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**PACIFIC COAST FEDERATION
of FISHERMEN'S ASSOCIATIONS**



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29 June 2012

The Honorable Phil Isenberg, Chair
Delta Stewardship Council
980 Ninth Street, Suite 1500
Sacramento, CA 95814

RE: Supplemental Comments on the Final Staff Draft Delta Plan

Dear Chairman Isenberg and Council members:

The Pacific Coast Federation of Fishermen's Associations (PCFFA), representing working men and women in the West Coast commercial fishing fleet, asks that these supplemental comments be included with comments already submitted by our organization (EIR comments of 02 Feb 2012) along with others, on the above-mentioned document. We ask these comments be included due to our serious concern with salmon recovery, salmon doubling and the future of this resource our members depend upon, that apparently some on your staff have consigned to extinction.

First, we wish to commend the Council on the revisions to Section 4 of the draft Delta Plan, "Protect, Restore, and Enhance the Delta Ecosystem." We are encouraged that the Delta Stewardship Council "envisions a future... in which the Delta Ecosystem has the following characteristics: Native species, including algae and other plants, invertebrates, fish birds, and other wildlife are abundant and self-sustaining." and "The ecosystem is resilient enough to absorb and adapt to current and future effects of multiple ecosystem stressors."

However, the actual policies of the Delta Plan, which are the only content with any substantive effect, fail to adequately address recovery of populations of native fish, including winter, spring and fall/late fall Chinook salmon and steelhead.

The Notice of Preparation for the Delta Plan stated “The purpose of the Plan will be to meet the coequal goals and all of the sub-goals and policy objectives defined by statute. The Plan will define a legally enforceable set of policies, strategies, and actions that will serve as a basis for future findings of consistency by state and local agencies with regard to projects related to the Delta.”

Mandate for inclusion of recovery goals in Delta Plan

As noted in many previous comment letters, the legislative mandate for the Delta Plan under the Delta Reform Act clearly mandates policies and policy objectives with respect to recovery of fish populations:

85302(c) The Delta Plan shall include measures that promote all of the following characteristics of a healthy Delta ecosystem.

(1) Viable populations of native resident and migratory species.

.... (5) Conditions conducive to meeting or exceeding the goals in existing species recovery plans and state and federal goals with respect to doubling salmon populations.

It seems clear that the intent of the legislature was not simply that the Delta Stewardship Council discuss its vision of a healthy Delta ecosystem in the Delta Plan, but create policies supporting the existing state and federal goals of recovery of native fish populations and doubling of salmon populations.

It also seems clear that the legislature intended that the Bay Delta Conservation Plan be consistent with recovery of migratory and resident native fish populations, if adopted as part of the Delta Plan. However, the Delta Plan’s Appendix G, “The Delta Stewardship Council’s Role Regarding Conveyance,” appears to have no provisions for determining consistency of the Bay Delta Conservation Plan with any adopted ecosystem goals, only citing section 85320(e) of the Delta Reform Act, which states that the Bay Delta Conservation Plan shall be incorporated into the Delta Plan if it meets the Natural Communities Conservation Planning requirements.

Appendix G does not consider the possibility that the Department of Fish & Game may determine that the Bay Delta Conservation Plan does not meet the requirements of the Natural Communities Conservation Planning Act. This possibility must be explicitly considered in the Delta Plan policy on conveyance, and in particular, it should be clear how the trustee responsibilities of the Council and of the state will be fulfilled if the Bay Delta Conservation Plan is not found to be consistent with the NCCP Act. Section 85034 of the Delta Reform Act states that the Division does not affect the application of the public trust doctrine.

Existing recovery goals in the Delta



The Delta Stewardship Council also has significant continuing public trust duties, derived from both the Delta Reform Act and its role as a successor to the Bay Delta Authority. The Bay Delta Conservation Plan was not originally intended to be a comprehensive management plan for the Delta, but to be a Habitat Conservation Plan consistent with the existing 30 year Ecosystem Restoration Program and Multi-Species Conservation Strategy, adopted as part of the 2000 CALFED Record of Decision. The Ecosystem Restoration Program includes recovery goals for salmonids and other species, and includes the Sacramento and San Joaquin River watersheds, and San Francisco Bay in the solution area.

Management of the Sacramento and San Joaquin watersheds has significant impacts on the health of anadromous fish and also on water quality in the Delta. In addition to specific conditions set by the State Water Resources Board, there must be an overarching policy.

The Ecosystem Restoration Program, adopted in 2000, currently provides that policy. The goals include the following:¹

Goal 1: Endangered and Other At-risk Species and Native Biotic Communities

Achieve recovery of at-risk native species dependent on the Delta and Suisun Bay as the first step toward establishing large, self-sustaining populations of these species; support similar recovery of at-risk native species in San Francisco Bay and the watershed above the estuary; and minimize the need for future endangered species listings by reversing downward population trends of native species that are not listed.

Objective 1: Achieve, first, recovery and then large self-sustaining populations of the following at-risk native species dependent on the Delta, Suisun Bay, and Suisun Marsh:

Central Valley winter-, spring- and fall/late fall-run chinook salmon ESUs,
Central Valley steelhead ESU, delta smelt, longfin smelt, Sacramento splittail,
green sturgeon....

Goal 3: Harvested Species

Maintain and/or enhance populations of selected species for sustainable commercial and recreational harvest, consistent with the other ERP strategic goals.

Objective 1: Enhance fisheries for salmonids, white sturgeon, pacific herring, and native cyprinid fishes.

¹ CALFED Ecosystem Restoration Strategic Goals and Objectives. Available at <http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=5049>

Objective 2: Maintain, to the extent consistent with ERP goals, fisheries for striped bass, American shad, signal crayfish, grass shrimp, and nonnative warmwater gamefishes.

...

Objective 4: Ensure that chinook salmon, steelhead, trout, and striped bass hatchery, rearing, and planting programs do not have detrimental effects on wild populations of native fish species and ERP actions.

The explicit protections for harvested species of fish in the Ecosystem Restoration Program have been one of the cornerstones of a “single blueprint” for state management of the Delta. The “single blueprint” ensures that the state considers and evaluates all impacts of current and proposed future water export operations throughout the Delta and its watershed, and in San Francisco Bay. While endangered species have independent protections under CESA and FESA, the fall run of Chinook salmon, which is the backbone of the West Coast salmon fishing industry, does not. Neither does Pacific herring, which breed in low salinity water in San Francisco Bay.

The Delta Reform Act of 2009 repealed the Bay Delta Authority Act, and created the Delta Stewardship Council, giving the council all of the “powers and duties” of that authority, as well as mandating creation of the Delta Plan. It seems clear that the legislature intended the council to continue the coordinating and oversight functions of the Bay Delta Authority.

We argue that as the successor to the Bay-Delta Authority, with all of the “powers and duties of that authority,” (Delta Reform Act section 85034), one of the core duties of the Delta Stewardship Council as a responsible and trustee agency is to develop successor policies which ensure continuation of the state’s public trust duties. As a “legally enforceable plan,” the Delta Plan should assure consistency of BDCP and other agency planning efforts with federal and state goals of salmon doubling and species recovery plans, including the CVPIA Anadromous Fish Restoration Program, and the Central Valley Salmon and Steelhead Recovery Plan.

The proposed Bay-Delta Conservation Plan does not address the upstream needs of salmon populations, and the proposed level of exports has severe known impacts on migration of adult salmon in September and November, as well as on the maintenance of carryover storage and cold water pool in upstream reservoirs. These impacts are avoidable by reduction of proposed exports. (See Appendix A on impacts of proposed diversions by Alternative 1A.) BDCP is also not considering impacts to San Francisco Bay.

The state of California, and the Delta Stewardship Council as an agency of the state, must not attempt to piecemeal consideration under CEQA of environmental impacts of proposed operations and new facilities of the State Water Project. Unfortunately, the current Delta Plan could easily piecemeal consideration of environmental impacts of major changes in existing ecosystem goals, as well as consideration of environmental impacts of major changes in management of water exports and upstream reservoirs. We ask that, as a trustee agency, the Delta Stewardship Council explicitly address the issue of piecemealing in its Environmental

Impact Report and in the Delta Plan Appendix G. on the Conveyance role of the Delta Stewardship Council.

Adaptive Management and the Independent Science Board

Adaptive management is expected to be a major part of the Bay Delta Conservation Plan. However, the draft BDCP goals only address improving the survival of migrating juvenile salmon through the Delta, not actual recovery of the different runs, and upstream needs. If the Delta Plan does not continue the current over-arching goals of maintaining or enhancing populations of salmonids, the BDCP adaptive management strategy could fail to take into account the complete impacts of increased exports on salmon, which would include impacts from upstream reservoirs. The recent three year closure of the West Coast salmon fishing season illustrates the damage that can be done.

The adaptive management policy also does not adequately incorporate the legislative mandate for the Independent Science Board to periodically review adaptive management in the Delta.

(3) The Delta Independent Science Board shall provide oversight of the scientific research, monitoring, and assessment programs that support adaptive management of the Delta through periodic reviews of each of those programs that shall be scheduled to ensure that all Delta scientific research, monitoring, and assessment programs are reviewed at least once every four years.

(4) The Delta Independent Science Board shall submit to the council a report on the results of each review, including recommendations for any changes in the programs reviewed by the board.
(Delta Reform Act Section 803504(a))

We argue that the Delta Stewardship Council has significant trustee duties in oversight of the science component of Delta management, and must ensure not only clear and comprehensive ecosystem goals, as well as ensuring that any adaptive management plans in the Delta proceed from these goals, and are regularly reviewed by the Independent Science Board.

The Delta Stewardship Council policy on adaptive management is deficient in that it only specifies definitions of an adequate adaptive management policy, and “best available science.” We wanted to point out that delegation by the Council of the essential duty to review adaptive management and scientific monitoring and assessment programs, to an entity that is not a state or federal trustee agency for fish or for science in the Delta, would be unacceptable.

Ecosystem goals and harvest management

PCFFA appreciates the new ecosystem goals in the new version of the Delta Plan, but the policies explicitly address only two very narrow topics in the conservation of fish populations. The first are harvest regulations, which specifically discuss increased harvest of striped bass. This is a recommendation that has raised concern among many biologists who have studied Delta fish populations. We reference a letter by Peter Moyle and William Bennett from 2010,² which concludes that:

“.....reducing the striped bass population may or may not have a desirable effect. In our opinion, it is most likely to have a negative effect. While the ultimate cause of death of most fish may be predation, the contribution of striped bass to fish declines is not certain. By messing with a dominant predator (if indeed it is), the agencies are inadvertently playing roulette with basic ecosystem processes that can change in unexpected ways in response to reducing striped bass numbers. Overall, the key to restoring populations of desirable species and to diminish populations of undesirable species (Brazilian waterweed, largemouth bass, etc.) is to return the Delta to being a more variable, estuarine environment.”

The Golden Gate Salmon Association also raised the concern that the pikeminnow population could explode if the population of striped bass were significantly diminished in a letter of January 2012.³

Studies also show that striped bass are suffering from reduced populations, and are showing severe impacts of water contamination in the Delta. A study by Dr. Peggy Lehman of the Department of Water Resources showed that a large percentage of striped bass taken at Antioch had liver tumors, which were suspected to originate from contaminants in the San Joaquin River. Striped Bass at all locations had liver lesions. Lehman also found that large blooms of toxic algae in the Delta appeared to be linked with low flows and high air temperatures.⁴ A more recent study linked the blooms to high water temperatures.⁵

It seems clear that Striped Bass are not the problem, but are also suffering from degraded water quality conditions in the Delta. It also seems likely that the proposed diversions from the

² Peter Moyle and William Bennett, letter to President of the Fish & Game Commission, August 26, 2010. Available at <http://water4fish.org/res/pdf/StriperScience.pdf>. Incorporated by reference.

³ Golden Gate Salmon Association, Letter to President, Fish & Game Commission, January 6 2012. Available at <http://goldengatesalmonassociation.com/wp-content/uploads/2012/01/Striper-Proposal-GGSA-Final.pdf> Incorporated by reference.

⁴ Peggy Lehman et. Al., Initial impacts of Microcystis aeruginosa blooms on the aquatic food web in the San Francisco Estuary, Hydrologica, 2010. Incorporated by reference.

⁵ Mioni, C.E., Kudela, R.M., Baxa, D. (2012) Harmful cyanobacteria blooms and their toxins in Clear Lake and the Sacramento-San Joaquin Delta (California). Surface Water Ambient Monitoring Program (10-058-150). Final Report, March 31, 2012. Incorporated by reference.

Sacramento River are likely to worsen water quality in the Delta. A 2010 memo by Department of Interior biologists on the draft effects BDCP effects analysis concluded:

“.....The effects analysis does not have any scientifically defensible demonstrations that the outflow regime in the proposed project will reduce the effects of “other stressors” such as contaminants, eutrophication, non-native predators, and submerged aquatic vegetation. In fact, because delta outflow will be reduced, the importance of these “other stressors” to native fish species may be increased (because of increased temperatures and residence time, decreased current velocities, etc.). Therefore, overall habitat conditions under the proposed project are likely to be worse than present day conditions or future conditions under the “no action alternative”.

PCFFA believes the Delta Plan needs a better and more comprehensive policy on “other stressors” than simply to focus on striped bass, which have coexisted with native fish for a hundred years. In particular, we request the Delta Stewardship Council reconsider its decision to not adopt any water quality policies.

We wanted to point out that the current Ecosystem Restoration Program goal of maintaining water quality in the Delta, and reducing toxicants to a level that does not affect human health or aquatic organisms, was adopted as part of the state’s effort to meet the anti-degradation requirements of the Clean Water Act. We are concerned that the Council may abandon these goals.

Ecosystem goals and hatchery management

The second new ecosystem goal discusses hatchery management, and impacts on populations of wild salmon. This goal should be expanded to discuss the need for increased natural production of salmonids.

In the Steelhead Trout and Anadromous Fisheries Program Act, the legislature discussed hatcheries and the need to increase natural production of salmonids.

6901. The Legislature, for purposes of this chapter, finds as follows:

- (a) According to the department, the natural production of salmon and steelhead trout in California has declined to approximately 1,000,000 adult chinook or king salmon, 100,000 coho or silver salmon, and 150,000 steelhead trout.
- (b) The naturally spawning salmon and steelhead trout resources of the state have declined dramatically within the past four decades, primarily as a result of lost stream habitat on many streams in the state.

- (c) Much of the loss of salmon and steelhead trout and anadromous fish in the state has occurred in the central valley.
- (d) Protection of, and an increase in, the naturally spawning salmon and steelhead trout resources of the state would provide a valuable public resource to the residents, a large statewide economic benefit, and would, in addition, provide employment opportunities not otherwise available to the citizens of this state, particularly in rural areas of present underemployment.
- (e) Proper salmon and steelhead trout resource management requires maintaining adequate levels of natural, as compared to hatchery, spawning and rearing.
- (f) Reliance upon hatchery production of salmon and steelhead trout in California is at or near the maximum percentage that it should occupy in the mix of natural and artificial hatchery production in the state. Hatchery production may be an appropriate means of protecting and increasing salmon and steelhead in specific situations; however, when both are feasible alternatives, preference shall be given to natural production.
- (g) The protection of, and increase in, the naturally spawning salmon and steelhead trout of the state must be accomplished primarily through the improvement of stream habitat.
- (h) Funds provided by the Legislature since 1978 to further the protection and increase of the fisheries of the state have been administered by the Department of Fish & Game in a successful program of contracts with local government and nonprofit agencies and private groups in ways that have attracted substantial citizen effort.
- (i) The department's contract program has demonstrated that California has a large and enthusiastic corps of citizens that are eager to further the restoration of the stream and fishery resources of this state and that are willing to provide significant amounts of time and labor to that purpose.
- (j) There is need for a comprehensive salmon, steelhead trout, and anadromous fisheries plan, program, and state government organization to guide the state's efforts to protect and increase the naturally spawning salmon, steelhead trout, and anadromous fishery resources of the state.

The existing Ecosystem Restoration Program and Multi-Species Conservation Strategy contains important restoration actions which would benefit salmonids, including commitments to substantially increase the extent and the quality of montane riverine habitat:⁶⁷

⁶ CALFED Multi-Species Conservation Strategy. Available at <http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=5060> Incorporated by reference

Increase the extent of SRA and instream habitats, improve flows for anadromous and other native fishes, improve stream temperatures, and improve anadromous fish passage and rearing along tributaries of the Sacramento and San Joaquin River and the North Bay. Avoid, minimize, and compensate for all CALFED impacts on montane riverine aquatic habitat.

CALFED will reach its goals for montane riverine and valley riverine aquatic habitat by restoring approximately 10,550-11,800 acres of riparian habitat along 235 miles of channels, and protecting and enhancing approximately 18,000-26,000 acres of stream channel meander corridors. Some riverine aquatic habitat will be restored and enhanced on montane streams, but most will occur on valley streams.

These commitments to restore riverine habitat and improve stream flows and temperatures are an essential part of the recovery plans for salmonids. In contrast, the Bay Delta Conservation Plan is focused entirely within the legal Delta, and does not address upstream habitat needs of salmonids. There are concerns that funding for essential restoration programs may be repurposed to conservation of habitat that does not help salmon.

The preliminary DRERIP evaluation of the Consumnes-Mokelumne River confluence restoration action found minimal benefits for steelhead and fall run salmon, and low benefits for spring run. The evaluation also found a medium risk of increasing Egeria, and a high risk of increasing populations of non-native Centrarchid fish.⁸ Populations of Largemouth Bass, which are Centrarchids, have increased recently in the Delta. They prey on native fish in higher percentages than Striped Bass, and begin a piscivorous diet at a younger age and smaller size than Striped Bass.⁹

The DRERIP evaluation of the lower San Joaquin River Restoration floodplain found a low probability of helping fall run Chinook, and a risk of increased exposure to methylmercury and selenium. Models were not available for the potential increase in non-native fish.¹⁰

⁷See also the Chapter 5 of the 2003 Bureau of Reclamation EIS on the Environmental Water Account, "Environmental Basis of Comparison – NCCP Community Descriptions." Available at <http://www.usbr.gov/mp/EWA/docs/DraftEIS-Vol3/Ch5.pdf>

⁸ Cosumnes/Mokelumne ROA Tidal Marsh & Shallow Subtidal Restoration Scientific Evaluation Worksheet, DRERIP evaluation team, May 23, 2009. Incorporated by reference. Available at http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/Cosumnes_Mokelumne_ROA.sflb.ashx

⁹ Bay Delta Conservation Plan, draft EIR Appendix 11B, Non-covered fish and Aquatic Species. Available at http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/EIR-EIS_Appendix_11B_-_Non-covered_Fish_and_Aquatic_Species_Descriptions_2-29-12.sflb.ashx

¹⁰ San Joaquin ROA (Downstream) Scientific Evaluation Worksheet, DRERIP Floodplain and Riparian Habitat Workgroup, Feb 23, 2009. Incorporated by reference. Available at http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/San_Joaquin_ROA_downstream.sflb.ashx

The Suisun Bay Habitat restoration was found to have a medium probability of helping Spring and Fall run Chinook salmon by the DRERIP evaluations.¹¹ However, the usefulness of the Suisun Bay habitat is severely limited by the population explosion of *Corbula amurensis*, which has been found to strip the Bay of phytoplankton needed for higher levels of the aquatic food web. An extensive study by scientists at USGS and DWR linked the *Corbula* explosion and the resulting changes in the benthic community composition to increased salinity.¹²

The Yolo Bypass and Cache Slough restoration action was found to have a medium probability of helping spring and fall run salmon. However, much of the inundation of restored Cache Slough habitat depends on sea level rise of over 12 inches, which is unlikely to be reached for at least 30 years. Near term inundation depends on wet year flows into the Yolo Bypass, which could be reduced under proposed BDCP operations.¹³

The California Department of Fish & Game Code section 6902 states that

(a) It is the policy of the state to significantly increase the natural production of salmon and steelhead trout by the end of this century. The department shall develop a plan and a program that strives to double the current natural production of salmon and steelhead trout resources.

(b) It is the policy of the state to recognize and encourage the participation of the public in privately and publicly funded mitigation, restoration, and enhancement programs in order to protect and increase naturally spawning salmon and steelhead trout resources.

(c) It is the policy of the state that existing natural salmon and steelhead trout habitat shall not be diminished further without offsetting the impacts of the lost habitat.

The Delta Plan does not discuss the general recovery of salmonid populations or salmonid habitat requirements, which include specific timings of upstream flows, as well as pulses in the Sacramento River. The Delta Plan does include a performance measure that will track fish populations, including salmonids. But without clear species recovery goals in the Delta Plan, this performance measure lacks meaning.

¹¹ Suisun Marsh ROA Tidal Marsh & Shallow Subtidal Restoration Scientific Worksheet, DRERIP Evaluation Team, May 21, 2009. Incorporated by reference. Available at http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/Suisun_Marsh_ROA.sflb.ashx

¹² Heather Peterson and Marc Vayssieres, Benthic Assemblage Variability in the Upper San Francisco Estuary: A 27-Year Retrospective, *San Francisco Estuary and Watershed Science*, 8(1), 2010. Available at <http://escholarship.org/uc/item/4d0616c6>

¹³ Yolo/Cache Slough Complex ROA Tidal Marsh & Shallow Subtidal Restoration, DRERIP Evaluation Team, May 11, 2009. Incorporated by reference. Available at http://baydeltaconservationplan.com/Libraries/Dynamic_Document_Library/Yolo_Cache_Slough_Complex_ROA.sflb.ashx

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At the April meeting of the Delta Stewardship Council, the staff mentioned the likelihood that salmon will go extinct with climate change. It is true that it could be challenging over the long term to meet salmonid requirements for upstream flows and cold water. However, this should not be an excuse for increasing water exports in a way which would ensure the extinction of Sacramento River salmon runs, or allowing degradation of existing habitat.

PCFFA requests the Delta Stewardship Council continue its existing role, inherited from the Bay-Delta Authority, of ensuring coordination of habitat management and restoration in the Delta with upstream habitat management, as well as working with the Natural Resources Agency, the Department of Fish & Game, and the Department of Water Resources to ensure compatibility of all restoration and management actions in the Delta with state and federal species recovery goals, including salmon doubling.

The Delta Stewardship Council should also work with the agencies to ensure that impacts of proposed diversions on San Francisco Bay, and populations of fish in the Bay, are considered.

Sincerely,

A handwritten signature in black ink that reads "W.F. 'Zeke' Grader, Jr." The signature is written in a cursive style with a large, looping flourish at the end of the name.

W.F. "Zeke" Grader, Jr.
Executive Director

cc: Mr. Jerry Meral, Deputy Secretary, California Natural Resources Agency
Mr. Chuck Bonham, Director, California Department of Fish & Game
Mr. Mark Cowin, Director, California Department of Water Resources
Mr. Michael Connor, Director, U.S. Bureau of Reclamation.