



Coalition for a Sustainable Delta

July 29, 2010

VIA EMAIL

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

RE: COMMENT LETTER – DRAFT DELTA FLOW CRITERIA REPORT

Dear Ms. Townsend:

Please accept the attached written comments on the Draft Delta Flow Criteria Report for consideration by the State Water Resources Control Board at the board meeting on Tuesday, August 3, 2010.

Coalition for a Sustainable Delta

By: William D. Phillimore, President

State Water Resources Control Board
*Informational Proceeding to Develop Flow Criteria for the Delta
Ecosystem Necessary to Protect Public Resources*

Coalition for a Sustainable Delta's Comments on July 20, 2010 Draft

Introduction

The Coalition for a Sustainable Delta (Coalition) appreciates the opportunity to submit comments on the draft report in the above-entitled proceeding (Draft Report). As explained in the Coalition's previous comments, the State Water Resources Control Board (State Board) has interpreted its duties under the Sacramento-San Joaquin Delta Reform Act of 2009 (Delta Reform Act) with respect to the instream flow recommendations in a manner that is improperly narrow in scope, leading to the development of flow criteria that have no practical purpose or application. This is repeatedly acknowledged in the Draft Report (for example, Draft Report, pp. 2-4). The criteria recommended in the Draft Report fail to take into account the other public trust resources relevant to the Delta, and no attempt is made to balance the public interest with respect to the need for water, flood control, and the protection of other species. Such an approach leads to criteria that have no useful purpose in terms of informing the decisions made in the Bay Delta Conservation Plan (BDCP) or the Delta Plan being undertaken by the Delta Stewardship Council (DSC).

Only feasible flow criteria can inform the Delta Plan and BDCP, which is the purpose of this informational proceeding. California Water Code section 85086(c)(1) provides: "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." The Delta Plan must establish objectives and implementation measures that achieve the coequal goals of reliable water supply and protection of public trust resources (Cal. Water Code § 85300(a) ("On or before January 1, 2012, the council shall develop, adopt, and commence implementation of the Delta Plan pursuant to this part that furthers the coequal goals.")). Similarly, "[t]he goal of the BDCP is to provide for both species/habitat protection and improved reliability of water supplies." (Bay Delta Conservation Plan website, <http://www.baydeltaconservationplan.com> (last accessed July 29, 2010)). By ignoring the public interest in water diversions and other public trust resources, the State Board has recommended flow criteria in the Draft Report that cannot "inform" the BDCP and Delta Plan as required by the Delta Reform Act.

The Draft Report acknowledges that actions addressing "other stressors," including improved water quality, "may alter the need for flow" (Draft Report, p. 4). Yet, the State Board, the entity within the State responsible for implementing and enforcing the Clean Water Act and Porter-

Colgone Water Quality Control Act, has failed to adequately address these other stressors through enforcement of existing water quality and water rights laws with respect to discharges and illegal diversions. Instead, the State Board has issued a report containing flow recommendations that would require millions of law-abiding water users that depend on the Delta for their water supply to underwrite ongoing unlawful activity in the Delta. While the Draft Report acknowledges that any action to “fix” the Delta will require an integrated set of solutions (Draft Report, p. 7), the recommendations contained therein are in direct contradiction to such an approach and focus on one “stressor” – namely Delta exports – and improperly suggest that higher flows will lead to larger fish populations.

Although the Draft Report acknowledges that a flows only approach to management of the Delta cannot succeed, it nonetheless proceeds with such an approach. The standing scientific literature does not provide support for the conclusion that recent flows are insufficient to support species native to the Delta. Additionally, as the Draft Report acknowledges, the standing scientific literature does not provide support for any specific set of numeric flow criteria (Draft Report, pp.4-5). Nonetheless, such criteria are prescribed in the Draft Report. The criteria set forth cannot be justified by the standing scientific literature. And, in some cases, they appear to be contradicted by that literature.

Below, we provide more information regarding the lack of scientific justification for the specific outflow criteria proposed in the Draft Report. In light of the length of the report, the number of criteria specified, and the short timeframe provided to review the report, the Coalition will limit its comments to two representative criteria though our concerns relate to the Draft Report in its entirety.

Delta Outflow Criterion 1

Delta Outflow Criterion 1, which would require Delta outflow at 75% of unimpaired flow, is based primarily on the positive relationship shown for a single species, longfin smelt, with spring X2 (Draft Report, p. 102). We are not aware that any effort was made to validate the use of longfin smelt as a surrogate for all fish native to the Delta. The stated goal of this criterion is to maintain X2 west of Chipps Island the majority of the time during the months of January - June (Draft Report, p. 103). There is insufficient scientific support for inclusion of such a criterion, and the 75% figure appears to be arbitrary and based on the hope that certain desirable fish species, which are not even specified, will respond favorably to increased flows: “The step-decline in the abundance-X2 relationship that occurred after 1987 for many of these species in combination with the lack of understanding concerning the casual mechanisms underlying those relationships **leads to uncertainty regarding the future responses of these species to elevated flows**” (Draft Report, p. 107, emphasis added). This is clearly not the application of the best available science, as was required by the Delta Reform Act. In fact, not only is there significant

uncertainty regarding whether aquatic species will respond favorably to increased flows that would result from implementation of Criterion 1, this criterion would have likely negative impacts on some of the native fish species in the Delta through limiting the availability of cold water releases and the promotion of non-native predatory species in the Delta.

Notably, the positive relationship between striped bass and spring X2 is also used as a justification for Delta Outflow Criterion 1 even though striped bass is a non-native species that is a known predator of many of the native Delta fish that the flow criteria were intended to protect (Draft Report, p. 107). The Draft Report acknowledges the impacts of non-native species on native species by citing to two State Board reports, one of which was prepared over a decade ago: “[N]ative fishes in the Bay-Delta face growing challenges associated with competition and predation by non-native fish” (Draft Report, p. 39). Yet, the Draft Report cites as scientific support for Criterion 1 the positive abundance-X2 relationship for striped bass (Draft Report, p. 107). This makes little sense in light of the purpose of the flow criteria, which should be a focus on what flows are necessary to protect native fish – not the predators of native fish.

In addition, this recommendation fails to take into account possible impacts to salmon and other species that require cold water releases during the spring months (Draft Report, p. 108). In fact, the Draft Report acknowledges the complexity of the Delta system and the failure to take into account impacts on other species when setting the outflow criterion at 75% of unimpaired flow: “The specific flow criteria may need to be tempered by the need to maintain water in reservoirs to provide adequate cold water resources ... It may not be possible to attain the outflow criteria and meet the thermal needs of the various runs of Chinook salmon and other sensitive species in certain years” (Draft Report, p. 108). It makes little sense for the Draft Report to purport to establish as its primary flow criterion a standard of 75% of unimpaired flow when such a standard would directly conflict with the water needs of certain natives species.

Delta Outflow Criterion 2

Delta Outflow Criterion 2 would require the position of X2 in the autumn to be maintained at less than 74 kilometers (km) in wet years and less than 81 km in above normal years. This criterion is based primarily on two scientifically flawed studies (Feyrer et al. 2007; Feyrer et al. 2008). These studies also formed the basis for Reasonable and Prudent Alternative (RPA) component 3 in the U.S. Fish and Wildlife’s Biological Opinion for continued operations of the Central Valley Project and State Water Project, which is being challenged in federal district court. Plaintiffs in the challenge to the Biological Opinion – including the State of California – have documented numerous flaws associated with this RPA component.

One critical flaw in the more recent of the two studies used to support the X2 prescription is that the correlation found between the location of X2 in the autumn and subsequent delta smelt

abundance during the period 1987-2007 is driven by a single data point (Carr 2010). If that single data point is removed, the relationship between fall X2 and subsequent abundance is not statistically significant (Carr 2010). Another critical flaw in the more recent of the two studies stemmed from the fact that the residuals were not normally distributed. This flaw was identified both by the Fish and Wildlife Service in its Biological Opinion and by the peer review team assembled by the Fish and Wildlife Service to review a partial draft of its Biological Opinion (U.S. Fish and Wildlife Service 2008; PBS&J 2008).

The numeric criterion is also improper because it is premised on the false assumption that the habitat of “delta smelt and other [unnamed] species” is synonymous with a single abiotic component of habitat, namely salinity as measured by X2. Habitat is the physical space within which an animal or plant lives and the abiotic and biotic resources in that space...” (Fleishman 2010). The suggestion that the position of X2, a single abiotic variable, can serve as an effective functional surrogate for the distinct habitats required by multiple fishes in the Delta is simply not credible (Hanson 2009). Importantly, it is well documented that delta smelt are found outside the low salinity zone demarcated by X2 and a substantial portion of the low salinity zone is not occupied by delta smelt (Hanson 2009). In other words, there is not a tight fit between X2 and actual distribution of delta smelt. Thus, the scientific literature has not established a relationship between X2 and actual delta smelt habitat that justifies the use of X2 as a surrogate for delta smelt habitat.

The Coalition prepared an analysis of RPA component 3 and submitted that analysis to the National Research Council Committee on Sustainable Water and Environmental Management in the California Bay-Delta (Hamilton 2010). That analysis demonstrates that RPA component 3 may actually contribute to reducing subsequent abundance of delta smelt -- adding outflows to the naturally low flow autumn hydrograph is likely to negatively impact delta smelt, which is adapted to slack water in the fall.

The specific criterion recommended in the Draft Report was assessed by the National Research Council’s Committee on Sustainable Water and Environmental Management in the California Bay-Delta in its March 2010 report entitled “*A Scientific Assessment of Alternatives for Reducing Water Management Effects on Threatened and Endangered Fishes in California’s Bay Delta*”, which concluded that “[t]he weak statistical relationship between the location of X2 and the size of smelt populations makes the justification for this action difficult to understand.” The Draft Report acknowledges the scientific flaws in the analysis supporting Delta Outflow Criterion 2, noting that there is “uncertainty” about the “specific targets” and the criterion’s “overall effectiveness” (Draft Report, p. 110), but then goes on to recommend its inclusion as a component of the flow criteria. Inexplicably, elsewhere the authors of the Draft Report characterize this criterion as “supported by more robust scientific information” (Draft Report, p.98). Given the lack of certainty with regard to the justification for this criterion and the

specific numeric targets, this criterion should not be included in the State Board's flow recommendations, even if such recommendations have no binding effect.

Conclusion

In conclusion, the Draft Report fails to recommend flow criteria that may inform the Delta Plan and BDCP because the criteria recommended are: 1) not supported by the best available scientific information, as required by the Delta Reform Act, and 2) completely devoid of any useful purpose because they have been developed without any consideration of other public trust resources and the co-equal goals that provide the cornerstone for the Delta Reform Act.