



By email to: kstock@usbr.gov

September 18, 2024

Karl Stock, Regional Director
US Bureau of Reclamation

RE: PROPOSED OFF-RAMP FROM DELTA SMELT SUMMER-FALL HABITAT
ACTION IN OCTOBER 2024

Dear Mr. Stock,

This letter is submitted as the comments of Friends of the River, San Francisco Baykeeper, Defenders of Wildlife, Restore the Delta, the California Sportfishing Protection Alliance and the Golden State Salmon Association on the draft U.S. Bureau of Reclamation (Reclamation) memorandum from Dave Mooney to Kristin White (and the accompanying memorandum from you to Paul Souza) regarding the modification of the Delta Smelt Summer-Fall Habitat Action proposed by the California Department of Water Resources (DWR), which would implement an off-ramp from compliance with the Fall X2 action in October 2024. We appreciate the opportunity to comment prior to Reclamation's making a final decision on this proposed modification.

In summary, the proposed modification:

- **Fails to demonstrate that it will provide equal or better protection than maintaining Fall X2 = or < 80 km in September and October**
- **Is inconsistent in its justification for the proposed modification**
- **Overlooks the best available science supporting the Summer-Fall Habitat Action**
- **Overlooks the urgent need to augment existing protections for Delta Smelt and promote recovery rather than choose between potential actions and settles for minimal protections**

- **Fails to address the fact that augmenting outflow earlier in the summer would have been the best adaptive management action to provide additional benefits for the species based on the best available science**

Reclamation’s memo offers three conflicting and inconsistent reasons to modify the Summer-Fall Habitat Action.

First, Reclamation cites new information indicating that:

“Delta outflow in the summer, rather than fall, is the better predictor of delta smelt survival. The best information we have available to us suggests that high summer flows help align different habitat needs of delta smelt habitat while also increasing food subsidies, supporting delta smelt growth and survival...” P. 1 of the September 11, 2024 “Proposed Alternative Action Implementation of the Summer-Fall Habitat Action for Water Year 2024” appendix to Reclamation’s memoranda (p. 8 in the pdf).

We agree that augmenting summer outflow may be an essential action to improve the survival and recovery of Delta Smelt populations. Indeed, the new studies confirm what has been already identified as a promising direction in numerous studies over the past decade. For instance, eight years ago the State of California included summer outflow augmentation in its 2016 Delta Smelt Resiliency Strategy (CNRA 2016). Information regarding the value of summer outflow was known to Reclamation and DWR prior to the summer of 2024 and could have formed the basis for a summer outflow augmentation this summer. In fact, the only logical adaptive management actions for the agencies to develop and implement that respond specifically to the new and previous summer outflow studies would have been an action to augment summer outflow in addition to augmenting fall outflow in 2024. Reclamation and DWR did not pursue such an action, and as a result the best opportunity for truly informative and beneficial adaptive management focusing on the most promising area of improvement in WY 2024 has already been missed.

Second, Reclamation’s memo goes on to state that “The same things happen if flows are high enough in the fall, but the response of delta smelt lessens because temperatures cool into more appropriate ranges and the prey subsidy is reduced as prey populations seasonally senesce. This newer information means the species benefits originally anticipated for the Fall X2 action are unlikely to translate to improved delta smelt population growth rate.” P. 1 of the September 11, 2024 “Proposed Alternative Action Implementation of the Summer-Fall Habitat Action for Water Year 2024” appendix to Reclamation’s memoranda (p. 8 in the pdf).

Reclamation’s reasoning regarding the fall outflow action is both faulty and inconsistent with its own findings elsewhere and with the scientific literature. Finding that summer outflow may be a better predictor of Delta Smelt survival is not the same as separately finding that fall outflow is not also an important tool to provide benefits for and prevent extinction of this most endangered species of the San Francisco Bay-Delta estuary. The scientific literature includes numerous

studies confirming the benefits of fall outflow. Increased outflow during October and November is consistent with lower temperatures (Bashevkin and Mahardja 2022) and increased transport of *Pseudodiaptomus forbesi* – a key Delta Smelt prey species– from fresh/very low salinity waters to the low salinity zone inhabited by juvenile Delta Smelt (Hassrick et al. 2023; Lee et al. 2023; Kimmerer et al. 2018). These positive effects on Delta Smelt habitat in the low salinity zone are increasingly apparent as low salinity habitat moves further to the west, and X2 is less than 80km (see e.g., Hassrick et al. 2023 at Figure 3). Polansky et al (2021) found that “recruitment was most influenced by temperature, the approximate location of the 2-ppt isohaline during the previous fall, and adult food” (emphasis added). These findings are supported by numerous other modeling analyses and empirical observations (see, for instance, Brown et al 2014; Rose and Kimmerer 2013a,b; Feyrer et al 2007).

Indeed, the proponents of the modification have explicitly acknowledged the benefits of enhancing fall outflow. Only two weeks ago, DWR, Reclamation, the US Fish and Wildlife Service and the California Department of Fish and Wildlife specifically stated in their August 30, 2024, joint response to the August 21, 2024, letter from Westlands Water District and other water agencies requesting suspension of the Fall X2 action:

“The available science demonstrates that the Fall X2 action provides some important benefits to Delta smelt, such as increased food abundance and favorable water temperatures. The question of whether these benefits translate to more Delta smelt the following year has only recently been brought to light through a new USFWS life cycle model. The life cycle model analysis shows that summer flows are more important drivers of Delta Smelt abundance. This does not mean the Fall X2 action will not have some population benefits, especially given that it is expected to expand habitat in Suisun Bay. This is the one area in the upper estuary that had suitable water temperatures during the heatwave in July 2024.” (DWR et al 2024 at p. 2). This argument rightfully calls into question the premise for the proposed modification.

Third, Reclamation’s memo claims that its analysis “demonstrates that the proposed modification described above for the 2024 Summer- Fall Habitat Action implementation provides similar or better protection than the Fall X2 action described in the 2019 Proposed Action.” P. 1 of the memorandum from Karl Stock to Paul Souza (p. 7 in the pdf). This is patently false, as the memo itself makes clear.

Reclamation’s memo states that: “A with and without comparison of implementing the Fall X2 action in October allows for DWR and Reclamation to test action performance with respect to delta smelt abundance, growth, and habitat conditions between 2023 and 2024 operations.” P. 2 of the September 11, 2024 “Proposed Alternative Action Implementation of the Summer-Fall Habitat Action for Water Year 2024” appendix to Reclamation’s memoranda (p. 9 in the pdf). In other words, DWR and Reclamation do not know whether the proposed 2024 modification will perform better than the 2023 Summer-Fall Habitat Action, and therefore cannot claim that it will provide similar or better protection. Furthermore, the memo acknowledges that operation of the

Suisun Marsh Salinity Control Gates (SMSCG) in late summer may “potentially [lead] to positive bioenergetic effects on delta smelt.” (*Ibid*). That is to say, the same uncertainties that Reclamation cites regarding the population level effects of fall outflow apply equally or more to SMSCG operation, whose inclusion is the primary justification for modifying the Summer-Fall Habitat Action.

We have supported conducting alternative SMSCG operations in the past and continue to do so, because doing so may provide additional benefits to Delta Smelt at a time when the species desperately needs all the help it can get. But Reclamation’s memo provides absolutely no evidence that alternative SMSCG operation can substitute for full implementation of the Summer-Fall Habitat Action, rather than add value by supplementing the benefits of the latter.

Furthermore, the scientific literature documenting the benefits of fall outflow have generally evaluated the September-November period. Reclamation’s memo provides no basis for finding that limiting fall outflow augmentation to September will or can possibly provide similar or better protection than augmenting fall outflow for the entire fall period based on the analyses in the studies cited above (for instance, see Polansky et al 2021 or Bashevkin and Mahardja 2022).

Based on the extensive record of empirical and modeling studies cited above, it is highly likely that implementing the proposed modification instead of the Summer-Fall Habitat Action as intended will adversely impact Delta Smelt, including decreased food availability in Suisun Bay (including Suisun Marsh).

Reclamation’s memo offers up a set of false dichotomies: either enhance summer outflow or fall outflow (but not both); either enhance fall outflow and operate the SMSCG beneficially in September only or enhance fall outflow and do not operate the SMSCG beneficially for the September-October period (but do not do both through October). These false dichotomies overlook three overriding facts. First, the situation of Delta Smelt is dire, and its record low population levels call for strong interventions by the state and federal agencies responsible for preventing its extinction. Second, there is no one single factor or action that is likely by itself to reverse the trend toward extinction and support recovery. Delta Smelt cannot be saved by an either/or strategy based on false choices. At this point, a both/and approach is the only one that can work. Third, contemplating adaptive management experiments is highly questionable given that Delta Smelt are nearly undetectable in the wild. It is just as likely that this experiment will facilitate the extinction of wild Delta Smelt as it is to generate useful information.

Experimentation needs to focus on increasing overall protections and restoring the species, not limiting protections and increasing the already high risk of extinction.

We urge you to do the following:

- **Reject the proposed modification and implement the Summer-Fall Habitat Action as intended through October 2024.**

Mr. Karl Stock

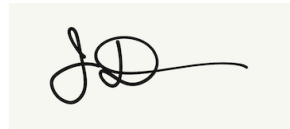
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- **Consider whether alternative operations of the SMSCG should be continued in conjunction with full implementation of the Summer-Fall Habitat Action.**
- **Plan for and implement an experimental summer (i.e., July-August) outflow augmentation beginning in WY 2025 and subsequent years, in addition to any Summer-Fall Habitat Action that may be triggered.**
- **Ensure that environmental NGOs and other parties have greater opportunity to participate (and support for participation) in the analysis and design of adaptive management activities going forward.**

Again, we appreciate that Reclamation has provided the opportunity to comment before the proposed modification is adopted. We look forward to working with you to increase overall protection for endangered Delta Smelt.

Sincerely,



Jann Dorman
Friends of the River



Eric Buescher
San Francisco Baykeeper



Ashley Overhouse
Defenders of Wildlife



Barbara Barrigan-Parrilla
Restore the Delta



Chris Shutes
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Gary Bobker, Greg Reis, Friends of the River
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