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DELTA STEWARDSHIP COUNCIL

A California State Agency

July 17, 2015

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RE: Delta Wetlands Project – Supplemental Draft Environmental Impact Statement

Dear Mr. Fugler:

The Delta Stewardship Council (Council) appreciates the opportunity to submit the following comments on the Delta Wetlands Project Supplemental Draft Environmental Impact Statement (SDEIS). This SDEIS evaluates the potential effects of implementing each of four alternative scenarios for diversion and storage of water on two islands in the Sacramento-San Joaquin Delta (Delta) and for implementation of a Compensatory Mitigation Plan on two other islands in the Delta. Council staff feels some deficiencies exist in the SDEIS and offer these comments for your review and consideration.

This letter is organized into two sections, the first section contains general comments on the project as it relates to the SDEIS and the second section provides information about the Council's regulatory role as it relates to the projects that occur in the Delta and describes potential inconsistencies between this project and the Delta Plan.

BIOLOGICAL RESOURCES

Fish Monitoring

The SDEIS states that the project will divert water onto the project Reservoir Islands between December-March annually and that the project will rely on monitoring conducted by the Interagency Ecological Program's (IEP's) Smelt Larva Survey and 20-mm Survey to detect the presence of post larval-juvenile Delta smelt in the project area. If smelt are detected by these surveys at sampling locations near the Reservoir Islands, daily monitoring for the presence of larval smelt at project diversion sites will be conducted. In the event that larval smelt are found by daily fish monitoring surveys, the project proponent will immediately reduce intake of water onto the Reservoir Islands by 50% to reduce the potential for entrainment of these fish. We have concerns related to relying on IEP survey data to trigger the project's daily fish monitoring. Both the Smelt Larva Survey and the 20-mm Survey operate on a fortnightly

"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."

– CA Water Code §85054

basis, so the temporal scale of these surveys is insufficient to guide real-time management of water operations. Additionally, there is a gap between when the fish surveys are conducted and when the monitoring results are released to the public, resulting in additional lag-time between when smelt are detected near the Reservoir Islands diversion locations and when reservoir operators can react to reduce the risk of fish entrainment. Furthermore, there is no guarantee that these two IEP surveys, upon which the project's fish monitoring heavily relies, will persist in the same scale or capacity over the course of the proposed 50-year term of the project.

We recommend that the SDEIS be revised to include clarification on who would perform the daily fish monitoring and how the project-specific daily fish monitoring will be conducted during the period of water diversions onto the Reservoir Islands. If the project's revised fish monitoring program continues to rely on the IEP surveys to detect presence of smelt, we suggest that the project commit to providing financial support for the IEP surveys, to help provide assurances these monitoring programs remain intact for the duration of the permit for operation of the Reservoir Islands.

Entrainment Analysis

We are concerned that the current fish entrainment analysis may underestimate the impact that water diversions onto the Reservoir Islands may have on listed fish species such as Delta smelt. Appendix F of the SDEIS analyzes the impacts of entrainment on fish that are over 20mm in length, (e.g., the size of fish that would mostly be screened from the intakes because state of the art fish screens will be installed at all project diversions). To account for the seasonality of fish presence in the Delta, the SDEIS calculates average density of listed fish species (number of fish per thousand acre-feet) based on salvage density results from the State and Federal Water Projects (SWP, CVP) fish facilities. The analysis then uses several correction factors (e.g., the analysis assumes that the fish screens will be 95% effective) to estimate entrainment losses due to the project. Although a relatively simplistic analysis, we largely agree with the SDEIS's approach for calculating entrainment impacts based on salvage-density. However, we believe that the distribution of listed native fish in the Delta was not accounted for in the SDEIS's analysis. Based on past surveys, abundances of smelt and salmonids are expected to be higher in the western and Central Delta (e.g., near Webb and Bacon Islands) than in the south Delta where the SWP and CVP facilities are located. Since the SDEIS did not correct for the spatial distribution of fish densities across different regions of the Delta, we believe that the entrainment analysis underestimates the impact of the project on take of listed fish species. In addition fish may be entrained within the Reservoir Islands during the water storage period and could be trapped on the islands during discharge and draining of the reservoir. We suggest alternative plans to address impacts to these fish prior to a complete discharge of water from Reservoir Islands. As the current SDEIS concludes the impacts on native fish from project diversions and releases are significant, we suggest that the entrainment analysis be refined to more accurately estimate how significant the effect will be.

Tidal Habitat Mitigation

The project proponent is proposing to provide a conservation easement for 200 acres of brackish tidal wetlands on Chipps Islands to compensate for an upstream shift in X2 and to conserve an additional 40 acres of brackish tidal wetlands on Chipps Island to mitigate for loss of shallow water habitat due to construction work on the Reservoir Islands. Cumulatively, the SDEIS states that 240 acres of brackish tidal wetlands on Chipps Island will be conserved and protected from future conversion to managed wetlands for waterfowl because of the proposed project. We found it was unclear how placing an easement on an already existing tidal marsh habitat would help mitigate for the shift in X2, especially when such a change in the position of the low salinity zone can negatively impact native estuarine fish (refer to Kimmerer 2002¹ and Kimmerer et al. 2009²). Additionally, the San Francisco Bay Conservation and Development Commission's (BCDC), whose jurisdiction includes the Suisun Marsh (and thus Chipps Island), has a policy which calls for tidal marshes to be conserved to the fullest possible extent. Thus it is unlikely that BCDC would issue the necessary permits for the diking of an existing tidal wetland on Chipps Island; additionally, BCDC has enforcement authority to issue cease-and-desist order to stop unpermitted activities. At a minimum, we recommend that the SDEIS explicitly describe the management plan for the conservation easement on Chipps Island, as well as describe how an easement on existing tidal wetlands will compensate for the shift in X2 and the direct loss of tidal wetlands due to project construction.

Invasive Aquatic Vegetation (IAV)

The SDEIS states in section 3.5 Biological Resources, BIO-1: Introduction and Spread of Invasive Plants, that the extent of introduction and spread (of invasive plants) would be limited due to crop management activities, but this only addresses land based plants. We are concerned that the SDEIS does not address pervasive invasive aquatic vegetation (IAV). Water temperature and residence time conditions may encourage the establishment and proliferation of IAV such as water hyacinth and Brazilian waterweed (*Egeria densa*) either within the reservoirs or adjacent to discharge points. The SDEIS does not mention the potential of the project for possible impacts by the project of facilitating infestations of IAV, which can have deleterious impacts on water quality (e.g., potential reduction in dissolved oxygen), fish habitat (e.g., reduced open water habitat, enhanced ambush habitat for predatory nonnative fish), and recreational boating opportunities. We recommend the project proponent coordinate with the California State Parks Division of Boating and Waterways' Aquatic Weed Control Program and the wildlife agencies to further evaluate this potential impact and to develop appropriate mitigation measures.

¹ Kimmerer, W.J., 2002. Physical, biological, and management responses to variable freshwater flow into the San Francisco Estuary. *Estuaries*, 25:1275-1290.

² Kimmerer, W. J., Gross, E. S., and M.L. MacWilliams. 2009. Is the response of estuarine nekton to freshwater flow in the San Francisco Estuary explained by variation in habitat volume? *Estuaries and Coasts*, 32(2), 375-389.

Water Quality

The SDEIS addresses the potential development of toxin-producing algae from the project in Appendix C, Water Quality Management Plan (WQMP). The WQMP proposes mitigation for long-term water quality impacts from total organic carbon (TOC); dissolved organic carbon (DOC); bromide; total dissolved solids (TDS); chloride; nutrient (nitrogen and phosphorus; taste and odor compounds, such as 2-methylisoborneol (MIB) and geosmin; chlorophyll a; algal toxins and problematic algal species including taste and odor (T&O) producing species. The WQMP describes how the project will monitor through a 12-month operating plan; reporting on net increases or decrease in these water quality factors once every three years; and when mitigation is required, the project would acquire offsets or otherwise mitigate 150% of the net increase in these water quality factors. The SDEIS and WQMP does not mention an adaptive management approach which would evaluate the effectiveness of the proposed mitigation actions and investigate how project operations could be modified to achieve the mitigation objectives. We recommend the project proponent develop a pilot scale project to simulate their Reservoir Island water management scheme. A pilot scale project could give an indication of how likely some of the speculated water quality factors (and ecosystem effects) might manifest before a full project is implemented. This pilot project may be able to reduce the uncertainties associated with complex water quality and ecosystem processes and provide information to help manage these issues at the project scale.

Monitoring and Adaptive Management

Based on our review of the SDEIS's Appendix B, Draft Compensatory Mitigation Plan, we believe that the current monitoring plan is not adequate to guide adaptive management of this project. The Compensatory Mitigation Plan establishes performance standards to monitor the successful establishment of aquatic, wetland, and upland habitats based on the floristic, physical, and hydrologic components of the habitats on the site. However it intentionally leaves out monitoring for listed native species as part of the post-construction monitoring plan, even though the purpose of the Habitat Islands is to mitigate for impacts to species of interest including giant garter snake, Swainson's hawk, sandhill cranes due to construction and management of the Reservoir Islands. We recognize that it is impossible to guarantee occupancy of restored habitats by these target species, however monitoring provides important information on whether the restored habitat is functioning as intended, increases scientific knowledge and can help guide the adaptive management process.

We see opportunities for the project proponent to adaptively manage the created habitats throughout the course of the permit term. For example, modifications can be made to when the managed wetlands are flooded and drained, and crop typed and acreages can be changed from year to year. Over the 50-year course of the project, we anticipate that the effects of climate change will become apparent and expect that management of the Habitat Island will need to be adjusted in response to changing conditions. We suggest that the SDEIS describe

in more detail how Habitat Island operations could be altered (e.g., planting more cereal crops to benefit sandhill crane foraging) based on information learned from the monitoring program and in response to the likely impacts of climate change; such information will be useful when developing and describing the adaptive management framework for the project.

Land Use

According to the SDEIS, the proposed project could result in significant and unavoidable impacts to agricultural resources due to the conversion of important farmland, including areas designated by the Contra Costa County and San Joaquin County General Plans as prime farmland. Large losses of farmland in the Delta adversely impact the economic sustainability of agriculture in the region. Additionally, the Delta Plan and the Delta Protection Commission's Land Use and Resource Management Plan calls for the retention of agricultural lands within the Delta.

To help reduce the impact of the project on agricultural resources, the SDEIS includes **Mitigation Measure AG-MM-1**, which states: "During each of the first 10 years of the project operations, the project applicant will provide to the Semitropic Water Storage District \$500,000, for a total of \$5,000,000. The funding is intended to further Semitropic's goals of sustaining agriculture through the provision of agricultural surface water to farmers within its boundaries at least cost and provide long-term reliability. It would be used for the following purposes:

- Purchase of voluntary conservation easements over Prime Farmland in Semitropic's District.
- Purchase of imported water by Semitropic.
- Development and operation of infrastructure needed to deliver water to and within Semitropic.
- Other purposes consistent with the Semitropic's "mission"

We recently learned that impacts to San Joaquin County agriculture (from conversion of Bacon Island to a Reservoir Island and conversion of croplands on Bouldin Island to non-agricultural use) would be mitigated by maximizing agricultural conservation specifically within San Joaquin County. This measure was implemented based on coordination between the San Joaquin County and the project proponent; we support and encourage such early engagement with local governments. We hope to the extent practicable that conservation of agricultural lands within San Joaquin County necessary to mitigate for project impacts will prioritize protection of Delta farmlands.

We are concerned also about the loss of agricultural land in Contra Costa County on Webb and Holland Islands. The SDEIS acknowledges that the project would be inconsistent with the Contra County General Plan, which contains a goal to "conserve prime productive agricultural land outside the Urban Limit Line exclusively for agriculture." We hope the project proponent is working with Contra Costa County on strategies to mitigate for impacts to agricultural lands within the County and prioritize preservation of farmland within the Delta.

Please consult with the Delta Protection Commission to ensure that any decisions related to farmland mitigation is consistent with their Land Use and Resource Management Plan for the Primary Zone of the Delta, which was last revised in 2010 and is currently being updated. Also we recommend adding Delta Plan Mitigation Measures 7-1 and 7-2, which are drawn from the Delta Plan's Mitigation and Monitoring Reporting Program, to ensure that farmlands are protected to the greatest extent possible:

- "Design proposed projects to minimize, to the greatest extent feasible, the loss of the highest valued agricultural land.
- Redesign project features to minimize fragmenting or isolating farmland. Where a project involves acquiring land or easements, ensure that the remaining non-project area is of a size sufficient to allow viable farming operations. The project proponents shall be responsible for acquiring easements, making lot line adjustments, and merging affected land parcels into units suitable for continued commercial agricultural management.
- Reconnect utilities or infrastructure that serve agricultural uses if these are disturbed by project construction. If a project temporarily or permanently cuts off roadway access or removes utility lines, irrigation features, or other infrastructure, the project proponents shall be responsible for restoring access as necessary to ensure that economically viable farming operations are not interrupted.
- Manage project operations to minimize the introduction of invasive species or weeds that may affect agricultural production on adjacent agricultural land.

Design proposed projects to minimize, to the greatest extent feasible, conflicts and inconsistencies with land protected by agricultural zoning or a Williamson Act contract and the terms of the applicable zoning/contract."

REGULATORY ENGAGEMENT

Section 3.6.3 Regulatory Framework/ Applicable Laws, Regulations, Plans, and Policies

This section of the SDEIS lists applicable federal and state regulations. The Council staff appreciates the inclusion of the Council's role and authority in the Delta and of the Delta Plan which is a comprehensive, legally enforceable, management plan for the Delta. To further clarify the Council's regulatory role and the Covered Actions process, please see excerpts from the Delta Plan, which provide a detailed explanation of local and state actions that may be subject to the Council's regulations (see Delta Plan, pp. 46-51 (http://deltacouncil.ca.gov/sites/default/files/documents/files/CH_02_2013.pdf)).

Proposed Project and Delta Plan Consistency

Per NEPA requirements, the U.S. Army Corps of Engineers (USACE) should discuss "possible conflicts between the proposed action and the objectives of Federal, regional, State, and local land use plans, policies and controls for the area concerned." (40 C.F.R. 1502.16 (c)). In this case, the Delta Plan is California's resource management and land use plan for the Delta and should be considered in the SDEIS. This discussion should include Delta Plan regulatory

policies that are implicated by this action. From Council staff's analysis there are four regulatory policies, in particular, that should be addressed and include;

- **ER P1** (23 CCR section 5005) – **Delta Flow Objective.** By its terms, the State Water Resources Control Board's Bay Delta Water Quality Control Plan flow objectives shall be used to determine consistency with the Delta Plan. If and when the flow objectives are revised by the State Water Resources Control Board, the revised flow objectives shall be used to determine consistency with the Delta Plan. For purposes of a project being defined as a covered action under Water Code section 85057.5(a)(3) and 23 CCR section 5001 Definitions, this policy covers a proposed action that could significantly affect flow in the Delta.
- **ER P2** (23 CCR section 5006) – **Restore Habitats at Appropriate Elevations.** This policy calls for habitat restoration to be consistent with Appendix 3, which is Section II of the Draft Conservation Strategy for Restoration of the Sacramento-San Joaquin Delta Ecological Management Zone and the Sacramento and San Joaquin Valley Regions (California Department of Fish and Wildlife (CDFW) 2011). The elevation map attached as Appendix 4 should be used as a guide for determining appropriate habitat restoration actions based on an area's elevation. If a proposed habitat restoration action is not consistent with Appendix 4, the proposal shall provide rational for the deviation based on best available science. For purposes of a project being defined as a covered action under Water Code section 85057.5(a)(3) and 23 CCR section 5001 Definitions, this policy covers a proposed action that includes habitat restoration. The Council is aware that there is an update to CDFW's Conservation Strategy for Restoration, which we believe supersedes, but is consistent with the draft document. Further consultation with CDFW is recommended by the Council.
- **ER P5** (23 CCR section 5009) – **Avoid Introductions of and Habitat Improvements for Invasive Nonnative Species.** This policy notices proposed projects that the potential for new introductions of or improved habitat conditions for nonnative invasive species, striped bass, or bass must be fully considered and avoided or mitigated in a way that appropriately protects the ecosystem. This policy covers a proposed action that has the reasonable probability of introducing or improving habitat conditions for nonnative invasive species.
- **DP P2** policy (23 CCR Section 5011), **Respect Local Land Use When Siting Water or Flood Facilities or Restoring Habitats**, reflects one of the Delta Plan's charges to protect the California Delta as an evolving place by siting project improvements/ facilities to avoid or reduce conflicts with existing uses when feasible and consider comments from local agencies and the Delta Protection Commission. The Delta Wetlands Project may affect land owners, tenants, and their existing uses when the project improvements/ facilities are implemented because the project improvements may lead to changes in salinity and impact water quality for in Delta water users.

- **G P1 (23 CCR section 5002) – Detailed Findings to Establish Consistency with the Delta Plan.** This policy requires that actions not exempt from CEQA and subject to Delta Plan regulations must include applicable feasible mitigation measures consistent with or more effective than those identified in the Delta Plan Environmental Impact Report (EIR). The Delta Plan's Program EIR provides a list of mitigation measures to consider including those to address impacts to biological resources and agricultural resources. (Mitigation measures can be found in the Delta Plan Mitigation and Monitoring Reporting Program document, (http://deltacouncil.ca.gov/sites/default/files/documents/files/Agenda%20Item%206a_attach%202.pdf.) The Delta Plan mitigation measures most relevant to this project are discussed under the relevant subject area headings below.
 - Under the Delta Plan, the DW project must document the use of best available science described in Appendix 1A of the Delta Plan regulations (http://deltacouncil.ca.gov/sites/default/files/documents/files/FinalRegText_appendices_07262013.pdf). Essentially, best available science means the use of the best information and data, specific to the decision being made and the time frame available for making that decision, to assist management and policy decisions. The process and information used should be clearly documented and effectively communicated to foster improved understanding and decision making.
 - GP 1 calls for projects to include adequate provisions for continued implementation of adaptive management, appropriate to the scope of the action. This requirement can be satisfied through the development of an adaptive management plan that is consistent with the framework described in Appendix 1B (http://deltacouncil.ca.gov/sites/default/files/documents/files/DeltaPlan_2013_APPENDICES_COMBINED.pdf) of the Delta Plan along with documentation of adequate resources to implement the proposed adaptive management process.

As a partner in a multiagency effort, committed to improving California's water supply reliability and to restoring the Delta's ecosystem, we encourage the USACE to use the consultation process under NEPA to work with the Council and Delta Wetlands Project proponents to address the concerns and comments contained in this letter. We encourage Delta Wetlands Project proponents to meet with the Council staff for early consultation to discuss implementation of this project as a covered action and to file a certification of consistency with the Council for actions covered by this SDEIS. Through the process of certifying consistency with the Delta Plan and its regulatory policies, achievement of California's coequal goals can be realized.

Marc Fugler
U.S. Army Corps of Engineers, Regulatory Branch
July 17, 2015
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If you have any questions or would like to discuss the comments presented here, please feel free to contact me or my staff, Anthony Navasero at Anthony.Navasero@deltacouncil.ca.gov or (916) 445-5471. We look forward to engaging with the USACE and its local partnering agencies in this process and on future endeavors.

Sincerely,

Cindy Messer
Deputy Executive Officer

cc: Erik Vink, Delta Protection Commission
Carl Wilcox, California Department of Fish and Wildlife
Kathryn Gaffney, State Water Resources Control Board
Lisa B. Hanf, US EPA
David Forkel, Delta Wetlands Properties