



April 4, 2016

Charles Simenstad, Chair  
2016 California WaterFix Aquatic Science Peer Review  
Delta Science Program  
980 Ninth Street  
Sacramento, CA 95814

**RE: 2016 California WaterFix Aquatic Science Peer Review**

Dear Professor Simenstad and Members of the Peer Review Panel:

On behalf of the Natural Resources Defense Council (NRDC), I am writing to provide brief comments regarding the panel's review of the draft California WaterFix Biological Assessment (draft BA) and draft scientific approach to the ESA/CESA consultations. NRDC greatly appreciates the Panel's work reviewing the Bay Delta Conservation Plan and related issues over the past several years. Unfortunately I am unable to attend the panel's public work session to provide public comment, and I hope that the panel will consider these three questions.

First, what is the duration of the WaterFix operations for which the agencies are seeking consultation and how should that duration inform the analysis? Much of the modeling in the draft BA analyzes conditions in 2025 or 2030, which is likely prior to or coextensive with the time that construction of the proposed WaterFix facility will be completed. Does the draft BA provide adequate CALSIM II modeling and information regarding the potential effects of WaterFix operations after this date, particularly in light of the growing severity of the effects of climate change in the following years?

Second, does the draft BA adequately account for the likely impacts of climate change on operations and species? It is my understanding that CALSIM II modeling of both the No Action Alternative and the Proposed Project in the draft BA includes the effects of climate change in 2025. However, even by 2025, climate change effects are likely to contribute to significant impacts compared to the historical record. This is of particular concern with respect to: (a) upstream water temperatures and reservoir storage; and, (b) Delta outflow in the winter-spring period.

More specifically, does the draft biological assessment provide adequate information on changes in upstream temperatures and reservoir storage (and the ability of water project operators to meet temperature requirements for salmonids), in light of the effects of climate change? The draft BA

proposes to exclude the effects of reservoir operations on salmonids as part of this consultation on WaterFix (see pages 3-1 and 3-205 to 3-206 of the draft BA). Does this proposed approach ensure that the full scope of impacts to affected species and the full suite of proposed operations to address those impacts will be analyzed? Similarly, does the draft BA provide adequate information on the anticipated changes in winter-spring Delta outflow from climate change as compared to the historical record, and how those changes that may affect the survival and abundance of longfin smelt and other species (like winter run Chinook salmon)? In addition, if the term of the consultation is beyond 2025, does the draft BA provide adequate information on the anticipated effects of climate change during that term?

Third, does the draft BA provide reasonable certainty regarding the likely effects of WaterFix operations during drought conditions on fish and wildlife, particularly multi-year droughts? While the draft BA includes proposed operations and modeling of operations in dry and critically dry years, the document also explains that after a dry fall following a *single* dry or critically dry water year in *either* the Sacramento or San Joaquin River basin, operators will prepare drought contingency plans and temporary urgency change petitions to change operations. (Draft BA at 3-214) During the recent drought, these procedures were utilized to waive or greatly weaken environmental protections, including dramatic reductions in the Delta outflow that is required under drought conditions and waivers of upstream temperature requirements below Shasta Dam. These reductions in environmental protections in combination with drought had disastrous effects on listed species, leading to record low population abundance estimates for Delta smelt and Longfin smelt and nearly complete year class failures for winter-run Chinook salmon in both 2014 and 2015 (doing so increased water supply by more than 1.3 million acre feet combined in 2014 and 2015). In light of the significant adverse effects on listed species from operations during drought conditions, how frequently are such changes to proposed operations likely to occur? Does the BA adequately analyze the synergistic negative effects of operating the Cal WaterFix and project reservoirs under temporary urgency changes to water quality rules in multiple consecutive years? Can the agencies reasonably assess the likely impacts of operations during drought conditions without a more specific plan for how they agency plans to respond to drought conditions, rather than just planning to plan?

I hope these questions are useful as the panel considers the draft BA and related materials. I am very sorry that I cannot attend the review panel in person, but would be happy to follow up another time if you have any questions or would like to discuss this further.

Sincerely,

A handwritten signature in cursive script that reads "Doug Obegi".

Doug Obegi