephanie Ponce, Environmental Scientist
3310 El Camino Avenue, Room 140
Sacramento, CA 95821

Subject: Comments on the Tisdale Weir Rehabilitation and Fish Passage Project Draft Environmental Impact Report, SCH No. 2019049093

Dear Ms. Ponce,

The Central Valley Flood Protection Board (Board) appreciates the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the proposed Tisdale Weir Rehabilitation and Fish Passage Project (proposed project). The DEIR was prepared to disclose and address potential environmental impacts associated with the proposed project. The proposed project is located on the east side of the Sacramento River, approximately ten miles southeast of the town of Meridian and near the community of Grimes, in Sutter County, California. The primary objectives of the proposed project are to structurally rehabilitate the Tisdale Weir, and reduce fish stranding at the Tisdale Weir by improving fish passage through the weir to the Sacramento River. The Tisdale Weir and Bypass are critical components of the Sacramento River Flood Control Project (SRFCP), and the California Department of Water Resources (DWR) Division of Flood Management proposes to construct, operate and maintain the proposed project.

Responsibility of the Central Valley Flood Protection Board

The Board is the State's regulatory agency responsible for ensuring appropriate standards are met for the construction, maintenance, and operation of the flood control system that protects life, property, and habitat in California's Central Valley. The Board serves as the State coordinator between local flood management agencies and the federal government, with the goal of providing the highest level of flood protection possible to California's Central Valley.

Per California Code of Regulations, Title 23, Waters, Division 1 (Title 23), Section 6, approval by the Board is required for all proposed work or uses, including the alteration of levees within any area for which there is an Adopted Plan of Flood Control within the Board's jurisdiction. In addition, Board approval is required for all proposed encroachments within a floodway, on adjacent levees, and within any Regulated Stream identified in Title 23, Table 8.1. This proposed project is located within the Board's permitting authority, thereby requiring an encroachment permit.

The Board operates under authorities as described in California Water Code (Water Code), which requires the Board to oversee future modifications or additions to facilities of the State Plan of Flood Control (SPFC). In addition, pursuant to assurances provided to the United States Army Corps of Engineers (USACE) by the Board on behalf of the State, the USACE Operation and Maintenance Manuals, Code of Federal Regulations, Title 33, § 208.10, and United States Code, Title 33, § 408, the Board is responsible for the operation and maintenance of the SPFC facilities. The USACE requires the Board to serve as the lead non-Federal sponsor for projects to improve or alter facilities of the SPFC pursuant to Code of Federal Regulations, Title 33, § 408. The State's objectives include fulfilling the USACE's expectations pursuant to the assurances provided to the USACE.

The Board, as a Responsible Agency under the California Environmental Quality Act (CEQA), will review and consider the environmental effects of the proposed project identified in the DEIR, and will reach its own conclusions on whether and how to approve the project involved (14 CCR 15096, subd. (a)). This includes direct impacts to facilities under construction, as well as indirect impacts from the proposed project to surrounding facilities. Accordingly, the comments herein are intended to assist in the development of a robust CEQA document capable of supporting the Board's permitting process. Board staff provides the following comments regarding potential environmental effects within the Board's jurisdiction.

Flood Analysis

Appendix I of the DEIR, "*Flood Hydrologic and Hydraulic System Analysis Technical Memorandum*" (ESA, 2019/Revised 2020), Section 3.4 states: "This hydrology is based on the synthetic event hydrology prepared for the Sacramento-San Joaquin Rivers Comprehensive Study, with some changes to flood routing through Folsom Dam (USACE, 2014)." The Sacramento-San Joaquin Rivers Comprehensive Study, prepared by the USACE in 2002, is not the most current hydrology model to be used for today's projects in the Central Valley. In 2015, the USACE developed the Central Valley Hydrology Study1 (CVHS) to support the assessment of the current Federal-State levee protection system. The goal of the CVHS was to develop the required frequency curves, which provide estimates of the annual exceedance probability of flows in accordance with current standards of practice.

The California Governor's Water Resilience Portfolio (2020) and Governor's Executive Order N-10-19 requires "climate adaptability in California" by considering the impacts of climate change for future projects in California. Furthermore, in compliance with Water Code, § 8610.5(c), the Board shall consider, before taking any action, "The best available science that relates to the scientific issues presented by the executive officer, legal counsel, the department, or other parties that raise credible scientific issues."; and also shall consider the

[1] Accessed December 30, 2020. Available at: https://www.hdrinc.com/sites/default/files/inline-files/hdr-central-valley-hydrology-study-report.pdf

"Effects of reasonably projected future events, including, but not limited to, changes in hydrology, climate, and development within the applicable watershed". Moreover, the Board adopted the 2012 Central Valley Flood Protection Plan (CVFPP) and 2017 CVFPP Update, which require proposed projects to be consistent with the adopted 2017 CVFPP Update, including climate change considerations.

The "*Flood Hydrologic and Hydraulic System Analysis Technical Memorandum*" (ESA, 2019/Revised 2020; Appendix I of the DEIR) summarizes modeling assumptions and data sources used to analyze the hydrologic and hydraulic system's performance to determine how the proposed project could change the performance of the State-Federal flood control system. The analysis accounted for the potential flooding risks by analyzing the potential change in water surface elevation during flood peaks without and with the proposed project. However, the analyses do not include future flows due to climate change considerations. Climate change does not seem to have been considered in the flood analyses presented in Appendix I (*Flood Hydrologic and Hydraulic System Analysis Technical Memorandum*) or Appendix C (*TUFLOW Model Results and CEQA Impacts Analysis*) of the DEIR.

> **Recommendation:** The hydrologic and hydraulic analyses should use the most current Central Valley Hydrology Study (2015), and incorporate future flows due to climate change considerations in compliance with the Governor's Water Resilience Portfolio (2020), Governor's Executive Order N-10-19, Water Code § 8610.5 (c), and the Board's adopted Central Valley Flood Protection Plan (2012 and 2017 Update).

Page 3.4-56 of the DEIR states, "Flow conditions in the Sacramento River downstream of Tisdale Weir are expected to be similar to existing conditions (i.e., to change by 5 percent or less)." Page 3.7-23 of the DEIR states, "Flows in the river downstream of Tisdale Weir are expected to be similar to existing conditions (i.e., to change by 2.2 percent or less)."

> **Recommendation:** Clarify/confirm the percent change of expected flow conditions downstream of the Tisdale Weir.

Potential Impacts to SPFC Operations and Maintenance

The Board is an independent State agency that is required to enforce the construction, maintenance and protection of the levees, embankments and channel rectification that will, in the Board's judgment, best serve the interests of the State. In accordance with Water Code § 8608, the Board is charged with establishing and enforcing standards for the maintenance and operation of levees, channels, and other flood control works of an authorized project or an adopted plan, including but not limited to standards for encroachment construction, vegetation and erosion control measures. The Board also has all the responsibilities and authorities necessary to oversee future modifications of the SPFC and tributaries and distributaries of the Sacramento River, the San Joaquin River, and designated floodways pursuant to assurances

provided to the USACE and the USACE Operation and Maintenance Manuals under Code of Federal Regulations, Title 33, § 208.10 and United States Code, Title 33, § 408.

Under authorities granted by Water Code and Public Resources Code statutes, the Board enforces Title 23 for the construction, maintenance, and protection of adopted plans of flood control, including the Federal-State facilities of the SPFC, regulated streams, and designated floodways. Therefore, any activity that encroaches on the Tisdale Weir and Bypass shall not adversely impact flood system integrity or operations and maintenance.

Page 3.7-20 of the DEIR states: "The development of sediment conditions, particularly in years with few and/or relatively brief overtopping events, would be monitored and addressed as outlined in the Tisdale Weir Operations, Maintenance, and Long-Term Management Plan being developed for the Proposed Project."

> **Recommendation:** The Board will require a Long-Term Management Plan be submitted as part of its encroachment permitting process. This plan should include information regarding how the proposed project area will be managed and maintained by DWR in perpetuity, once the proposed project is deemed complete. Please submit a copy of the Tisdale Weir Operations, Maintenance, and Long-Term Management Plan to the Board with the proposed project's encroachment permit application materials, or once the Plan is completed.

Appendix H of the DEIR, "*Sediment Budget Analysis Technical Memorandum*" (ESA, 2019) summarizes the estimated annual suspended sediment budget for the Tisdale Bypass for both existing and proposed project conditions. Page 20 of the "*Sediment Budget Analysis Technical Memorandum"* (Appendix H of the DEIR) states, "…the proposed Project may increase the suspended sediment volume delivered to the Tisdale Bypass and areas downstream by approximately 8 percent, and it may increase the net volume of sediment deposited within the Tisdale Bypass by up to approximately 9 percent (assuming the eroded volume would not change)." However, the calculated sediment deposition in the Tisdale Bypass under the proposed project conditions could be underestimated as a result of future climate change flows not being considered, which may consequently increase operation and maintenance.

> **Recommendation:** As previously recommended, the hydrologic and hydraulic analyses should use the most current Central Valley Hydrology Study (2015), and incorporate future flows due to climate change considerations in compliance with the Governor's Water Resilience Portfolio (2020), Governor's Executive Order N-10-19, Water Code § 8610.5 (c), and the Board's adopted Central Valley Flood Protection Plan (2012 and 2017 Update).

Page 3.4-6 of the DEIR states that riparian forest is present along the northern and southern margins of the Tisdale Bypass. Page 3.4-58 of the DEIR states that construction work for the proposed project may affect riparian forest, and based on preliminary drawings, up to 1 acre of vegetation may be removed from within the riparian forest. Mitigation Measure 3.4-12b on page 3.4-59 states, "Compensatory mitigation may include the purchase of credits from an approved off-site bank or on-site tree plantings." The Board is concerned about where trees and/or vegetation will be placed, what species will be planted, and the hydraulics and the ability to direct flows towards the levees of the bypass or other flood control structures. Title 23, § 131 provides the regulatory requirements for maintenance, planting, and removal of vegetation.

> **Recommendation:** Refer to Title 23, § 131 regarding the regulatory requirements for maintenance, planting, and removal of vegetation (including trees). If on-site restoration is required, please submit any planting plans and vegetation maintenance schedules that have been developed with the proposed project's encroachment permit application materials.

Board staff is available to discuss any questions you have regarding the above comments. Please contact Jennifer Stewart via email at Jennifer.Stewart@CVFlood.ca.gov.

Sincerely,

Andrea Buckley

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Environmental Services and Land Management Branch

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