Coalition for a Sustainable Delta

August 3, 2010

VIA E-MAIL

Phil Isenberg
Chair, Delta Stewardship Council
650 Capitol Mall
Sacramento, CA 95814

Re: Fifth submission regarding the Interim Delta Plan

Dear Chairman Isenberg,

The Coalition for a Sustainable Delta ("Coalition") is writing to provide additional comments to the Delta Stewardship Council ("Council") regarding the Second Draft Interim Plan. Specifically, we would like to respond to Council's request to provide recommendations for addressing multiple Delta stressors, including recommendations related to project operations. We will also provide input regarding the development of language to describe "best available science". This letter supplements previous comments submitted by the Coalition on May 12, June 9, July 2, and July 19, 2010.

At the July 23, 2010 Council meeting, the Coalition was asked to provide suggestions for measures to address the effects of water project operations, in addition to providing information regarding other Delta stressors such as poor water quality, predation by non-native species, and illegal diversions. The Coalition agrees with the necessity of addressing *all* Delta stressors, not just a convenient subset that can function as a scapegoat for what is causing the ecosystem decline.[1] In doing so, however, the Council should recognize the difference between:

1. Those issues that need to be addressed and are being dealt with in a timely manner by a responsible agency or group;
2. Those issues for which there is a responsible agency but the agency is not acting, is acting too slowly or is hardly acting; and
3. Those issues for which there is either no agency or so many agencies involved that there is really no viable plan of action.

[1] For an overview of stressors in the Delta, please refer to presentation materials from the National Research Council July 13, 2020 proceedings on Sustainable Water and Environmental Management in the California Bay-Delta.

Issues that fall under category number 1 should be monitored or facilitated by the Council. For issues that fall under category number 2, the Council should push for timely action and enforcement. For issues that fall under category number 3, the Council should identify the responsible party and assist that party in developing a plan for action and enforcement. We have organized the Delta stressors in a table (provided in Appendix A) within these three categories and have provided suggested actions to be implemented under the Interim and Delta Plan.

Notably, changes to water project operations fall under the first category of issues that are being addressed by a responsible agency or group. In this case, the Bay Delta Conservation Plan (BDCP) process is a collaborative effort by state, federal, and local agencies, environmental organizations, and other interested parties to identify a set of flow and operation criteria to contribute to the recovery of endangered and sensitive species and their habitats. The BDCP, which is being developed in compliance with the Federal Endangered Species Act (ESA) and the California Natural Communities Conservation Planning Act (NCCPA), will provide the basis for the issuance of endangered species permits for the operation of the state and federal water projects. As a responsible agency under the California Environmental Quality Act (CEQA) in the development of the BDCP Environmental Impact Report and Environmental Impact Statement (EIR/S) and a potential appellate body, the Council is already engaged in the BDCP process. The Council has already submitted scoping comments dated June 28, 2010 regarding the Revised Notice of Preparation of a Draft EIR/S for the BDCP and hired a consulting firm to assist the Council in its review the BDCP and EIR/S. Moreover, by statute the Delta Plan must include the BDCP if it meets certain specified conditions. Therefore, it would be a duplication of effort for the Council to separately develop criteria for water project operations when the BDCP is currently focused on the near-term and long-term operations of the water projects.

As the Council is aware, the operation of the state and federal water projects is a complex and contentious issue. But it is also the subject of much ongoing activity, including extensive litigation in federal court and the BDCP process of which the Council is a responsible agency. Input from state and federal agencies, stakeholders, environmental groups such as the Bay Institute and Environmental Defense Fund, and other BDCP participants are more properly addressed through the structure of the BDCP process. We believe the Council should engage in the development of measures related to project operations within the framework of the BDCP process. The Council's other efforts in developing the Interim Delta Plan and Delta Plan should focus on Delta stressors for which there is no ongoing effort, or for those stressors that have been ignored or poorly managed by state agencies.

Enforcement serves as the foundation of the effort to address Delta stressors. Many of the stressors, such as poor water quality and predation by non-native sport fish, fall under existing obligations of state and federal agencies. Before the Delta Plan creates new obligations, shortfalls in the enforcement of existing laws should be documented and improved.

The Coalition proposes that the Interim Delta Plan include an Enforcement Plan, which would require:

- A report to the Council by state agencies regarding enforcement obligations, existing enforcement activities, and enforcement resources;
- Documentation of enforcement shortfalls, including an explanation for the reason why obligations are not being enforced (lack of resources, obligation considered irrelevant or inappropriate, etc.);
- An analysis by legal counsel regarding available enforcement tools; and
- The creation of a plan, with deadlines; to implement full enforcement of existing laws.

The findings developed under the Interim Delta Plan will assist the Council in developing its Delta Plan. The Coalition urges the Council to include an Enforcement Plan as a short term action that can be implemented immediately under the Interim Delta Plan. In addition, the Council should engage with federal partners to encourage enforcement by federal agencies. For a comprehensive discussion of enforcement in the Delta, please refer to the Coalition's submission to the Council dated May 12, 2010.

In addition to providing suggestions regarding specific actions to address other stressors, the Coalition would like to provide input regarding the use of "best available science". The Sacramento-San Joaquin Delta Reform Act of 2009 (or SB1) establishes the Delta Stewardship Council, directs the Council to develop a Delta Plan, and requires that the Delta Plan "[b]e based on the best available scientific information and the independent science advice provided by the Delta Independent Science Board." Water Code §§ 85200(a) (regarding establishment of the Delta Stewardship Council), 85300(a) (regarding development of the Delta Plan), 85308(a) (regarding use of best available science). An analogous requirement to act based on the "best available science" appears in three other places in the legislation: (1) in the provisions requiring the Department of Fish and Game in consultation with the Fish and Wildlife Service and National Marine Fisheries Service to develop flow criteria, id. § 85084.5, (2) in the provisions requiring the State Water Resources Control Board to develop flow criteria, id. § 85086(c)(1), and (3) in the provisions that address required contents of the Delta Plan, id. § 85302(g).

The mandate to act "based on the best available scientific information" is both understandable and appropriate given that the Delta Plan is intended to advance the coequal goals of a reliable water supply for California and protecting, restoring, and enhancing the Delta ecosystem. While a lay audience may have difficulty ascertaining the meaning of this requirement, it cannot be disputed that the requirement arises from the desire to base decisions on reliable knowledge that is acquired through the application of the scientific method, rather than through reliance on other means, such as guesswork, intuition, or popular opinion. In the context of Delta management planning, the commitment to decision-making using the best available science indicates a desire to base decisions on empirical research using rigorously designed and implemented data gathering exercises and the application of robust methods and tools to analyze those data, rather than default to the use of so-called "best professional judgment."

The process of decision-making based on the best available scientific information is a stepwise process. It begins with data collection, analysis, and presentation of findings. In the Delta, logistical limitations, particularly the scarcity of certain fishes of conservation concern, inhibit the ability of scientists to engage in hypothesis testing. Although data sets are relatively rich, there are, nonetheless, significant information gaps and limitations to inference that constrain the reliability of available data in application to management decision-making (Platt 1964). One example of a limitation is the collection of data regarding delta smelt abundance. The existing trawler-based surveys (for example, the Fall Midwater Trawl) do not collect data throughout the historic and current distribution of the delta smelt. At the same time, numerous potentially important data sets on environmental stressors that may be acting to compromise the Delta's fishes—for example, ambient levels of various contaminants in certain geographic subareas of the Delta during certain temporal windows—are lacking.

The second step, after gathering of data, is the assembly of published and otherwise available analyses of those data. Just as it is necessary to assess critically the pertinence, potential for application, and shortcomings of available data sets in application in conservation planning, it is also necessary to assess the utility and potential shortcomings of the available analyses of those data. Just because data and analyses have been published in scientific journals does not mean necessarily that such information is applicable in conservation planning. Critical assessment of the appropriateness of the underlying data sets and the methods or tools used to analyze those data sets must be carried out in an independent and rigorous process of effects analysis akin to risk assessment. During that process, decision-makers should both consider the reliability of the information and its pertinence to management planning, and acknowledge key uncertainties and variability in the system.

The third step is to catalog and select among models that are available for use in integrating the available data and analyses. Where numerous, potentially useful data sets and/or analyses exist, it is necessary to evaluate that body of information to guide the application of tools that can take data on environmental stressors and assess their affects on the status and trends of species of conservation concern. This procedural step links scientific data to resource management options in an analysis of the costs and benefits of alternative planning opportunities. Transparency is critical at this assessment juncture -- where available scientific information is linked to decision formulation. This is where the best available science is actually "used" to substantiate defensibly the decisions made by regulatory authorities in identifying the causes of species declines, determining the actions necessary to counter those declines, prioritizing those actions, and distributing the costs associated with those actions.

We describe this stepwise approach, which is directly analogous to an approach advocated by the National Research Council (NRC 1983, 1994, 2009) and to varying degrees institutionalized and implemented by the Environmental Protection Agency (for example, EPA 2003) in its regulatory authority in circumstances of human heath and safety, because we believe that any treatment of "best available science" in the Interim and Delta Plans must go beyond a description of the first step (i.e. gathering data) to

include a thorough description of how the available science will be used to inform policy and management activities. We also want to ensure that the draft products emerging under the BDCP process, the essential ongoing land, resource, and policy planning effort under the Council's purview, adhere to the steps necessary to deliver products that meet the criterion of being informed by the best available science.

It is important to note that inputs from experts in the form of an independent science advisory board can fulfill essential needs in the translation of science to policy in the form of independent review of available technical information, synthetic treatments of disparate sources of information that, when combined, might contribute to guiding agency decisions, and assessment of the merits of proposed agency decisions and actions (for example, BDCP Independent Science Advisors 2009). But, an independent science advisory board, alone, will not ensure the use of "best available science" by agencies. Ultimately, agency staff must have the resources and authority to integrate science transparently into the obligatory agency assessment process of effects analysis. If agency staff do not have adequate expertise, lack sufficient resources, or are otherwise not up to the task of conducting effects analyses (for example, due to bias) then no amount of expert external review will remedy such structural issues.

The "trans-scientific" exercise we propose requires input from experts with requisite technical knowledge, agency staff, and stakeholders in a manner akin to risk assessment as described by the National Research Council (NRC 2009). And, like the risk assessment paradigm described by the National Research Council (1983, 2009), it involves data collection and analysis, critical assessment and synthesis of findings, and agency action. Any discussion of "best available science" should recognize the essential role of institutionalized effects analysis in policy development and management planning. (See Appendix B for a list of suggested references addressing the use of best available science.)

The Coalition appreciates the opportunity to provide input on actions to address multiple stressors and application by the Council of best available science. We hope the foregoing discussion will assist the Council as it develops short term actions under the Interim Delta Plan, medium and long term actions under the Delta Plan, and establishes guidelines in the Interim and Delta Plans on the use of best available science.

Coalition for a Sustainable Delta

By: William D. Phillimore, President

Attachments (2)

Table 1. Actions to address Delta stressors

	Stressor	Current Activities	Engaged/ Responsible Party	Council Action/Delta Plan
CATEGORY I: the subject of ongoing and timely efforts by responsible parties	Water Project Operations	Bay Delta Conservation Plan (BDCP); litigation	California Department of Water Resources (DWR), U.S. Bureau of Reclamation (USBR), California Department of Fish and Game (DFG), U.S. Fish and Wildlife Service (FWS), National Marine Fisheries Service (NMFS), plus additional state and federal agencies, Potential Regulated Entities, environmental groups, and other stakeholders[2]	Participation and engagement in the BDCP process as a responsible agency; potential appellate role; incorporation of BDCP into Delta Plan if required conditions met
	Mirant: entrainment/ once-through cooling	BDCP	Same	Same

[2] The complete list of BDCP Steering Committee participants: California Natural Resources Agency; Delta Stewardship Council; SWRCB; U.S. Army Corps of Engineers; DWR; USBR; DFG; FWS; NMFS; Kern County Water Agency; Metropolitan Water District; Mirant; San Luis Delta-Mendota Water Authority; Santa Clara Valley Water District; Westlands Water District; Zone 7 Water Agency; California Farm Bureau Federation; Contra Costa Water District; Friant Water Authority; North Delta Water Agency; American Rivers; Defenders of Wildlife; Environmental Defense Fund; Natural Heritage Institute; The Nature Conservancy; The Bay Institute.

CATEGORY II: the responsible agency is not acting, is acting too slowly or is hardly acting	In-delta diversions	Information gathering (under SB 8)	State Water Resources Control Board (SWRCB), DFG	Assessment of impacts to aquatic species; Enforcement actions to halt illegal water diversions
	Water quality violations	Various citizen suits to enforce the federal Clean Water Act	SWRCB, U.S. Environmental Protection Agency (EPA)	Enforcement under the California Porter-Cologne Water Quality Control Act; development of inter-agency initiative with EPA to strengthen enforcement of water quality provisions; improved water quality monitoring; consideration of effects of endocrine disruptors and other emerging contaminants on species of concern and development of regulatory limitations based on findings
	Ammonia and ammonium	Consideration of new permit for the Sacramento WWTP (ammonia)	Central Valley Regional Water Quality Control Board (CVRWQCB)	Establishment of point discharge limits for ammonia
	Management of hatchery produced salmon and steelhead		DFG, NMFS, Pacific Fishery Management Council (PFMC)	Implementation of mark select fishery reforms, including mass marking, selective harvest of hatchery fish and strategic use of weirs; support Hatchery Scientific Review Group (HSRG) for California (to begin this fall)
	Ocean harvest of salmon		NMFS, PFMC	Review of relevant biological opinions to ensure consistency with best available science, including the incorporation of up to date information (e.g., in the spring-run Chinook salmon biological opinion)

	Mothball fleet	Various citizen suits to enforce the federal Clean Water Act, Endangered Species Act, and National Environmental Policy Act; March 2010 settlement setting timeline for removal	Maritime Administration (MARAD)	Removal of mothball fleet under settlement terms
CATEGORY III: there is no responsible agency or too many to determine which agency has responsibility	Predation by non-native species	Citizen suit brought by Coalition and other parties; recommendation by NMFS to eliminate striped bass sport fishing regulations	DFG, California Fish and Game Commission (FGC)	Elimination of bag and take limits for striped bass and other non-native predatory sport fish; targeted predator control measures
	Invasive species		DFG, California Department of Boating and Waterways, California State Lands Commission	Pilot programs for removal of invasive species; implementation and funding of DFG Aquatic Invasives Management Plan
	Levee and land use planning	Citizen suit brought by the Coalition and Kern County Water Agency re. National Flood Insurance Program	DWR (levees), U.S. Army Corps of Engineers (USACE) (levees), Federal Emergency Management Agency (National Flood Insurance Program), DFG, USFWS, USBR, Delta Conservancy	Improved infrastructure integrity and emergency preparedness; identification of physical habitat that supports important biological functions; discourage land uses that are incompatible with co-equal goals

	Information management	SWRCB developing water quality monitoring protocols	Multiple – each agency produces its own data	Development of a robust monitoring and evaluation program with information that can be shared across local, state and federal agencies to provide input into an effective risk assessment and adaptive management process

Appendix B

References for "best available science":

BDCP Independent Science Advisors. 2009. Independent Science Advisors' Report on Adaptive Management.

Environmental Protection Agency. 2003. Framework for Cumulative Risk Assessment.

National Research Council. 2009. Science and Decisions. National Academies Press. Washington, D.C.

National Research Council. 1994. Science and Judgment in Risk Assessment. National Academies Press. Washington, D.C.

National Research Council. 1983. Risk Assessment in the Federal Government. National Academies Press. Washington, D.C.

Platt, John R. 1964. Strong Inference. Science 146: 347-353.