19 February 2019

Heather Green
Department of Water Resource
3500 Industrial Boulevard
West Sacramento, CA 95691

CERTIFIED MAIL
7019 2280 0001 8956 7764

COMMENTS TO REQUEST FOR REVIEW FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT, LOOKOUT SLOUGH TIDAL HABITAT RESTORATION AND FLOOD IMPROVEMENT PROJECT, SCH#2019039136, SOLANO COUNTY

Pursuant to the State Clearinghouse's 16 December 2019 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Draft Environmental Impact Report* for the Lookout Slough Tidal Habitat Restoration and Flood Improvement Project, located in Solano County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office

of Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues. For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website: http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at: https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf

In part it states:

> *Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.*
>
> *This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.*

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Total Maximum Daily Load - Mercury

Central Valley Water Board staff recommends replacing all instances of 'characterization study' with 'control study' when referencing Phase 1 studies for the Delta Mercury Control Program.

The Draft Initial Study indicates that potential impacts from methylmercury may be significant. The Draft Environmental Impact Report indicates that potential impacts from methylmercury are less than significant. However, some tidal wetlands may be a source of methylmercury, thus posing a potential health risk for human and wildlife consumption of aquatic organisms within and beyond the wetland.

Please refer to the following references that indicate the potential for tidal wetlands to be a source of methylmercury:

1. Heim, W.A., M. Stephenson, B. Hughes, A. Bonnema, and K, Coale. 2008. “Methylmercury Loading Studies in Delta Wetlands--Sycamore Slough and Suisun Marsh.” Final Report submitted to the CALFED Bay-Delta Program for the Project “Transport, Cycling and Fate of Mercury and Monomethylmercury in the San Francisco Delta and Tributaries” Task 5.3a.
2. Gill, G.A. 2008. “Sediment-water Exchange.” Final Report submitted to the CALFED Bay-Delta Program for the Project “Transport, Cycling and Fate of Mercury and Monomethylmercury in the San Francisco Delta and Tributaries” Task 4.2.Pacific Northwest National Laboratory.
3. Fleck, J.A., G. Aiken, B.A. Bergamaschi, D. Latch. 2008. “Methylmercury Loading Studies in Delta Wetlands – Brown’s Island.” Final Report submitted to the CALFED Bay-Delta Program for the Project “Transport, Cycling and Fate of Mercury and Monomethylmercury in the San Francisco Delta and Tributaries” Task 5.3a.
4. Bergamaschi, B.A., J.A. Fleck, B.D. Downing, E. Boss, B. Pellerin, N.K. Ganju, D.H. Schoellhamer, A.A. Byington, W.A. Heim, M. Stephenson, and R. Fujii. 2011. “Methyl mercury dynamics in a tidal wetland quantified using in situ optical measurements.” Limnology and Oceanography 56(4): 1355-1371.
5. Mitchell, C.P.J, T.E. Jordan, A. Heyes, and C.C. Gilmour. 2012. “Tidal exchange of total mercury and methylmercury between a salt marsh and a Chesapeake Bay sub-estuary. Biogeochemistry”. Published online: January 1, 2012.doi: 10.1007/s10533-011-9691-y.
6. Lee, P., D. Bosworth, J. Manning. 2015. “Methylmercury Import and Export Studies of Tidal Wetlands in the Sacramento-San Joaquin Delta, Yolo Bypass, and Suisun Marsh.” Progress Report, Delta Mercury Control Program.
7. Turner, R.R., C.P.J. Mitchell, A.D. Kopec, R.A. Bodaly. 2018. “Tidal fluxes of mercury and methylmercury for Mendall Marsh, Penobscot River estuary, Maine.” Science of the Total Environment 637-638 (2018) 145-154.

The Delta, including the proposed project area, is subject to the Delta Mercury Control Program (also referred to as the Delta Methylmercury Total Maximum Daily Load). Several entities have conducted studies to develop management practices to minimize the production and bioaccumulation of methylmercury. If viable and feasible management practices are identified in the future, the project proponents will need to consider incorporating those practices during construction and future operations of wetlands on the proposed project area.

The proposed project was included in Department of Water Resource's August 2018 Delta Regional Monitoring Program (RMP) Participation Plan. Currently the Delta RMP is monitoring methylmercury in fish and water at multiple locations within the Delta and future RMP monitoring efforts may focus on mercury monitoring near habitat restoration projects.

The Delta Mercury Control Program has specific requirements for managing mercury-contaminated sediment in the Cache Creek Settling Basin. Pursuant to the Delta Mercury Control Program, the United States Army Corps of Engineers, Department of Water Resources and Central Valley Flood Protection Board are required to develop and submit to the Central Valley Water Board an implementation plan to decrease mercury loads discharged from the Cache Creek Settling Basin. Please see the referenced requirements below, located on page 4-99 of the Basin Plan:

4.5.4.3.5.7 <u>Cache Creek Settling Basin Improvement Plan and Schedule</u>

Department of Water Resources, Central Valley Flood Protection Board, and USACE, in conjunction with any landowners and other interested stakeholders, shall implement a plan for management of mercury contaminated sediment that has entered and continues to enter the Cache Creek Settling Basin (Basin) from the upstream Cache Creek watershed. The agencies shall:

1. By 20 October 2012, the agencies shall take all necessary actions to initiate the process for Congressional authorization to modify the Basin, or other actions as appropriate, including coordinating with the USACE.

2. By 20 October 2013, the agencies shall develop a strategy to reduce total mercury from the Basin for the next 20 years. The strategy shall include a description of, and schedule for, potential studies and control alternatives, and an evaluation of funding options. The agencies shall work with the landowners within the Basin and local communities affected by Basin improvements.

3. By 20 October 2015, the agencies shall submit a report describing the long term environmental benefits and costs of sustaining the Basin's mercury trapping abilities indefinitely.

4. By 20 October 2015, the agencies shall submit a report that evaluates the trapping efficiency of the Cache Creek Settling Basin and proposes, evaluates, and recommends potentially feasible alternative(s) for mercury reduction from the Basin. The report shall evaluate the feasibility of decreasing mercury loads from the basin, up to and including a 50% reduction from existing loads.

5. By 20 October 2017, the agencies shall submit a detailed plan for improvements to the Basin to decrease mercury loads from the Basin.

The agencies shall submit the strategy and planning documents described above to the Regional Water Board for approval by the Executive Officer. During Phase 1, the agencies should consider implementing actions to reduce mercury loads from the Basin. Beginning in Phase 2, the agencies shall implement a mercury reduction plan.

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For more information on the Construction General Permit, visit the State Water Resources Control Board website at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements. If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications. For more information on the Water Quality Certification, visit the Central Valley Water Board website at:
https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/

Waste Discharge Requirements – Discharges to Waters of the State

If USACE determines that only non-jurisdictional waters of the State (i.e., “non-federal” waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality

Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation. For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website at:https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Risk General Order) 2003-0003 or the Central Valley Water Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Risk Waiver) R5-2013-0145. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Risk General Order and the application process, visit the Central Valley Water Board website at: http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Risk Waiver and the application process, visit the Central Valley Water Board website at: http://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2013-0145_res.pdf

Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order. For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf

NPDES Permit

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit. For more information

regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/help/permit/

If you have questions regarding these comments, please contact me at (916) 464-4812 or Jordan.Hensley@waterboards.ca.gov.

Original Signed By

Jordan Hensley
Environmental Scientist

cc: State Clearinghouse unit, Governor's Office of Planning and Research, Sacramento (via email)

Jennie Fuller
Central Valley Water Board
Jennifer.Fuller@waterboards.ca.gov