Chapter 14
Comments and Responses

14.1 Introduction

This chapter contains the comments received on the SMP Draft EIS/EIR. Each letter has been assigned a unique code. Each comment within the letter also has been assigned a unique code, noted on the right margin. For example, the code "NMFS-5" indicates the fifth distinct comment (indicated by the "5") in the NMFS letter. The chapter is organized by presentation of each comment letter immediately followed by the responses to that letter. Table 14-1 summarizes the commenting party, comment letter signatory, and date of the comment letter.

Table 14-1. List of Comment Letters

Code	Agency	Comment Letter Signatory, Date
Federal Agencies		
NMFS	National Marine Fisheries Service	Robert S. Hoffman, Assistant Regional Administrator for Habitat Conservation—December 21, 2010
NPS	National Park Service	Debbie Allen, Partnerships Programs, PWR—December 20, 2010
EPA	U.S. Environmental Protection Agency	Kathleen M. Goforth, Manager, Environmental Review Office, Communities and Ecosystem Division—January 13, 2011
State Agencies		
BCDC	San Francisco Bay Conservation and Development Commission	Jessica Davenport, Coastal Planner—December 29, 2010
DSC	Delta Stewardship Council	P. Joseph Grindstaff, Executive Officer—December 27, 2010
SWRCB	State Water Resources Control Board	Diane Riddle, Chief, Bay-Delta Unit—January 19, 2011
Regional and Local Agencies		
CCWD	Contra Costa Water District	Leah Orloff, Water Resources Manager—December 29, 2010
FSSD	Fairfield-Suisun Sewer District	Gregory G. Baatrup, Chief Operating Officer—December 30, 2010
JIRD	Joice Island Reclamation District	Leonard Stefanelli, President—December 28, 2010
RWQCB	Regional Water Quality Control Board, San Francisco Bay Region	Naomi Feger, Planning Program Manager—January 10, 2011
SC	Solano County, Department of Resources Management	Bill Emlen, Director of Resources Management—December 29, 2010
Non-Governmental Organizations		
CWA	California Waterfowl Association	Gregory S. Yarris, Vice President, Policy and Communications—December 28, 2010
DU	Ducks Unlimited	Mark Biddlecomb, Director, Western Region—December 23, 2010
Individuals		
GB	Individual	George Boero, Morrow Island Land Co. #702—January 17, 2011
JG	Individual	June Guidotti—December 22, 2010
RM	Individual	Robert T. Marks—November 18, 2010
RV	Individual	Roberto Valdez—December 29, 2010

14.2 Comments and Responses

NEPA and CEQA regulations direct the lead agencies to make a "good faith, reasoned analysis" in response to "significant environmental issues raised" in comments on a Draft EIS/EIR (see State CEQA Guidelines Section 15088(c); 40 CFR 1503.4). All public comments received during the comment periods are responded to in this Final EIS/EIR. Per CEQA and NEPA guidance, where there has been voluminous response, similar comments have been summarized and consolidated; however, all substantive issues raised in comments received on the Draft EIR/EIS are represented. This section contains Master Responses that address common comments received, and responses to individual comments received on the Draft EIS/EIR.

14.2.1 Master Responses

Some comments were made frequently, indicating common concerns among those submitting comments. Master Responses have been prepared for those topics that were raised in a number of comments from agencies, interested groups, and members of the public. Each Master Response allows a well-integrated response that addresses all facets of comments received.

- Master Response 1: Project-Specific Analysis
- Master Response 2: Definition of the CEQA and NEPA Baseline for This EIS/EIR
- Master Response 3: Alternatives
- Master Response 4: Relationship to Other Plans Affecting the Delta and Suisun Marsh
- Master Response 5: Inclusion of an Adaptive Management Plan
- Master Response 6: Significance of Wetland Conversion
- Master Response 7: Mitigation and Recovery Accounting

14.2.1.1 Master Response 1: Project-Specific Analysis

Commentors raised concerns about the detail of analysis in the EIS/EIR, how future projects would be analyzed, and how modeling of future restoration activities would be conducted.

The SMP EIS/EIR analyzes and discloses the potential impacts of future tidal restoration activities in the Marsh, assuming a typical approach that includes: property acquisition from willing sellers, interim management, pre-breach facility maintenance, any required levee improvements, breaching mechanisms, and projected transition to tidal habitat. Considerations for property acquisition are shown in Table 2-3. Additionally, sites would be selected based on the regional targets shown in Table 2-4. Together, these provide information about how tidal restoration may be implemented in the Marsh under the SMP. It is anticipated that the impacts of the tidal restoration projects are fully addressed in this EIS/EIR. In that case, the project proponent may rely on this EIS/EIR to comply with CEQA and/or NEPA. In instances where additional impacts or mitigation measures beyond the scope of this EIR/EIS may need to be disclosed, or if it is determined that the severity of an impact has increased substantially compared to what was described in this EIS/EIR, additional CEQA and/or NEPA compliance may be required. The determination of if and when this would be necessary is the responsibility of the implementing agency during project planning and design.

Modeling presented in the EIS/EIR relies on general regional assumptions about how restoration could be configured. For impacts related specifically to water quality and/or hydraulics, this EIS/EIR relied on the RMA Bay-Delta model. This model assumed approximately 7,000 acres of tidal restoration under the alternatives was in place. To model this potential change, RMA developed zones of areas where restoration may occur consistent with the regions shown in Figure 1-3. While the modeling looked at simultaneous restoration, the SMP would be implemented over a 30-year period and only portions of the total restoration would be completed at any one time, based on regulations and permit conditions. Figures 5-17 and 5-18 of Appendix A of this EIS/EIR show the general areas that were modeled as tidal restoration. The purpose of this modeling exercise was not to determine the effects of restoring specific areas but rather to present the comparative differences in regional areas of tidal restoration in the Marsh.

Additionally, this EIS/EIR relies on the best available information regarding water quality mechanisms related to DO, methylmercury, and other constituents. As described below under the Adaptive Management Plan Master Response, new information would be incorporated into subsequent project designs as the tidal restoration component of the SMP is implemented. As such, based on the current best available information, the EIS/EIR discloses the full range of potential water quality impacts related to tidal restoration under the alternatives.

Whether or not additional CEQA and/or NEPA analysis will be warranted with specific project approvals in the future, the EIS/EIR commits on page 2-19 that, "as part of each site-specific tidal restoration action, project proponents will use an accurate tidal hydraulics and salinity model (e.g., the RMA Bay-Delta model or other appropriate model) to simulate the proposed action to ensure that impacts on scour, changes in tidal stage, sedimentation, salinity, and other hydraulic processes do not exceed those described in this EIS/EIR." Additionally, the EIS/EIR provides site-selection considerations (in Table 2-3), guidance for designing and implementing tidal restoration, and targets for tidal restoration in each of the four regions shown in Figure 1-3. These design and implementation parameters provide the basis for assumptions related to the impacts described in this EIS/EIR, and tidal restoration projects that are implemented in accordance with these assumptions are not likely to require additional CEQA/NEPA disclosure. Page 2-46 provides an overview of the anticipated project-specific implementation of the SMP.

14.2.1.2 Master Response 2: Definition of the CEQA and NEPA Baseline for This EIS/EIR

Commentors raised concerns about the existing managed wetland activities and operations and how their effects were addressed in the analysis.

The CEQA/NEPA baseline for comparison of impacts for this EIS/EIR is the environmental conditions, or setting, at the time of the NOP/NOI, and the analysis of impacts is based on the potential changes resulting from implementation of the alternatives compared to these conditions. The existing management activities are a component of the baseline, and therefore the current level of implementation of these activities is not analyzed as part of the project alternatives. However, the impacts of the proposed increase in magnitude for some of these activities, as well as the impacts of new activities (e.g., dredging), have been fully analyzed and disclosed in this EIS/EIR. For example, as described in the Wildlife section (6.3) and in the Environmental Commitments section of Chapter 2, many restrictions and minimization measures currently in place would continue to avoid and minimize effects on species that use the Marsh. Additionally, improved operation and maintenance

of managed wetlands and tidal restoration under the proposed project is expected to improve ecosystem conditions for many native Marsh species.

Similarly, the water quality analysis focuses on the potential changes to water quality that could occur with the new activities and increased frequency of currently implemented activities, compared to existing conditions. Many of the water quality issues in the Marsh are ongoing and are considered a component of the CEQA/NEPA existing conditions. They have largely been addressed through various permit processes and management regimes. The historical context of these efforts and their effectiveness are described in Section 5.2. Additionally, the SMP EIS/EIR includes environmental commitments for landowners to continue to implement applicable terms and conditions relative to operations of the managed wetlands.

Another component of the baseline is the existing landscape, which is approximately 50,750 acres of managed wetlands and 7,600 acres of tidal wetlands. Conversion of managed wetlands to tidal wetlands is a change in the landscape that is analyzed for each of the alternatives in the EIS/EIR. Relative to climate change, the EIS/EIR (in Chapter 2 and in Section 5.9) describes how this conversion would result in greater resiliency to sea level rise and other anticipated climate change factors by providing tidal wetland 'buffers'. As such, compared to the existing and no action conditions, the SMP EIS/EIR action alternatives would provide climate change adaptability.

ESA, CESA, and other regulations may rely on a different baseline and therefore may determine that the change resulting from SMP activities is greater than what was described in the EIS/EIR and would require mitigation. Additionally, the EIS/EIR was drafted in a manner that takes into account all of the various activities proposed in the SMP, so that some activities that could have impacts on tidal wetlands would be more than offset by the proposed tidal restoration. In these instances, no mitigation is required in the EIS/EIR. However, regulatory agencies may more explicitly describe the tidal restoration components that would be required specifically to mitigate impacts on resources under their jurisdiction in permits for the proposed project, such as the biological opinions.

14.2.1.3 Master Response 3: Alternatives

Several comments received raised concerns about the range of alternatives evaluated in the EIS/EIR.

As described in Chapters 1 and 2, the impetus for developing the SMP was to implement the component of the ERP calling for restoration of 5,000 to 7,000 acres of tidal wetland restoration and 44,000 to 46,000 acres of managed wetland protection and enhancement. The stated goal of the Charter Group that was formed and tasked with the development of the SMP is to "Develop a regional plan that balances implementation of the CALFED Program, Suisun Marsh Preservation Agreement, and other management and tidal restoration programs within Suisun Marsh in a manner responsive to the concerns of stakeholders and based upon voluntary participation by private land owners." This goal provided the basis for establishing the SMP Objectives/Purposes. The SMP Principal Agencies completed the screening process, described on pages 2-3 through 2-6, to determine the reasonable range of alternatives that would be analyzed in detail in this EIR/EIS, as described in Chapter 2. The Proposed Project/Preferred Alternative is the magnitude of restoration called for in the CALFED ROD (Volume II: ERPP, Suisun Marsh/North San Francisco Bay Ecological Management Zone Vision, June 1999, pages 138 and 139) and is the alternative most likely to fully meet the goal and be feasible to implement.

As part of the screening process, the Principals reviewed the salinity modeling conducted for the SMP as well as other modeling results for other projects to determine the upper limit of tidal

restoration that could be implemented in the Marsh without affecting the ability to meet the SMPA and D-1641 salinity objectives. It was determined that above 9,000 acres of tidal restoration, western Marsh salinities were increasingly difficult to manage with the existing facilities and current water projects operational constraints available. Because maintenance and possible improvement of water quality as well as public and private land uses are objectives of the SMP, alternatives that would preclude the ability to meet the Revised SMPA and D-1641 salinity objectives for the Marsh were screened out. However, it is important to note that implementation of the SMP does not preclude additional tidal restoration from occurring in the Marsh. Rather, it provides a framework for implementation of tidal restoration. Entities desiring to implement additional tidal restoration are able to plan, analyze, and implement tidal restoration outside the assumptions of the SMP.

14.2.1.4 Master Response 4: Relationship to Other Plans Affecting the Delta and Suisun Marsh

Commentors raised questions and concerns about how the SMP is related to other plans, policies, and projects that could affect the Marsh that are being implemented or in the planning process.

There are several other plans and policies in place or currently being developed that have the potential to affect the Marsh. This EIS/EIR describes its relationship to each of these plans on pages 1-18 through 1-27, and where relevant, assesses the cumulative impacts of these plans in conjunction with the implementation of the SMP. In general, comments focused primarily on the relationship to the Bay-Delta Conservation Plan (BDCP) and the Delta Plan, both of which are under development.

Table 14-2 outlines the status of the plans that commentors were most concerned about and the level of detail available about each plan at the time of this Final EIS/EIR.

Table 14-2. Status of Other Plans Affecting the Delta and Suisun Marsh

Plan	Status
Delta Plan	Currently under development
Bay Delta Conservation Plan	Currently under development
Draft Recovery Plan for Tidal Marsh Ecosystems for Northern and Central California	Draft released in February 2010
CVP and SWP Operations	In place; BOs in December 2008 (USFWS) and June 2009 (NMFS); currently being implemented
Delta Fish Restoration Plan	In place; adopted in October 2010
San Francisco Bay Plan	In place; adopted in 1969 and periodically revised

As shown in Table 14-2, the BDCP is under development, and detail about how it would affect the Suisun Marsh is limited. In general, the BDCP could affect the Suisun Marsh through changes in operations of the SWP and/or CVP that would affect water quality and flows in the Marsh as well as conversion of managed wetlands to tidal wetlands and other potential restoration actions. November 2010 draft information on the BDCP calls for tidal restoration of up to 75,000 acres, of which at least 7,000 acres will be in Suisun Marsh. A portion of these 7,000 acres (3,600 to 4,800 acres) would be restored tidal brackish emergent wetland natural community. The BDCP also includes the construction and operation of an isolated conveyance facility along the eastern boundary of the Delta. This new facility would have intakes that would be operated in conjunction

with the existing south Delta exports. This would result in a substantial shift in CVP/SWP operations that in turn could cause considerable changes to the Delta environment, including Suisun Marsh. The details of how the new conveyance system would be operated have not been developed, and therefore it is speculative to describe how the BDCP in its entirety would affect the Marsh. However, the cumulative analysis provided in this EIS/EIR attempts to describe the potential changes as they are currently understood. Overall, the restoration component as described in the November 2010 draft information is consistent with the SMP. Additional changes to the landscape through tidal restoration (beyond those analyzed in the SMP action alternatives) and/or changes in CVP/SWP operations and the construction and implementation of the new conveyance system will be the subject of separate environmental review depending on the final proposal. The SMP is a stand-alone land use plan for the Marsh and in no way precludes additional tidal restoration or encourages the implementation of the BDCP, including the new conveyance system. Rather, it provides a framework for implementation of tidal restoration and managed wetlands enhancements in the Marsh, which BDCP and other programs may choose to adopt.

In November 2009, the California Legislature enacted SBX7 1 to ensure statewide water supply reliability and ecosystem health for the Delta and Suisun Marsh. SBX7 1 became effective on February 3, 2010, and includes the Sacramento-San Joaquin Delta Reform Act of 2009 (Delta Reform Act) that requires development of a legally enforceable, comprehensive, long-term management plan for the Delta and Suisun Marsh, referred to as the Delta Plan. The Delta Plan will be a legally enforceable management plan for the Delta that will establish state policy related to the Delta and guide the actions of state and local agencies. Proposed projects that occur in whole or in part in the Delta ("covered actions," as defined in California Water Code Section 85057.5) must be consistent with the Delta Plan. As shown in Table 14-2, the Delta Plan is under development and is in its very early stages. In February 2011, the Delta Stewardship Council released the first version of four draft Delta Plans before it begins environmental review in summer 2011. In March 2011, a second draft was released. This first draft focuses primarily on the current conditions in the Delta and Marsh and presents key findings related to objectives in the Delta Reform Act and an overview of the kinds of strategies necessary to achieve those objectives. The second draft provides substantially more detail about the process that will be in place for projects funded or carried out by state or local agencies within the Delta and/or Suisun Marsh to comply with the Delta Plan. No specific tidal restoration or other goals are currently identified, other than the co-equal goals of water supply reliability and ecosystem restoration. Based on the information currently available, the SMP is consistent with the goals of the Delta Reform Act. As SMP activities subject to the Delta Plan are implemented (after the Delta Plan is adopted), the process for consistency determinations will be followed. In August of 2011 a fifth draft of the seven draft versions expected of the Delta Plan was released, as it continues to be reviewed and revised per stakeholder and agency comments.

The USFWS Draft Recovery Plan for Tidal Marsh Ecosystems for Northern and Central California (Draft Tidal Marsh Recovery Plan) was circulated in February 2010, and a final plan is expected to be adopted in fall 2011. This plan outlines an approach for tidal restoration throughout the Bay and Suisun Marsh. The regions shown in Figure 1-3 and the tidal restoration acreage targets shown in Table 2-4 are based on this draft plan, which outlines mechanisms to recover species and habitats that rely on tidal wetland habitats.

The USFWS Biological Opinion on the Coordinated Operations of the Central Valley Project (CVP) and State Water Project (SWP) and NMFS Biological Opinion on the Long-Term Operations of the Central Valley Project and State Water Project (U.S. Fish and Wildlife Service 2008; National Marine Fisheries Service 2009) (CVP/SWP Operations BOs) require the tidal restoration of 8,000 acres in

the Delta and Suisun Marsh. These BOs govern the operations of the CVP and SWP and currently are being implemented. The USFWS CVP/SWP Operations BO explicitly states that tidal restoration occurring in the Marsh must be done in a manner consistent with the SMP. The Incidental Take Permit (ITP) for longfin smelt (LFS) for the operations of the SWP also requires 800 acres of tidal restoration of LFS habitat. To implement these tidal restoration requirements, DWR and DFG signed a Fish Restoration Program Agreement in October 2010. This agreement outlines the approach for accomplishing the tidal restoration, and focuses primarily on areas outside of the Marsh (with the exception of Hill Slough). As tidal restoration proceeds in the Delta and San Francisco Bay, the focus may shift to the Suisun Marsh. DWR or others implementing tidal restoration to comply with the CVP/SWP Operations BOs and the LFS ITP may use the SMP as a framework for implementation of that tidal restoration.

The San Francisco Bay Plan (SFBP), adopted and implemented by the Bay Conservation and Development Commission (BCDC), includes policies related to management of the Bay's resources. The Suisun Marsh is within the jurisdiction of the SFBP, and the SMP would need to demonstrate consistency with it. Based on review of the SFBP, the Principals have determined that the tidal restoration component of the SMP is consistent with Major Plan Proposal 4 (Develop Waterfront Parks and Recreation Facilities) because it would allow increased public access in the Marsh. The SMP is consistent with Major Plan Proposal 6 (Maintain Wildlife Refuges in Diked Historic Baylands) because it would facilitate and improve the management of managed wetlands on DFG wildlife areas in the Marsh. The Principals will submit a consistency determination application to BCDC as part of the SMP planning process.

Regardless of if and how these other plans are implemented in the Marsh, the SMP is a stand-alone plan that may be used to implement components of these other plans or may be implemented completely separately from all other efforts. The SMP is intended to provide a framework for tidal restoration and managed wetland enhancement in the Marsh. As described above and in Chapter 1, the SMP does not preclude additional tidal restoration in the Marsh. Additionally, it does not involve any changes in SWP or CVP operations, including any potential BDCP-proposed conveyance.

14.2.1.5 Master Response 5: Inclusion of an Adaptive Management Plan

Commentors demonstrated interest in the content of the proposed Adaptive Management Plan (AMP).

The SMP AMP is provided as Appendix E, and is intended to serve two purposes: (1) to provide a feedback loop for assessing impacts described in this EIS/EIR and ensuring they do not exceed the intensity described in this EIS/EIR, and (2) to further expand the information about the Marsh and how tidal restoration can be most effective so that this information can be applied to subsequent tidal restoration activities.

Regarding the first purpose, the only impact identified in this EIS/EIR that relies on adaptive management to ensure it stays below the significance described is Impact FISH-33: Reduction in Benthic Macroinvertebrate Abundance as a Result of Dredging. This particular impact describes the thresholds of significance and commits to a Benthic Monitoring Program to ensure that dredging does not result in exceedance of this threshold. It also outlines the process for remedial actions should the impacts of dredging on benthic organisms approach the significance thresholds. This Benthic Monitoring Program will be implemented by SRCD and DFG in accordance with the USFWS and NMFS Biological Opinions.

Regarding the second purpose of the AMP, the AMP is intended to provide guidance for specific project proponents related to monitoring of tidal restoration areas and collecting information that would be useful in subsequent tidal restoration design and implementation. As described in the AMP, despite the extensive scientific information available, the SMP conceptual models identified a number of scientific uncertainties and knowledge data gaps that still exist. However, not all the uncertainties can be resolved before restoration starts. In fact, many data gaps can be addressed only by implementing restoration actions and learning from the results. Therefore, these uncertainties form the basis for potential monitoring that could apply to specific restoration projects. Each restoration project will be unique and have distinct questions appropriate for monitoring or additional scientific studies. All new information gathered will be combined with existing monitoring data for the Marsh and collected to formalize knowledge, develop expectations of future conditions and outcomes that can be tested by further monitoring, and assess the likelihood of outcomes. The Appendix of the AMP contains a list of uncertainties identified in the conceptual models that could be monitored as appropriate for specific tidal restoration projects. Examples of key uncertainties that could apply to restoration project modeling and provide information for adaptive management include:

- tidal restoration effects on waterfowl populations,
- regional waterfowl habitat availability and quality,
- producer population growth in newly restored tidal habitats,
- nutrient cycling in newly restored tidal habitats,
- zooplankton growth and availability in newly restored tidal habitats,
- fish habitat use and residence time in newly restored tidal habitats,
- carbon production with tidal restoration and potential for transport and trihalomethane production,
- burial or exposure of existing mercury deposits in the Marsh and reducing potential for methylmercury exposure and transport in tidal restoration site design, and
- effects of short-term pulses of methylmercury versus long-term annual concentrations.

These are a few examples of monitoring that could be implemented for tidal restoration projects under the SMP based on key uncertainties identified in the conceptual models. However, it is recognized that specific tidal restoration projects will have individual objectives and there may be other monitoring that is appropriate for them. Additional monitoring elements could include those developed for the Recovery Plan, the Bay Delta Conservation Plan Independent Science Advisors, or the Delta Stewardship Council. In addition, uncertainties not identified here could be realized during specific tidal restoration project design and through information learned from completed tidal restoration–project monitoring. Such information would be used to update the conceptual models and this AMP, as necessary. Tidal restoration project proponents will receive input from the Suisun Marsh Adaptive Management Advisory Team and Suisun Principals regarding project planning, design, and monitoring. Additionally, guidance is provided in Chapter 2 of this EIS/EIR related to selecting tidal restoration sites, preparing sites, selecting breach locations, and upgrading or constructing new exterior levees. Through monitoring of tidal restoration activities, this guidance can be improved upon.

The private and public managed wetlands in the Suisun Marsh are adaptively managed. All individually owned and DFG properties have management plans that were written as part of the Suisun Marsh Preservation Act. Additionally, SRCD assists the landowners, through the Water Managers program, in the implementation of the Individual Ownership Adaptive Management Plan (IOAMP). The IOAMP is not a parcel-specific plan but provides a general overview of management options with targeted desirable habitat outcomes in the context of each managed wetland unit's physical, environmental, and regulatory constraints and the landowner's fiscal limitations. Although this approach may not be scientifically documented through a detailed study design, there is a positive feedback loop, with midyear adjustments, and annual on-the-ground assessment of the landowners' success at achieving the objectives of desirable habitat quality and quantity. This is on-the–ground, real time adaptive management. The ever-changing environmental conditions of the Marsh directly influence annual management actions and resulting habitat conditions. Knowledge gained and applied over multiple years of experience and observation is shared with other landowners and the SRCD Water Managers to better inform future managed wetlands operational decisions.

Although not specifically a component of the AMP, tidal restoration occurring in the Marsh would need to consider all relevant available information in planning, analyzing, and implementing tidal restoration activities. Should the BDCP or other major changes in SWP/CVP or Delta operations occur, specific project proponents would need to consider those as part of the baseline and potential future conditions for tidal restoration projects. As described above under the Project-Specific Analysis Master Response, specific project proponents would need to conduct analyses to determine if and how the impacts of the specific tidal restoration activity differ from the impacts disclosed in this EIS/EIR and determine whether additional analysis and/or disclosure is necessary.

14.2.1.6 Master Response 6: Significance of Wetland Conversion

Commentors raised concerns about how impacts on managed wetlands and associated resources were determined to be less than significant.

The determination that the conversion of 5,000 to 7,000 acres of managed wetlands to tidal wetlands would be less than significant was based on observations of other tidal restoration areas as well as the following reasoning.

- Tidal restoration activities are anticipated to occur over a 30-year period. Additionally, the SMP includes regional targets for tidal restoration as shown in Table 2-4. This would ensure that tidal restoration is geographically spread throughout the Marsh. This spatial spread would allow tidal wetlands to establish in a way that limits the change in land uses adjacent to remaining managed wetlands.
- Each region in the SMP has a tidal restoration acreage target as shown in Table 2-4. In summary, under the Proposed Project (tidal restoration of 5,000 to 7,000 acres and enhancement of 44,000 to 46,000 acres of managed wetlands), resulting in approximately 13% of Region 1, 19% of Region 2, 18% of Region 3, and 9% of Region 4 being restored.
- The remaining 87%, 81%, 82%, and 91% of these regions would remain managed wetlands and would be provided the regulatory stability to improve operations and maintenance, in addition to increased funding under the SMPA and the ability to dredge materials from adjacent tidal sloughs. These activities allow landowners to better manage properties by providing the necessary resources and regulatory authorizations to improve flood and drain times on the

managed wetlands. The control over timing and height of water would allow for a greater variety of waterfowl and wildlife food production, increasing the current values. These increased food and cover values also will benefit multiple terrestrial species that depend on the managed wetlands. Absent the SMP, these enhancement components would not occur and as described on pages 2-8 through 2-11 (No Action Alternative), it is likely that managed wetland operations would nearly cease altogether for lack of permits to operate or maintain them.

- Tidal marsh provides benefits and values to a variety of species, including providing resting, foraging and breeding habitat for dabbling ducks (Goals Project 1999).

14.2.1.7 Master Response 7: Mitigation and Recovery Accounting

Commentors raised concerns about how mitigation accounting would work under the SMP and how this would relate to the timing of tidal restoration and implementation of managed wetland activities.

The SMP is intended to provide a framework for an approach to implementing the CALFED ROD ERP Stage 1 actions for the Suisun Marsh (described under Master Response 3: Alternatives). To accomplish this, the implementation strategy for the SMP, as outlined in the EIS/EIR, includes incremental tidal restoration goals to ensure that the tidal restoration proceeds in a timely manner and that any impacts related to managed wetland enhancement are mitigated as they occur. Overall, the impacts of the managed wetland activities that would be increased in frequency or would be new (i.e., dredging) would be mitigated by a relatively small portion of the total tidal restoration included in the Proposed Project (5,000 to 7,000 acres). (The EIS/EIR describes the limitations on these activities and the associated impacts.) The remainder is assumed to contribute to recovery of listed species that use the Marsh. (It is important to note that 2,500 acres of conservation areas already have been established to mitigate current/ongoing impacts of managed wetland operations and maintenance.) The exact acreage of tidal restoration required for specific impacts will depend on each regulatory agency's approach and jurisdiction. For example, NMFS is concerned primarily with impacts on fish, and mitigation of impacts on fish may require a different mitigation strategy than, for example, mitigation required by the RWQCB for impacts on water quality because of the nature of each agency's authority. As such, the EIS/EIR describes a mechanism for ensuring that tidal restoration occurs incrementally and requires that these 10-year incremental targets be met to allow managed wetland activities to proceed, and relies on the regulatory agencies to dictate how the tidal restoration or other mitigation would be implemented to meet their requirements. As described in the EIS/EIR, the implementation of the SMP meets the mitigation requirements of CEQA and NEPA, while also meeting the recovery objective of the SMP. The intention of completing one third of the restoration every 10 years is to ensure that restoration and managed wetland activities are implemented concurrently.

14.2.2 Federal Agencies

14.2.2.1 NMFS—National Marine Fisheries Service, Robert S. Hoffman, Assistant Regional Administrator for Habitat Conservation, December 21, 2009

Comment Letter NMFS

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4213

copy to MF154
original to MP400

DEC 2 1 2010

In response, refer to:
SWR/F/SWR3:KS

Richard J. Woodley
Regional Resources Manager
U.S. Bureau of Reclamation
Mid-Pacific Regional Office
2800 Cottage Way
Sacramento, California 95825-1898

Dear Mr. Woodley:

Thank you for the opportunity to provide comments on the Suisun Marsh Habitat Management, Preservation and Restoration Plan (Suisun Marsh Plan) Draft Environmental Impact Statement/Environmental Impact Report (DEIS/EIR) dated October 2010. As you know, the National Oceanic and Atmospheric Administration (NOAA's) National Marine Fisheries Service (NMFS) Habitat Conservation Division is a cooperating agency in the development of the DEIS/EIR. We have worked directly with the Bureau of Reclamation (BOR), U.S. Fish & Wildlife Service (USFWS), California Department of Water Resources (DWR), California Department of Fish & Game (CDFG) and other Suisun Marsh Charter agencies in the development of the Suisun Marsh Plan since before the 2003 scoping meetings.

NMFS' future involvement will also include the completion of consultations pursuant to the Endangered Species Act, Essential Fish Habitat provisions of the Magnuson-Stevens Fishery Conservation and Management Act, and Fish and Wildlife Coordination Act. During the consultation process, NMFS will evaluate effects of the proposed action on listed species and their critical habitat and to EFH. We understand the ESA biological assessment and EFH assessment needed for consultation are currently under development.

As a cooperating agency with jurisdiction and special expertise regarding the environmental impacts involved in the proposed Plan, NMFS offers the following comments on the October 2010 Suisun Marsh Plan DEIS/EIR.

1) As stated in our letter to you dated August 14, 2008, within the context of the proposed action, NMFS supports the 5,000-7,000 acres of tidal restoration included in the preferred project alternative. However, this does not represent the upper limit for acres of tidal

NMFS-1

restoration supported by NMFS and potentially other participating Suisun Marsh Charter agencies. Rather, this range represents the acreage currently acceptable to local landowners who utilize managed wetlands for water fowl hunting and other purposes. NMFS would support additional proposals to restore tidal wetland habitats in Suisun Marsh beyond 7,000 acres. Restoring additional acres of salt marsh habitat would contribute to important habitats and ecosystem functions within Suisun Marsh which sustain and support NMFS trust resources. NMFS-1 cont'd

2) The DEIS/EIR states that with implementation of the proposed project, benefits to fish and wildlife from tidal restoration would compensate for impacts resulting from managed wetlands operations and contribute to recovery of listed species. While NMFS agrees with this concept from an ecological perspective, the DEIS/EIR should include a clear explanation of the legal mechanism for this compensation, given that wetland restoration will likely occur through use of federal and state funds, in fact the DEIS/EIR references potential Bay Delta Conservation Plan funds, while managed wetland operations will be conducted primarily by private landowners NMFS-2

3) The DEIS/EIR states that restoration and managed wetlands operations would proceed simultaneously, and to track progress of restoration and managed wetlands activities, implementation status reports would be submitted "no less frequently than every other year to CDFG, NMFS and USFWS." NMFS requests that status reports be submitted on a more frequent basis, preferably every year. NMFS-3

4) We have the additional page-specific comments to offer:

   a. Pg 2-46, Project Specific Implementation: The statement "The managed wetland activities would be implemented by the SMPA Agencies as described for each activity…" should be corrected to clarify that private landowners and Reclamation Districts also would implement activities; NMFS-4

   b. Pg ES-3, Table ES-1: NMFS actions related to the Suisun Marsh Plan should read "Issuance of Biological Opinion; Issuance of Essential Fish Habitat Conservation Recommendations"; NMFS-5

   c. Pg 1-4, Table 1-1: The column for NMFS' activities should include "EFH Conservation Recommendations"; NMFS-6

   d. Pg 1-26, Relationship to the National Marine Fisheries Service and U.S. Fish and Wildlife Service Recovery Plans: The DEIS/DEIR should recognize that NMFS is currently working on a recovery plan for threatened green sturgeon; and NMFS-7

   e. Pg 10-16, Federal Requirements: Section should include Essential Fish Habitat provisions of the Magnuson-Stevens Fishery Conservation and Management Act. NMFS-8

Thank you again for the opportunity to comment and be a cooperating agency on the development of the Suisun Marsh Plan DEIS/EIR. If you have any questions regarding this letter, please contact Mr. Steve Edmondson at (707) 575-6052 or Ms. Korie Schaeffer at (707) 575-6087.

Sincerely,

for Robert S. Hoffman
Assistant Regional Administrator
For Habitat Conservation

cc: Shelby Mendez, NMFS, Long Beach, California
Dick Butler, NMFS, Santa Rosa, California
Becky Victorine, Bureau of Reclamation, Sacramento, California
Cay Goude, USFWS, Sacramento, California
Scott Wilson, CDFG, Stockton, California

Responses to Comment Letter NMFS

NMFS-1

See Master Response 3: Alternatives.

NMFS-2

For those activities listed in Table 2-8 of the EIS/EIR, federal and/or state funds could be applied in the cost-sharing agreement of the Suisun Marsh Preservation Agreement (SMPA). The SMPA is an agreement between DWR and Reclamation and the landowners (as represented by SRCD) and DFG to mitigate the impacts on the Marsh related to CVP and SWP operations. As such, the funding associated with these activities is to meet CVP/SWP mitigation obligations, and these activities could require additional mitigation to offset the impacts of implementing the SMPA. For other activities not funded through the SMPA, the landowners would be responsible for implementing these activities and providing any necessary mitigation. The funding mechanism for this mitigation is not relevant to its being completed in compliance with CEQA, NEPA, ESA, CWA, or other regulatory requirements.

NMFS-3

Progress toward the implementation of regional tidal restoration targets and the managed wetland activities conducted each year will be submitted annually, as now described in Chapter 2.

NMFS-4

Added: "...including SRCD, which represents private landowners and reclamation districts in the Marsh"

NMFS-5

Table revised as suggested by comment.

NMFS-6

Table revised as suggested by comment.

NMFS-7

Text revised per comment.

NMFS-8

Added section under federal requirements for Magnuson-Stevens Act.

14.2.2.2 NPS—National Park Service, Debbie Allen, Partnerships Programs, PWR, December 20, 2009

Comment Letter NPS

From: Victorine, Rebecca A
To: Pierre, Jennifer; Raabe, Andrew; Grimes, Russell (Russ) W
Subject: FW: DES-10/0058:Suisun Marsh Habitat Management, Preservation, and Restoration Plan
Date: Tuesday, December 21, 2010 8:00:19 AM

This is the first time I've ever got a "No comment" letter! Happy Holidays, everyone!

Thanks,
Becky

From: Debbie_Allen@nps.gov [Debbie_Allen@nps.gov]
Sent: Monday, December 20, 2010 5:50 PM
To: Morlock, Dale; Victorine, Rebecca A
Cc: Schmierer, Alan; WASO_EQD_ExtRev; oepcsfn@aol.com
Subject: Re: DES-10/0058:Suisun Marsh Habitat Management, Preservation, and Restoration Plan

Subject document has no comment from PWR. NPS-1

Debbie Allen
National Park Service
Partnerships Programs, PWR
1111 Jackson Street #700
Oakland, CA 94607
510/817-1446
510/817-1505 Fax

"Don't dwell on what went wrong. Instead, focus on what to do next. Spend your energies on moving forward toward finding the answer." -- Denis Waitley

Dale_Morlock@nps.gov
11/10/2010 09:18 AM

To: Debbie_Allen@nps.gov
cc:
Subject: DES-10/0058:Suisun Marsh Habitat Management, Preservation, and Restoration Plan

NPS External Affairs Program: ER2000 Program Email Instruction Sheet
United States Department of the Interior
National Park Service Environmental Quality Division
7333 W. Jefferson Avenue
Lakewood, CO 80235-2017

EIS/Related Document Review: Detail View
http://er2000/detail.cfm?ernum=14859

Document Information

Record #14859

ER Document Number
DES-10/0058
Document Title
Suisun Marsh Habitat Management, Preservation, and Restoration Plan
Location

State	County
California	Solano County

Document Type
Draft Environmental Impact Statement and Land and Resource Management Plan
Doc. Classification
Federal Management Plan
Applicant
Bureau of Reclamation - US Fish & Wildlife Service
Web Review Address

http://www.usbr.gov/mp/nepa/nepa_projdetails.cfm?Project_ID=781

http://edocket.access.gpo.gov/2010/2010-27364.htm

Document Reviewers

WASO Lead Reviewer
()

WASO Reviewers

Joe Carriero(2310), Jennifer Lee(2340), Kerry Moss(2360), Fred Sturniolo(2420), David Vana-Miller(2380), Carl Wang(2420), Tammy

Whittington(2310), Steven Elkinton(2220), Bill Commins(2200), Dale Morlock(2310), Tokey Boswell(2510), Dave Kreger(2033), Jeffrey Cross(2380), Bill Hansen(2380), Sharon Kliwinski(2380), Charlie Stockman(2510), John Wullschleger(2380)

Regional Lead Reviewer
Alan Schmierer (PWR-O)

Regional Reviewers

Alan Schmierer(PWR-O), Debbie Allen(PWR-O), Sarah Bransom(HFC), Lee Kreutzer(PWR-O), Sharon Powell(PWR-S), Michael Taylor(PWR-O)

Cultural Lead Reviewer
Jeffrey Durbin

Cultural Reviewers

Jeffrey Durbin

Action

Lead Bureau
None
Response Type
None
Instructions
Comments sent directly to Applicant. NPS Lead consolidates comments, prepares and sends comment/no comment letter directly to Applicant with copy to EQD (WASO-2310), OEPC, and (if applicable) appropriate REO. See DI Remarks Section below for specifics.

Topic Context

The Bureau of Reclamation, Fish and Wildlife Service and the State of California
Department of Fish and Game have made available for the Suisun Marsh Habitat Management, Preservation, and Restoration Plan (SMP) Draft EIS/EIR.

The SMP is a comprehensive 30-year plan designed to address various conflicts
regarding use of resources within approximately 51,000 acres of the Suisun Marsh (Marsh), with the focus on achieving an acceptable multi-stakeholder approach to the restoration of tidal wetlands and the enhancement of managed wetlands and their functions.

This is the largest contiguous brackish water marsh remaining on the west coast of North America, the Marsh is a critical part of the San Francisco Bay/Sacramento-San Joaquin Delta (Bay-Delta) estuary ecosystem.

DI Remarks

Reviewers: Please email comments to NPS Lead Alan Schmierer, PWR-O by December 17, 2010.

NPS Lead: Alan Schmierer, please consolidate NPS comments in memo format and send directly to BOR, Sacramento, CA, rvictorine@usbr.gov by December 28, 2010 with copy to: waso_eqd_extrev@nps.gov and oepcsfn@aol.com

Applicant Address for Alan Schmierer: Becky Victorine, Bureau of Reclamation, 2800 Cottage Way, Sacramento, CA 95825.

* FAX: (510) 792-5828.

CONTACTS:

* Becky Victorine, Bureau of Reclamation, (916) 978-5035, rvictorine@usbr.gov

* Cay Goude, Fish and Wildlife Service, (916) 414-6600, cay_goude@fws.gov

Email Comment Address
rvictorine@usbr.gov

Workflow

Send Comments to Lead Office: PWR-O
Send to: Alan Schmierer (PWR-O) by 12/17/10

Lead DOI Bureau:
DUE TO: Lead Bureau by 12/28/10
DATE DUE OUT: 12/28/10

OEPC Memo to EQD: 11/10/10
Comments Due To Lead WASO Div:
Comments Due Out to
OEPC/Wash or Applicant: 12/28/10
Comments Due To Lead Region: 12/17/10

Comments Due In EQD:
Comments Due to REO:

Tracking Dates

Rcvd. Region Comments:
Comments Sent to OEPC:
New Instructions:
Recvd. Ext. Letter:
Reg. Cmts. to Bureau:
Cmts. Called In:
Comments Sent to EQD Chief:
Comment Letter/Memo Signed:
Recvd. Extension:
Sent Add. Info:
Reg. Cmts. Listed:
Rcvd. Bureau Cmts:

Tracking Notes

Reviewer Notes

Documentation

Document Last Modified: 11/10/2010
Complete: False
Date Created: 11/10/2010
Date Last Email Sent:

Responses to Comment Letter NPS

NPS-1

No response necessary.

14.2.2.3 EPA—U.S. Environmental Protection Agency, Kathleen M. Goforth, Manager, Environmental Review Office, Communities and Ecosystem Division, January 13, 2011

Comment Letter EPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

JAN 13 2011

Ms. Becky Victorine
Bureau of Reclamation
Mid-Pacific Region
2800 Cottage Way, MP-700
Sacramento, CA 95825

Subject: Draft Environmental Impact Statement for the Suisun Marsh Habitat Management, Preservation, and Restoration Plan, Solano County, California [CEQ# 20100435]

Dear Ms. Victorine:

The U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) for the above project. Our comments are provided pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act. Our comments are provided in accordance with our December 14, 2010 agreement that EPA provide our comments no later than January 14, 2011. We appreciate the additional time to conduct our review.

EPA supports the overall goals of the Suisun Marsh Plan (SMP) to restore tidal wetlands and to address conflicts regarding use of Marsh resources. The SMP represents a unique restoration opportunity to begin to return Suisun Bay and Marsh to its historic role as a large contiguous tidal marsh that serves as a nursery for countless species in the San Francisco Bay-Delta (Delta) ecosystem. Tidal wetlands have a central role in the functioning of a healthy estuarine ecosystem. Restoration of historical tidal marsh land will provide habitat for declining threatened and endangered species and help buffer Suisun Marsh from adverse effects of climate change and sea level rise.

Based on our review of the DEIS, we have rated the Proposed Project and environmental document as *Environmental Concerns – Insufficient Information* (EC-2). Please see the enclosed "Summary of EPA Rating Definitions." The DEIS presents a programmatic evaluation of a 30-year restoration plan concluding that the majority of potential adverse effects would be less-than-significant due to a commitment to adaptive management and environmental commitments. EPA is concerned that anticipated improvements and reduction of adverse effects may not be achieved especially given climate change, predicted sea level rise, increasing urban pressures, and the many other environmental challenges facing the Delta.

1

Printed on Recycled Paper

First developed in 1993 and revised in 2007, the San Francisco Estuary Partnership's regional planning document, the Comprehensive Conservation and Management Plan (CCMP), provides overarching guidance to resource agencies to expand the Delta wetland resource base through restoration (Objective WT-4). This guidance was refined by the Baylands Ecosystems Goals Report (Goals Report)[1] identifying alternatives for wetlands restoration by region, including the Suisun Subregion. The Goals Report identifies the need for restoration of tidal marsh "... from about 13,000 acres to about 30,000 to 35,000 acres, while maintaining approximately 32,000 to 37,000 acres of diked wetlands."

None of the three alternatives considered in this DEIS provide a significant contribution to the tidal marsh restoration recommended by the authors of the Goals Report, a cooperative effort by local, state and federal agencies. EPA strongly recommends development of an alternative with tidal marsh restoration more in alignment with recommendations of the Goals Report. We recommend reliance on nonintrusive management methods, to the maximum extent possible, such as opening up wetland parcels to tidal action and allowing "natural processes" to reconfigure and restore the tidal marsh. At a minimum, we urge selection of Alternative C: Restoration of 7,000 to 9,000 acres of tidal restoration as the Preferred Alternative for implementation. EPA-1 EPA-2

The SMP will guide near-term and future actions related to restoration of tidal wetlands and managed wetland activities. Environmental review of specific restoration projects would tier off of this programmatic DEIS. Given the 30-year planning period, EPA recommends the Final Environmental Impact Statement (FEIS) include a firm commitment to detailed project-specific environmental analysis for tidal restoration projects and major managed wetland activities (e.g., new interior levees, riprap, dredging program). EPA-3

Of concern is the ability of the Proposed Project to significantly improve water quality, levee system integrity, and the ability to adapt to climate change. We recommend the FEIS provide more information and citations supporting DEIS assumptions and conclusions regarding effects and benefits of project activities. In particular, the FEIS should better substantiate the conclusion that restoration of more than 9,000 acres of restored tidal marsh would result in the inability to meet water quality, land use, and habitat objectives of the SMP or the Delta. The FEIS should include, in an appendix, a long-term, comprehensive monitoring, assessment, and reporting plan for the SMP. EPA-4 EPA-5 EPA-6

EPA appreciates the opportunity to provide input regarding the proposed restoration project. When the FEIS is released for public review, please send one hard copy and one CD to the address above (Mail Code: CED-2). If you have questions, please contact me at 415-972-3521, or contact Laura Fujii, the lead reviewer for this project. Laura can be reached at 415-972-3852 or fujii.laura@epa.gov.

[1] See link here: http://www.sfestuary.org/userfiles/ddocs/Habitat_Goals.pdf

2

Sincerely,

James Munson for :

Kathleen M. Goforth, Manager
Environmental Review Office (CED-2)
Communities and Ecosystems Division

Enclosures: Summary of EPA Rating Definitions
Detailed Comments

Cc: Cay Goude, US Fish and Wildlife Service
Scott Wilson, California Dept. of Fish and Game
Jennifer Pierre, ICF International

3

SUMMARY OF EPA RATING DEFINITIONS*

This rating system was developed as a means to summarize the U.S. Environmental Protection Agency's (EPA) level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the Environmental Impact Statement (EIS).

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

ADEQUACY OF THE IMPACT STATEMENT

"Category 1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

"Category 2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

"Category 3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, Policy and Procedures for the Review of Federal Actions Impacting the Environment.

4

U.S. EPA DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR SUISUN MARSH HABITAT MANAGEMENT, PRESERVATION, AND RESTORATION PLAN, SOLANO COUNTY, CA., JANUARY 13, 2011

Preferred Alternative and DEIS Conclusions

Support selection of Preferred Alternative and DEIS conclusions with concrete scientific-based data and references. Alternative A, Proposed Project, includes tidal restoration of 5,000 to 7,000 acres and increased managed wetlands activities on 44,000-46,000 acres. This alternative has been selected as the Preferred Alternative because it is consistent with the CALFED Bay-Delta Program Record of Decision (CALFED ROD), its ability to contribute to recovery of listed species, and its acceptability to Suisun Marsh landowners. However, consistency with the CALFED ROD and ecological superiority of this alternative is not clearly supported by information in the Draft Environmental Impact Statement (DEIS) or by current scientific data or citations. For example, the DEIS does not provide a convincing demonstration, supported by data and citations, that greater than 9,000 acres of tidal restoration would be unable to meet water quality, land use, habitat objectives for the Suisun Marsh Plan (SMP) or the Delta (p. 2-5). EPA-7

Recommendations:
The Final Environmental Impact Statement (FEIS) should include specific scientific-based data, citations, and information from the CALFED ROD and other sources supporting the DEIS conclusion that 5,000 to7,000 acres of tidal restoration is consistent with the CALFED ROD and objectives for the Delta. EPA-8 Include information and data to demonstrate that greater than 9,000 acres of tidal restoration would be unable to meet water quality, land use, and habitat objectives for the SMP or Delta. EPA-9 State why the other alternatives are not consistent with the CALFED ROD or would be less able to meet Delta ecosystem goals. EPA-10

The FEIS should provide the underlying rationale for each of the components that shaped the action alternatives. The FEIS should also include a description of current scientific research and findings regarding the appropriate balance of tidal and managed wetlands that would maximize ecosystem benefits for Suisun Marsh and the Delta. EPA-11

Water Quality

Provide in-depth analysis of water quality effects. Suisun Bay and Suisun Marsh Wetlands have been listed by EPA and the California State Water Resources Control Board for multiple pollutants.[2] The Water Quality section of the DEIS does not appear to address all pollutants of concern, such as Polychlorinated Biphenyls (PCBs), selenium, and nutrients. As details of potential effects have not been provided for Alternatives B and C, EPA cannot ascertain how much more or less these alternatives address water quality impairment as compared to Alternative A or No Action.

[2] For a complete list use this link:
http://www.waterboards.ca.gov/water_issues/programs/tmdl/docs/303dlists2006/epa/state_usepa_combined.pdf

1

Recommendation:
EPA requests a more in-depth analysis of potential water quality effects. At a minimum, the FEIS should provide a firm commitment to project-specific quantitative assessment and disclosure of potential water quality impacts. EPA-12

Address in detail potential adverse impacts from, and alternatives to, the proposed dredging program. The proposed project includes yearly dredging of up to 100,000 cubic yards of material from existing tidal channels for levee improvement material. Proposed dredging activities would be tracked using geographic information systems (GIS) to ensure dredging does not occur more than once every 3 years in any specific location and would not remove material deeper than 4 feet per dredging cycle (p. 2-36). Nevertheless, EPA remains concerned that the proposed new dredging program may have adverse effects, especially indirect effects, on marsh hydrology and geomorphology (e.g. erosion), water quality, fish, and invertebrate species. In addition, the DEIS does not demonstrate whether alternative sources of material, including reuse of navigation-based dredge material, have been exhausted.

Recommendations:
The FEIS should more thoroughly evaluate other alternatives to the proposed dredging program. Project proponents should work with the Long-Term Management System for dredged material (LTMS) agencies to investigate opportunities for establishing a dredge material reuse site in the area to facilitate the use of dredge material in levee maintenance and restoration. EPA-13

The FEIS should better substantiate the conclusion that any proposed dredging would not adversely affect existing habitat and restoration goals. For instance, provide information on the assumptions made, and proposed monitoring, testing, and adaptive management actions. Provide a summary of the science that indicates a net benefit would occur, such as a description of the effects of current dredging practices. EPA-14

Levee System Integrity

Demonstrate that the Preferred Alternative would maintain and enhance levee system integrity. The poor condition of the Suisun Marsh levee system is well documented (p. ES-5, Section 5.4 Flood Control and Levee Stability). The DEIS states that due to "current restrictions preventing dredging from sloughs and constraints on importing materials, landowners in the Marsh have maintained their exterior levees using primarily material from ditch cleaning or pond bottom grading for more than a decade, a practice that increases subsidence and potentially weakens the existing levee foundations. These factors combined have exhausted the supply of levee maintenance material in the managed wetlands and have forced maintenance to be deferred on some exterior levees, increasing the risk of catastrophic flooding."

Recommendation:
The FEIS should provide scientifically-supported information demonstrating that the Preferred Alternative can maintain and enhance levee system integrity given the conditions described above. One approach would be to provide examples where managed EPA-15

2

wetland activities or restoration of tidal marsh have provided a noticeable improvement in levee integrity. EPA-15 cont'd

Provide a more robust impact analysis of additional riprap. EPA is concerned with the potential adverse effects of the proposed additional riprap. While riprap can provide a stabilizing benefit, it does not provide marsh habitat and should not be reflected as such (p. 5.4-7), unless supported by scientific data and evidence that such ecological benefits occur.

Recommendation:
The FEIS should include a more robust impact analysis of the proposed additional riprap. The claim that benches, berms, and erosion protection such as brush boxes, vegetation, and riprap would provide a range of marsh habitats and serve to protect the levee from wind and wave erosion should be substantiated with scientific data, demonstration studies, and other supporting information. EPA-16

Climate Change

Clarify how the Preferred Alternative addresses climate change effects. The DEIS appears to discuss the threat of sea level rise without planning for it within the context of proposed activities.

Recommendation:
The FEIS should clarify how the Preferred Alternative addresses expected climate change impacts over its 30 year planning timeframe. EPA-17

Clarification and Full Disclosure

The DEIS states that "The managed wetland activities would be implemented only if at least one third of the total restoration activities would be implemented in each of the 10-year increments. … This would ensure that all actions would be implemented in a timeframe similar to that of the impacts and that restoration efforts would contribute toward recovery throughout the plan implementation period (p. ES-9)."

Recommendation:
The FEIS should provide a more detailed explanation of the rationale for the above statement regarding "at least one third of the total restoration activities would be implemented in each of the 10-year increments." For instance, does the above statement mean that the proposed restoration is required by the CALFED ROD and US Fish and Wildlife Service and National Marine Fisheries Service Biological Opinions (FWS/NMFS BOs) to offset anticipated adverse impacts of operations of the State Water Project and Central Valley Project? EPA-18

3

In addition, we recommend the FEIS include additional information and clarification for the following items:

1. The status of restoration science:
    a. Restoration and management techniques (e.g., contouring, water management, intervention vs. reliance on natural processes).
    b. Effectiveness of current restoration design features and construction practices, their level of success and failure, and success criteria.
    c. Evolution of tidal restoration science and practice (e.g., intervention vs. reliance on natural processes, hard vs. soft solutions).
    d. Underlying ecological science and assumptions.
2. Past and current restoration efforts and their level of success or lessons learned, including project performance or success in achieving ecosystem objectives.

EPA-19

3. Terms and conditions of the US Fish and Wildlife Service and National Marine Fisheries Service Biological Opinions (p. 2-66).

EPA-20

4. Deliberations, if any, on the appropriate balance of tidal marsh and managed wetlands for Suisun Marsh.

EPA-21

5. How environmental commitments were derived. For example, do the proposed environmental commitments have a proven success rate? Cite scientific support and research for the proposed environmental commitments.

EPA-22

6. Material excavated from cleared ditches would be side cast and allowed to dry for 1 year (vs. current 1 month) to ensure all materials are dried before beneficial use (p. 2-33). Provide the underlying science demonstrating that 1-year drying is better than 1-month drying, or describe the benefits and costs of each drying period length for dredged material.

EPA-23

7. The Montezuma Slough Salinity Control Gate is operated in real-time by monitoring tidal elevations and flows. The goal is tidal pumping to send low salinity Sacramento River water into the upper end of Montezuma Slough (p. 5.1-12). Explain in more detail why low salinity Sacramento River water is required in Montezuma Slough and why higher salinity in Suisun Marsh is considered undesirable.

EPA-24

4

Responses to Comment Letter EPA

EPA-1

The SMP is intended to provide a balanced approach to tidal restoration and managed wetland enhancement activities. While other programs, plans, and proposals, including the GOALS Report (1999), may recommend different amounts or approaches for tidal restoration, the SMP is intended to meet the CALFED Stage 1 ERP goals, which calls for restoration of 5,000 to 7,000 acres of tidal marsh and 44,000 to 46,000 acres of managed wetland enhancement. However, the SMP does not preclude additional restoration from being implemented in the Marsh, so restoration recommended in the GOALS Report or other plans, programs, or proposals still could occur. As part of the development of the SMP, more than 20 existing plans were reviewed for information pertinent to the Marsh and to help guide the alternative screening process. These plans are listed in Chapter 2 and include the South Bay Salt Ponds project, GOALS Report, and the Suisun Marsh Protection Plan. The SMP is also consistent with the Draft Tidal Marsh Recovery Plan, which is the most recent scientifically based plan for this area.

Also see Master Response4: Relationship to Other Plans Affecting the Delta and Suisun Marsh.

EPA-2

The restoration approach described in the SMP involves preparing sites prior to breaching and selecting breach locations and sizes in a way that facilitates the establishment of natural processes as efficiently and quickly as possible. Based on this design and implementation approach, minimal to no management is expected to be needed in the restored areas. Restoration of 5,000 to 7,000 acres is the preferred alternative because it best meets all of the objectives of the SMP.

EPA-3

See Master Response 1: Project-Specific Analysis.

EPA-4

See Master Response 2: Definition of the CEQA and NEPA Baseline for This EIS/EIR.

EPA-5

See Master Response 3: Alternatives.

EPA-6

See Master Response 5: Inclusion of an Adaptive Management Plan.

EPA-7 through EPA-11

See Master Response 3: Alternatives.

EPA-12

See Master Response 1: Project-Specific Analysis.

EPA-13

For more than two decades, no dredging has been authorized in the Marsh, and landowners have attempted to supplement materials from within the managed wetland areas with materials imported from non-Marsh dredging and other projects. The process for obtaining these imported materials has been onerous, cost prohibitive, and testing requirements combined with extremely limited site access of loaded barges, the environmental impacts from the placement of material (slurry or clamshell), and the need to commit to the materials very quickly render most attempts to use these materials unsuccessful. However, these sources of material are considered ongoing and are part of the CEQA/NEPA baseline. The SMP does not preclude landowners from pursuing the use of imported materials. For approximately 30% of the exterior levees in the Marsh, dredging would not be permitted to avoid impacts to fringing tidal marsh habitats. However, the development of dredge reuse sites was not considered because it would affect existing wetlands and have environmental consequences related to permanent and/or temporary fill beyond what is described in the EIS/EIR.

EPA-14

See Master Response 5: Inclusion of an Adaptive Management Plan.

As described above for the response to EPA-13, dredging has not been authorized in the Marsh for more than two decades. Because the Marsh is a unique area and there are minimal data to support conclusions regarding the potential effects, the analysis of dredging impacts relies on available data related to benthic recovery (as cited in the Draft EIS/EIR); implementation of seasonal work windows; regional distribution of dredging activities associated with adjacent aquatic habitats, and minimization measures to avoid emergent vegetation and other sensitive areas such as tidal berms; and adaptive management will study, assess, and improve dredging techniques to ensure impacts are less than significant.

EPA-15

The levee integrity objective of the SMP would be achieved through the increased availability of levee maintenance materials through dredging and the use of brush boxes. Decreasing the amount of material taken from pond bottoms to maintain levees would minimize lowering of managed wetland land surface elevations and therefore would maintain elevations for potential future tidal restoration activities. The only tidal restoration recently completed in the Suisun Marsh was DWR's Blacklock site. The pre-breaching levee protections and improvements have been successful at maintaining new exterior levee integrity.

EPA-16

The SMP proposes to place no more than 2,000 linear feet of riprap on exterior levees over the 30-year implementation period (less than 0.02% of the levees per year). As described in Chapter 2, riprap would be used only in areas where tidal action would preclude the use of other bio-technical levee toe stabilization and erosion control methods. While this is a potential loss of shoreline habitat, the increase in tidal habitat gained through the restoration activities more than offsets the minor loss attributable to placement of riprap. Of the more than 200 miles (1,056,000 feet) of levees in the Marsh, only 2,000 linear feet of levees could be riprapped over the 30-year SMP implementation period (0.001%). Additionally, new riprap is limited to areas that would not support alternative bank protection measures as described in Chapter 2 of this EIS/EIR.

EPA-17

Section 5.9 provides an analysis of how the project would perform under predicted climate change scenarios as well as how the alternatives would affect climate change (i.e., contribute GHG emissions). Additionally, as described on page 2-47 of the EIS/EIR, even with higher rates of sea level rise than currently predicted by the IPCC and OPC, the tidally restored wetlands would be expected to accrete sediment and eventually support vegetated tidal marsh. In the meantime, they still would provide valuable intertidal or shallow open-water habitat for aquatic species. The managed wetland enhancement component of the Preferred Alternative would address climate change through improvements to levee stability and a reduction in the amount of material removed from managed wetland areas to achieve these levee stability improvements. Additionally, overall, the SMP is expected to reduce GHG emissions through the conversion of managed wetlands to tidal wetlands, and the development of more wetland/upland transition areas in the restored areas would provide an elevation gradient over which tidal wetland could shift upslope when tidal levels rise.

EPA-18

See Master Response 7: Mitigation and Accounting Master Response. The intention of completing one third of the restoration every 10 years of the SMP implementation period is to ensure that restoration goals and species recovery actions are being met concurrent with managed wetland goals.

EPA-19

Various documents were used for underlying scientific support (as shown on page 2-4), including the South Bay Salt Pond Project, the Draft Tidal Marsh Recovery Plan, the GOALS Report, and the conceptual models created specifically for the SMP. Only one site (DWR's Blacklock), which includes 70 acres of tidal marsh, has been actively restored in the Suisun Marsh in recent history. Initial site evolution and species response support the SMP restoration objective and strategies analyzed in this document.

EPA-20

The ESA consultation process is a related, but separate, process to the NEPA/CEQA process, which is the basis of this EIS/EIR. The BOs, once issued, will become part of the record for the SMP and will be made publicly available. However, because the SMP and this EIS/EIR were developed in close coordination with the USFWS and NMFS, it is expected that all of the terms and conditions that will be included in the BOs have been included in the EIS/EIR. As stated on page 2-66 of the Draft EIS/EIR, any terms and conditions will be followed by landowners implementing applicable managed wetland activities in the Marsh.

EPA-21

See Master Response 3: Alternatives.

EPA-22

The environmental commitments included in Chapter 2 of the EIS/EIR, like the rest of the SMP, were developed in coordination with active Marsh resource managers and experts and are based on experience in the Marsh and with other restoration projects; anticipated requirements from various

permitting agencies; existing and prior requirements of BOs, the Draft Tidal Marsh Recovery Plan, the SMP Conceptual Models, information and lessons learned from the South Bay Salt Ponds project; other permits for managed wetland activities; and standards typically imposed on projects of similar nature.

EPA-23

Material excavated from ditches is not "dredging" as defined by the project description of the SMP. Ditch cleaning is the maintenance activity to remove accumulated silt and vegetation that diminishes the efficient operation of water conveyance facilities and impairs wetland habitat conditions. The current Corps Regional General Permit (RGP) 3 states: "Material excavated from these ditches may be side cast and left adjacent to the ditch for up to one month, then must be used for an authorized activity (e.g. levee maintenance or grading) or removed to an area outside the Corps jurisdiction (i.e. crown of the levee, above Mean High Water (MHW) elevation." The SMP includes an extension of this time period from 1 month to 1 year that would address the issue that is sometimes encountered when the sidecast material is still too wet to handle, spread, or relocate in an efficient and beneficial manner.

EPA-24

The Montezuma Salinity Control Gate (MSCG) was constructed and is operated by DWR and Reclamation as part of the 1984 Plan of Protection, the Revised SMPA, and Water Rights Decisions 1485, 95-6, and 1641. The MSCG and the initial facilities are operated to ensure that a dependable water supply is maintained to mitigate adverse effects on the Suisun Marsh of the CVP and SWP and a portion of the adverse effects of other upstream diversions. When Delta outflow is not sufficient to produce water quality to meet the objective for fish and wildlife beneficial uses and the required eastern and western Suisun Marsh numeric salinity standards (October through May), the MSCG is operated to meet these required regulatory standards.

14.2.3 State Agencies

14.2.3.1 BCDC—San Francisco Bay Conservation and Development Commission, Jessica Davenport, Coastal Planner, December 29, 2010

Comment Letter BCDC

bcdc

Making San Francisco Bay Better

December 29, 2010

Becky Victorine
Bureau of Reclamation
2800 Cottage Way
Sacramento, CA 95825

SUBJECT: Comments on the Suisun Marsh Habitat Management, Preservation, and Restoration Plan, Draft Environmental Impact Statement/Environmental Impact Report

Dear Ms. Victorine:

On November 1, 2010, the Commission received a Notice of Completion and Environmental Document Transmittal for the Suisun Marsh Habitat Management, Preservation, and Restoration Plan, Draft Environmental Impact Statement/Environmental Impact Report (SMP Draft EIS/EIR).

Although the San Francisco Bay Conservation and Development Commission (Commission) has not reviewed the Draft EIS/EIR, the following staff comments are based on the McAteer-Petris Act, the Suisun Marsh Preservation Act (Marsh Act), the Commission's *San Francisco Bay Plan* (Bay Plan), the *Suisun Marsh Protection Plan* (Marsh Plan), the Commission's federally-approved coastal management program for the San Francisco Bay, the federal Coastal Zone Management Act (CZMA), and the Suisun Resource Conservation District's (SRCD) certified local protection program (LPP) component for the Marsh.

The Commission staff supports the SMP's goal of balancing tidal wetland restoration with other habitat protection and enhancement efforts in the Marsh.

Jurisdiction. The Commission's permit jurisdiction includes all tidal areas of the Bay up to the line of mean high tide or, in areas of tidal wetlands, up to five feet above mean sea level, including all areas formerly subject to tidal action that have been filled since September 17, 1965; and the shoreline band that extends 100 feet inland from and parallel to the Commission's Bay jurisdiction. The Commission also has jurisdiction over certain managed wetlands adjacent to the Bay, salt ponds, and certain waterways, and the Suisun Marsh.

Commission permits are required for placement of fill, construction, dredging, and substantial changes in use within its jurisdiction. Permits are issued when the Commission finds proposed activities to be consistent with its laws and policies. In addition, federal actions (including plans), permits, projects, licenses and grants affecting the Commission's coastal jurisdiction are subject to review by the Commission, pursuant to the federal CZMA, for their consistency with the Commission's federally-approved coastal management program for the Bay.

State of California • **SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION** • *Arnold Schwarzenegger, Governor*
50 California Street, Suite 2600 • San Francisco, California 94111 • (415) 352-3600 • Fax: (415) 352-3606 • info@bcdc.ca.gov • www.bcdc.ca.gov

The Marsh Act grants the Commission regulatory authority to issue marsh development permits in the primary management area of the Suisun Marsh, defined as water-covered areas, tidal marshes, diked wetlands, seasonal marshes, and certain lowland grasslands specified on the Marsh Plan Map. The Marsh Act also established a secondary management area composed principally of upland grasslands and cultivated lands, also specified on the Marsh Plan Map, to serve as a buffer between the primary management area and developed lands outside the Marsh. Within the secondary management area, local governments issue marsh development permits pursuant to an LPP certified by the Commission, and these permits can be appealed to the Commission.

From our review of the Draft EIS/EIR, the staff has identified the following issues within the Commission's Bay and Marsh jurisdictions that require further discussion in the Final EIS/EIR: consistency with the SRCD's certified LPP component, habitat protection and restoration, public access and recreation, dredging, minimizing harmful effects to the Bay, mitigation, water quality, fresh water inflow, climate change, and adaptive management.

SRCD's Certified LPP. Unlike the other components of the LPP, the SRCD's component applies to the primary area of the marsh where the Commission has permit authority. The SRCD component of the LPP is a "management program designed to preserve, protect and enhance the plant and wildlife communities within the primary area of the marsh, including, but not limited to, enforceable standards for diking, flooding, draining, filling and dredging of sloughs, managed wetlands, and marshes." Such activities do not require BCDC permits as long as they are consistent with the standards in the LPP. The SMP would include changes to maintenance activities to reduce their adverse environmental impacts, but would be inconsistent with the currently certified LPP. Therefore, the SRCD component of the LPP would need to be updated to enable the SRCD to implement maintenance activities without project-by-project permitting by BCDC. BCDC-1

Habitat Protection and Restoration. Adoption of the preferred alternative in the Draft EIS/EIR would result in restoration of 5,000 to 7,000 acres of tidal marsh and protection and enhancement of 40,000 to 50,000 acres of managed wetlands. This goal is consistent with Commission's laws and policies, which call for protecting the diversity of habitats in the Suisun Marsh, restoring tidal habitats, and protecting fish, other aquatic organisms and wildlife, particularly threatened and endangered species and their habitats.

The Marsh Plan policies state, in part:

> The diversity of habitats in the Suisun Marsh and surrounding upland areas should be preserved and enhanced wherever possible to maintain the unique wildlife resource....
>
> Where feasible, historic marshes should be returned to wetland status, either as tidal marshes or managed wetlands. If, in the future, some of the managed wetlands are no longer needed for private waterfowl hunting, they should be restored to tidal or subtidal habitat, or retained as diked wetland habitat and enhanced and managed for the benefit of multiple species....
>
> The Suisun Resource Conservation District should be empowered to improve and maintain exterior levee systems as well as other water control facilities on the privately owned managed wetlands within the primary management area.

In accordance with these policies, the staff supports the SMP's goals of enhancing seasonal and managed wetlands that provide essential wintering habitat for waterfowl of the Pacific Flyway, supporting tidal restoration, and supporting maintenance of Suisun Marsh levees.

Public Access and Recreation. The Commission's laws and policies call for providing a wide range of public access and recreational opportunities, consistent with public safety and the protection of natural resources. More specifically, the Recreation and Access Policies of the Marsh Act call for encouraging continued recreational use of privately-owned managed wetlands, i.e., duck hunting, as well as acquisition of land to provide for increased public recreational use, including fishing and nature study. The policies state that these areas should be located primarily on the outer portions of the Marsh near the population centers and easily accessible from existing roads. The policies further state that public agencies acquiring land in the Marsh for public access and recreational use should provide for a balance of recreational needs by expanding and diversifying opportunities for activities such as bird watching, picnicking, hiking, and nature study. The Final EIS/EIR should discuss opportunities for diversifying or increasing the range of recreational opportunities in the Marsh. BCDC-2

Dredging. The Commission's dredging policies state, in part, that dredging should be authorized when the Commission can find that "dredging is needed to serve a water-oriented use or other important public purpose, such as navigational safety" and "the siting and design of the project will result in the minimum dredging volume necessary for the project." The Commission's laws and policies also require that dredging and dredged material disposal be conducted in an environmentally and economically sound manner and that projects be designed to minimize and, if feasible, avoid any harmful impacts on fish, other aquatic organisms, wildlife and aquatic plants.

The Draft EIS/EIR states that dredging from sloughs to maintain managed wetland levees is currently restricted to protect threatened and endangered species, and describes a range of dredging practices that minimize impacts on listed species, with remaining impacts to be offset by habitat restoration. In addition, the Draft EIS/EIR states, "Dredging will be avoided within 200 feet of storm drain outfall and urban discharge locations, unless suitable preconstruction contaminant testing is conducted."

The Final EIS/EIR should note that the Commission must consult with the state and federal resource agencies, and not authorize any dredging resulting in a "taking" of a listed species unless the appropriate authorization has been issued by the resource agencies. The Commission is also authorized to require mitigation for adverse impacts of dredging that cannot be avoided or minimized. (See comments on mitigation below.) With respect to contaminant testing, the Final EIS/EIR should note that dredging within 200 feet of storm drain outfall and urban discharge locations will require the testing specified by the Dredged Material Management Office (DMMO), and project sponsors should consult with the DMMO for the need for evaluation and determination of suitability for placement on levees or other sites. The DMMO is operated by the agencies of the Long Term Management Strategy (LTMS) for the Placement of Dredged Material in the San Francisco Bay Region. BCDC-3 BCDC-4 BCDC-5

Minimize Harmful Effects to the Bay. The proposed plan would need to be consistent with all applicable Bay Plan policies. Therefore, the Final EIS/EIR should address other applicable Bay Plan policies, including a discussion about the Commission's regulatory requirements governing the protection of the Bay's natural resources, including fish, other aquatic organisms, and wildlife, and certain habitat needed for their protection, including tidal flats and marshes and subtidal areas. The Bay Plan policies regarding subtidal areas state, in part, that dredging projects in such areas should be thoroughly evaluated to determine the local and Bay-wide BCDC-6 BCDC-7

effects such projects would have on bathymetry, tidal hydrology and sediment movement, fish, other aquatic organisms and wildlife; aquatic plants; and the introduction and spread of invasive species. The Bay Plan policies on fish, other aquatic organisms, and wildlife, state that marshes, mudflats, and subtidal habitat should be "conserved, restored, and increased." According to the Bay Plan policies on tidal marshes and tidal flats, and subtidal areas, all projects subject to Commission consideration should also be sited and designed to minimize or avoid adverse resource impacts at these areas. Furthermore, the Commission must consult with and give appropriate consideration to the state and federal resource agencies, and not authorize any project resulting in a "taking" of a listed species unless the appropriate authorization has been issued by the resource agencies.

BCDC-7 cont'd

BCDC-8

Mitigation. In the event that projects and activities described in the SMP would result in adverse environmental impacts that cannot be avoided, mitigation measures will be required. The Commission's policies regarding mitigation state, in part, that "projects should be designed to avoid adverse environmental impacts to [the] Bay" and, further, that "[w]henever adverse impacts cannot be avoided, they should be minimized to the greatest extent practicable….[and] measures to compensate for…impacts should be required."

The Draft EIS/EIR states that, "The managed wetland activities would be implemented only if at least one third of the total restoration activities would be implemented in each of the 10-year increments…. Under this strategy, the restoration and managed wetland goals would be achieved concurrently. How the restoration acres would be applied for purposes of other regulatory permitting requirements (i.e., recovery vs. mitigation) would be specified through each permit as applicable."

The Draft EIS/EIR states the impacts of managed wetland activities are "less than significant" before mitigation. This appears to conflict with the statement that some permitting agencies will require mitigation. The Final EIS/EIR should clarify this issue.

BCDC-9

Water Quality. Pursuant to the Commission's water quality policies in the Bay Plan, pollution in the Bay's water "should be prevented to the greatest extent feasible." Further, per the Bay Plan policies, the Commission would need to consult with and base its decision regarding the water quality impacts of any proposed projects undertaken pursuant to the SMP on evaluation by and advice of the San Francisco Bay Regional Water Quality Control Board. Therefore, we request that the SMP require that project proponents conduct early consultation with and obtain all necessary authorization from the Regional Board to aid the Commission in determining whether any projects would adversely impact the Bay's water quality.

BCDC-10

Fresh Water Inflow. Water Supply and Quality Finding 2 in the Marsh Plan states, "Today the most important factor in Marsh water quality is salinity. Slough salinities are presently determined by fresh water inflow, which dilutes the saltwater carried into the Marsh by tidal action from the ocean. The most important source of fresh water inflow to the Suisun Marsh is the outflow from the Sacramento-San Joaquin River Delta."

The Bay Plan and Marsh Plan policies call for adequate freshwater inflow to the Bay and Suisun Marsh. The Bay Plan recognizes the importance of fresh water inflows to the ecosystem of the Bay. Bay Plan findings state that "conserving fish, other aquatic organisms and wildlife depends, among other things, upon availability of …proper fresh water inflows, temperature, salt content, water quality, and velocity of the water."

The Bay Plan's fresh water inflow policies state, in part:

> Diversions of fresh water should not reduce the inflow into the Bay to the point of damaging the oxygen content of the Bay, the flushing of the Bay, or the ability of the Bay to support existing wildlife....
>
> High priority should be given to the preservation of Suisun Marsh through adequate protective measures including maintenance of freshwater inflows....

The Marsh Plan recognizes that the Suisun Marsh, located where salt water and fresh water meet and mix, contains "the unique diversity of fish and wildlife habitats characteristic of a brackish marsh."

Marsh Plan policies state, in part:

> There should be no increase in diversions by State or Federal Governments that would cause violations of existing Delta Decision or Basin Plan standards....
>
> Water quality standards in the Marsh should be met by maintaining adequate inflows from the Delta.

Changes in water project operations that may result from other planning processes, such as the Bay Delta Conservation Plan and the Delta Plan, could affect the future extent to which tidal restoration in the Suisun Marsh results in brackish marshes versus salt marshes. These issues should be addressed in the adaptive management plan and the Final EIS/EIR. BCDC-11

Climate Change. The Bay Plan requires the design and evaluation of any tidal restoration project to include an analysis of the effect of relative sea level rise. The Draft EIS/EIR states that sea level rise and storms associated with climate change could breach levees in the Suisun Marsh, resulting in the loss of managed wetland habitat. The risk of levee breaches and wetland habitat loss will increase over time due to accelerating sea level rise and high rates of subsidence in the managed wetlands. Restoration of managed wetlands that are not yet highly subsided would create opportunities for tidally restored wetlands to accrete sediment and eventually support tidal marsh. Restoration sites around the edge of the Suisun Marsh may have the potential for sea level rise resiliency, if they are allowed to flood adjacent uplands over time so that wetlands can migrate landward. These issues should be addressed in the adaptive management plan. BCDC-12

Adaptive Management. The Bay Plan's policies on tidal marshes and tidal flats state, in part:

> Any tidal restoration project should include clear and specific long-term and short-term biological and physical goals, and success criteria and a monitoring program to assess the sustainability of the project. Design and evaluation of the project should include an analysis of: (a) the effects of relative sea level rise; (b) the impact of the project on the Bay's sediment budget; (c) localized sediment erosion and accretion; (d) the role of tidal flows; (e) potential invasive species introduction, spread, and their control; (f) rates of colonization by vegetation; (g) the expected use of the site by fish, other aquatic organisms and wildlife; and (h) site characterization. If success criteria are not met, appropriate corrective measures should be taken.

In other words, an adaptive management approach is required. Bay Plan policies on restoration of subtidal areas contain the same requirements. Although the SMP calls for applying adaptive management to the implementation of tidal marsh restoration, an adaptive management plan for restoration in the Suisun Marsh with specific goals, success criteria, a monitoring program, and potential corrective measures has not yet been completed. An adaptive management plan should be provided as an appendix to the Final EIS/EIR. BCDC-13

Thank you for the opportunity to comment on this Draft EIS/EIR. If you have any questions regarding this letter or the Commission's policies, please call me at (415) 352-3660 or email me at jessicad@bcdc.ca.gov.

Sincerely,

JESSICA DAVENPORT
Coastal Planner

JD/gg
By U.S. Mail and e-mail (rvictorine@usbr.gov)

Responses to Comment Letter BCDC

BCDC-1

The SMP Principal Agencies will continue to coordinate with the BCDC to ensure consistency and compliance with commission requirements. SRCD will work with BCDC staff to evaluate, and if appropriate, update elements of the SRCD component of the LPP.

BCDC-2

The Draft EIS/EIR includes a description of current recreation opportunities, how these opportunities would be changed, and potential new or expanded opportunities as a result of implementation of the SMP (Section 7.4, Recreation Resources). Restoration areas would generally be purchased from private willing-sellers by public entities, and public access would be encouraged where it is compatible with the protection of wildlife and habitats, and adjacent land uses. As described in this section, additional fishing opportunities would occur under the SMP. Additionally, opportunities for bird watching, hiking, and other non-consumptive recreational activities could increase in the Marsh but would depend on site-specific design and constraints related to access, sensitive resource presence in the area, and compatibility with adjacent land uses. However, the SMP does not discourage these recreational opportunities, but in fact encourages these non-consumptive uses through the conversion of areas from private to public from willing sellers.

BCDC-3

The SMP Principals (or a subset depending on the actual permit or approval needed) are simultaneously applying for permits under ESA, CESA, CWA Sections 404 and 401, and California Fish and Game Code 1602 and consulting with the SHPO. The SMP Principal Agencies will continue to coordinate with the BCDC to ensure consistency and compliance with commission requirements.

BCDC-4

The SMP Principal Agencies will continue to coordinate with the BCDC to ensure consistency and compliance with commission requirements, including applying for a consistency determination.

BCDC-5

Page 2-69 of the Draft EIS/EIR commits to no dredging within 200 feet of a storm drain outfall unless preconstruction contaminant testing is conducted. The Final EIS/EIR clarifies that testing specifically for these areas includes coordination and consulting with the DMMO relative to evaluation and placement of these specific described materials.

BCDC-6

See Master Response 4: Relationship to Other Plans Affecting the Delta and Suisun Marsh

BCDC-7

The dredging proposed under the SMP would occur over a 30-year period and has been designed to avoid emergent vegetation and other sensitive resources and to limit disturbances to the same area in a way that avoids changes in bathymetry or composition of benthic organisms. However, the Marsh is a unique area, and there are uncertainties regarding the potential effects. As described in Section 6.1, Fish, the dredging program would require an adaptive management component that

would require dredging entities to investigate and document the actual effects of dredging to ensure that no impacts occur above those that have been identified and analyzed in this document.

BCDC-8

The SMP Principals (or a subset depending on the actual permit or approval needed) are simultaneously applying for permits under ESA, CESA, CWA Sections 404 and 401, and Streambed Alteration Agreement and consulting with the SHPO. The SMP Principal Agencies will continue to coordinate with BCDC to ensure consistency and compliance with commission requirements.

BCDC-9

The CEQA/NEPA baseline for analysis of potential impacts of the alternatives is the current conditions, including currently implemented management activities. The EIS/EIR therefore analyzes the potential changes to the environment as a result of new activities or a change in frequency of currently implemented activities. As such, the EIS/EIR may not identify an impact as requiring mitigation compared to this baseline. However, ESA, CESA, and other regulations may rely on a different baseline and therefore may determine that the effect of SMP activities is greater than what was described in the EIS/EIR and require mitigation. Additionally, the EIS/EIR was drafted in a manner that takes into account all of the various activities proposed in the SMP, so that some activities that could have impacts on tidal wetlands are more than offset by the proposed restoration. In these instances, no mitigation is required in the EIS/EIR. However, regulatory agencies may want to describe more explicitly the restoration components that would be required specifically to mitigate impacts on resources under their jurisdiction.

BCDC-10

The only currently identified specific projects in the SMP are the managed wetland activities. For these activities, SRCD, DFG, DWR, and Reclamation will submit an application for a Regional General Permit and Letter of Permission, and a Section 401 Water Quality Certification to comply with the CWA. For future restoration activities that would occur under the SMP, the specific project proponent would be required to submit the necessary applications to the Corps and RWQCB based on the specific analysis for that particular site. As has been done throughout the development of the SMP, the restoration proponents will engage the RWQCB and other regulatory agencies as early in the process as possible to ensure the impacts of each specific project are properly analyzed and disclosed.

BCDC-11

See Master Response 5: Inclusion of an Adaptive Management Plan and Master Response 4: Relationship to Other Plans Affecting the Delta and Suisun Marsh.

BCDC-12

As presented in the Draft EIS/EIR, Chapter 2, Page 2-47, a number of features can be built into the restoration efforts to support achieving long-term ecological functions. Providing for the tidal wetland to advance “upslope” can be achieved through constructing a gradually sloping wetland/upland transition zone at interior sites and selecting restoration sites at the wetland-upland edge of Suisun that provide an elevation gradient over which tidal wetland could shift upslope as sea level rises.

Table 2-3 includes consideration of landscape position, the potential to accommodate sea level rise and adjacent land uses in restoration site selection. Thus, the potential for sea level rise is acknowledged in the site selection considerations and will be a recurring consideration based on best available science for each restoration project. Administration of this criterion will recognize the dynamic nature of the land/water interactions, including subsidence, sediment accretion potential, and biomass accumulation potential. This will enable project designs to be based on habitat trajectory (as opposed to current or static conditions) over the 30-year planning horizon. This approach will help minimize "sunk cost" of habitat and facility investments as well as help ensure that the targeted habitat type occurs as planned.

In addition to site selection and project design considerations, the AMP provides a framework for adapting to sea level rise. Also see Master Response 5: Inclusion of an Adaptive Management Plan.

BCDC-13

See Master Response 5: Inclusion of an Adaptive Management Plan.

14.2.3.2 DSC—Delta Stewardship Council, P. Joseph Grindstaff, Executive Officer—December 27, 2010

Comment Letter DSC

980 Ninth St., Suite 1500
Sacramento, California 95814
www.DeltaCouncil.ca.gov
(916) 445-5511

DELTA STEWARDSHIP COUNCIL
A California State Agency

December 23, 2010

Ms. Debbie Hultman
California Department of Fish and Game
Bay Delta Region
P.O. Box 47
Yountville, CA 94599.

Fish & Game
DEC 27 2
Yountville

Dear Ms. Hultman:

Please find comment by the Delta Stewardship Council on the Suisun Marsh Habitat Management, Preservation, and Restoration Plan Draft EIR/EIS (SMP).

DSC staff finds that the draft SMP is a comprehensive attempt to reconcile 1) restoration and enhancement goals under the CALFED ROD, 2) water management actions under the Suisun Marsh Preservation Agreement (SMPA), and 3) Biological Opinion conflicts over a Regional General Permit application by the Suisun Resources Conservation District (SRCD) and the Department of Fish and Game (DFG). The Draft makes good progress toward these goals. The DSC comments herein focus on four shortcomings of the SMP compared to goals of the Sacramento-San Joaquin Delta Reform Act of 2009 (Div. 35 of the Water Code). This Act updates State policy for the Delta and Suisun Marsh.

1. Managed wetland land management practices cause ongoing land subsidence. Provisions of the SMP offer enhancements to managed wetland operations that do little to solve the root cause of the problems that create the need for enhancement. In addition, the subsidence related greenhouse gas inducing effects of the Plan are not identified.
2. The approach to tidal restoration lacks scientific foundation. There is little evidence of the Plan's claim to be a "science-based management plan." An adaptive management plan is not included.
3. The tidal marsh restoration plan calls for what appears to be an arbitrary allocation of restoration land in four geographic regions of Suisun Marsh with little justification.
4. Modeling analysis conducted for the Plan is inaccurately referenced for key conclusions of the Plan.

If you have questions or comments, please contact Lauren Hastings (lauren.hastings@deltacouncil.ca.gov) or Chris Enright (cenright@deltacouncil.ca.gov).

Sincerely,

for P. Joseph Grindstaff
Executive Officer

Attachment

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

Delta Stewardship Council (DSC) Staff review of the Suisun Marsh Habitat Management, Preservation, and Restoration Plan Draft EIS/EIR

Role of the Delta Stewardship Council with respect to Suisun Marsh and the Suisun Marsh Plan

The Delta Stewardship Council staff has reviewed the Suisun Marsh Habitat Management, Preservation, and Restoration Plan Draft EIR/EIS (SMP). Our review focused on assessing the consistency of the SMP with provisions of the Delta Reform Act. In general, the Act calls for a legally enforceable comprehensive management plan for the Delta and Suisun Marsh that balances coequal goals for a more reliable water supply for California and Delta ecosystem restoration (achieved in a manner that protects and enhances the unique values of the Delta as an evolving place). Referred to as the Delta Plan, its ecosystem goals will promote characteristics of a healthy Delta ecosystem including:

- Viable populations of native resident and migratory species.
- Functional corridors for migratory species.
- Diverse and biologically appropriate habitats and ecosystem processes.
- Reduced threats and stresses on the Delta ecosystem.
- Restore large areas of interconnected habitats within the Delta and its watershed by 2100.
- Achieve a more natural salinity regime in parts of the Delta.
- Manage the Delta's water and environmental resources and the water resources of the state over the long term.
- Provide for the sustainable management of the Sacramento-San Joaquin Delta ecosystem.
- Use the best available science.

"Restoration" is defined in the Act as: "...the application of ecological principles to restore a degraded or fragmented ecosystem and return it to a condition in which its biological and structural components achieve a close approximation of its natural potential, taking into consideration the physical changes that have occurred in the past and the future impact of climate change and sea level rise."

The Delta Plan may incorporate other completed plans related to the Delta and Suisun Marsh, such as the SMP, but only to the extent that these other plans promote the coequal goals in a manner consistent with the Delta Reform Act.

The Act also assigns ongoing CALFED Bay-Delta Program responsibilities to the DSC. The DSC is therefore a "Principal Agency" under the SMP with responsibility for providing guidance on restoration science through the Science Program (pg. ES-3 of the SMP).

Summary comments

DSC staff finds that the draft SMP is a comprehensive attempt to reconcile 1) restoration and enhancement goals under the CALFED ROD, 2) water management actions under the Suisun Marsh Preservation Agreement (SMPA), and 3) Biological Opinion conflicts over a Regional General Permit application by the Suisun Resources Conservation District (SRCD) and the Department of Fish and Game (DFG). The Draft makes good progress toward these goals. The DSC comments herein focus on four shortcomings of the SMP compared to goals of the Delta Reform Act.

SMP comments by the Delta Stewardship Council Page 1

Delta Stewardship Council (DSC) Staff review of the Suisun Marsh Habitat Management, Preservation, and Restoration Plan Draft EIS/EIR

1. Managed wetland land management practices cause ongoing land subsidence. Provisions of the SMP offer enhancements to managed wetland operations that do little to solve the root cause of the problems that create the need for enhancement. In addition, the subsidence related greenhouse gas inducing effects of the Plan are not identified.
2. The approach to tidal restoration lacks scientific foundation. There is little evidence of the Plan's claim to be a "science-based management plan." An adaptive management plan is not included.
3. The tidal marsh restoration plan calls for what appears to be an arbitrary allocation of restoration land in four geographic regions of Suisun Marsh with little justification.
4. Modeling analysis conducted for the Plan is inaccurately referenced for key conclusions of the Plan.

Specific comments

1. Land subsidence

Staff is concerned that no consideration appears to have been given to subsidence control and reversal, the very problem that drives the need for many of the managed wetland enhancement actions. This is a key impact of the wetland enhancement actions that is not identified by the plan. Land subsidence is the direct result of diked wetland management practices. It is caused primarily by aerobic microbial oxidation of soil organic carbon, which also produces CO_2 greenhouse gas emissions. Subsidence also can occur through anaerobic decomposition, dried soil compaction, wind erosion, and wetting/drying cycles (e.g., Deverel and Rojstaczer 1996). Each of these processes is promoted by common management practices that require dry soil between late spring and early fall. While dry, common maintenance practices include discing and burning undesirable vegetation. These permitted activities (USCOE 404 RGP) are powerful drivers of land subsidence.

Levee system integrity is a primary focus of the managed wetland enhancement portion of the Plan. The Plan would permit phased dredging of 5.9 million cubic yards of tidal slough material for levee maintenance over the 30-year life of the Plan (approximately 100,000 cy per year). The stated needs for levee enhancements are that 1) landowners are otherwise forced to use diked wetland soils as source material for levee maintenance which exacerbates land subsidence and 2) tidal restorations will require upgrades to boundary levees to exclude tidal water from adjacent land. Each of these needs is driven by 2-8 feet of land subsidence across the managed lands of Suisun Marsh. Other portions of the plan point out the lack of public funding for managed wetland levee maintenance and the likelihood that levee failures could result in salinity intrusion and affects on drinking water quality. Again, land subsidence is the root cause. DSC-1

Finally, the nature of microbial decomposition of organic soil means that land subsidence contributes to CO_2 emissions. The Plan gives good coverage to the carbon sequestration benefits of tidal marsh restoration (Chap. 5.9-12), but does not describe the opposite, and possibly larger, effect of land subsidence. These impacts should be estimated in the alternatives as well as the "no action alternative."

Recommendation: Provisions of the SMP provide enhancements to managed wetland operations that do little to solve the root cause of the same problems that require enhancement. To be consistent with Delta Reform Act goals for ecosystem restoration, stressor reduction, and sustainable resource management, the Plan should describe the direct and indirect impacts of wetland enhancements including land subsidence and contributions to greenhouse gas emissions.

DSC-1 cont'd

2. Science foundation

The plan clearly states that the SMP will be based on "sound science... and science-based adaptive management" (pg. 1-19). The plan describes a "Science Integration Strategy" that employs a Science Advisor and, notably, a suite of conceptual models covering managed wetland and tidal habitat functions developed specifically to inform plan actions. The plan also asserts that it is guided by Delta Regional Ecosystem Restoration Implementation Plan (DRERIP) conceptual models (pg. 1-20). Despite these claims, review of the key chapter called "Habitat Management, Preservation, and Restoration Plan" (Chapter 2), reveals a no reference to any conceptual models or peer reviewed literature. The unpublished U.S. Fish and Wildlife Service (USFWS) *Draft Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California* (TMRP) is briefly referenced for justification of the Plan's regional approach (discussed below). Chapter 2 contains description of the Plan elements, the alternatives analysis, and the implementation strategy. Later chapters, especially Chapter 6 ("Biological Environment"), reference the "Draft Report of Suisun Marsh Plan Tidal Marsh Conceptual Model." The chapter appears to be a complete recitation of the conceptual model. While the conceptual model is solid, there is no evidence that it was used to inform the key analyses underpinning the choice of a preferred alternative, or any other important Plan element.

Recommendation: The Plan's claim to a "Science Integration Strategy" is not evidenced. Lacking a clear scientific basis, the alternatives appear somewhat arbitrary and the Plan elements merely derivative of other, poorly referenced plans. At a minimum, the Plan should better explain how it uses that USFWS Tidal Marsh Recovery Plan (TMRP) to determine restoration acreages and locations. Further improvements would reference the Draft Report of Suisun Marsh Plan Tidal Marsh Conceptual Model to describe how tidal marsh restoration in the Suisun region would contribute to life history requirements of species of concern. Finally, an adaptive management plan for guiding restoration and assessing managed wetland enhancements should be produced for the next draft in order to be consistent with the "best available science" principle of the Delta Reform Act.

DSC-2

DSC-3

DSC-4

3. Four region approach

There is weak rationale or scientific evidence provided for the fundamental organizational approach of dividing Suisun Marsh into geographical regions. In one sentence, the Plan claims the four region approach is consistent with the USFWS Tidal Marsh Recovery Plan by "providing the range of environmental gradients necessary to contribute to the recovery of listed species" (pg 2-17). The TMRP is also briefly referenced in a description of the relationship between the SMP and TMRP on page 1-26. This level of detail is inadequate for justifying the approach. As such, the regional approach appears arbitrary and unnecessary.

Recommendation: Improve the explanation of why the SMP divides the Marsh into four regions. If the TMRP is the rationale, then more justification is needed. Alternatively, completely drop the four region approach and appeal instead to best available scientific understanding of landscape ecology in relation to listed species. This approach would consider species conservation relevant issues of landscape scale, patch context, and land-water interface porosity and complexity. The Plan should explicitly consider the life history requirements of listed species and how their growth, reproduction, and survival are affected by landscape attributes and connecting aquatic corridors. DSC-5

4. Use of Modeling

The three restoration alternatives differ only in acreage of tidal marsh restored and managed wetland enhanced. Compared to the geographic area of Suisun Marsh, the acreage range is rather small. Restoration acreage is bounded by Alternative B that proposes 2-4,000 acres of restoration and Alternative C that proposes 7-9,000 acres of restoration with concomitant reduction in managed wetland enhancement acreage (subtract from 52,112 acres of existing managed wetlands). With non-specific reference to modeling, and no reference to conceptual models or other peer reviewed literature, the Plan claims that the higher end restoration acreage (Alternative C) is unacceptable to landowners because it would be "more difficult to maintain duck populations necessary for heritage hunting in the Marsh and protect species, such as the millions of migratory birds that depend on the managed wetland habitats." Staff has extensive familiarity with the referenced modeling and the statement is difficult to reconcile with information gathered from the modeling analysis. The modeling analysis (covered in Appendix A) did not specifically seek to differentiate between the salinity impacts of the three alternatives. While tidal connections and acreage clearly affect salinity transport in the northern reach of the estuary, the impacts depend entirely on the details of restoration location, tidal connections, and land topography. The range of salinity responses issuing from the restoration design alone likely overwhelms any incremental change due to the narrow range of alternative acreages. While the modeling analysis uncovered many important consequences of tidal marsh restoration location and design, it does not support the claim that the 5-7,000 acre preferred restoration alternative is clearly distinguishable from the 7-9,000 acre alternative on the basis of salinity impacts. The SMP should conduct additional modeling to specifically support the claim.

Recommendation: The SMP should conduct additional modeling to specifically support the claim that the alternatives are distinguishable on the basis of salinity. Further, a thorough sensitivity analysis should be conducted to characterize the relative effects of restoration design on salinity mixing. Finally, the Plan should seek consistency with the Delta Reform Act by demonstrating how changes in Suisun geometry will help to create a more natural salinity regime. DSC-6

Citations

Deverel, S. J., and S. Rojstaczer (1996), Subsidence of Agricultural Lands in the Sacramento-San Joaquin Delta, California: Role of Aqueous and Gaseous Carbon Fluxes, *Water Resour. Res.*, 32(8), 2359–2367, doi:10.1029/96WR01338.

Responses to Comment Letter DSC

DSC-1

As described above under Master Response 2: CEQA/NEPA Baseline for This EIS/EIR, the CEQA and NEPA baseline for comparison includes the existing operations and management activities currently conducted by landowners in the Marsh. As such, the impact is the incremental change from the existing condition to the proposed condition, which is minimal in most instances related to managed wetlands operations. An exception is the dredging program. The EIS/EIR fully evaluates the potential effects of these changes. The enhancement activities that would continue under the SMP are not in and of themselves causing flooding and drainage issues on managed wetlands. Rather, an increased capability to implement these activities is expected to improve flood and drain cycles, which can substantially improve conditions in adjacent tidal channels, reduce the lowering of managed wetland land surface elevations (by decreasing pond bottom grading thus reducing exposure of peat surfaces and associated subsidence) and earthwork required in the managed wetlands, and provide a better overall habitat for terrestrial and aquatic species than what is occurring today. Subsidence is recognized on page 5.3-8 as occurring in the Marsh and is also a consideration for property acquisition for tidal wetland restoration, as shown in Table 2-3. Overall, as a result of SMP tidal restoration actions, the subsidence potential in the Marsh would be reduced.

The SMP does not include dredging for the purposes of upgrading levees in tidal restoration areas. However, grading or importation of material to create new or improved levees may be done prior to breaching existing exterior levees for new tidal restoration areas. The SMP dredging program was developed as part of the SMP to provide materials to support the maintenance of levees protecting managed wetlands. Levee maintenance for managed wetlands is an ongoing activity required to repair storm damage from erosion, and to accommodate future sea level rise and the settlement of levee foundation materials. This level of maintenance would be required even without reducing historical subsidence, prior to today's management of seasonal and semi-permanent wetlands habitats. The dredging program itself would help minimize subsidence by minimizing the materials removed from the managed wetland areas to support levee maintenance activities, and careful selection of restoration sites would help offset future subsidence in the Marsh. The baseline includes existing tidal wetlands (approximately 7,000 acres), and restoration under the proposed project would double this amount in the Marsh. Other potential future efforts also likely would result in further increases in tidal wetland. Additionally, many of the areas within the managed wetlands acreages are not currently flooded (i.e., upland habitat) but with tidal restoration, could be converted to tidal wetland habitats.

Under the No Action Alternative, it is likely that managed wetland activities would cease and that operations would be substantially limited because of regulatory constraints. This could have variable effects on GHG emissions. Without permits, water diversions would be limited or cease, meaning the flooding regimes of managed wetlands would be limited to direct precipitation, thus introducing a drier regime that would likely reduce carbon sequestration, reduce methane production and increase peat oxidation relative to current conditions. Without maintenance, exterior levees would likely breach over time, although it is hard to predict where and to what extent. Where levees breach, this would result in the flooding of managed wetlands which would reduce microbial oxidation of soil organic carbon and associated subsidence, increase carbon sequestration and increase methane production relative to current conditions. The specific nature and extent of changes in flooding regime for the No Action Alternative over the next 30 years cannot

be estimated without speculation; as such the effect on GHG emissions is also considered speculative.

Under Alternatives A through C, only the change in conditions compared to the existing conditions (which include most of the managed wetland activities proposed to continue) constitutes an impact for CEQA and NEPA (See Master Response: Alternatives). The overall effect of implementation of the SMP alternatives compared to existing conditions, as described in Section 5.9, is a reduction in GHG emissions as a result of conversion of some managed wetlands to tidal wetlands. In addition, the increase in tidal restoration also will reduce future areas of subsidence by inundating areas that would otherwise be subject to oxidation of soil organic carbon.

DSC-2

The SMP and the analysis in the EIS/EIR rely heavily on the Draft Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California (Recovery Plan) (Service 2009), which provides a clear scientific basis for tidal restoration in Suisun Marsh. The goal of the Recovery Plan is the comprehensive restoration and management of tidal marsh ecosystems in five recovery units—Suisun Bay, San Pablo Bay, the Central/South San Francisco Bay, Central Coast, and Morro Bay Recovery Units. The Suisun Bay Recovery Unit is divided into the Western Suisun/Hill Slough Marshes, Suisun Slough/Cutoff Slough Marshes, Nurse Slough/Denverton Slough Marshes, Grizzly Island Marshes, and Contra Costa County Shoreline Marshes. These areas correspond with Regions 1, 2, 3, and 4 of the SMP, excluding the Contra Costa County Shoreline Marshes, which are not included in the SMP.

Depending on the location within Suisun Marsh, different species would benefit from tidal restoration or improved management of diked managed wetlands. The four endangered species that would benefit from implementation of the SMP are the California clapper rail (*Rallus longirostris obsoletus*), salt marsh harvest mouse (*Reithrodontomys raviventris*), Suisun thistle (*Cirsium hydrophilum* var. *hydrophilum*), and soft bird's-beak (*Cordylanthus mollis* ssp. *mollis*).

According to the Recovery Plan, in order for California clapper rail to be downlisted within the Suisun Bay Recovery Unit, a minimum of 5,000 acres of contiguous high-quality tidal marsh habitat is required with well-developed channel systems and high-tide refugial/escape cover at the high marsh/upland transition zone and/or inner-marsh of the Western Grizzly and Suisun Bays and marshes of Suisun, Hill, and Cutoff Sloughs (Regions 3, 1, and 2). This is consistent with the proposed project.

Downlisting of the salt marsh harvest mouse in the Suisun Bay Recovery Unit is achievable through 1,000 or more acres of muted or tidal marsh in the Western Suisun/Hill Slough Marsh Complex (Region 1); 1,000 or more acres of muted or tidal marsh in the Suisun Slough/Cutoff Slough Marsh Complex (Region 2); 1,500 or more acres of diked or tidal marsh in the Grizzly Island Marsh Complex (Region 3); 1,000 or more acres of muted or tidal marsh in the Nurse Slough/Denverton Slough Marsh Complex (Region 4); and 500 or more acres of muted or tidal marsh in the Contra Costa County Marsh Complex (not in the SMP). Again, Recovery Plan actions are consistent with the proposed project. Suisun thistle currently occurs only in the Western Suisun/Hill Slough Marshes and the Suisun Slough/Cutoff Slough Marshes Areas (Regions 1 and 2).

Downlisting of Suisun thistle will be achieved if the median area inhabited by this species is 2,000 acres; a total of 4,000 acres or more is permanently preserved; *Lepidium latifolium* populations are reduced to less than 10% cover in Suisun Marsh; natural tidal cycles are restored at Hill Slough; and

the ponded area at Rush Ranch is returned to periodic tidal flooding. Again, the SMP is consistent with the Recovery Plan.

Soft bird's beak is found in the Western Suisun/Hill Slough Marshes, Suisun Slough/Cutoff Slough Marshes, and Nurse Slough/Denverton Slough (Regions 1, 2, and 4). Downlisting of soft bird's beak will be achieved if, over a 5-year period, the median area inhabited by the species is 3,000 acres or more in the Suisun Bay Area and 1,000 acres in the San Pablo Bay Area; a total of 5,000 acres or more in the Suisun Bay Area and the San Pablo Bay Area are permanently preserved and under protective management (including existing or successfully restored tidal marsh areas with suitable habitat for the species and encompassing at least 80% of the species; *Lepidium latifolium* populations are reduced to less than 10% cover in Suisun Marsh; there is less than 10% total cover of other nonnative perennial or nonnative winter annual grass species; natural tidal cycles are restored at Hill Slough; and the ponded area at Rush Ranch is returned to periodic tidal flooding. Lastly, recovery of soft bird's beak is consistent with the proposed project.

Tidal restoration and improved management of diked managed wetlands within each of the four Regions in the SMP would lead to recovery of California clapper rail, salt marsh harvest mouse, Suisun thistle, and soft bird's beak within the Suisun Bay Recovery Unit. Tidal restoration in Regions 1 and 2 would aid in the recovery of California clapper rail, salt marsh harvest mouse, Suisun thistle, and soft bird's beak. Tidal restoration in Region 3 would aid in the recovery of California clapper rail and salt marsh harvest mouse. Tidal restoration in Region 4 would aid in the recovery of salt marsh harvest mouse and soft bird's beak as described in Sections 6.3 and 6.2, respectively.

Additionally, restoration is expected to benefit delta smelt by providing increased food productivity inside and exported from the Marsh as well as provide additional rearing habitat for longfin smelt, salmonids, and other fish species.

DSC-3

The Draft Suisun Marsh Tidal Marsh and Aquatic Habitats Conceptual Model was developed as part of the Suisun Marsh Plan. It details how tidal marsh restoration in Suisun Marsh would benefit the life history of species of concern. It is available at:
http://www.fws.gov/sacramento/es/documents/Tidal_marsh_2010/TM_CM_Chapter_4_Species.pdf

DSC-4

See Master Response 5: Inclusion of an Adaptive Management Plan.

DSC-5

See response to Comment DSC-2.

DSC-6

The alternatives fully analyzed in this EIS/EIR are not distinguishable on the basis of salinity. Rather, modeling shows that with increasing marsh tidal restoration, meeting D-1461 and SMPA salinity requirements in the western Marsh becomes increasingly difficult. In the alternatives fully analyzed in the SMP, the EIS/EIR describes salinity impacts as generally the same and dependent primarily on the specific locations of restoration areas and breach size and location. The EIS/EIR commits to site-specific water quality modeling for proposed restoration sites to help determine the best configuration of breaches. Regarding creating a 'more natural regime', the SMP addresses the

currently identified beneficial uses of water in the Marsh, which include water supply for managed wetlands and habitat for aquatic species. The SMP is consistent with these uses.

14.2.3.3 SWRCB—State Water Resources Control Board, Diane Riddle, Chief, Bay-Delta Unit, January 19, 2011

State Water Resources Control Board

Division of Water Rights

1001 I Street • Sacramento, California 95814 • (916) 341-5300
Mailing Address: P.O. Box 2000 • Sacramento, California • 95812-2000
FAX (916) 341-5400 • http://www.waterboards.ca.gov

Linda S. Adams
Acting Secretary for Environmental Protection

Edmund G. Brown Jr.
Governor

Comment Letter SWRCB

JAN 19 2011

Ms. Becky Victorine
Bureau of Reclamation
2800 Cottage Way
Sacramento, CA 95825

Dear Ms. Victorine:

COMMENTS FOR THE DRAFT ENVIRONMENTAL IMPACT STATEMENT/ ENVIRONMENTAL IMPACT REPORT FOR THE SUISUN MARSH HABITAT MANAGEMENT, PRESERVATION, AND RESTORATION PLAN

The State Water Resources Control Board (State Water Board) appreciates the opportunity to review and provide comments on the Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for the Suisun Marsh Habitat Management, Preservation, and Restoration Plan for the Suisun Marsh Plan (SMP). Comments on the Draft EIS/EIR were due on December 29, 2010, and the State Water Board received an extension of time from you to submit comments by January 19, 2011.

The State Water Board's comments pertain exclusively to salinity issues in Suisun Marsh, specifically, issues pertaining to what, if any, changes should be made to the Suisun Marsh salinity objectives included in the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan). The State Water Board did not review other aspects of the Draft EIS/EIR in detail.

Background

The State Water Board first established interim salinity objectives for the protection of Suisun Marsh fish and wildlife beneficial uses in the 1978 Water Quality Control Plan for the Sacramento-San Joaquin Delta and Suisun Marsh (1978 Plan) and implemented those requirements in Water Right Decision 1485 (D-1485). In the 1995 Bay-Delta Plan, the State Water Board revised the Suisun Marsh salinity objectives included in the 1978 Plan to include numeric salinity objectives at eight locations in Suisun Marsh and a narrative objective for the Brackish Tidal Marshes of Suisun Bay. The State Water Board did not specify compliance stations for one of the western marsh locations (water supply intakes for waterfowl management areas on Van Sickle and Chipps Islands). In addition, due to evidence showing a potential for the objectives at stations S-97 and S-35 to cause harm to the beneficial uses they are intended to protect, the State Water Board did not implement the objectives at western marsh stations S-97 and S-35 during the subsequent water right implementation phase resulting in revised Water Right Decision 1641.

To resolve some of the outstanding management issues concerned with the Suisun Marsh, the State Water Board, in the Program of Implementation for the 1995 Bay-Delta Plan, recommended the formation of an ecological workgroup consisting of representatives from various State, Federal, and private agencies and other interested parties. This recommendation led to the formation of the Suisun Ecological Workgroup[1] (SEW) under the Interagency Ecological Program. Among several tasks the SEW was charged with were to: evaluate the beneficial uses and water quality objectives for the Suisun Bay and Marsh ecosystem; identify specific measures to implement the narrative objective for Brackish Tidal Marshes of Suisun Bay; and make recommendations to the State Water Board regarding achievement of the objective and development of numeric objectives to replace the narrative objective.

The SEW submitted a final report to the State Water Board in 2001 summarizing nearly four years of technical research and discussions, with a range of ecological perspectives, goals and views. The recommendations in the SEW were based on conceptual models detailing the ecological relationships between the physical, chemical, and biological factors affecting the health of Suisun Marsh resources. However, the SEW was unable to determine a single numeric objective for the Brackish Tidal Marshes. Subsequently, in 2001, after the CALFED Record of Decision was issued, the interagency Suisun Marsh Charter Group (SMCG) was formed and tasked with developing environmental documentation and a SMP to resolve the issues of balancing the competing needs in Suisun Marsh.

In the Program of Implementation for the 2006 Bay-Delta Plan, the State Water Board indicated that it would use the SMP and final EIS/EIR for the SMP during the next Bay-Delta Plan update to determine whether and how to convert the narrative objective to a numeric objective for the Brackish Tidal Marshes. The State Water Board also indicated that it would use the results of the final EIS/EIR and SMP to determine in a future Bay-Delta Plan update whether the objectives at stations S-97 and S-35 should be amended or deleted. The State Water Board specified that the objectives at stations S-97 and S-35 may be amended and/or implemented in stages, as appropriate, and shall be implemented no later than either January 1, 2015, or an earlier date, if a further review of these objectives does not determine that they are not needed. Finally, the State Water Board stated that the objectives for water supply intakes for waterfowl management areas on Van Sickle and Chipps Islands, which have no locations specified, may be amended and/or implemented in stages, and shall be implemented no later than January 1, 2015, if a further review of these objectives does not determine that they are not needed.

[1] The Suisun Ecological Workgroup is comprised of representatives from the California Department of Water Resources, the California Department of Fish and Game, the U.S. Bureau of Reclamation, and the Suisun Marsh Charter Group Principal Agencies that includes the U.S. Fish and Wildlife Service, the Suisun Resources Conservation District, and the State Water Board.

Comments

It is not clear what if any changes are recommended to the Suisun Marsh salinity objectives in the Bay-Delta Plan as part of the SMP and the draft EIS/EIR does not specifically address any potential changes. As a result, the draft EIS/EIR does not provide the necessary information for the State Water Board to consider potential changes to the Suisun Marsh and Suisun Bay salinity objectives included in the Bay-Delta Plan. The State Water Board requests that this issue be further addressed in subsequent environmental documentation for implementation of the SMP in order for the State Water Board to consider potential changes to the Suisun Marsh and Suisun Bay salinity objectives prior to the beginning of 2015. The State Water Board would appreciate the opportunity to coordinate further concerning this matter. SWRCB-1

Please contact Chris Carr, Environmental Scientist, at (916) 341-5305 or ccarr@waterboards.ca.gov, or me at (916) 341-5297 or driddle@waterboards.ca.gov to discuss this matter further.

Sincerely,

ORIGINAL SIGNED BY:

Diane Riddle, Chief
Bay-Delta Unit

cc: Debbie Hultman
California Department of Fish and Game
Bay Delta Region
P.O. Box 47
Yountville, CA 94599

Cay Goude
U.S. Fish and Wildlife Service
2800 Cottage Way, Room W-2605
Sacramento, CA 85825

Naomi L. Feger
Planning Program Manager
SF Bay RWQCB
1515 Clay Street, Suite 1400
Oakland, CA 94612

California Environmental Protection Agency

Recycled Paper

Responses to Comment Letter SWRCB

SWRCB-1

In May 2007, the SMP Principals submitted to the SWRCB a white paper recommending no changes to the current salinity objectives. The SMP evaluation process has provided no new information that would suggest the need for any changes in the existing Suisun Marsh salinity objectives in the Bay-Delta WQMP. As described in Section 5.2, Water Quality, the D-1641 salinity objectives and Delta outflow criteria are adequate for protection of Suisun Marsh fish and wildlife beneficial uses, narrative salinity objectives of the brackish tidal marshes of the Suisun Bay, and to provide water of sufficient quality to managed wetlands to achieve soil water salinities capable of supporting the plants characteristic of a brackish marsh within the SMP. The PAI Fund, as described in Chapter 2, would provide a funding mechanism for DWR and Reclamation to complete their obligation to provide equal or better protection of managed wetlands as required under the SMPA and the 1984 Plan of Protection (described in Chapter 1). All new information obtained through continued monitoring and management activities during the SMP implementation will be available for the SWRCB review in 2015.