To promote the economic, social and environmental viability of Northern California by enhancing and preserving the water rights, supplies and water quality of our members.

July 29, 2010

VIA ELECTRONIC AND U.S. MAIL

Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
P.O. Box 100
Sacramento, California 95812-0100

Re: Comment Letter – Draft Delta Flow Criteria Report

Dear Ms. Townsend:

The Northern California Water Association (NCWA) has reviewed the draft report entitled "Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem" (the "Draft Report") that was released by the State Water Resource Control Board (the "SWRCB") on July 21, 2010. Our comments can be summarized as follows:

- First, it is important that all parties to these proceedings – as well as other agencies of the federal and state governments – recognize the stringent limitations of the Draft Report. The SWRCB has properly conditioned the Draft Report in such a way that the report cannot and should not be the basis for regulatory efforts by the United States or the State of California. In particular, the Draft Report focuses exclusively on the water quantities needed by aquatic resources in the Delta and does not recognize: (i) the needs of the many public trust resources in the Bay Delta Estuary and its tributary areas, and (ii) the needs of consumptive users of water across California. This focus means that the flow criteria do not – and cannot as a matter of law – satisfy the criteria for coequal objectives that are to guide the development of the Delta Plan and cannot serve as the basis for water quality objectives.

- Second, in addition to the limits acknowledged by the SWRCB, NCWA notes that there are significant scientific problems with the analysis contained in the Draft Report. Those limitations – detailed below – should preclude the use of the Draft Report for any purpose.

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- Third, and most important, the Draft Report repeatedly points out that the decline of the Delta ecosystem has been the result of many different stressors, such as contaminants, water quality parameters, loss of habitat, and invasive species. The Draft Report properly notes that reversing the decline of the Delta ecosystem must involve extensive efforts to address these stressors. Improvements that address these stressors would reduce or eliminate the need for increased flows that otherwise may be necessary to address the problems facing Delta aquatic public trust resources.

NCWA believes that these findings in the Draft Report provide the Delta Stewardship Council and the Bay-Delta Conservation Program with a scientific mandate to immediately focus on non-flow measures in the preparation of the Delta Plan. NCWA and its members stand ready to assist the Delta Stewardship Council in such efforts.

1. *The Draft Report Properly Identifies the Limits of Its Analysis*

The Draft Report forthrightly states that it responds to a very specific directive from the Legislature, which required the SWRCB to "develop new flow criteria for the Delta ecosystem necessary to protect public trust resources" within nine months from the effective date of the legislation. To address this question within the very limited timeframe, the SWRCB necessarily limited the scope of the Draft Report. Specifically:

a. The Draft Report's flow criteria determinations are limited to the protection of aquatic resources in the Delta (p. 2).

b. The Draft Report's flow criteria do not consider all of the matters that must be considered under the public trust doctrine and the SWRCB's concurrent broad public interest inquiry such as the impacts of the flow criteria on other public trust resources, economics, power production, human health and welfare, and non-aquatic resources such as habitat for terrestrial species (p. 2). Many of NCWA's member agencies, appearing in these proceedings as the Sacramento Valley Water Users, submitted a detailed discussion of these issues at the beginning of these proceedings, which is attached hereto as Exhibit 1 and incorporated herein by reference.

c. Under the public trust doctrine, the SWRCB must determine whether the protection of public trust resources is "consistent with the public interest" and whether it is "feasible" to protect public trust values. The Draft Report does not make any determinations about the feasibility of the flow criteria or whether those criteria are consistent with the public interest (p. 2).

d. The Draft Report does not consider "the allocation of water resources, the application of the public trust doctrine to a particular water diversion or use, water supply impacts, or any balancing between potentially competing public trust resources," which are items that would be considered through an adjudicative or regulatory proceeding (p. 3). The flow criteria "do not consider any balancing of public trust resource protection with public interest needs for water." (p. 4).

e. "None of the determinations in this report have regulatory or adjudicatory effect." (p. 3).

f. "Nothing in either the Delta Reform Act or this report amends or otherwise affects the water rights of any person." (p. 3).

g. "The flow recommendations in this report are not pre-decisional in regard to any State Water Board action." (p. 3).

h. The SWRCB does not intend for the flow criteria to "supersede requirements for health and safety." (p. 4)

i. The Draft Report does not contain any effort to discuss the "coequal goals" that lie at the heart of the Delta Stewardship Council's mandate to develop a Delta Plan; consequently, the information in the Draft Report cannot be imported into the Delta Plan. (pp. 2-4).

These stringent limitations on the scope of the Draft Report necessarily limit the use, import, and effect of the Draft Report. For instance, the Draft Report calls for November to June flows in the Sacramento River to equal 75% of unimpaired inflow and for January to June Delta outflow to equal 75% of unimpaired inflow. It would be altogether too easy for regulatory agencies, planning agencies or others to "cherry pick" these specific sections of the Draft Report and ignore the many limitations on the report that the SWRCB has identified.

In particular, Appendix B to the Draft Report includes information that is essential to the Draft Report's complying with the Legislature's mandate in Water Code section 85086(c)(1) that the flow criteria describe the "volume, quality, and timing of water necessary for the Delta ecosystem under different conditions." Appendix B provides the data necessary to demonstrate that the SWRCB has analyzed the true volume of water needed to meet the flow criteria and that the SWRCB has evaluated the timing of those flows, together with the consequent impacts on cold water pools and other elements of California's water delivery system outside the legal Delta. Finally, Appendix B is necessary for the SWRCB to describe the different water quantities associated with its Category A and B criteria. That critical information that is required by statute is found nowhere else in the Draft Report.

Appendix B further provides the data needed to put the flow criteria in context, which is a key element of the Draft Report. It is important to recognize (and easy to forget) that the flow criteria contemplate the release of an average of 6 million acre-feet/year *over* baseline levels that include D-1641 and the biological opinions for delta smelt and chinook salmon. To put that number in context, 6 million acre-feet/year is roughly equal to the quantity of water diverted annually from the export pumps for use in Southern California, the San Joaquin Valley and the Central Coast. That quantity of water is also about 2/3 of the storage capacity of Shasta, Oroville and Folsom reservoirs *combined*. In the urban context, 6 million acre-feet/year is sufficient to supply the needs of 30 million people or approximately three times the population of Los Angeles County. To prevent the misuse of the Draft Report, the SWRCB properly limited the

use of the Draft Report to being merely one data point that should be considered in context by the Bay Delta Conservation Program and the Delta Stewardship Council.

2. *The Draft Report Suffers From Fatal Scientific Flaws*

The SWRCB released the Draft Report on July 21, 2010 and has asked for comments a mere eight days later. Because of the very short review time, NCWA has not been able to have the Draft Report reviewed by scientific experts. However, even our preliminary review of the Draft Report indicates that it suffers from fatal scientific flaws. Consequently, the Draft Report cannot be used by the SWRCB, the Delta Stewardship Council or the Bay Delta Conservation Program as a basis for any future efforts. Our specific concerns are set forth in Exhibit 2, which is hereby incorporated herein, and are summarized below.

a. The Delta outflow criteria are based on weak statistical correlations, not more fundamental causal processes.

b. The flow criteria, as noted above, do not protect all public trust resources (notwithstanding the Legislature's mandate).

c. There is no correlation between Delta outflows and the abundance of delta smelt.

d. The flow criteria do not consider the effects of changing ocean conditions or other factors that cannot be captured in a statistical analysis.

e. The modeling performed by the Department of Water Resources at the direction of SWRCB staff failed to evaluate the potential impacts of the flow criteria on groundwater resources, which, in turn, could further affect streamflows and public trust resources.

3. *The Draft Report Properly Concludes that Improvement of the Delta Ecosystem Should Focus on Non-Flow Related Measures and that Such Improvements Will Reduce Flows Needed by Public Trust Resources*

To its credit, the Draft Report recognizes that the solution to the problems of the Bay-Delta Estuary does not lie in merely providing more and more water for fish. The Draft Report notes at the outset that:

> While folks ask "How much water do fish need?" they might well also ask, "How much habitat of different types and locations, suitable water quality, improved food supply and fewer invasive species that is maintained by better governance institutions, competent implementation and directed research do fish need?" The answers to these questions are interdependent. (p.1).

The Draft Report also recognizes the: "habitat value of the Delta ecosystem for favorable species can be improved by habitat restoration, contaminant and nutrient reduction, changes in diversions, control of invasive species, and island flooding. Each of these non-flow factors has the potential to interact with flow to affect available aquatic habitat in Delta channels." (p. 7)

These non-flow stressors "contribute to higher than necessary demands for water to provide resource protection." Consequently, the "flow criteria identified in this report highlight the need for the BDCP to develop and integrated set of solutions, to address ecosystem flow needs, including flow and non-flow measures." (p. 7).

Focusing on non-flow related measures is a sound approach for the Draft Report to use. Appendix B to the Draft Report demonstrates that – if implemented fully – the flow criteria recommended in the Draft Report would – effectively – shut down California. Appendix B notes that water deliveries north of the Delta, which include diversions under many of the most senior water rights in the Central Valley, would be reduced by 67%. NCWA's members include many of the Sacramento River Settlement Contractors (SRSCs), which are the senior rights on the Sacramento River system that have contracts with the United States limiting reductions in water deliveries to 25% of contract quantity. As implemented in the CALSIM model runs used in the Draft Report, meeting the flow criteria would require that deliveries to the SRSCs would be reduced by 88% (not the 25% contemplated by these contracts). For comparison purposes, even during 1976-77, which was the driest year on record, the SRSCs only had their deliveries reduced by 25%. Deliveries to State Water Contractors south of the Delta would be further reduced from a long-term average of 60% of contract quantities to about 45% of contract quantities. Again, for comparison purposes, this would mean that the *average* water year would now look like 1992, which was a critically dry year and the last year of a six year drought.

Rather than countenance such impacts, the Delta Stewardship Council and the Bay-Delta Conservation Program should take the lead on developing an integrated plan that incorporates non-flow measures. The failure to address such water supply impacts would leave the SWRCB (or others) open to a claim that the flow criteria are inconsistent with article X, section 2 of the California Constitution in that the flow criteria mandate an unreasonable use of water.

4. *Conclusion*

For the reasons described above, NCWA and its members believe that the findings contained in the Draft Report represent a mandate for the Delta Stewardship Council and the Bay-Delta Conservation Program to focus attention on addressing non-flow related measures. The Draft Report demonstrates that just throwing water at the environmental problems in the Delta to try to make a difference to these problems would shut down the economy of California. Instead, the Draft Report intelligently directs the attention of the Delta Stewardship Council and the Bay-Delta Conservation Program at efforts to restore habitat, to reduce contaminants, to improve water quality and to eradicate invasive species. NCWA and its member strongly support such efforts and stand ready to work with the Delta Stewardship Council and/or the Bay-Delta Conservation Program to implement such measures.

Sincerely,

David J. Guy
President

Exhibit 1

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January 5, 2010

Via Email and Hand Delivery

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State Water Resources Control Board
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Bay-Delta@waterboards.ca.gov
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Attn: Phillip Crader

Re: Delta Flow Criteria Informational Proceeding: Sacramento Valley Water Users' Comments for January 7, 2010 Pre-Proceeding Conference

Dear Mr. Crader:

These comments are submitted on behalf of the parties listed on Exhibit 1 attached hereto. These comments address the State Water Resources Control Board's (SWRCB) December 16, 2009 Notice of Public Informational Proceeding and Pre-Proceeding Conference to Develop Flow Criteria for the Delta Ecosystem Necessary to Protect Public Trust Resources (Notice). We particularly focus on the scope of the Informational Proceeding currently scheduled to commence on March 22, 2010, and offer an approach that will satisfy the Legislature's direction in these matters, and will comport with the courts' explanations of the public trust doctrine.

At the outset, we appreciate the enormity of attempting to achieve the Legislature's stated coequal goals of (1) providing a more reliable water supply for California, and (2) protecting, restoring and enhancing the Delta ecosystem, and we recognize that the SWRCB's informational proceeding is simply one step towards achieving these coequal goals. Indeed, the Legislature directed the SWRCB to develop these "flow criteria" as part of the "early actions" contained in Senate Bill No. 1 of the 2009-2010 Seventh Extraordinary Session (SB 1). To that end, SB 1 added Water Code section 85086(c)(1), which provides in pertinent part:

> For the purpose of informing planning decisions for the Delta Plan and the Bay Delta Conservation Plan, *the board shall, pursuant to its public trust obligations, develop new flow criteria for the Delta ecosystem necessary to*

> *protect public trust resources*. In carrying out this section, the board shall review existing water quality objectives and use the best available scientific information. The flow criteria for the Delta ecosystem shall include the volume, quality, and timing of water necessary for the Delta ecosystem under different conditions. *The flow criteria shall be developed in a public process by the board within nine months of the enactment of this division. The public process shall be in the form of an informational proceeding* conducted pursuant to Article 3 (commencing with Section 649) of Chapter 1.5 of Division 3 of Title 23 of the California Code of Regulations, and shall provide an opportunity for all interested persons to participate. *The flow criteria shall not be considered predecisional with regard to any subsequent board consideration of a permit*, including any permit in connection with a final BDCP. (Emphasis added.)

In undertaking this legislative directive to develop the undefined "flow criteria" within the short time frame allowed (i.e., by August 2010), it is critical that the SWRCB accurately and precisely identify the scope and expected outcomes of this proceeding. Most importantly, this is an informational proceeding—not a proceeding where the SWRCB will exercise its legislative and/or adjudicatory authorities. In this context, the SWRCB should follow an approach wherein it develops a comprehensive list of relevant factors, which the SWRCB then can consider in future legislative or adjudicatory proceedings, and in a manner consistent with its public trust obligations.

Consistent with this approach, the SWRCB must also recognize and respect the other ongoing Delta-related processes, including at least one additional process mandated by SB 1; namely, the Legislature's directive to the California Department of Fish and Game (DFG) to develop, and recommend to the SWRCB, Delta flow criteria and biological objectives for certain species dependent on the Delta within 12 months of the enactment of SB 1 (i.e., by November 2010). (Wat. Code, § 85084.5.) The SWRCB's process as provided in the Notice should be framed in the context of this other process being undertaken by DFG.

A. Flow Criteria

1. The SWRCB is Not Setting Binding Delta Outflow Standards in This Informational Proceeding

While Water Code section 85086(c)(1) directs the SWRCB to develop "flow criteria," the statute does not define "flow criteria" in the context of section 85086(c)(1), nor does the SWRCB's Notice. The Notice does make clear, however, that the "flow criteria" developed pursuant to SB 1 are neither water quality criteria, developed pursuant to the Clean Water Act, nor flow objectives, developed pursuant to the Porter-Cologne Water Quality Control Act (Porter-Cologne). Moreover, according to the Notice, flow criteria developed through this informational proceeding will have *no regulatory or adjudicatory effect*.

The SWRCB's Notice is confusing, however, in that it identifies, as *the key issue* for the informational proceeding, "what volume, quality, and timing of Delta *outflows* are necessary for the Delta ecosystem under different hydrologic conditions to protect the public trust resources pursuant to the [SWRCB's] public trust obligations and the requirements of SB 1." (Notice at p. 6, emphasis added.) The Notice briefly explains that Delta outflow will be the focus of the upcoming hearings, and assumes that Delta outflow is the primary driver of the health of the Delta ecosystem.

The informational proceeding contemplated by the SWRCB's Notice cannot result in binding Delta flow standards, because it does not comply with the laws that govern the adoption of such flow standards. In order for the SWRCB to adopt binding standards, it generally must comply with the Administrative Procedure Act's (APA) provisions that govern rulemakings. (Gov. Code, §§ 11340-11365.) The APA contains an exception from those provisions for the development of water quality control plans and guidelines under Porter-Cologne (Gov. Code, § 11353(a)), but the SWRCB is not holding this proceeding pursuant to Porter-Cologne.

Because the SWRCB is not conducting this informational proceeding as a rulemaking or under Porter-Cologne, any resulting criteria can be neither directly binding nor presumptively binding on the SWRCB in any future proceeding. (See *Morning Star Co. v. State Bd. of Equalization* (2006) 38 Cal.4th 324, 341 [agency cannot rely on "regulation" adopted without APA compliance in further consideration of matter].)[1] Moreover, this informational proceeding will not include compliance with essential procedures that apply to the development of water quality control plans and guidelines under Porter-Cologne. For example, the Notice does not indicate that the SWRCB intends to prepare an environmental document for any proposed flow criteria, as the SWRCB's regulations would require for plans or guidelines under Porter-Cologne. (See Cal. Code Regs., tit. 23, §§ 3775-3782.) Such an environmental document would have to analyze, among other things, "reasonable alternatives" to proposed flow criteria. (Cal. Code Regs., tit. 23, § 3777(a)(2).) The Notice also did not indicate that the SWRCB intends to consider all of the factors that Porter-Cologne, the Clean Water Act and the EPA's regulations require the SWRCB to consider in developing binding water quality standards. (See, e.g., 33 U.S.C. § 1313(c); Wat. Code, § 13241; 40 C.F.R. §§ 131.10-131.11.)

In light of these laws, if the SWRCB were to adopt in this proceeding *new* numeric, but non-binding, Delta outflow standards, the result would be at best confusion, which would be counterproductive, given the stressed state of Delta fish species. The fact that *new* numeric standards would result in highly problematic confusion is only emphasized by the fact that, in the near future, significantly more scientific information concerning Delta species will

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[1] The fact that the Legislature directed the SWRCB to conduct this informational proceeding does not allow the SWRCB to adopt binding criteria without complying with the APA because the Legislature did not expressly exempt this proceeding from the APA. (See Gov. Code, § 11346(a) [APA "shall not be superseded or modified by any subsequent legislation except to the extent that the legislation shall do so expressly"].)

become available. As noted above, under SB 1, DFG, in consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service, must "develop and recommend to the [SWRCB] Delta flow criteria and quantifiable biological objectives for aquatic and terrestrial species of concern dependent on the Delta" and deliver that information to the SWRCB by November 2010. In addition, the National Academy of Sciences is reviewing the 2008 and 2009 biological opinions that apply to the operations of the Central Valley Project (CVP) and the State Water Project (SWP). It would make little sense for the SWRCB to risk preempting these other scientific processes by announcing new, numeric but non-binding Delta flow standards as a result of this informational proceeding before it receives the results of those processes. There inevitably would be disputes about what numeric criteria or standards should govern, and this would do nothing to promote the health of the Delta ecosystem or provide more reliable water supplies for California.

2. This Informational Proceeding Should be Limited to the Development of Criteria that Would Aid Further Decisionmaking if the SWRCB Subsequently Sets Flow Standards in a Future Proceeding

Given that the results of this informational proceeding will be non-binding, the best approach for the SWRCB to take is to focus on identifying the key biological, operational and other factors that it will consider when, after it receives the results of the pending scientific processes, it decides whether to set new objectives under Porter-Cologne. In SB 1, the Legislature took pains to distinguish "flow criteria" from water quality standards adopted under the federal Clean Water Act, or water quality objectives adopted under Porter-Cologne. The key term "flow criteria" therefore should be afforded a meaning distinct from those existing numeric standards and objectives.

Webster's Dictionary defines the word criterion (the singular of criteria) as the "standard on which a judgment or decision may be based." Any new "flow criteria" beyond the 2006 Water Quality Control Plan objectives, therefore, should be comprised of the key factors that the SWRCB identifies for its consideration when it ultimately updates the Water Quality Control Plan, and when the SWRCB potentially sets new flow objectives under that plan. These factors do not lend themselves to quantification in this initial proceeding. Instead, these factors should be viewed as a description of the facts and interrelationships that the SWRCB must consider when it begins the process of updating the Water Quality Control Plan, and undertakes its public trust obligations.

At this time, we suggest that these factors can best be developed in a matrix format. One axis of the matrix would list the many different types of public trust uses of water in the Delta and its watersheds (i.e., navigation, commerce, commercial fishing, wildlife habitat, aquatic habitat, etc.). The other axis lists the locations at which such public trust uses occur (i.e., in the Delta, Suisun Marsh, upstream areas, flood control bypass areas, etc.). In order to adopt a water quality control plan or other regulatory document for the Bay-Delta Estuary, the SWRCB should have sufficient information to answer at least the following questions for

each box in the matrix:

1. What flows are needed to support this public trust use in this portion of the watershed? How do those flows vary by season or by water-year type?

2. Are there water quality considerations (e.g., temperature, pH, salinity) that are needed to support this public trust use in this portion of the watershed? Do those factors vary by season or by water-year type?

3. How do the flows needed to support this public trust use in this portion of the watershed relate to the needs of other public trust uses, both in this portion of the watershed and in other areas of the watershed? Are the flows compatible or are they inconsistent?

4. How do the flows needed to support this public trust use in this portion of the watershed relate to the water supply needs of other legal users of water?

5. To what extent do the answers to questions 1-4 reflect the influence of factors other than flows (e.g., the effects of ocean fishing or introduced species)?

6. To what extent are the answers to questions 1-5 known with a high degree of certainty? If not, what should be done to reduce that uncertainty?[2]

Accordingly, this informational proceeding should focus on developing a comprehensive matrix of factors to be considered when the SWRCB convenes a further proceeding to actually set binding water quality objectives. This will ensure that the right questions are asked in each regulatory context, and that appropriate balancing can occur pursuant to the SWRCB's public trust obligations. The SWRCB can implement this approach—which allows for the completion of DFG's scientific process under Water Code section 85084.5 and of the National Academy of Sciences' review of the biological opinions—under Water Code section 85086(c)(1), given that the 2006 Water Quality Control Plan's existing numeric Delta outflow objectives do, in fact, address "volume, quality, and timing of water necessary for the Delta ecosystem under different conditions."

B. Public Trust

As noted above, SB 1 directs the SWRCB to undertake this informational proceeding "pursuant to its public trust obligations." (Wat. Code, § 85086(c)(1).) Those obligations require the SWRCB to consider a wide variety of factors. Under the common-law public trust doctrine, the SWRCB has an affirmative duty to take public trust resources into account when

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[2] These questions, of course, do not begin to address other considerations that the SWRCB would take into account in revising the Water Quality Control Plan, and that are set forth in Water Code section 13241.

making decisions regarding the allocation of water resources.[3] The SWRCB's consideration of the public trust does not occur in a vacuum. Instead, the SWRCB considers the "public trust" at the same time it considers other uses of water, including other public trust uses. (See *Nat. Audubon Society v. Superior Court* (*Los Angeles Dept. of Water & Power*) (1983) 33 Cal.3d 419, 446 (*Nat. Audubon Society*) [SWRCB has authority to authorize uses that will not promote, and sometimes harm, public trust uses].) This consideration, or balancing of public trust uses against diversions or other public trust uses, occurs when the SWRCB makes allocation decisions. (See *id.* at p. 446).

> The state has an affirmative duty to take the public trust into account in the planning and allocation of water resources, and to protect public trust uses whenever feasible .... As a matter of practical necessity[,] the state may have to approve appropriations despite foreseeable harm to public trust uses. In so doing, however, the state must bear in mind its duty as trustee to consider the effect of the taking on the public trust [citation omitted], and to preserve, so far as consistent with the public interest, the uses protected by the trust. (*Nat. Audubon Society* at pp. 446-47.)

The public trust doctrine does not require that conflicts between public trust values and competing water uses must be resolved in favor of protecting the public trust. (*State Water Resources Control Bd. Cases* (2006) 136 Cal.App.4th 674, 778 (Robie, J.).) Rather, the SWRCB determines which public trust uses are "feasible" to protect; in resolving whether it is "feasible" to protect certain public trust values in a particular instance, the SWRCB must decide whether protection of those values, or what level of protection, is "consistent with the public interest." (*Ibid.*)

1. The SWRCB Should Determine Which Public Trust Resources it Seeks to Protect in the Delta, and When, and Weigh those Values Against Other Public Trust Values, Including Public Trust Values Upstream

The Notice does not identify which public trust resources are being protected. Public trust uses have included uses such as water-related commerce, navigation, fishing, bathing and swimming, boating, hunting and other recreational purposes, land preservation for scientific study, and wildlife habitat, including birds and wild animals. (See generally, *Nat. Audubon Society, supra,* 33 Cal.3d 419; *Center for Biological Diversity, Inc. v. FPL Group, Inc., supra,* 166 Cal.App.4th 1349.) The public trust is, of course, not limited to the Delta. Instead, the public trust extends upstream.

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[3] Recently, the California Supreme Court carefully distinguished the common-law public trust doctrine from state agencies' statutory public trust obligations. (*Environmental Protection Information Center v. California Dept. of Forestry & Fire Protection* (2008) 44 Cal.4th 459, 515.) The SWRCB's public trust obligations derive from the common-law. In contrast, the First District Court of Appeal has explained that DFG, by statute, is the trustee of the state's fish and wildlife resources. (*Center for Biological Diversity, Inc. v. FPL Group, Inc.* (2008) 166 Cal.App.4th 1349, 1367.)

In applying the public trust doctrine as interpreted by California's appellate courts, the SWRCB must carefully evaluate the benefits of the public trust resources in the Delta in relation to other public trust resources. Such an evaluation will require the consideration of scientific evidence of the water supply needs of public trust resources throughout the Sacramento-San Joaquin watershed, and is clearly beyond the scope of the present proceeding. The evaluation of the benefits of public trust resources in the Delta in relation to other public trust resources should occur in future proceedings where the SWRCB exercises its legislative or adjudicatory authority consistent with its public trust and statutory obligations. The SWRCB cannot assume that developing Delta outflows to protect public trust values in the Delta will not negatively affect public trust resources elsewhere. For example, requiring additional Delta outflows would likely cause numerous changes to the Sacramento-San Joaquin River ecosystems that could harm upstream fisheries, waterfowl and wildlife habitat. Prior to making any determination that additional Delta outflows are necessary, the SWRCB must consider how additional outflow would affect suitable physical habitat for fish, turbidity, scouring, and potential depletion of spawning gravels, food supply, water temperatures for upstream spawning and rearing, threats from predation and invasive species, and the like.

2. Even if the Delta Public Trust Values are Prioritized Above all Others, the SWRCB Must Balance the Delta Public Trust Values Against the Public Interest

Before water is dedicated to public trust uses, there must be a careful balancing and weighing between the costs and the benefits associated with existing uses of water and the protection of public trust values. As the Supreme Court explained:

> The population and economy of this state depend upon the appropriation of vast quantities of water for uses unrelated to in-stream trust values. California's Constitution, its statutes, decisions, and commentators all emphasize the need to make efficient use of California's limited water resources: all recognize, at least implicitly, that efficient use requires diverting water from in-stream uses. Now that the economy and population centers of this state have developed in reliance upon appropriated water, it would be disingenuous to hold that such appropriations are and have always been improper to the extent that they harm public trust uses, and can be justified only upon theories of reliance or estoppel. (*Nat. Audubon Society, supra,* 33 Cal.3d at pp. 446, internal citations omitted.)

The SWRCB therefore will be required to consider many factors, including operational concerns such as reservoir storage, water-supply impacts and hydrological feasibility/operational concerns when it eventually sets new numeric Delta outflow objectives.

3. A Water Right Cannot be Curtailed to Promote Delta Public Trust Values Absent any Evidence that Exercising the Right Harms Those Values

While the Notice explains that whatever results from this proceeding will not be binding in other SWRCB proceedings, it bears emphasis that a water right holder cannot be required to forego diversions to protect the public trust, or to improve water quality generally, absent evidence that the water right holder's diversions are harming the public trust or result in degradation of water quality. (See, e.g., *El Dorado Irrigation Dist. v. State Water Resources Control Bd.* (2006) 142 Cal.App.4th 937, 967.)

C. Conclusion

The SWRCB should clarify that the purpose of this informational proceeding is not to develop numeric Delta outflows that will affect future determinations of such outflows, because it is clear that better science will be available in the near future, and the SWRCB must comply with other laws in order to adopt binding outflow objectives. Instead, this proceeding should provide for the development of a matrix of key factors and informational items related to Delta outflows that will be utilized in subsequent proceedings to set specific flow standards or objectives. This phased approach is necessary because, for the SWRCB to comply with its "public trust obligations" in protecting public trust resources in the Delta, it also must consider the resulting impacts on other public trust resources, the feasibility of implementing whatever Delta standards it considers, and the water-supply impacts. In addition, as a practical matter, this type of balancing cannot occur in this informational proceeding given the relatively short time frame allotted for it.

We appreciate the SWRCB's consideration of these comments, and look forward to participating in the pre-proceeding conference on January 7, 2010.

Sincerely,

SOMACH SIMMONS & DUNN

By

Andrew M. Hitchings, Attorneys for
Glenn-Colusa Irrigation District, County of Sacramento,
Sacramento County Water Agency, and County of Yolo

DOWNEY BRAND LLP

By _____
Kevin M. O'Brien, Attorneys for
Reclamation District 108, Calaveras County Water District, Carter Mutual Water Company, Howald Farms, Inc., Meridian Farms Water Company, Natomas Central Mutual Water Company, North Delta Water Agency, Oji Brothers Farm, Inc. and Oji Family Partnership, Pelger Mutual Water Company, Pleasant Grove-Verona Mutual Water Company, Reclamation District 2068, Richter Brothers, River Garden Farms Company, South Sutter Water District, Sutter Extension Water District, Sutter Mutual Water Company, Tisdale Irrigation and Drainage Company, and Windswept Land and Livestock Company

BARTKIEWICZ, KRONICK & SHANAHAN

By _____
Alan Lilly, Attorneys for
Browns Valley Irrigation District, City of Folsom, City of Roseville, San Juan Water District, and Yuba County Water Agency

Attachment
cc (via email): Charles R. Hoppin, SWRCB Chair
Frances Spivy-Weber, SWRCB Vice Chair
Arthur G. Baggett, Jr.
Tam M. Doduc
Walter G. Pettit
Erin Mahaney

AMH:cr

EXHIBIT 1

Browns Valley Irrigation District
Calaveras County Water District
Carter Mutual Water Company
City of Folsom
City of Roseville
County of Sacramento
County of Yolo
Glenn-Colusa Irrigation District
Howald Farms, Inc.
Meridian Farms Water Company
Natomas Central Mutual Water Company
North Delta Water Agency
Oji Brothers Farm, Inc. and Oji Family Partnership
Pelger Mutual Water Company
Pleasant Grove-Verona Mutual Water Company
Reclamation District 108
Reclamation District 2068
Richter Brothers
River Garden Farms Company
Sacramento County Water Agency
San Juan Water District
South Sutter Water District
Sutter Extension Water District
Sutter Mutual Water Company
Tisdale Irrigation and Drainage Company
Windswept Land and Livestock Company
Yuba County Water Agency

Exhibit 2

Comments on Draft SWRCB Delta Flow Criteria

1. Winter-Spring Net Delta Outflow Criterion: The scientific basis for the recommendation that, during this period, Delta outflow be 75% of unimpaired runoff is a statistical projection that implementation of the standard would result in the growth of the population of two species – longfin smelt and bay shrimp – in more than 50% of water years. (Pp. 100-103.) This is an inadequate basis for recommending such a significant increase in Delta outflows for a number of reasons.

   A. Probable severe impacts on Chinook salmon. The report recognizes that adoption of the recommended standards would have to be tempered by concerns for other species of concern, including Chinook salmon. (P. 108.) The report, however, fails to discuss what impacts to Chinook salmon would occur if the recommended outflow criteria were implemented to promote longfin smelt and bay shrimp. Given that Appendix B demonstrates that the SWRCB is aware that implementation of its recommended flow standards would result in violation of Shasta Reservoir cold water pool standards even if all diversions upstream of the Delta were ceased (pp. 180-181), the impact on Chinook salmon of implementing the recommended winter-spring net Delta outflow would likely be devastating. Given that the draft report includes Chinook salmon as part of the "Delta ecosystem" to be studied in this report (p. 47), the recommended winter-spring net Delta outflow recommendations therefore are inconsistent with Water Code section 85086(c)(1), which requires the SWRCB to "develop new flow criteria for the Delta ecosystem necessary to protect public trust resources." The recommended winter-spring net Delta outflow criteria do not protect the Delta public trust resources identified by the draft report.

   B. Inappropriate Reliance on Changing Statistical Correlations. The draft report relies significantly on the UC Davis group's paper "On developing prescriptions for freshwater flows to sustain desirable fishes in the Sacramento-San Joaquin Delta." (See pp. 1, 41-42.) That paper states significant reservations about using statistical correlations as the basis for policy recommendations in changing conditions:

> The present paper will not employ empirical correlations to estimate flow requirements except where more casual processed-based relationships do not exist. The general correlative approach, however, is common, sometimes effective, and often provides insights for more casual understanding. In a changing system correlation studies can be inherently misleading, particularly if the underlying equations are not carefully tied to more casual processes related to fish abundance. As the Delta changes, correlative studies at aggregated scales relying on historical fish data are likely to become less useful, unless they are tied to a more process-based or casual framework. (Fleenor et al. 2010, pp. 15-16 (emphasis added).)

> Generally, approaches that rely on data from the past will become more risky as the underlying changes in the Delta accumulate. However, since the objective is to provide flows for species which evolved under past conditions, information on past flows and life history strategies of fish provide considerable insight and context. Aggregate statistical approaches, which essentially establish correlations between past conditions and past species abundance, are likely to be less directly useful as the Delta changes. However, statistical approaches will continue to be useful, especially if developed for causal insights . . . In the absence of more process-based science, empirical relationships might be required for some locations and functions on an interim basis. (Fleenor et al. 2010, p. 22 (emphasis added).)

The draft report states that: (1) the casual relationship underlying any correlation between Delta outflows and longfin smelt populations is not understood (p. 100: "The casual mechanisms underlying the variation in annual abundance indices of pelagic species in the estuary are poorly understood"); and (2) the correlation between longfin smelt populations and Delta outflows is declining dramatically over time since the introduction of the Corbula clam in 1987. (P. 101.)

The draft report attempts to correct for the significant post-1987 change – "a four-fold decline in the relationship" – by using only 1988-2007 population data. The problem with this approach is that it effectively assumes that the clam's effect on the ecosystem is an average over the 1988-2007 period, when the effect presumably has grown over time since the clam's introduction. As indicated by the UC Davis group's paper, it therefore is inappropriate to rely on that correlation, given the changes in the Delta's ecosystem over the period of the correlation analysis. In addition, as indicated above, the UC Davis group indicates that correlation analyses "might be required for some locations and functions on an interim basis." (P. 22 (emphasis added.) In contrast, the draft report effectively recommends operating the entire Delta watershed to achieve a standard that is based on a flow-species casual relationship that is not understood and that is declining over time.

C. Minimal demonstrated benefit to targeted species. The draft report's scientific basis for the proposed winter-spring Delta outflow standard is that a logit regression analysis of the relationship between post-1987 Delta outflows and longfin smelt populations shows that there would be a greater than 50% probability of some growth in longfin smelt populations at certain, very high Delta outflow levels. (Pp. 101-102.) The draft report contains no indication how much longfin smelt populations might be expected to increase if the proposed winter-spring Delta outflow standard were implemented.

D. Inappropriate reliance on benefits to non-native species, salmon predators and species with presence throughout Pacific rim. The draft report also seeks to support the winter-spring net Delta outflow requirement by stating that it would be expected to benefit species other than long-fin smelt, including American shad,

striped bass and starry flounder. (P. 107.) Striped bass are a major predator of juvenile salmon and it is inappropriate for the draft report to rely on growth in striped bass populations as support for new Delta flow criteria. American shad are a non-native species that was introduced to California in the 1880s. (P. 63.) Starry flounder are found throughout the Pacific rim. (P. 82.) Given that implementation of the recommended winter-spring net Delta outflow criteria could have severe impacts on Chinook salmon by draining upstream cold water pools (see pp. 180-181), it is inappropriate to cite benefits to American shad, striped bass and starry flounder as supporting that recommended criterion.

2. Delta smelt fall X2 criterion. The draft report bases its recommended fall X2 criterion on a possible linkage between an expansion of delta smelt habitat at higher X2 levels and delta smelt populations. The draft report (p. 109), however, states that:

> [T]he relationship between habitat area and FMWT abundance is complex and not strong (NAS [Nat'l Academy of Sciences] 2010). When the area of highly suitable habitat is low, either high or low FWMT indices can occur (Figure 16). Therefore, delta smelt can be successful in instances where habitat is limited.

Furthermore, while the draft report relies on USFWS's 2008 biological opinion to support its proposed fall X2 criterion, the draft report also quotes the National Academy of Sciences criticism of this criterion (p. 109):

> The National Academy of Sciences (2010) commented on this action in their review of the Biological Opinion and concluded: " . . . [T]he examination of uncertainty in the derivation of the details of this action lacks rigor. The action is based on a series of linked statistical analyses . . . , with each step being uncertain. The relationships are correlative with substantial variance being left unexplained at each step. The action also may have high water requirements and may adversely affect salmon and steelhead under some conditions . . . .

The draft report attempts to address these problems with the recommended fall X2 criterion by calling it a "Category B" criterion and stating that it should be adaptively managed. (Pp. 109-110.) Under the draft report, a "Category B" criterion" is "equally important for protection of the public trust resources, but [about which] there is more uncertainty about the appropriate volume of flow required . . . ." (Pp. 98-99.)

Water Code section 85086(c)(1), however, requires the SWRCB to use "the best available scientific information" in developing the Delta flow criteria. The proposed "Category B" fall X2 criterion cannot be based on the best available scientific information where the draft report itself: (1) states that there is no clear correlation between the proposed criterion and any growth in the population of the targeted species, namely delta smelt; and (2) recognizes that the actual best available scientific information – the National Academy of Sciences' 2010 report – criticizes the development of that criterion as uncertain.

3. Sacramento River inflow criteria. The draft report recommends that Sacramento River inflow at Rio Vista be 75% of unimpaired flow 2/3 of the time – November-March, plus April-June – to improve the survival of outmigrating juvenile salmon of various races. (P. 114.) The draft report relies solely on salmon as a basis for its proposed Sacramento River inflow criteria. (P. 55.) The draft report states that the criteria's purpose is to move juvenile salmon through the Delta faster in order to address in-Delta habitat changes that have made the Delta less hospitable for those fish (pp. 53-54):

> Prior to development and channelization, the Delta provided hospitable habitat for salmon. With channelization and other development, the environment is no longer hospitable for salmon, As a result, the most beneficial Delta outflow pattern for salmon may currently be one that moves salmon through the Delta faster . . .
>
> [para.]
>
> Habitat alterations in the Delta limit Sacramento River salmon production primarily through reduced survival during the outmigrant (smolt) stage. Decreases in flow through the estuary, increased temperatures, and the proportion of flow diverted through the Delta Cross Channel and Georgiana Slough on the Sacramento River are associated with lower survival in the Delta of marked juvenile fall-run Sacramento River salmon . . .
>
> [para.]
>
> [S]everal studies show that loss of migrating salmonids within Georgiana Slough and the interior Delta is approximately twice that of fish remaining in the mainstem Sacramento River . . . [C]losing the Delta Cross Channel and increasing the flow on the Sacramento River to levels where there is no upstream flow from the Sacramento River entering Georgiana Slough on the flood tide during the juvenile salmon migration period (November to June) will likely reduce the number of fish that enter the interior Delta and improve survival . . . .

In summary, the draft report recommends that Sacramento River inflow be dramatically increased in order to push juvenile salmon past habitat alterations in the Delta. This recommendation, however: (A) makes the report internally inconsistent; (B) relies strictly on statistical correlations, notwithstanding the UC Davis group's admonitions; and (C) is inconsistent with SBX7 1 and longstanding principles of reasonable use under Article X, section two, of the California Constitution.

A. Internal inconsistency. While the report's Sacramento River inflow standard is based entirely on concern for juvenile salmon, the report does not assess in any detail what impacts its recommendations would have on upstream cold water pools. (See comment 1.A above.) The report does little to assess what effect its proposed Sacramento River inflow criteria would have on upstream conditions for salmon spawning and rearing. Without such an assessment, the report as a whole

is internally inconsistent because it effectively promotes one salmon lifestage without assessing whether the report as a whole would benefit salmon as a species.

B. Inappropriate reliance on statistical correlations and failure to recognize latest science. The report's discussion of what Sacramento River inflows might benefit salmon is based solely on various statistical-correlation analyses. (Pp. 53-55, 114-115.) As discussed above, the UC Davis group's paper on which the draft report relies cautions against relying solely on statistical correlations based on past data where the system is dynamic. (See comment 1.B above.) Notwithstanding this admonition, the draft report's discussion of salmon relies in large part of statistical-correlation studies prepared in the late 1980's and essentially ignores the fact that the National Marine Fisheries Service believes that declines in salmon populations in recent years have been largely attributable to changing ocean conditions. (P. 39.) Relying on those older correlation studies in the face of apparently changing ocean conditions and the UC Davis group's admonitions is inappropriate.

C. Inconsistency with longstanding reasonable use principles. In longstanding "reasonable use" decisions, the California Supreme Court has rejected demands that the use of large amounts of water be foregone to achieve unrelated or only marginally related downstream benefits. (See *Town of Antioch v. Williams Irrigation Dist.* (1922) 188 Cal. 451 (rejecting injunction against Sacramento Valley water uses to maintain in-Delta margin of fresh and salt water); *Gin S. Chow v. City of Santa Barbara* (1933) 217 Cal. 673 (rejecting injunction to prevent upstream storage in order to flush salts out of downstream property); *Peabody v. City of Vallejo* (1935) 2 Cal.2d 351 (similar); *City of Lodi v. East Bay Mun. Utility Dist.* (1936) 7 Cal.2d 316 (rejecting order requiring that use of very large amounts of water be foregone to ensure groundwater percolation to support downstream senior rights); see also *City of Barstow v. Mojave Water Agency* (2000) 23 Cal.4th 1224, 1249-1250 (citing *Peabody* and *City of Lodi*); *United States v. State Water Res. Control Bd.* (1986) 182 Cal.App.3d 82, 142 (citing *Gin S. Chow* and *Peabody*).)

These cases apply to this proceeding, even though the SWRCB is not now balancing public trust considerations and the public interest associated with consumptive water uses. Water Code section 85086(c)(1) requires the SWRCB to act "pursuant to its public trust obligations" in this proceeding. Under the California Supreme Court's *National Audubon* decision, those obligations include complying with Article X, section two. (*National Audubon Soc'y v. Superior Court* (1983) 33 Cal.4th 419, 443 ("All uses of water, including public trust uses, must now conform to the standard of reasonable use").) Morever, in SBX7 1, the Legislature not only required the SWRCB to undertake the current proceeding, but also enacted Water Code section 85023, which states:

> The longstanding constitutional principle of reasonable use and the public trust doctrine shall be the foundation of state water

management policy and are particularly important and applicable to the Delta.

Proposing that very large amounts of water be released from the Delta watershed to push juvenile salmon through the Delta in order to help avoid problematic in-Delta habitat modifications would not be consistent with the California Supreme Court's longstanding interpretation of Article X, section two, of the California Constitution and therefore would not be consistent with the SWRCB's "public trust obligations" referenced in Water Code section 85086(c)(1) or the policy principles identified by the Legislature in its enactment of Water Code section 85023 in SBX7 1.