



Making San Francisco Bay Better

July 29, 2014

Ryan Wulff
National Marine Fisheries Service
650 Capitol Mall, Suite 5-100
Sacramento, CA 95814

SUBJECT: Bay Delta Conservation Plan (BDCP) Draft Environmental Impact Report and Environmental Impact Statement

Dear Mr. Wulff:

Staff of the San Francisco Bay Conservation and Development Commission (BCDC) are pleased to commend the authors for BDCP's ground-breaking plan. As the first ever aquatic Habitat Conservation Plan/Natural Communities Conservation Plan (HCP/NCCP) in one of the most ecologically, legally and culturally complex areas in the world, the BDCP is an incredible first effort to craft a solution to many of the complex Bay and Delta issues.

In February 2014, Paul Helliker of the Department of Water Resources briefed BCDC Commissioners on the status of the multi-year BDCP project. In May, BCDC staff organized a panel discussion on the BDCP with Bay Area officials and experts (including Mr. Helliker) to highlight some of the concerns and questions the project raises with regard to resources found in San Francisco Bay and Suisun Marsh. Based on comments and questions during these events, the Commission's laws and policies, and staff review of the EIR/S prepared for the BDCP, staff prepared the following proposed comments on these environmental documents. On June __, 2014, BCDC Commissioners considered staff's recommended comments on the BDCP EIR/S and endorsed the comments in this letter.

To be clear, BCDC is commenting on the EIR/S as a responsible agency under CEQA. Implementing any or all of the conservation measure projects located in the Suisun Marsh or San Francisco Bay envisioned by BDCP will require BCDC-issued permits or consistency determinations. BCDC's policies that apply to the BDCP are noted in the last section of this letter.

Jurisdiction. BCDC is responsible for granting or denying permits for any proposed fill (earth or any other substance or material, including pilings or structures placed on pilings, and floating structures moored for extended periods), extraction of materials or change in use of any water, land or structure within the Commission's jurisdiction. Generally, BCDC's jurisdiction over San Francisco Bay extends from the Golden Gate south to San Jose and northeast to the confluence of the San Joaquin and Sacramento Rivers. It includes: tidal areas up to the mean high tide, including all sloughs, and in marshlands up to five feet above mean sea level; a shoreline band consisting of territory located between the shoreline of the Bay and 100 feet landward and parallel to the shoreline; salt ponds; managed wetlands (e.g., areas diked from the Bay and managed as duck clubs); and certain waterways tributary to the Bay. The Commission can grant a permit for a project if it finds that the project is either (1) necessary to

the health, safety or welfare of the public in the entire Bay Area, or (2) is consistent with the provisions of the McAteer-Petris Act and the Suisun Marsh Preservation Act, and the San Francisco Bay Plan (Bay Plan) and the Suisun Marsh Protection Plan (Marsh Plan). The McAteer-Petris Act allows fill in the Bay for water-oriented uses in cases when there is no alternative upland location and requires that any fill that is placed in the Bay is the minimum that is necessary for the project. The McAteer-Petris Act also requires that proposed projects include the maximum feasible public access consistent with the project to the Bay and its shoreline.

Project components that extend into BCDC jurisdiction, including the Suisun Marsh, and may affect the waters and environmental resources farther downstream in San Pablo and San Francisco Bays, are subject to the BCDC policies and regulatory framework found in the McAteer-Petris Act, the Suisun Marsh Preservation Act, the Bay Plan, and the Marsh Plan where appropriate. In addition to any permits required under its state authority, BCDC must review federal actions, or federal permits and grants for actions, that affect the coastal zone pursuant to the federal Coastal Zone Management Act (CZMA), to determine their consistency with the Commission's federally-approved management program for the Bay.

San Francisco Bay and Suisun Marsh Effects. The EIR/S states that there would be no significant effects on San Francisco Bay. Commissioners, staff, other state agencies and members of the public raised concerns about possible project impacts west of the Delta in the Suisun Marsh and downstream in the San Francisco Bay. Some of these effects would be significant. Potential significant impacts include possible effects on salinity, sediment supply, and the consequences (intended and unintended) of various restoration programs, and their secondary impacts on Bay habitats and species. The Delta Stewardship Council's (DSC) Independent Science Board (ISB) concluded that more research and analysis is needed on areas west of the Delta to obtain a more complete picture of BDCP's cumulative effects. The ISB noted that "the hydrodynamic modeling needs to capture the entire domain of effects. The current Effects Analysis does not consider the influence of shifting timing of withdrawals on San Francisco Bay circulation patterns and ecology. This is a significant omission with ecologically important implications."

The ISB also noted that the BDCP did not evaluate areas downstream of the Delta (i.e., San Francisco Bay) even though the National Research Council (NRC) scientific review specifically stated that this area should be included. "Adequate justification for lack of consideration of impacts to San Francisco Bay was not provided ... in the document, although there are potential impacts. For example, the expected reduction in sediment supply has the potential impacts of: (1) tidal marshes in the Bay could be less resilient to sea level rise and; (2) increased water clarity in the Bay could render it more responsive to nutrient inputs." The EIR/S should better assess the potential effects on the Marsh and the Bay, identify potential impacts on salinity, sediment delivery and Bay species as potentially significant, and evaluate strategies to avoid or mitigate these effects. This analysis should establish clear standards and thresholds of significance, in consultation with scientific experts.

Water Quality and Salinity. Biological opinions from the National Marine Fisheries Service and the US Fish and Wildlife Service determined that habitat degradation in the Marsh for multiple sensitive species is due, in part, to reduced freshwater inflows from the Delta, yet the BDCP's analysis is lacking in this area. Current Delta fresh water outflows seem inadequate to support or recover endangered species. Studies project that the salinity in San Francisco Bay could increase by 0.30-0.45 practical salinity unit (psu) per decade due to the compounding effects of decreasing freshwater inflow and rising sea level (projected by Cloern et al. 2011 to rise approximately 4 inches per decade). Climate change will affect future Bay salinity and the restoration and conservation measures proposed in the EIR/S. Higher salinity in the Suisun

Marsh due to high diversion years would affect managed wetlands and the Bay's native species, such as the Dungeness Crab, that use the lower salinity of the Bay as a nursery. Also, waterfowl that rely on the lower salinity/freshwater of the Marsh as breeding habitat may be at risk, as higher salinity levels have been shown to be dangerous to ducklings. However, these species are not included in the BDCP's analysis.

The EIR/S states that the BDCP would be implemented using a "decision tree process, a focused form of adaptive management that will be used to determine at the start of new operations, the fall and spring outflow criteria that are required to achieve the conservation objectives of the BDCP for delta smelt and longfin smelt and to promote the water supply objectives of the BDCP. Other BDCP-covered fish species, including salmonids and sturgeon, may also be affected by outflow. Their outflow needs will also be investigated as part of the decision tree process." The EIR/S should clarify how the proposed pipelines will be managed in the long term (e.g., 50 years) given recurring droughts that require changes in future flow regimes. The BDCP should evaluate flow scenarios that provide greater freshwater flows to the Bay beyond the requirements of D1641¹ to recover declining fish populations. Decreased reliance on Delta freshwater diversions may become necessary to protect sensitive and threatened species. Scenario F (Alternative 8: pipeline/tunnel alignment, dual conveyance, intakes at 2, 3 & 5, with 9,000 cfs diversion) would increase Delta outflow up to 1.5 million acre-feet annually. A project alternative that provides for greater Delta outflows is likely necessary to meet the policy objectives in the *San Francisco Bay Plan* (Bay Plan) and the *Suisun Marsh Protection Plan* (Marsh Plan). Also, the EIR/S should evaluate potential impacts on non-listed Marsh and Bay species that rely on salinity levels characteristic of the Bay and the Marsh as required by current X2 standards.

Conservation Measures. Most Conservation Measures are discussed at a programmatic level, rather than at a project level in the EIR/S. The ISB noted that, "the difference in level of detail [of restoration project analyses] presented effectively treats the co-equal goals unequally. We are concerned that the merely programmatic analysis of habitat restoration provides too little basis for decision-making by the Delta Stewardship Council and other parties. Furthermore, the benefits of habitat restoration are assumed when a beneficial cumulative impact is concluded under NEPA or a less than significant cumulative impact is concluded under CEQA. Achieving beneficial conservation measures requires understanding limiting factors, ecosystem processes, sequencing, adaptive management responses, thresholds for certain actions, and interactions and other consequences of these actions...to describe how major uncertainties will be resolved." Also, the Effects Analysis recognizes that suspended sediment has been declining in the Sacramento River, but no analysis of the potential for corresponding increased algal blooms is addressed.

Specific locations for habitat improvements are not discussed in the restoration opportunity areas, including those in the Suisun Marsh. The EIR/S would benefit from further analysis of restoration patterns in the Marsh to determine how they affect salinity patterns in the Marsh and Delta. This may help focus the restoration efforts to specific regions of the Marsh to limit salinity intrusion. There is little discussion in the EIR/S of the effects of climate change on conservation measures. Some Conservation Measures that involve habitat restoration or enhancement should be addressed at a project level of detail in the EIR/S so that they can be implemented early in the project cycle, in timeframes consistent with Conservation Measure 1. Also, additional conservation measures may be needed to address project effects on the Marsh and the Bay, particularly those related to sediment management.

¹ D1641 refers to a State Water Board water rights Decision of 2005 that set water quality (salinity) standards for various monitoring stations in the Bay and Delta and amends certain water rights by assigning responsibilities to the persons or entities holding those rights to help meet the salinity objectives.

Sediment. The BDCP EIR discusses a potential reduction in suspended sediment transport to the Suisun Marsh and San Francisco Bay of approximately eight to ten percent. The EIR/S does not characterize this change as a significant impact. The ISB report to the Delta Stewardship Council raises this as a significant issue. United States Geological Survey researchers have observed a steep reduction suspended sediment concentrations in the Bay and characterize San Pablo Bay as erosional. With projected sea level rise, further reduction in Bay sediment inputs should be considered significant, given Bay wetland restoration targets, current subsided diked-baylands, and the overall Bay-Delta sediment budget. Sediment settling in the new northern forebay, the relocation of flows from channels into underground pipes, new pumping regimes and proposed restoration conservation measures together and separately will alter sediment transport, delivery, and the rate of deposition downstream. Reduced suspended sediment in the Bay will exacerbate nutrient loading problems caused from the sewage treatment plants discharging into the Bay.

Construction of restoration projects, which are highly desirable in the Delta upstream of the Bay, likely will create sediment sinks, thus further reducing sediment flows to the Marsh and San Francisco Bay. The cumulative impacts analysis should consider all of these changes to the Bay sediment regime, using science-based thresholds of significance.

Cumulative Effects. There are several related projects that, cumulatively, could exacerbate the effects of BDCP and adversely affect the Bay and the Marsh that are not addressed in the EIR/S. These projects include, but are not limited to, dredging the Baldwin Ship Channel (between San Pablo Bay and the Port of Stockton) that may include constructing a sill in the Carquinez Strait; proposals to construct seasonal drought barriers or gates in the Delta; and, several proposed water storage projects on existing dams and reservoirs. The issue of storage should be addressed within BDCP, particularly planned projects. The EIR/S should address cumulative impacts of all relevant related projects.

BCDC's Relevant Policies and Related Agreements

Bay Plan Findings and Policies. The Commission's Bay Plan recognizes the tremendous ecological value of the Bay-Delta estuary and the importance of fresh water inflows from the Delta to the survival of fish and wildlife in the Bay and Suisun Marsh. When revising the EIR/S to respond to the Commission's comments and concerns, the authors should consider these applicable findings and policies:

Bay Plan findings on Tidal Marshes and Tidal Flats state, in part, that "San Francisco Bay is a substantial part of the largest estuary along the Pacific shore of North and South America and is a natural resource of incalculable value" and that "the sheltered waters of estuaries support unique communities of plants and animals specially adapted for life in the region where rivers meet the coast."

Bay Plan findings and policies recognize the importance of fresh water inflows to the ecosystem of the Bay. Bay Plan findings on Fish, Other Aquatic Organisms and Wildlife state, in part, that "conserving fish, other aquatic organisms and wildlife depends, among other things, upon availability of ...proper fresh water inflows, temperature, salt content, water quality, and velocity of the water." Fresh Water Inflow Finding A states that "[f]resh water flowing into the Bay, most of which is from the Delta, dilutes the salt water of the ocean flowing into the Bay through the Golden Gate....This delicate relationship between fresh and salt water helps to determine the ability of the Bay to support a variety of aquatic life and wildlife in and around the Bay."

Bay Plan findings and policies also recognize the impact of pollutants passing through the Delta into the Bay. Bay Plan findings on Water Quality state, in part, that "water from approximately 40 percent of California drains into San Francisco Bay carrying with it pollutants from point and nonpoint sources" and that "harmful effects of pollutants reaching the Bay can be reduced by maximizing the Bay's capacity to assimilate, disperse, and flush pollutants by maintaining and increasing...the volume and circulation of water flowing in and out with the tides and in fresh water inflow."

The Bay Plan's Fresh Water Inflow policies require limits on water diversions, preservation of the Suisun Marsh, and cooperation with the State Water Board to ensure adequate fresh water inflow. Policy 1 states that "[d]iversions of fresh water should not reduce the inflow into the Bay to the point of damaging the oxygen content of the Bay, the flushing of the Bay, or the ability of the Bay to support existing wildlife." Policy 2 states that "[h]igh priority should be given to the preservation of Suisun Marsh through adequate protective measures, including maintenance of fresh water inflows." Finally, Policy 3 states, in part, that the "Bay Commission should cooperate with the State Board and others to ensure that adequate fresh water inflows to protect the Bay are made available."

Suisun Marsh Preservation Act. The Nejedly-Bagley-Z'berg Suisun Marsh Preservation Act of 1974 directed BCDC and the California Department of Fish and Game (CDFG) to develop the Suisun Marsh Protection Plan, which was codified into law as the Suisun Marsh Preservation Act of 1977. The Act recognizes the important role of the Suisun Marsh in providing wintering habitat for waterfowl using the Pacific Flyway and critical habitat for other wildlife, including rare and endangered species.

The Suisun Marsh, where salt and fresh water meet and mix, contains approximately 85,000 acres of tidal marsh, managed wetlands, and waterways in southern Solano County. It is an important part of the Bay-Delta ecosystem and requires adequate fresh water inflows to maintain its fish and wildlife habitat.

Section 29003 of the Act finds that continued wildlife use of Suisun Marsh requires, among other things, "[p]rovision for future supplemental water supplies and related facilities to assure that adequate water quality will be achieved within the wetland areas."

Section 29010 finds that "[w]ater quality in the marsh is dependent on the salinity of the water in sloughs of the marsh, which depends in turn on the amount of fresh water flowing in from the Delta."

Suisun Marsh Protection Plan. The Plan recognizes that Suisun Marsh contains "the unique diversity of fish and wildlife habitats characteristic of a brackish marsh." The Plan emphasizes the need to maintain adequate fresh water inflows to preserve this unique habitat.

Water Supply and Quality Finding 2 of the Plan states, in part, that "[t]he most important source of fresh water inflow to the Suisun Marsh is the outflow from the Sacramento-San Joaquin River Delta."

Finding 9 states, in part, that "[t]he State Water Resources Control Board in its Delta Decision, and the Environmental Protection Agency and the Regional Water Quality Control Board in the Water Quality Control Plan for the San Francisco Bay Basin, have set water and soil salinity standards for the Marsh."

Finding 10 states, in part, that "[a]ssuring that sufficient quantities of fresh water will be available to the Marsh to meet the standards and marsh management requirements is as important as determining appropriate water quality standards for the Marsh."

Water Supply and Quality Policy 1 states, in part, "there should be no increase in diversions by State or Federal Governments that would cause violations of existing Delta Decision or Basin Plan standards."

Policy 2 states, "Adequate supplies of fresh water are essential to the maintenance of water quality in the Suisun Marsh. Therefore, the State should have the authority to require the Bureau of Reclamation to comply with State and Federal water quality standards for the Delta and the Marsh. This should be accomplished through Federal legislation if necessary."

Policy 4 states, in part, that "[w]ater quality standards in the Marsh should be met by maintaining adequate inflows from the Delta."

Finally, BCDC staff want to thank you again for providing the Commission with such tremendously helpful opportunities to learn about BDCP. If you have any questions about the comments in this letter or any other matter, please do not hesitate to contact me at (415) 352-3653 (lgoldzband@bcdc.ca.gov), or Joe LaClair, Chief Planner at (415) 352-3656 (joel@bcdc.ca.gov).

Sincerely,



Lawrence J. Goldzband
Executive Director

cc: Commissioners and Alternates
Paul Helliker, Department of Water Resources
Carl Wilcox, Department of Fish and Wildlife
Dan Ray, Delta Stewardship Council