



980 NINTH STREET, SUITE 1500
SACRAMENTO, CALIFORNIA 95814
HTTP://DELTACOUNCIL.CA.GOV
(916) 445-5511

DELTA STEWARDSHIP COUNCIL

A California State Agency

Chair
Randy Fiorini

Members

Aja Brown
Frank C. Damrell, Jr.
Phil Isenberg
Patrick Johnston
Mary Piepho
Susan Tatayon

October 27, 2015

BDCP/California WaterFix Comments
P.O. Box 1919
Sacramento, CA 95812

Executive Officer
Jessica R. Pearson

SUBJECT: Delta Stewardship Council Comments
Bay Delta Conservation Plan Recirculated Draft Environmental Impact
Statement/Environmental Impact Report

The Delta Stewardship Council (Council) appreciates the opportunity to provide the following comments on the July 2015 Bay-Delta Conservation Plan/CAL Water Fix Partially Recirculated Draft Environmental Impact Statement/Report (Recirculated draft EIR/S). As the Legislature found in enacting the Delta Reform Act of 2009 (Act), the Sacramento-San Joaquin Delta watershed and California's water infrastructure are in crisis and existing Delta policies are not sustainable. The current drought illustrates this crisis. After decades of study, decisions on improved Delta conveyance need to be made promptly to further the coequal goals established by the Act and enshrined by the Council in the 2013 Delta Plan.

As you know, the Council has been watching the BDCP's development since 2010, exercising our consultative and responsible agency roles by commenting on the BDCP's Revised Notice of Preparation, the 2012 and 2013 administrative drafts of BDCP's EIR/S, and the 2013-14 draft EIR/S. Sections of the recirculated draft EIR/S reflect your agency's responsiveness to prior suggestions from the Council and others. Examples include adjustments to Sacramento River diversion facilities that reduce impacts to nearby communities, expanded discussion of impacts to water quality, improved assessment of impacts that may affect Delta wildlife and fish that also rely on habitats downstream in San Francisco Bay, and an improved assessment of cumulative impacts of conveyance improvements and other conservation measures together with other water management actions affecting Bay-Delta water supplies. We thank you for these improvements.

The Council has undertaken its review of the recirculated draft EIR/S: 1) to identify important issues that we believe will need to be more adequately addressed for the BDCP/WaterFix EIR/S to meet the requirements of the California Environmental Quality Act (CEQA) and the

"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 Reform Act (see Water Code section 85320); and 2) to improve understanding of how the California WaterFix initiative – if it is ultimately selected by the Department of Water Resources (DWR) as the project – will further the goals established in the Act, achieve consistency with the Delta Plan’s regulatory policies and carry out the plan’s recommendations.

We recognize that the Council eventually may hear an appeal of DWR’s determination that the Water Fix is consistent with the Delta Plan. Should such an appeal occur, the Council will be relying on DWR’s certification of consistency as well as its administrative record supporting its certification; the Council’s comments on the Recirculated draft EIR/S will not have a pre-decisional effect on the Council’s determination with regard to any possible future appeal.

The first attached document was prepared by Council staff working with our consultant team from ARCADIS. It provides our comments on how the recirculated draft EIR/S addresses key CEQA requirements and the unique EIR/S requirements specified in the Delta Reform Act. The attachment is organized according to CEQA requirements and the requirements of the Delta Reform Act. The requirements often overlap, however, and we have tried not to repeat comments made in one area even though they may apply to other areas as well. Key points include:

- Delta Reform Act requirements. Our comments suggest several additional improvements to address the requirements of Water Code section 85320(b)(2) concerning the BDCP’s EIR/S’s review and analysis of important Delta resources.
- Effects on opportunities to restore habitats in the Cosumnes-Mokelumne high priority habitat restoration area. The new Alternatives 4A (California WaterFix), 2D and 5A, while reducing impacts on Delta communities and their residents’ quality of life, also propose new features, including a new forebay and reusable tunnel material storage site, barge landing, and temporary access road adjoining Snodgrass Slough and an outlet tower/safe haven and temporary access road on the McCormack Williamson Tract. These features’ compatibility with opportunities for habitat restoration within this area, as called for by the Delta Plan’s regulatory policies (CCR 5007), should be assessed.
- Avoiding or better mitigating impacts to water quality, wetlands and other aquatic habitats, and the unique values of the Delta. Some adverse effects of the California WaterFix to the Delta’s unique values may be unavoidable, but better mitigation can reduce harm to agriculture, recreation, communities, aesthetics, and cultural resources, so that the magnitude of change is more compatible with protection of the Delta as an evolving place.

The second attachment is the independent review of the recirculated draft BDCP EIR/S prepared by the Delta Independent Science Board (ISB), which we reference and make part of

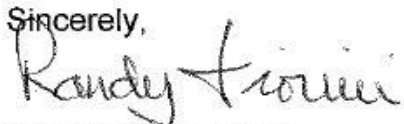
the Council's comments on the draft EIR/S. The ISB completed its review pursuant to Water Code section 85320(c), which directs it to review the BDCP's EIR/S and submit its comments to the Council and Department of Fish and Wildlife. The Delta Reform Act provides that the Delta Plan shall be based on the independent scientific advice provided by the ISB (Water Code section 85308(a)). The ISB's recommendation that the final EIR/S should use best available science, while not required by CEQA, may facilitate DWR and DFW's use of best available science for purposes of the Natural Community Conservation Planning Act, certification that the project is consistent with the Delta Plan's regulatory policy requiring use of the best available science (23 CCR 5002(b)(3)), and/or decisions about the project by DWR and other agencies. As you consider the ISB's comments, please respond as if they had been submitted by the Council.

As you know, Council staff meets regularly with WaterFix staff to discuss Council comments and issues of concern, and we have considered your feedback in preparing these comments. We appreciate the pledge that the final EIR/S and related documents will address several key issues raised in the prior comments of the Council and the ISB on the draft EIR/S. These include:

- The adaptive management process, including monitoring and collaborative science.
- Flow criteria and the water available for other beneficial uses (Water Code section 85320 (b)(2)(A)).
- The potential effects of climate change, including sea level rise and changes in precipitation and runoff, on conveyance alternatives considered in the EIR, including their operation (Water Code section 85320 (b)(2)(C)).
- Sacramento and San Joaquin River flood management (Water Code section 85320 (b)(2)(D)).
- The resilience and recovery of Delta conveyance alternatives in the event of catastrophic loss by earthquake, flood, or other natural disaster (Water Code section 85320 (b)(2)(F)).

The Council supports successful development and implementation of conveyance improvements that fulfill the Delta Reform Act's requirements and the Delta Plan. We offer the opportunity for your staff to meet with ours for additional details on any of the comments in the attachments. Through consultation between our agencies, we believe our comments can be addressed satisfactorily. We look forward to working with you over the coming months as you complete the final BDCP/WaterFix EIR/S. Please contact Dan Ray at (916) 445-4294 if you would like to discuss these comments further.

Sincerely,



Randy Fiorini, Chair
Delta Stewardship Council

REVIEW COMMENTS
BAY DELTA CONSERVATION PLAN
July 2015 PARTIALLY RECIRCULATED DRAFT
ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL IMPACT
STATEMENT
Prepared by the
DELTA STEWARDSHIP COUNCIL
October 2015

I. INTRODUCTION

This document presents comments prepared by Delta Stewardship Council (Council) on the July 2015 partially recirculated draft Environmental Impact Report/Environmental Impact Statement (EIR/S) of the Bay Delta Conservation Plan (BDCP). The purpose of our review is to offer constructive suggestions regarding how, in our judgment, the BDCP EIR/S could better meet the requirements of the California Environmental Quality Act (CEQA), the applicable provisions of the 2009 Delta Reform Act, and the Delta Plan's regulatory policies and recommendations.

These comments include:

- A summary of key issues
- A reminder about the Delta Reform Act's provisions with respect to the Delta Stewardship Council's role and DWR's responsibility to certify that its preferred alternative is consistent with the Delta Plan.
- Comments on the recirculated EIR's assessment of impacts and its mitigation proposals for water quality, biological resources, water supplies, agriculture, recreation, community character, aesthetics, and cultural resources.

II. SUMMARY OF KEY ISSUES AND RECOMMENDATIONS

Relative to our review of the recirculated draft BDCP EIR/S, we offer the following summary of key issues and recommendations:

- A. Delta Plan and Delta Reform Act consistency. *Issue:* If the California WaterFix is ultimately chosen as the project, DWR will need to certify that the California WaterFix is consistent with the Delta Plan. In addition, because the BDCP as originally proposed is still a viable alternative, the BDCP EIR should fulfill the requirements of Water Code section 85320(b)(2). *Recommendation:* Continue consultation with Delta Stewardship Council staff as the final EIR/S is completed and certification of consistency with the Delta Plan is contemplated.
- B. Comprehensive project description. *Issue:* The final EIR/S needs a project description that is complete. Important operational aspects of the preferred project are contingent upon the results of Endangered Species Act and State Water Resources Control Board consultation processes;

Recommendation: The final EIR/S's project description should be consistent with and fully informed by regulatory filings for the project.

- C. Adaptive management. *Issue:* The project needs an adequate adaptive management program. *Recommendation:* Consult with the Delta Science Program and affected regulatory agencies to describe an adaptive management program.
- D. Water Quality. *Issue:* Implementation of measures proposed to mitigate potential impacts to water quality for in-Delta water users may prove cumbersome and protracted. *Recommendation:* Identify a water quality monitoring and compliance program in the final EIR/S and/or its mitigation monitoring and reporting plan. Improve the process and better balance the burdens for identifying and implementing operational changes or other corrective actions to mitigate adverse effects on in-Delta water users or the environment.
- E. Impacts on the Opportunities to Restore Delta Habitats. *Issue:* Alternatives 4A, 2D, and 5A include both permanent and temporary features within areas near the Cosumnes – Mokelumne confluence and the lower San Joaquin River floodplain which the Delta Plan identifies as high priorities for ecosystem restoration. *Recommendation:* More fully assess how project features near the Cosumnes – Mokelumne Confluence and the lower San Joaquin River floodplain may affect planned and potential habitat restoration in these areas. Relocate incompatible features, if feasible, and recommend measures to mitigate conflicts that cannot be avoided.
- F. Mitigation of other effects on wetlands and aquatic habitats. *Issue:* Damage to wetlands, aquatic habitats, and associated wildlife and fish populations should be avoided and/or minimized before compensatory mitigation for unavoidable losses is considered. *Recommendation:* More carefully describe mitigation for impacts to wetlands and aquatic habitats.
- G. Evaluation and mitigation of impacts to unique Delta values. *Issue:* The recirculated draft EIR/S does not adequately evaluate, avoid, or mitigate the cumulative impacts of the California WaterFix alternatives to agriculture, recreation, community character, aesthetics, and cultural resources. In some cases, identification of feasible and enforceable measures to mitigate these impacts is deferred. *Recommendation:* The final EIR/S should more thoroughly identify impacts to agriculture, recreation, community character and cultural resources, further consider opportunities to avoid them, and offer specific, feasible, and enforceable mitigation measures for unavoidable impacts. If specific, feasible, and enforceable mitigation measures for adverse effects cannot be identified at this time, specify performance standards that will mitigate the project's significant impacts.

III. DELTA PLAN AND DELTA REFORM ACT CONSISTENCY

Our prior letter on the draft EIR/S identifies information that should be included in the final EIR/S to comply with Water Code section 85320. Appendix G of the partially recirculated draft EIR/S provides a useful overview of how DWR anticipates it will approach certification of the California WaterFix's consistency with the Delta Plan in conformance with Water Code section 85225. To ensure the project uses the best available science (23 CCR section 5002(b)(3)) and includes adequate provisions to assure implementation of adaptive management (23 CCR section 5002(b)(4)), we urge you to pay special attention to the Independent Science Board's reviews of the draft and partially recirculated draft EIR/Ss. Our comments on both the draft EIR/S and the partially recirculated draft EIR/S identify mitigation measures that may need improvement (23 CCR section 5002(b)(2)). Other comments below call

attention to other aspects of the project where additional information or consideration of further alternatives or mitigation measures may be important to certification of the project's consistency with the Delta Plan.

As the final EIR/S is completed, Council staff anticipates continuing to consult with DWR as provided in Water Code section 85225.5 and 85320(c).

IV. COMPREHENSIVE PROJECT DESCRIPTION

An accurate, complete, and stable project description is essential to the BDCP's EIR and subsequent certification of the project's consistency with the Delta Plan. A large degree of uncertainty exists in the recirculated draft BDCP EIR/S assessment of the operational impacts because:

- Many key factors are contingent upon the results of Endangered Species Act and State Water Resources Control Board consultation processes;
- Decision criteria and the type and range of operational responses to be utilized by the Real Time Operations (RTO) Team have not been clearly defined or are not provided in the recirculated draft EIR/S. These criteria will not be available until publication of the final EIR;
- The recirculated draft EIR/S Section 4.1.2.4 indicates that the collaborative science and adaptive management processes will be relied upon to identify, assess, and develop necessary changes in the new facility and existing south Delta operations. As the ISB points out, these processes are not yet well described and often take many years to implement, particularly in a dynamic ecosystem with multiple stakeholders. The timeliness and results of these program processes could substantially affect the level of impact;
- The importance of monitoring is discussed with respect to evaluating operational impacts, however, no information is provided on the objectives, types, geographic distributions, data management, assessment and reporting for the monitoring program. Presumably the monitoring requirements will be developed through the consultation and permitting process; and
- Changes in operational criteria are unlikely to benefit all special status species equally and may actually be detrimental to some special status species seasonally or geographically. The same will hold true for impacts to beneficial uses of the Delta water. How these decisions will be weighted or prioritized is a complex process that is not addressed in the recirculated draft EIR/S.

The partially recirculated draft EIR/S describes several operational scenarios with criteria that bookend a range of outflows and other parameters. Judging the reasonableness of the range of operational criteria that will guide project operations is difficult because, as discussed in Chapter 5 Water Supply and in Appendix 5A BDCP EIR/S Modeling, at this stage of the environmental assessment and permitting process there are still a large number of unknowns from a water supply standpoint. The two operational scenarios proposed, providing flows to meet Fall X2 objectives (H3) and providing enhanced spring outflows together with flows to meet Fall X2 objectives (H4,) provide outcomes related to Delta exports, Delta outflow and biological opinion flow criteria that meet the project objectives over a range of water year conditions. In general, focusing on the H3-H4 scenarios provides a range of operational conditions that will facilitate the consultation and permitting processes. The biological assessments being prepared

for the project's Endangered Species Act consultation can inform more detailed analysis of operational impacts to the Delta ecosystem associated with these scenarios.

To assure the adequacy of the preferred alternative's description, the final EIR/S should fully consider insights gained from consultation with federal and state Endangered Species Act agencies and with the State Water Resources Control Board about the project's Clean Water Act 401 certification and its proposed change in the SWP's point of diversion. The range of project operations should be described with sideboards that reflect reasonably foreseeable regulatory outcomes.

V. ADAPTIVE MANAGEMENT

Adaptive management should be integral to the description of the California WaterFix initiative because, as noted above, it is central to operational decisionmaking, evaluation of the efficacy of the compensatory habitat restoration that mitigates impacts to wetlands and other fish and wildlife habitats, and assesses the need for adjustment in the flow criteria for the North Delta diversions. DWR's certification of California WaterFix's consistency with the Delta Plan will need to demonstrate the adequacy of the project's adaptive management program (23 CCR 5002(b)(4)). The partially recirculated draft EIR/S's description of substantive BDCP Revisions (Appendix D) does not provide important information about adjustments of the adaptive management program for the California WaterFix alternative, despite significant differences in scope and implementation features from the BDCP.

The adaptive management program should include, as the ISB recommends, species-specific thresholds and timelines for action that address both water management and mitigation of construction impacts; an Adaptive Management Team that includes the membership from the State Water Resources Control Board in addition to the agencies described in the partially recirculated draft EIR/S's Section 4.1.2.4; and as the ISB urges, describe the commitments of funding that effective science-based adaptive management will require.

Appendix D includes a new requirement that if the proposed Adaptive Management Team recommends changing a conservation measure or biological objective, it needs to provide "an analysis of the means by which the adaptive resources available to support adaptive management actions will be used to fund the proposed change, if applicable" (Appendix D, page D.3-133). It is not clear if the Adaptive Management Team needs to identify a funding mechanism for any proposed changes. The \$450 million maximum for the Adaptive Management Fund included in 2013-14 version of the BDCP is omitted from the revised Appendix D. However, with the removal of the text, it is not clear if there is no limit or if there is a minimum amount in the fund. With key decisions about the preferred alternative impending, now is the time to address these and other long-deferred decisions about adaptive management of the project.

VI. WATER QUALITY

The Delta Plan recognizes that managing the Delta's resources to accomplish the coequal goals will be a "balancing act".

“Conditions that affect water quality must be managed and balanced in a way that allows these goals to be met simultaneously. When one use is protected, steps must be taken to minimize impacts on other uses.” (Delta Plan pg. 212).

The Council’s previous comments recommended improving the assessment and mitigation of impacts to water quality. The partially recirculated draft EIR/S responds partly to these comments with its additional analysis of selenium and mercury and more careful evaluation of alternatives’ effects on salinity and *Mycrocystis*. We appreciate this additional analysis and alternative 4A’s retention of the current salinity (EC) compliance point at Emmaton. Impacts to water quality for both in-Delta water users and ecosystem purposes appear reduced from those forecast in the draft EIR/S.

Nevertheless, we noted the statement during DWR’s August 14, 2015 presentation to the ISB that the models presented in the recirculated draft EIR/S are comparative and not predictive. Therefore, their appropriate and intended use is to allow comparisons between the No Action Alternative and the other alternatives, rather than predicting the actual performance of the California WaterFix. If that is the case, then the partially recirculated draft EIR/S may have limited potential to draw firm conclusions regarding potential impacts on beneficial uses of water by in-Delta water users or aquatic organisms and habitats.

The partially recirculated draft EIR/S does not describe the process for identifying operational water quality impacts or the operational changes that would be implemented as corrective actions. A water quality monitoring and compliance program should be described in the final EIR/S and its mitigation monitoring and reporting plan.

In addition, mitigation measures should propose effective responses if water quality objectives established for the project are violated. The potential mitigation measures referenced in the partially recirculated draft EIR/S and outlined in Section 3B.2.1 of the draft EIR/S place much of the burden on in-Delta water users to identify water quality problems and develop solutions as opposed to having the project proponent assume this burden. The document indicates the project’s proponents are committed to assisting in-Delta municipal, industrial, and agricultural water purveyors that may be subject to significant water quality impacts from project operations. The introductory paragraph, however, indicates that alternatives would be developed by the in-Delta water users with input from the project proponents after a thorough investigation and completion of environmental review. The mitigation measures referenced by the recirculated draft EIR/S do not appear to account for the potential adverse effects to in-Delta water users during the time that water quality impacts are investigated and assessed; solutions are evaluated and designed; environmental assessment is performed; permits are acquired; and remedial solutions are implemented. Given the typical timeframe to accomplish these steps for water projects in the Delta, the financial and operational impacts as well as the environmental impacts associated with reoperation or relocation of these diversions could be substantial.

VII. IMPACTS ON THE OPPORTUNITIES TO RESTORE DELTA HABITATS

Restoration of Delta habitat areas is a key to enhancement of the Delta ecosystem consistent with the coequal goals of the Delta Reform Act and the purposes of the BDCP. To encourage restoration, both the BDCP and the Delta Plan identify areas within which habitat restoration is encouraged. These areas, which are similar in both plans, were selected because they provide promising sites for habitat restoration on less subsidized flood basins, river corridors, and brackish marshes at appropriate elevations

on the Delta's perimeter. Because locales like these that are suitable for restoration are not common, maintaining them in uses compatible with potential future restoration is important. That is why a Delta Plan regulatory policy (23 CCR section 5007) provides, in part:

(a) Within the priority habitat restoration areas ... significant adverse impacts to the opportunity to restore habitat ... must be avoided or mitigated.

(b) Impacts referenced in subsection (a) will be deemed to be avoided or mitigated if the project is designed and implemented so that it will not preclude or otherwise interfere with the ability to restore habitat...

(c) Impacts referenced in subsection (a) shall be mitigated to a point where the impacts have no significant effect on the opportunity to restore habitat... Mitigation shall be determined, in consultation with the California Department of Fish and Wildlife, considering the size of the area impacted by the covered action and the type and value of habitat that could be restored on that area....

The Delta Plan encourages mitigation by allowing temporary uses with requirements for subsequent removal and cleanup afterward to protect opportunities for habitat restoration, elevation of structures so that water can flow underneath to allow restoration of aquatic habitats dependent on tides or periodic flooding, or location of permanent structures on the edge of habitat restoration areas, rather than in the middle, to improve opportunities for habitat restoration (Delta Plan Figure 4-7. p. 150).

A. Cosumnes–Mokelumne Confluence priority habitat restoration area. The new Alternatives 4A (California WaterFix), 2D and 5A, while reducing impacts on Delta communities and to wildlife and farmland on Staten Island, also propose new features within the Delta Plan's Cosumnes – Mokelumne Confluence priority habitat restoration area, including a permanent new forebay and a temporary reusable tunnel material storage site, barge landing, and access road adjoining Snodgrass Slough and a temporary outlet tower/safe haven and access road on the McCormack Williamson Tract. These features' compatibility with opportunities for habitat restoration within this area, as called for by the Delta Plan's regulatory policies, should be assessed. If feasible, the forebay should be relocated outside the restoration opportunity area. If relocation is infeasible, opportunities should be explored to integrate the forebay's open water and shorelines with surrounding wildlife and fish habitats of the Cosumnes Preserve, including the McCormack-Williamson Tract, Stone Lakes National Wildlife Refuge, State Parks' Delta Meadows property, and Snodgrass Slough's aquatic habitats. If the temporary reusable tunnel material storage site, barge landing, and access road cannot be relocated, appropriate mitigation should consider removal of all project features, included stored tunnel material, promptly upon termination of their use during the project's construction, and restoration of disturbed sites as wildlife and fish habitats compatible with the surrounding landscape. Planning to avoid impacts to restoration opportunities in this area should be coordinated with the barge operations plan that would accompany the barge landing, to assure that barge operations do not rely upon dredging or other maintenance that would be incompatible with eventual restoration of the area's habitat values.

Similarly, the temporary outlet tower/safe haven and access road should be relocated off the McCormack Williamson Tract if feasible. We cannot find a consistent description of this feature or an adequate assessment of its impacts in the recirculated draft EIR/S. Chapter 3 of Appendix A (Description of Alternatives) states that safe havens will be implemented during construction of the conveyance

tunnels, and will involve temporary access roads and disturbance of 1-3 acres of land for a period estimated to be approximately 9-12 months (page 3-41). However, Chapter 17 (Aesthetics and Visual Resources) mentions that these areas will be approximately 10 acres in size (page 17-23). We can find no mention of the impacts of this safe haven on the McCormack-Williamson Tract. Chapter 17 of Appendix A describes the location as “the island located east of Snodgrass Slough and west of the Mokelumne River,” without recognizing that this island is in fact the restoration area on the McCormack-Williamson Tract (page 17-24). Chapter 3 of Appendix A (Description of Alternatives) identifies the tract as a priority habitat restoration area, but disregards current restoration efforts (page 3-83). Table 13-11 in Chapter 13 of Appendix A (Land Use) specifically identifies that 11 acres of planned safe haven work area in Sacramento County will occur on land classified as “Agricultural Cropland,” rather than “Natural Preserve” or “Open Space/Resource Conservation” areas (page 13-4). It does not appear that the restoration efforts on this tract were considered when planning the location of this particular safe haven area.

Restoration of tidal marsh and riparian habitats on the McCormack Williamson Tract as part of the California EcoRestore initiative is scheduled to begin in 2016 and conclude by 2018, according to the recirculated draft EIR/S’s cumulative impact analysis reports (p. 5-3). Further information about the project is available at http://resources.ca.gov/docs/ecorestore/projects/McCormack_Williamson_Tract.pdf.

Analysis of potential conflicts with habitat restoration in the area should also consider effects on timely achievement of North Delta flood management benefits, which are a key element of the restoration project. The analysis should also assess flood risks that the constrained height of McCormack-Williamson Tract’s existing levees may pose to the outlet tower/safe haven and access road. Assessment of these flood risks should be coordinated with evaluation of the project’s effects on flood management required by Water Code section 85320(b)(2)(E). Further delay in this long-planned, highly visible restoration project would be regrettable.

If these features cannot be relocated outside the priority habitat restoration area or adverse effects on restoration opportunities cannot be adequately mitigated, this potential inconsistency with the Delta Plan should also be acknowledged in Appendix G.

B. Lower San Joaquin River priority habitat restoration area. The recirculated draft EIR/S’s Appendix G acknowledges that the operable barrier at the head of Old River is located within the Delta Plan’s Lower San Joaquin River priority habitat restoration area. A more thorough explanation should be provided for Appendix G’s conclusion that construction and operation of the operable barrier will not substantially reduce restoration opportunities there. This analysis should include consideration not only of the surface area disturbed by the operable barrier’s construction, but also the barrier’s compatibility with processes, such as periodic flood flows, needed to sustain a mix of tidal marsh, riparian habitat, and wildlife friendly agriculture that the Delta Plan envisions in the area and whether the barriers may contribute to fragmentation of potential restored habitats. Assessment is also needed of the barrier’s compatibility with the proposed Lower San Joaquin Flood Bypass, whose potential to reduce flood risks in nearby urban areas is an important objective for this restoration opportunity area. Assessment of

these flood risks should be coordinated with evaluation of the project's effects on flood management required by Water Code section 85320(b)(2)(E).

VIII. MITIGATION OF OTHER EFFECTS ON WETLANDS, AQUATIC HABITATS, AND WILDLIFE AND FISH HABITATS

We were pleased to see the recirculated draft EIR/S's additional assessment of potential effects on sandhill cranes and WaterFix's revisions to the tunnel alignment and its power demands that reduce potential impacts on this important wildlife. This was among the improvements in the recirculated draft EIR/S complimented by the ISB.

The ISB, however, also encourages more attention to measures to avoid or reduce effects on wetlands and other aquatic habitats, as well as reassessment of the extent, location, and timing of habitat restoration that compensates for unavoidable damage. The Delta Plan's implementing regulations require, in part, that covered actions not exempt from CEQA must include applicable feasible mitigation measures identified in the Delta Plan's Programmatic EIR ... or substitute mitigation measures that the agency that files the certification of consistency finds are equally or more effective (23 CCR 5002(b)(2). For adverse effects to sensitive natural communities, including wetlands and riparian habitats, the Delta Plan's mitigation measures generally include:

Avoid, minimize, and compensate for reduction in area and/or habitat quality of sensitive natural communities, including wetlands, by doing the following:

- Selecting project site(s) that would avoid sensitive natural communities.
- Designing, to the maximum extent practicable, project elements to avoid effects on sensitive natural communities.
- Replacing, restoring, or enhancing on a "no net loss" basis (in accordance with U.S. Army Corps of Engineers (USACE) and State Water Resources Control Board (SWRCB) requirements), wetlands and other waters of the United States and waters of the State that would be removed, lost, and/or degraded.
- Where impacts to sensitive natural communities other than waters of the United States or State are unavoidable, compensating for impacts by restoring and/or preserving in-kind sensitive natural communities (Mitigation measure 4-1).

As the ISB notes, the recirculated draft EIR/S does not explain how the project incorporates measures to avoid or minimize effects that would conform to this provision. In addition, the final EIR/s should clarify whether any of the wetland restoration is out-of-kind and how much is in-kind replacement of losses. The ISB agrees that out-of-kind mitigation can be preferable to in-kind when the trade-offs are known and quantified and mitigation is conducted within a watershed context, as described in USACE's guidance. If compensatory wetland mitigation on or near the site of impact is infeasible or ill-advised, offsite opportunities should be considered in a landscape context, including the potential to site mitigation areas within the Delta Plan's priority habitat restoration areas to achieve synergies with other planned restoration projects and to minimize conflicts with agriculture or other uses.

IX. EVALUATION AND MITIGATION OF IMPACTS TO UNIQUE DELTA VALUES

In our comments on the draft EIR/S, we noted that the proposed BDCP conveyance and restoration measures will significantly and adversely affect important attributes of the Delta's regional character, including values that the Council's Delta Plan describes as contributing to making the Delta a distinctive and special place. The Delta Reform Act and Delta Plan anticipate that changes to these attributes will occur and may be necessary to achieve the coequal goals, but seeks to accommodate these changes while preserving the fundamental characteristics and values that contribute to the Delta's special qualities and that distinguish it from other places. We also pointed out that the project's effects on the Delta's agricultural, recreational, and cultural resources should be considered in the context of larger past and likely future trends in the Delta threaten the agricultural, recreational, and cultural values of the Delta. Those observations also apply to consideration of the impacts of the California WaterFix initiative.

California WaterFix reduces some the BDCP's adverse effects on unique Delta values because of the revision to diversion and conveyance facilities in the north Delta, which reduces damage to agriculture, recreation, scenic resources, and Delta communities. Separation of most habitat restoration measures into the California EcoRestore initiative further reduces impacts to agriculture. We appreciate these improvements.

Nevertheless, the new alternatives will still have significant adverse effects on the Delta's unique values that should be more thoroughly assessed, avoided where feasible, and better mitigated.

- A. Agriculture. Agriculture is the Delta's primary land use and a valued resource. The amount of land that will be converted from agricultural use by the California WaterFix's construction is unclear. In part, this is because the recirculated draft EIR/S offers differing estimates of the amount of land needed for reusable tunnel material (RTM) storage. For example, Chapter 3 says 2600 acres are needed for RTM storage, Chapter 14 says 3,630 will be needed for RTM storage, and Appendix 3C says 2,570 will be needed for RTM storage. In addition, the acreage permanently converted from farm use is reported in two overlapping measurements: acres of important farmland (which includes some lands in Williamson Act contracts) and farmland in Williamson Act contracts (which may include some farmland not classified as important). These differing and overlapping estimates should be resolved by reporting the total amount of farmland that will be converted including both important farmland and other agricultural land in Williamson Act contracts.

In addition to the farmland converted by project construction, up to 1400 more acres of farmland may be converted for compensatory habitat restoration to mitigate project effects. WaterFix's construction may also potentially impair water quality for some agricultural users, disrupt agricultural infrastructure, and harm the agricultural economy, according to the recirculated draft EIR/S. The final EIR/S should better describe and more carefully avoid or mitigate all impacts to agriculture arising in several ways, as discussed below.

1. *Impacts of compensatory habitat restoration*. The recirculated draft EIR/S evaluates a variety of impacts on Delta agriculture caused by the compensatory habitat restoration to mitigate project effects. This compensatory mitigation is part of the project's environmental commitments.

However, because the environmental commitments are presented at a programmatic level it is still not possible to fully identify the impacts to agriculture with any degree of certainty. Section 4.3.10 of the recirculated draft EIR/S indicates roughly 15,548 acres of habitat will be restored, including the acreage of farmlands managed especially for sandhill cranes or other wildlife. Because specific locations have not been selected for this restoration, the recirculated draft EIR/S does not identify specific farmlands, or how many acres of them will be impacted.

The final EIR could be improved by more carefully describing how much agricultural land will be converted. For example, the recirculated draft EIR/S's concludes that impact AG-3 "will restore up to 1,400 acres." More careful estimation of requirements for compensatory habitat restoration, as described above, could provide a better basis for identifying the acreage of agricultural easements needed to offset the loss. Information about specific properties to be acquired in the WaterFix right-of-way could also be used to assess project impacts caused by losses of important agricultural infrastructure, such as drainage and irrigation facilities or by fragmenting parcels.

2. *Increased Farm-to-Market Travel Times.* Impact ECON-6 (p. 16-36, lines 2-4 of recirculated draft EIR/S) anticipates an increase in agricultural production costs from "operational constraints and longer travel times due to facilities construction". The final EIR/S should more carefully evaluate how the conveyance construction impacts may affect transportation between key agricultural areas and important processing or marketing facilities.

Chapter 19 (Table 19-25) indicates that the designated "Farm-to-market" corridor (Highway 99 between Bakersfield and Sacramento,) will not be impacted; however, during construction Level of Service (LOS) thresholds will be exceeded (made worse than previous LOS) on 38 other segments of state highways and local roadways (Impact TRANS-1). Further, LOS thresholds will be exceeded to a D or worse on 10 segments for the duration of the construction period. This includes important thoroughfares such as sections of Interstate-5, State Road 4 and 84 (Jefferson Blvd), and important bridges across the Sacramento River. The recirculated draft EIR/S identifies mitigation measures (TRANS 1a-c) to reduce the severity of the impact. However, "the BDCP proponents cannot ensure that the improvements will be fully funded or constructed prior to the project's contribution to the impact," (page 19-122 of recirculated draft EIR/S lines 9-10). The final EIR/S should explain the constraints that limit full funding of these mitigation measures and the basis for determining that mitigation is not feasible.

If all mitigation measures to reduce traffic impacts are not implemented successfully, the impacts to LOS on these roads will remain significant and unavoidable. The impacts of the decrease in LOS on roadways serving key agricultural areas due to construction will likely remain considerable, and the economic effect and any related environmental effects should be acknowledged in Chapter 15, Impacts ECON-5 and ECON-6.

3. *Agricultural Economics.* The recirculated draft EIR/S indicates that construction of the California WaterFix will cause many significant and adverse direct and indirect impacts to agriculture, and that the California WaterFix will significantly alter the agricultural character and regional economy. Impact ECON-3 acknowledges that the project will change the agricultural character

of the Delta region. The long-term footprint of construction and the disruption to infrastructure are expected to decreasing agricultural production valued at \$5.3 million annually, indirectly impact agriculture by increasing production costs (ECON-6), and by causing a decline in agricultural employment during construction by about 40 jobs (Impact ECON 1, Table 16-42). According to the recirculated draft EIR/S, impacts to agriculture under alternative 4 will remain “Significant and Unavoidable.” These impacts could be better assessed by considering the regional significance of the decline in agricultural related income (Table 16-42) and the associated loss of jobs in comparison with the \$795 million value of regional crop and livestock production and 13,179 total agricultural jobs reported in the Delta Protection Commission’s *Economic Sustainability Plan* (p. 112). It would also be helpful to assess whether these impacts cause such significant losses of a particular crop that they affect the viability of that crop in the region as a whole or have particularly significant impacts to high value crops (e.g., vineyards) or heirloom crops (e.g., pears and asparagus).

4. *Integrating Agricultural Mitigation with Other Regional Conservation Strategies.* Mitigation proposed for agricultural impacts generally offers two options: 1) a conventional approach conserves agriculture by acquiring easements on agricultural land in direct proportion to the amount of agricultural land converted to other uses; or 2) an agricultural land stewardship approach. In the land stewardship approach, restoration is implemented by selecting mitigation measures, in particular agricultural land stewardship options that could be integrated into regional conservation strategies. These strategies should include local HCPs, local land trusts’ activities to protect important farmland threatened by development, or actions complementing the California EcoRestore initiative. These regional strategies could: 1) incorporate agricultural considerations into regional environmental commitments; 2) provide a framework for project selection and design; 3) contribute to a system of protected agricultural resources; and 4) provide a framework for evaluating and mitigating impacts to agriculture and other land uses. It could also help avoid or reduce impacts to the most valuable agricultural areas, enable interconnected agricultural zones and habitat corridors, and minimize edge effects. The following techniques should be used in the regional conservation strategies to preserve and protect agriculture:

- Use easements to protect land where development threats are greater. For example, at a minimum, losses of farmlands converted to non-farmed habitat could be mitigated by securing conservation easements that protect other agricultural lands threatened by development, such as land in the Delta’s secondary zone. Lands in the primary zone, on the other hand, are already protected from urban development by state law. The Delta Plan proposes mitigation for farmland losses at a ratio of one acre protected for each acre converted to non-farm use.
- Identify mitigation within the regional conservation strategy framework so that the effects on drainage, cropping systems, etc., can be integrated with restoration strategies.
- Implement safe harbor agreements, as described on pages 143 and 186 of the Delta Plan, and propose other good neighbor arrangements.

5. *Recommendations from the Delta Plan.* Potential mitigation measures included in the Delta Plan’s recommendations for supporting the Delta’s agricultural economy should be considered

to mitigate environmentally-significant economic impacts to agriculture. For example, the Delta Plan recommends that local governments and economic development organizations, in cooperation with the Delta Protection Commission and the Delta Conservancy, encourage value-added processing of Delta crops in appropriate locations (DP R8 Promote Value-Added Crop Processing). Similarly, DP R9 (Encourage Agritourism) recommends support for agritourism, particularly in and around Delta Legacy Communities.

- B. Recreation. Five million people live within a 20 minute drive of the Delta and Suisun Marsh, the typical distance Californians drive to reach a favorite recreation area. About 12 million visitor days occur in the Delta annually. Demand for recreation that can be provided in the Delta is growing, both with the forecast doubling of the region's population over the next 50 years, and with the potential to attract visitors from other regions. Protecting these valued recreation opportunities is important and measures to do so should be included in the final EIR/EIS. Four types of impacts to recreation need to be addressed, as discussed below.

As measures to mitigate these affects to recreation are proposed and implemented, DWR should consider its responsibilities regarding fish, wildlife, and recreation in state water projects (Water Code sections 11910-11915), especially the duty to coordinate with the Department of Parks and Recreation and local governments (Water Code section 11910-11910.1).

1. *Impacts to recreation facilities in construction zones*. The recirculated draft EIR acknowledges that ten or more years of conveyance construction will result in the long-term reduction of recreational opportunities and experiences in the Delta both on land and in water (Impact ECON 5, REC 2 and 3). Traffic delays, disturbance, noise, and water quality impacts may reduce visits to, or prevent access to specific recreational sites. This, in turn, may cause local recreation related businesses to suffer or close from reduced spending, with potential cumulative effects to private visitor-serving facilities vulnerable to a decline in regional recreational-related economic activity. Nine facilities are within areas the recirculated draft EIR/S identifies. Four are public recreation areas: State Parks' Delta Meadows property, the Cosumnes Preserve, Stone Lakes National Wildlife Refuge, and the Clifton Court Forebay. Five are marinas: Bull Frog Marina, Clarksburg Marina, Lazy M Marina, New Hope Landing Trailer Park and Marina, and Wimpy's Marina. In addition, declining levels of service on roads affected by construction traffic may affect access to and use of additional 101 public recreation areas and marinas within 1 mile of those roads.

Though proposed mitigation measures offer noise abatement programs, detours and temporary roads around construction, protection of navigation on affected waterways, and other activities to minimize disturbances, the impacts of California WaterFix conveyance construction activities on recreation in construction zones are still significant. A more comprehensive assessment of impacts is warranted, and additional mitigation should be offered to offset the impacts that cannot be avoided. For example, impact ECON-5 discusses the qualitative effects on recreational economics as a result of constructing conveyance, and Impacts REC 1-4 discusses general impacts qualitatively. Quantifying the effects on recreational uses and opportunities, for example, by reporting affected facilities' annual visitation levels or recreational capacity (e.g., number of berths or overnight spaces) would enable comparison of alternatives to assess which

alternative most significantly impacts recreation in the Delta (recirculated draft EIR/S section 16.3.3.9 pages 16-33 and 16-34) and could facilitate proposing mitigation measures that are properly scaled to the magnitude of the impacts. Other mitigation measures that should be considered include promotion, in cooperation with organizations like the Delta Chamber of Commerce or other Delta marketing entities, of alternate access routes to affected recreation areas or areas unaffected by construction. CalTrans' efforts in cooperation with Lake Tahoe tourism agencies during the reconstruction of Highway 50 may provide a model.

2. *Impacts on Recreational Boating.* The Delta Protection Commission's *Economic Sustainability Plan* (2012) and California State Parks' *Recreation Proposal for the Sacramento-San Joaquin Delta* (2011) indicate that boating comprises 60 percent of Delta recreation-days and contributes 80 percent of tourism spending. The recirculated draft EIR/S finds that the construction and operation of conveyance facilities (which will occur in or near recreational boating corridors) will have significant and unavoidable impacts on long term recreational boating opportunities by disrupting boat passage at these sites (Impact REC-3, page 4.3.11-5, recirculated draft EIR/S Sec 15.3.3.9 pages 15-22 through 15-28):

- Three intakes on the Sacramento River.
- Clifton Court Forebay (siphons).
- Head of Old River Barrier.
- Snodgrass Slough, Potato Slough, San Joaquin River, Middle River, Connection Slough, Old River, West Canal.

The scale of these impacts could be better assessed if the length of waterways affected by construction were more clearly described and considered in relation to Delta's 700 miles of navigable waterways. The recirculated EIR/S acknowledges that many sites on the water will also likely see a decline in use during the construction period due to construction noise and/or geotechnical testing as described in impact REC-2. The proposed mitigation emphasizes traffic and aquatic weeds management, but specific mitigation for these negative impacts on boating access should also be provided. Potential approaches could include compensatory improvements to boating facilities that provide access to other Delta regions unaffected by the WaterFix initiative.

3. *Impacts to driving for pleasure.* Driving for pleasure is among Californians' favorite recreations, and the project's effects on it should be addressed. Forty-five percent of Californians participate in driving on paved roads for pleasure, sightseeing, and the enjoyment of natural scenery, according to the Department of Parks and Recreation's *Survey on Public Opinions and Attitudes on Outdoor Recreation in California (SPOA) 2012, Complete Findings* (January 2014). Highway 160, a state Scenic Highway, and the Delta Loop extending from Hwy 160 through Brannan Island and Perry's Island Roads to Highway 12 are key routes for recreational drivers. Construction detours, aesthetic impacts, and construction-related congestion on Highway 160 and Highway 12 will affect both of these recreational driving routes. The final EIR/S should report the miles of these routes affected by construction impacts. In addition, the EIR should assess impacts that noise, traffic congestion, and damage to scenic resources caused by the California WaterFix

alternatives will have on recreational driving. One useful measure would be to assess what portion of a typical 65 minute recreational drive from Freeport to Antioch along Highway 160 would be impaired by construction detours, aesthetic impacts, and traffic congestion along the route. In addition, the final EIR/S could report the typical construction-related delay a recreational driver would likely encounter trying to reach the Delta Loop. Appropriate mitigations could include landscape treatments along routes degraded by the project, compensation for unavoidable effects by removing aesthetic detractants along parts of the route not affected by the project, development of features, such as vista points, that could be enjoyed by motorists on portions of these pleasure driving routes that are unaffected by the project, support for locally-developed wayfinding systems that help motorists use and enjoy those portions of these pleasure driving routes, or other measures.

4. *Impacts of Construction Work Force Housing Demand on RV Parks and Resorts.* Housing for construction workers may include extended use of recreational vehicle parks and hotels and motels (recirculated draft EIR/S p 16-29 and 16-30), which could displace people seeking recreational opportunities in the Delta. Housing for migrant farm labor may also be affected. The extent of this potential impact to recreation is unclear and no mitigation is currently provided. While the EIR/S does not anticipate a large influx of out-of-area workers, this impact to recreation and need for mitigation should be more thoroughly evaluated.
5. *Mitigation for Recreation Impacts.* The final EIR/S should provide explicit mitigation measures for the significant, unavoidable recreation impacts caused by the California WaterFix construction and operation. Determinations of appropriate mitigation should be made in consultation with the Department of Parks and Recreation, the Delta Protection Commission, and local governments, and appropriate mitigation commitments should be included in the final EIR/S. Potential mitigation measures include the Delta Plan's recommendations for encouraging recreation and tourism. For example, the Delta Plan recommendation DP R11 (Provide New and Protect Existing Recreation Opportunities) asks ecosystem restoration agencies to provide recreation opportunities at new facilities and restored habitat areas whenever feasible, and to protect existing recreational facilities using California State Parks' *Recreation Proposal for the Sacramento-San Joaquin Delta and Suisun Marsh* (2011) and the Delta Protection Commission's *Economic Sustainability Plan* (2012) as guides.

Enhancing recreational access in the vicinity of proposed intakes (recirculated draft EIR/S 3B.3.2, page 3B-75) after construction is completed is a good opportunity to attract visitors to the Delta, and to highlight the legacy of water engineering, which would fit in an overall Cultural Resources Preservation Plan. This environmental commitment could be improved with a reference to good examples of the idea in practice.

Appendix 3B states that Environmental Commitment 3B.3.3 (Fund Efforts to Carry-out the Recreation Recommendations Adopted in the Delta Plan) no longer applies to the new preferred Alternative 4A (or 2D and 5a) because the impacts of the new alternatives will be less than those in the BDCP. The EIR lacks, however, any quantitative assessment of recreation impacts to support this conclusion. On the contrary, a significant reduction in recreation impacts seems unlikely because the extensive areas of restored habitat no longer provided by the preferred

alternative would have offered many opportunities for nature-oriented outdoor recreation, while adverse effects from construction of conveyance improvements continue to be significant. Because there will be considerable significant and unavoidable impacts to recreation in the Delta, this environmental commitment should apply to the proposed Alternative 4A.

The mitigation that applies to the remaining alternatives in Commitment 3B.3.3 is an example of the vague and unenforceable nature of some proposed mitigation measures. Of the six actions listed, three could not feasibly be implemented during the construction period because they either depend on 1) the outcomes of actions that occur during construction (reusable tunnel material); or 2) later actions no longer included in the preferred alternative (Barker Slough restoration). Three others, Wright- Elmwood Tract and Brannan Island SRA and improvements to the Yolo Bypass Wildlife Area, are distant from the conveyance construction zone where impacts would occur, and therefore do little to lessen or compensate for the project's effects. California State Parks staff familiar with its *Central Valley Vision* and Delta planning should be consulted to assess how a contribution of funds could facilitate meaningful progress at Delta Meadows-Locke Boarding House.

C. Community Character. The Delta's Legacy Communities are valued resources, appreciated by both their residents and by visitors. Special care to protect them is warranted.

Construction of the conveyance facilities will result in numerous impacts, which are described in various places throughout the EIR/S. However, the scale of collective impacts in the construction zone over ten or more years of construction is difficult to estimate. Because the collective construction impacts will have a major effect on numerous resource categories, the final EIR/S should aggregate the description of impacts that affect community character associated with each alternative's construction activities in one location and summarize them, including the time frames for each impact. In this aggregation, the final EIR/S should discuss the combined footprint of construction impacts affecting each community, including effects on agriculture, recreation, noise, traffic congestion, aesthetic resources, and cultural resources. Each alternative should be compared to enable improved evaluation of each alternative's direct and indirect effects.

These combined effects of construction appear especially adverse at Hood and Clarksburg. Other Legacy Communities along Highway 160 are also likely to suffer adverse effects from declining recreation and tourism and highway congestion. South Delta communities will also be affected, especially by construction-related highway congestion along key routes that link residents of Stockton to jobs in Contra Costa County and the Bay area. Access between Contra Costa County's Legacy Communities and the urban areas of the county will also be impaired.

The recirculated draft EIR/S acknowledges that construction and implementation of the California WaterFix will result in significant changes in character of these communities caused by: 1) declining property values; 2) building abandonment near construction activities with associated loss of tax revenue; and 3) changes in the agricultural landscape, regional economy, labor, and employment (impact AG1, 2, and ECON-1 and 3). The recirculated draft EIR/S also anticipates declining economic stability in communities closest to construction activities, such as Hood and Clarksburg, and in those most heavily influenced by agriculture and recreation, which include the remaining towns along Hwy

160 and in eastern Contra Costa County. These indirect and secondary impacts caused by construction of the conveyance facility will have physical effects on the Delta environment that should be more clearly evaluated and mitigated in the final EIR/S. For example, impacts that cause building abandonment are physical impacts that warrant mitigation. Actions to reduce or mitigate adverse impacts should be taken.

The recirculated draft EIR/S highlights that “notable decreases in population or employment, even if limited to specific areas, sectors, or the vacancy of individual buildings, could result in alteration of community character stemming from a lack of maintenance, upkeep, and general investment.” The recirculated draft EIR/S offers a list of environmental commitments to reduce these effects (16.3.3.9, pages 16-32, lines 17-19), and Appendix 3B); however the environmental commitments may be insufficient.

Precedents elsewhere from local housing authorities and redevelopment agencies may provide successful examples of mitigation that could be offered to further reduce the effects of these significant changes on the character of Delta communities. Examples from blight elimination programs could offer mitigation for community improvement and enhancement including making contributions toward community facilities, or funding programs to curb foreclosures or to address other conditions, such as flood risk, that also threaten the affected communities. A programmatic approach to mitigating these impacts could be provided through funds contributed to the Delta Investment Fund established in Public Resources Code section 29759. The funds provided to North Coast communities by the Redwood National Park Expansion Act may provide an example for a mitigation program for the Delta.

1. *Aesthetics*. Scenic Highway 160 and other riverside roads are important resources, supporting recreational travel, providing a pleasing backdrop for recreational boating, and contributing to the setting of the Delta’s Legacy Communities. The recirculated draft EIR/S indicates that permanent visual changes in the riverside landscape near intakes will dramatically alter the Delta’s scenic character along scenic Highway 160, at Clarksburg, Courtland, and Hood. However, in the current assessment, the magnitude of the visual impacts California WaterFix will have on Highway 160 from both the water and from the road is unclear. The recirculated draft EIR/S’ narrative description of impacts should be enhanced with illustrative images of these impacts as viewed by travelers on Scenic Highway 160 and by recreational boaters. The illustrative images should show conditions before construction and impacts both during construction and after construction is complete. The impacts described in table 17B of the recirculated draft EIR/S suggest that at least nine miles of views along Scenic Highway 160’s 50 mile length (18 percent) will be affected by construction of the intakes and the rerouting of the highway. Though the recirculated draft EIR/S identifies disrupted views at certain observation points, the description of intakes could better communicate the magnitude of the impacts by quantifying the total length of disrupted views along Scenic Highway 160; the final EIR/S should then offer specific mitigation to offset the impacts consistent with CalTrans’ practices for scenic highways and/or the Federal Highway Administration’s report *Scenic Byways: A Guide for Roadside Improvements*.
2. *Cultural Resources*. The entire Delta region is rich in cultural resources with archeological significance, and the recirculated draft EIR/S identifies major impacts in Chapter 18, most of which are considered significant and unavoidable. While the recirculated draft EIR/S identifies specific sites

of cultural value, the final EIR/S should consider whether areas significantly affected by the California WaterFix construction may qualify for consideration as significant cultural landscapes under the Secretary of the Interior's *Guidelines for the Treatment of Cultural Landscapes*. In cases where the impacts would remain significant and unavoidable, the California WaterFix could offer additional mitigation adequate to preserve and protect the Delta's historic and cultural resources.

Recognizing that impacts to cultural resources from the California WaterFix will likely be similar to impacts caused by other large infrastructure projects in similar environments, the final EIR/S could draw on experience from other infrastructure projects to describe a range of possible impacts on cultural resources and commit to a range of appropriate mitigation measures. There is precedent from large infrastructure projects across the country under section 106 of the National Historic Preservation Act to provide additional mitigation or compensation for lost cultural resources. For example, the California WaterFix could:

- Offer financial support to relocate significant resources to a museum(s).
- Support archaeological research by local universities focused in the Delta.
- Offer financial support to facilitate the listing of eligible artifacts, sites, or structures on the National Historic Registry.
- Offer financial support to preserve or rehabilitate deteriorating buildings and structures of historical significance in the Delta such as in the Locke Historic District, the Japanese School in Clarksburg, or the Bacon Island Road Bridge.

The *Guidelines* developed by the Secretary of the Interior for construction in culturally sensitive landscapes offer an opportunity to better offset project impacts and preserve the Delta's cultural resources than the currently proposed mitigation measures. As written, specific mitigation treatments in the recirculated draft EIR/S are offered on site-by-site, or for nationally- and state-registered buildings or structures, resource-by-resource. However, the Delta's true cultural resources go beyond those identified on the historic registry and the values that make the Delta a special place are not likely to be captured by these piecemeal mitigation measures.

The Secretary of the Interior's *Guidelines* provide direction for the overall treatment and management of the landscape to preserve the Delta's cultural significance as a whole in the face of this large construction project. Using this approach and identifying overarching goals and objectives in the Delta may help ensure that project design, construction, operation, and associated mitigation can be targeted to protect, preserve, and maintain the Delta as an evolving place. An approach in the Delta, for example, could emphasize the region's agricultural sustainability, and rural heritage; its unique legacy towns; and its recreational values, amongst others. The overall treatment plan could seek to preserve the ecological diversity and the rural landscapes that attract visitors and residents to the Delta. Construction, operation, and mitigation of the California WaterFix and its environmental commitments could then be implemented in a way that contributes to achieving these goals and objectives.