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RE: Comments on Draft Environmental Impact Report for the Lookout Slough Tidal Habitat Restoration and Flood Improvement Project, SCH#2019039136

Dear Heather Green:

Thank you for the opportunity to review and comment on the Lookout Slough Tidal Habitat Restoration and Flood Improvement Project (project) Draft Environmental Impact Report (Draft EIR), released December 16, 2019. The project includes enhanced fish and wildlife habitat and improved flood control, and consists of restoration activities on approximately 3,164 acres within a 3,400-acre site located primarily in unincorporated Solano County with a small portion located within unincorporated Yolo County. The project area currently consists of agricultural lands, wetlands, and tidal marshlands within the Cache Slough complex and the Yolo Bypass.

The Delta Stewardship Council (Council) is an independent agency of the State of California, established by the Sacramento-San Joaquin Delta Reform Act of 2009, codified in Division 35 of the California Water Code, sections 85000-85350 (Delta Reform Act). The Delta Reform Act charges the Council with furthering California's coequal goals of achieving a more reliable water supply and restoring the Sacramento-San Joaquin River Delta (Delta) ecosystem, to be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place. (Cal. Water Code section 85054.)

Pursuant to the Delta Reform Act, the Council has adopted the Delta Plan, a legally enforceable management framework for the Delta and Suisun Marsh for achieving the coequal goals. The Delta Reform Act grants the Council specific regulatory and appellate authority over certain actions that take place in whole or in part in the Delta and Suisun Marsh, referred to as "covered actions." (Cal. Water Code sections 85022(a) and 85057.5.) The Council exercises

"Coequal goals" means the two goals of providing a more reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem. The coequal goals shall be achieved in a manner that protects and enhances the unique cultural, recreational, natural resource, and agricultural values of the Delta as an evolving place."

that authority through its regulatory policies (set forth in Title 23 of the California Code of Regulations, Sections 5001 through 5016) and recommendations incorporated into the Delta Plan. State and local agencies are required to demonstrate consistency with the Delta Plan when carrying out, approving, or funding a covered action (Cal. Water Code section 85057.5 and 85225).

Thank you for meeting with Council staff on January 29, 2020 to review and discuss the project. The Council previously submitted a comment letter on the Notice of Preparation of an Environmental Impact Report (NOP) for this project dated April 22, 2019. We appreciate that the comments offered in that letter appear to have been considered and addressed in the Draft EIR, including use of a reference table providing a high-level overview of potentially applicable Delta Plan policies and recommendations and corresponding sections of the Draft EIR (Table IV.A-1, DEIR p. IV.A-11 through IV.A-13).

Covered Action Determination and Certification of Consistency with the Delta Plan

Water Code section 85057.5(a) provides a multi-part test to define what activities would be considered covered actions. Based on the project location and scope, as described in the Draft EIR, the proposed project appears to meet the definition of a covered action because it:

1. Will occur in whole or in part within the boundaries of the Legal Delta (Water Code §12220) or Suisun Marsh (Public Resources Code §29101). The project would occur within the boundaries of the Legal Delta within the Cache Slough complex and the Yolo Bypass.
2. Will be carried out, approved, or funded by the State or a local public agency. DWR is the lead agency and would carry out, approve, and fund the project.
3. Will have a significant impact on the achievement of one or both of the coequal goals or the implementation of a government-sponsored flood control program to reduce risks to people, property, and State interests in the Delta. The project would restore tidal wetland habitat and provide enhanced flood protection, and therefore would have a significant impact on both ecosystem restoration and implementation of government-sponsored flood control.
4. Is covered by one or more of the regulatory policies contained in the Delta Plan (23 CCR section 5003-5015). Delta Plan regulatory policies that may apply to the project are discussed below.

It is the State or local agency approving, funding, or carrying out the project that must determine if that project is a covered action and, if so, file a Certification of Consistency with the Delta Plan prior to project implementation. (Cal. Water Code section 85225; 23 CCR section 5001(j)(3).)

Comments Regarding Delta Plan Policies and Potential Consistency Certification

The following section describes regulatory Delta Plan policies that may apply to the proposed project based on the available information in the Draft EIR. This information is offered to assist

DWR to prepare environmental documents that can be used to support the project's eventual Certification of Consistency. This information may also assist DWR to better describe the relationship between the proposed project and the Delta Plan in the Final EIR.

General Policy 1: Detailed Finding to Establish Consistency with the Delta Plan

Delta Plan Policy **G P1** (23 CCR section 5002) specifies what must be addressed in a certification of consistency for a covered action. The following is a subset of Policy G P1 requirements that a project must meet to be considered consistent with the Delta Plan:

Mitigation Measures

Delta Plan Policy **G P1, subsection (b)(2)**, (23 CCR section 5002(b)(2)) requires that actions not exempt from CEQA and subject to Delta Plan regulations must include all applicable feasible mitigation measures adopted and incorporated into the Delta Plan as amended April 26, 2018, or substitute mitigation measures that are equally or more effective. Mitigation measures in the Delta Plan's Mitigation and Monitoring Report Program (Delta Plan MMRP) are available at: <https://deltacouncil.ca.gov/pdf/delta-plan/2018-appendix-o-mitigation-monitoring-and-reporting-program.pdf>.

The Draft EIR identifies potentially significant impacts requiring mitigation on Agricultural Resources, Air Quality, Biological Resources, Hazardous Materials, Hydrology and Water Quality, and Tribal Cultural Resources. Council staff recommend that DWR review the Delta Plan MMRP and implement applicable feasible mitigation measures identified in the Delta Plan or substitute mitigation measures that are equally or more effective.

Agriculture is a prominent land use in the Delta, including on the project site and in surrounding areas. The Delta Plan MMRP discusses mitigation for impacts to Agricultural Resources under Mitigation Measure 7-1. DWR describes corresponding mitigation measures for the project in the Draft EIR which minimize impacts to agriculture, including off-site agricultural improvements (Draft EIR Mitigation Measure AG-1a) and establishment of an off-site agricultural preserve by placing a conservation easement on a minimum of 1,000 acres of Prime Farmland (Draft EIR Mitigation Measure AG-1b).

The project will include construction activities adjacent to waterways and wetlands. The Draft EIR indicates that DWR will follow construction Best Management Practices (BMPs) during construction and maintenance (Draft EIR, p. IV.G-19). Since the final required BMPs are subject to approval by the Central Valley Water Resources Quality Control Board (Water Board), DWR should provide an updated list of BMPs to fulfill requirements set forth in Delta Plan mitigation measures 3-1 (Water Resources) and 4-1 (Biological Resources) in a future certification of consistency.

Chapter IV.D and Appendix F of the Draft EIR describe how the project will address invasive nonnative species. This chapter includes proposed mitigation measures to reduce potential invasive species to a less than significant level, including project *Mitigation Measure BIO-4. Invasive Species Abatement*. DWR should review the Delta Plan MMRP (<https://deltacouncil.ca.gov/pdf/delta-plan/2018-appendix-o-mitigation-monitoring-and-reporting-program.pdf>) to ensure that each proposed measure related to invasive nonnative species is equally or more effective than related Delta Plan mitigation measures. Specifically, in the Final EIR, DWR should describe how proposed project Mitigation Measure BIO-4 is equally or more effective than Delta Plan Mitigation Measure 4-1. Delta Plan Mitigation Measure 4-1 requires development and implementation of an invasive species management plan for any project whose construction or operation could lead to introduction or facilitation of invasive species establishment, and describes the required content of the management plan.

Best Available Science

Delta Plan Policy **G P1, subsection (b)(3)**, (23 CCR section 5002(b)(3)) states that covered actions must document use of best available science as relevant to the purpose and nature of the project. The regulatory definition of "best available science" is provided in Appendix 1A of the Delta Plan (<https://deltacouncil.ca.gov/pdf/delta-plan/2015-appendix-1a.pdf>). Best available science is defined in the Delta Plan as the best scientific information and data for informing management and policy decisions. Six criteria are used to define best available science: relevance, inclusiveness, objectivity, transparency and openness, timeliness, and peer review. (23 CCR section 5001(f)) This policy generally requires that the lead agency clearly document and communicate the process for analyzing project alternatives, impacts, and mitigation measures of proposed projects, in order to foster improved understanding and decision making.

The Draft EIR for the project generally cites well-documented hydrodynamic models, invasive species best practices, and biological resource areas. The proposed restoration design strategies to provide habitat and a source of food for Delta smelt and other protected species is well supported by multiple numerous scientific studies that may meet the best available science criteria. In addition to using scientific literature cited throughout Draft EIR Appendix H (*Fish Study Restoration Basis of Design*), DWR consulted with experts on the species (Draft EIR Appendix H, p. 2). Appendix H includes a Delta smelt habitat conceptual model, explains the aspects of the model based on peer-reviewed literature, and relates these aspects to both the project site and proposed design. Appendix H also discusses the potential of the project to contribute to recovery of select protected fish species that may use the area. Appendix H considers key components of each species' life history and evaluates the potential for each species to occur within the project area following proposed restoration. DWR should more fully support the information in the Biological Resources Assessment and in Section IV.D of the Final EIR using additional references to supporting scientific literature.

Adaptive Management

Delta Plan Policy **G P1, subsection (b)(4)**, (23 CCR section 5002(b)(4)) requires that ecosystem restoration and water management covered actions include adequate provisions, appropriate to the scope of the action, to assure continued implementation of adaptive management. This requirement is satisfied through: a) the development of an adaptive management plan that is consistent with the framework described in Appendix 1 B of the Delta Plan (<https://deltacouncil.ca.gov/pdf/delta-plan/2013-appendix-b-combined.pdf>), and b) documentation of adequate resources to implement the proposed adaptive management plan.

Adaptive management is required for the project given its ecosystem restoration component. Council staff understand that an adaptive management plan is not available as part of the Draft EIR. An adaptive management plan consistent with the framework referenced above will be required as part of a certification of consistency with the Delta Plan for the project. Council staff in the Delta Science Program are available to provide early consultation on adaptive management upon request.

Ecosystem Restoration Policy 1: Delta Flow Objectives

Delta Plan Policy **ER P1** (23 CCR section 5005) requires the State Water Resources Control Board's Bay Delta Water Quality Control Plan flow objectives to be used to determine consistency with the Delta Plan for a proposed action that could significantly affect flow in the Delta. This policy relates to the project because the project proposes modifications to Delta levees at several locations, which has potential to significantly affect flow.

The Draft EIR describes potential impacts to flood flow and conveyance as less than significant. The basis for this finding is described in several sections and appendices to the Draft EIR, and summarized on page IV.G-1. The Draft EIR describes a nested model approach utilizing one-dimensional HEC-RAS and two-dimensional TUFLOW models. Electrical conductivity modeling methods, a common proxy for salinity, are summarized in Appendix S. As described in the Draft EIR, these modeling methods appear to align with best current practices and would be useful in describing compliance with current Bay-Delta Water Quality Control Plan (D-1641) flow objectives in a future certification of consistency. Modeling conducted for this project predicts slight reductions in electrical conductivity at two D-1641 compliance points: up to 5% reduction at Barker Slough North Bay Aqueduct intake, and up to 1.2% at the Contra Costa Water District Mallard Slough intake. Modeling simulates slight increases at all other locations, up to 1.6% for at least one month per year (Draft EIR, Appendix S, pp. 3-4). When considering the cumulative impacts of other proposed restoration sites in the Delta and Suisun Marsh, the compliance locations are simulated to remain in compliance with D-1641 standards (Draft EIR, Appendix S, pp. 5-6). Council staff notes that the salinity modeling used 2009 as a representative dry year. In the Final EIR, DWR should describe the basis for selecting 2009 as a representative year and how salinity conditions may

vary across other water-year types and under anticipated climate change conditions relative to the State Water Board's Delta flow objectives.

Ecosystem Restoration Policy 2: Restore Habitats at Appropriate Elevations

Delta Plan Policy **ER P2** (23 CCR section 5006) requires habitat restoration to be consistent with Appendix 3 (<https://deltacouncil.ca.gov/pdf/delta-plan/2013-appendix-b-combined.pdf>), which describes the many ecosystem benefits related to restoring floodplains. The elevation map included as Figure 4-1 in Appendix 4 (<https://deltacouncil.ca.gov/pdf/delta-plan/2013-appendix-b-combined.pdf>) of the Delta Plan should be used as a guide for determining appropriate habitat restoration actions based on an area's elevation.

The Draft EIR analyzes the elevation of the project site in relation to the 1957 authorized design water surface and storm surge plus 1 foot to account for uncertainties associated with climate change and sea-level rise (Draft EIR Appendix D, section 4.1, p. 600). The project site ranges from approximately +3 feet to +8 feet in elevation. Based on this analysis, it appears that the project site is appropriate for tidal marsh restoration under current conditions, and provides capacity for tidal marsh to migrate as sea level increases. However, in the Final EIR DWR should further document how this analysis and project design aligns with Delta Plan policies ER P2 and G P1(b)(4) (best available science).¹

Ecosystem Restoration Policy 4: Expand Floodplains and Riparian Habitats in Levee Projects

Delta Plan Policy **ER P4** (23 CCR section 5008) requires levee projects to evaluate and, where feasible, incorporate alternatives to increase floodplains and riparian habitats. This policy applies to the project because the project includes modifications to Delta levees.

The Draft EIR notes that flood improvement and floodplain expansion are primary objectives of the project and that the project will expand the Yolo Bypass in this area. As DWR finalizes specific levee setback designs, it should review the January 2016 Council report: "Improving Habitat along Delta Levees".² This report summarizes which habitat designs along levees may provide greater benefits to target native species with an emphasis on salmon and riparian birds.

¹ For example, by highlighting the project elevation profiles, appropriate sea-level projections, and overlay with Delta Plan Figure 4-1.

² Available upon request by contacting accessibility@deltacouncil.ca.gov.

Ecosystem Restoration Policy 5: Avoid Introductions of and Habitat Improvements for Invasive Nonnative Species

Delta Plan Policy **ER P5** (23 CCR section 5009) calls for avoiding introduction and habitat improvements for invasive, nonnative species or mitigating these potential impacts in a manner that appropriately protects the ecosystem.

Please refer to previous discussion regarding project Mitigation Measure BIO-4 and Delta Plan Mitigation Measure 4-1 under Delta Plan Policy G P1(b)(2) above³.

Delta as Place Policy 2: Respect Local Land Use when Siting Water or Flood Facilities or Restoring Habitats

Delta Plan Policy **DP P2** (23 CCR section 5011) reflects one of the Delta Plan's charges to protect the Delta as an evolving place by requiring the siting of project improvements/facilities to avoid or reduce conflicts with existing or planned future land uses when feasible. Given that the project's scope and location is within the Delta, DP P2 applies to this project. In the Final EIR, DWR should describe in detail the project process and anticipated outcomes that would avoid or reduce conflicts with existing or planned future land uses.

The Draft EIR states that conflict with existing agricultural land uses would be minimal after proposed mitigation and with implementation of aspects of the Good Neighbor Checklist (Draft EIR p. IV.B-15). These mitigation measures and the checklist are described in Chapter IV.B (p. IV.B-1) and Appendix E of the DEIR, respectively. The Council understands that in addition to these proposed mitigation measures, DWR has entered into a Memorandum of Understanding with Solano County that advances additional strategies to reduce impacts to agriculture. A certification of consistency for the project should describe any additional steps taken by DWR to minimize or offset the loss of agricultural land and promote compatibility of agricultural and ecosystem restoration uses.

The project area contains 3,400 acres of agricultural land and is surrounded by neighboring agricultural parcels. As the Draft EIR acknowledges, agriculture is an important land use in the project area and throughout the Delta. The Draft EIR notes that the three parcels comprising the project site are under Williamson Act contracts with Solano County, which limits their use to agricultural or open space. However, the Vogel and Liberty Farms properties are not designated as prime farmland and therefore would not result in conversion of prime farmland to non-agricultural use. The majority of one of the three remaining properties, Bowlsbey, is

³ Council staff note that the Draft EIR includes reference to two Delta Plan recommendations, ER R2 (Prioritize and Implement Projects that Restore Delta Habitat) and ER R7 (Prioritize and Implement Actions to Control Nonnative Invasive Species). As DWR is aware, these recommendations are not regulatory. However, the Council appreciates that the recommendations are referenced here, as they relate to the project and support achievement of the coequal goals.

designated as prime farmland. The project would result in the loss of approximately 1,460 acres of prime farmland on the Bowsbey property (Draft EIR pp. IV.B-10 - IV.B-15). Proposed project Mitigation Measure AG-1a would partially offset this loss by requiring funding for agricultural improvements (e.g., irrigation infrastructure) on a nearby property and at least one agricultural conservation easement for a minimum of 1,000 acres. Together, these measures would exceed the amount of prime farmland to be converted on the Bowsbey property. It should be noted that not all of the mitigated area is currently of the same quality as land that would be converted, although the total proposed area aligns with Solano County General Plan implementation program AG.I-1, which requires mitigation for loss of agricultural land at a minimum of 1.5:1 (<https://www.solanocounty.com/civicax/filebank/blobdload.aspx?BlobID=6493>). In the Final EIR, DWR should add additional discussion regarding consistency with Solano County's General Plan.

The Draft EIR highlights the Delta Plan in relation to agricultural land use, stating that the Delta Plan does not contain any regulatory policies focused specifically on agriculture. However, Delta Plan Policy DP P2's scope includes planned and existing land uses, which in the project area includes agricultural land. A certification of consistency for the project should include robust discussion regarding consistency of the project with adjacent existing and planned agricultural uses, in addition to other aspects of Delta as Place, including but not limited to recreation and cultural resources. As noted under Delta Plan Policy G P1(b)(2) above, the Delta Plan also includes mitigation measures specific to these items, which should be included in the Final EIR as applicable (or the Final EIR should include equally or more effective mitigation measures).⁴

Risk Reduction Policy 1: Prioritization of State Investments in Delta Levees and Risk Reduction

Delta Plan Policy **RR P1** (23 CCR section 5012) calls for the prioritization of State investments in Delta flood risk management, including levee operation, maintenance and improvements. Delta Plan Policy RR P1 provides interim priorities to guide discretionary State investments in Delta flood risk management, including levee operation, maintenance and improvements.

The project includes levee alterations and improvements to provide habitat and flood control enhancements. As described in the Draft EIR (p. I-2), the project would widen a portion of the Yolo Bypass to increase flood storage and conveyance, increase the resilience of levees, and reduce flood risk. The project involves constructing a new setback levee along Duck Slough and Liberty Island Road (Duck Slough Setback Levee) to replace flood protection currently

⁴ The Draft EIR also includes three Delta Plan recommendations specific to agriculture: Promote Value-added Crop Processing (DP R8), Encourage Agritourism (DP R9), and Encourage Wildlife-friendly Farming (DP R10). The Council appreciates reference to and recognition of these non-regulatory Delta Plan recommendations as applicable to the project.

offered by the existing Shag Slough Levee. A certification of consistency should explain, and provide supporting documentation to demonstrate, how the project is consistent with the priorities outlined in Policy RR P1.

Draft EIR Table IV.A-1 identifies the Council's draft proposed regulatory language for Policy RR P1 that is the subject of an ongoing rulemaking process, rather than the version of RR P1 currently in effect. The Final EIR, should refer to and analyze the priorities established by currently effective RR P1 regulatory requirements (23 CCR section 5012).

Closing Comments

As DWR proceeds with development of a Final EIR for the project, the Council invites DWR staff to engage Council staff in early consultation, prior to submittal of a certification of consistency, to discuss project features and mitigation measures that would promote consistency with the Delta Plan. As part of the Council, the Delta Science Program's Adaptive Management Liaisons are also available to provide further consultation and guidance regarding appropriate application of best available science and adaptive management.

More information on covered actions, early consultation, and the certification process can be found on the Council website, <http://deltacouncil.ca.gov/covered-actions>. Council staff are available to discuss items discussed in this letter as you proceed in the next stages of your project and approval processes. Please contact Daniel Constable at (916) 322-9338 (daniel.constable@deltacouncil.ca.gov) with any questions.

Sincerely,



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Delta Stewardship Council

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