

Pacific Fishery Management Council

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Mr. Chris Oliver, Assistant Administrator National Marine Fisheries Service 1315 East-West Highway Silver Spring, MD 20910

Mr. Barry Thom, Regional Administrator West Coast Region National Marine Fisheries Service 1201 NE Lloyd Blvd. Suite 1100 Portland, OR 97232

Mr. Ernest Conant, Regional Director Bureau of Reclamation California-Great Basin Region Federal Office Building 2800 Cottage Way Sacramento, CA 95825-1898

Dear Mr. Oliver, Mr. Thom, and Mr. Conant:

The Pacific Fishery Management Council (Pacific Council or Council) is writing to express its concern regarding the National Marine Fisheries Service's (NMFS's) final Biological Opinion (BiOp) and the Bureau of Reclamation's (BOR's) final Biological Assessment (BA) of the Reinitiation of Consultation on the Coordinated Long-Term Operation of the Central Valley Project and State Water Project. We believe that the proposed project would result in changes to Central Valley Project (CVP) and State Water Project (SWP) operations that could significantly harm Council-managed fisheries and essential fish habitat (EFH) that the Council has identified as crucial for the propagation of those fishery resources, and that the BiOp does not provide adequate measure to mitigate Project impacts.

The Council was established by the Magnuson-Stevens Fishery Conservation and Management Act of 1976 (MSA), and has management authority for more than 119 fish species in Federal waters off Washington, Oregon, and California, including fall-run Chinook salmon in the Sacramento/San Joaquin and Klamath/Trinity systems. The MSA charges the U.S. Secretary of Commerce to include provisions to identify, conserve, and enhance EFH for those managed species.

The MSA requires Federal agencies including the BOR to consult with the NMFS on all proposed actions that may adversely affect EFH (MSA §305(b)(2)). The Council is also authorized under the MSA to comment on and make recommendations to Federal agencies regarding EFH protection. Furthermore, for activities that the Council believes are likely to substantially affect the habitat of its managed salmonids, the Council is obligated to provide comments (MSA §305(b)(3)). It appears that the proposed project would adversely affect or modify Council-designated EFH for salmon.

As you know, the Council manages the harvestable surplus of fall-run Chinook salmon from the Central Valley and the Klamath/Trinity River systems for the benefit of tribal, commercial and recreational fisheries. In addition, the Council manages these fisheries based on the survival and abundance of Central Valley winter-run and spring-run Chinook salmon from the Sacramento River basin in accordance with Endangered Species Act (ESA) consultation standards. Decreases in the survival or abundance of either of these fall- or winter- and spring-run Chinook stocks impact Council-managed fisheries by limiting the opportunity afforded to tribal, commercial and recreational fishermen according to the Council's salmon fishery management plan through direct impacts to fish available for harvest, or through constraints placed on harvest allocations. Many of our concerns regarding these stocks, and potential remedies, have previously been expressed in letters to the BOR^{1,2} and NMFS³.

Fall-run Chinook stocks in the Central Valley and Klamath/Trinity were recently declared "overfished" (depleted) due to a combination of factors, including freshwater conditions (related to both drought and water management) and recent poor ocean conditions. The Council is taking measures to rebuild the fall-run Chinook stocks, including having developed rebuilding plans, which require, among other things, the identification of impacts to EFH from water operations and reducing ocean fishing impacts on affected stocks. These measures have direct bearing on the vitality of fishing communities, supporting the hundreds of millions of dollars of economic output from the commercial and recreational fishing sectors as well as the irreplaceable cultural and ceremonial value of salmon to West Coast tribes. Any actions to increase water diversions from the Sacramento/San Joaquin River system without regard for the vital habitat needs of salmon will exacerbate an already dire situation for these stocks and the fishing communities that depend on them. Avoiding additional constraints on Council-managed fisheries by preventing harm to EFH is of paramount importance to us as it should be so for your agencies as well.

The Proposed Project Fails to Protect Winter Run Chinook Salmon Below Lake Shasta

In 2015, we raised concerns⁴ with BOR regarding the loss of temperature control at Lake Shasta and the Sacramento River downstream of CVP facilities there, resulting in extreme levels of winter-run Chinook salmon mortality. Additionally, NMFS developed a draft set of Reasonable

¹ http://www.pcouncil.org/wp-content/uploads/2009/12/April-2016-Sacramento-Water-Letter.pdf

² https://www.pcouncil.org/wp-content/uploads/BOR-May-2010-Sacramento-letter-FINAL.pdf

³ http://www.pcouncil.org/wp-content/uploads/BDCP-letter-FinalDraft.pdf

⁴http://www.pcouncil.org/wp-content/uploads/2009/12/SRWC-Temp-Flow-Letter-May-2015.pdf

and Prudent Alternatives (RPA) for Shasta operations in 2017 to prevent the reoccurrence of these unacceptable conditions.

The Council is concerned about the impacts of proposed project operations to both ESA-listed and unlisted salmon downstream from Lake Shasta. In particular, the Council is concerned that many of our earlier recommendations have not been incorporated into the BiOp or the BA, and that the proposed project would instead eliminate carryover storage requirements in Lake Shasta, and dispense with the operational requirements in the 2017 RPAs as well as the carryover requirements in the current (2009) BiOp for CVP/SWP operations. The failure to include carryover storage requirements would significantly reduce cold water pooling capacity in the reservoir, which is critical to the survival of juvenile winter run Chinook salmon during dry and critically dry years, or protracted droughts. Without carryover storage requirements, CVP runs the risk of having too little supply to manage for low water conditions, like we have already seen, when juvenile salmon are at their most vulnerable life history stage.

The CVP's impacts to the abundance of winter-run Chinook has led to constraints on Lake Shasta operations; we note that the BA proposes, and the BiOp endorses, eliminating BOR's requirement to consult with NMFS on these operations. If this consultation requirement is removed, BOR may fail to account for impacts of CVP/SWP operations on both winter-run Chinook salmon and other Council-managed fisheries. This lack of constraint could result in economic harm to commercial and recreational fisheries along the West Coast, which rely on these stocks.

In addition, the BA proposes CVP/SWP operations that would result in levels of temperature-dependent mortality for winter-run Chinook salmon that exceed the 2009 RPAs (See 2009 BiOp RPA Action I.2) and the 2017 draft RPA by a significant margin. Recognizing that the 2009 RPA were insufficient to avoid jeopardy to ESA listed winter-run Chinook in protracted periods of drought, in the 2017 draft RPA NMFS outlined a set of temperature-dependent mortality thresholds for various water year types. According to the BA and the BiOp, the parameters of the proposed project operations would result in exceedances of these mortality thresholds in all water year types. Of particular note, in critically dry years, the BA estimates 61 percent temperature-dependent mortality under the parameters of the proposed project operations. This level exceeds by a significant margin the maximum threshold of 30 percent temperature dependent mortality determined by NMFS in the 2017 draft RPA.

Rather than proposing RPAs to alleviate the inadequate temperature control at Lake Shasta, the BiOp instead implements a take authorization level that could result in 100 percent mortality of ESA-listed winter-run Chinook salmon for three consecutive years before exceeding the trigger for reconsultation on temperature protection actions (BiOp pp. 801). This change, in combination with relaxation of provisions for exploring reintroductions within the historic range, is a prescription for both increased water use (through ESA) and increased fishing constraints on the fall run (through ESA and the MSA). Most importantly though, as you must know, a majority of Central Valley Chinook salmon including endangered winter-run Chinook, exhibit a three-year intergenerational life history; the three year exceedance threshold could result in the extinction of winter-run Chinook before reconsultation to consider and adopt mitigation actions would occur. This fact alone indicates that the BiOp conclusion that CVE/SWP operations do not jeopardize the continued existence of ESA listed salmon is indefensible.

The Proposed Project Would Result in Adverse Modifications to EFH

The Pacific Council is charged with designating EFH for Council-managed fisheries under §305 of the MSA and commenting on Federal agency actions that affect the EFH of Council-managed species. All tributaries and mainstems of the Sacramento and San Joaquin river systems, and most of the habitat historically accessible to Chinook salmon, as well as estuarine waters (including the Delta) are designated as EFH⁵. Accordingly, the Council has determined that areas and conditions contained in the CVP/SWP-proposed project area constitute EFH.

The EFH description of the Pacific Coast Salmon Fishery Management Plan⁶ lists known threats to salmon habitat such as dam construction, reducing in-river flow, levee construction, logging riparian habitat, and pollution from both agricultural and urban runoff. These threats lead to loss of water quality, including elevated water temperatures, increased turbidity and suspended solids, flooding and dewatering of spawning areas, and alteration of the natural flow regime. The EFH description identifies beneficial habitat factors listed as EFH including side channel habitat, channel margin shading, high riffle/pool ratio and structure, and presence of large woody debris.

The Council is greatly concerned that the proposed project operations would result in the significant adverse modifications to Council-designated EFH for fall-run Chinook salmon and other Council-managed salmonids. These impacts include, but are not limited to, impairment of conditions necessary for the survival and propagation of Council-managed stocks in the Sacramento River due to inadequate temperature management and altered hydrographic conditions, reducing flows at key periods of fall-run salmon ontogeny, as well as adverse modifications to the Delta via increased diversions from CVP and SWP pumping facilities in the Delta.

The BA proposes to significantly increase Delta pumping and increase Old and Middle River (OMR) reverse flows from April to May, which constitutes a crucial period of outmigration for fall run Chinook salmon. In particular, the actions in the BA propose to increase project exports in the spring by as much as 100 percent in dry years (BA Figure 53-5); as much as 200 percent in above normal years (BA Figure 53-3), and by 100 percent on average (BA Figure 53-1). Increased pumping and OMR reverse flows would result in the degradation of key EFH conditions, including deleterious reductions in estuarine flows, and increased likelihood of mortality driven by entrainment at fish screens and pumping facilities. Such impacts would have significant adverse impacts to Council-designated EFH and Council-managed fisheries.

Further, the BiOp eliminates several key provisions contained in the 2009 NMFS BiOp that were implemented in order to protect salmon. The new BiOp eliminates the San Joaquin inflow-export ratio, a key protection for EFH (BiOp pp. 641); it reduces limitations on the operation of the Delta Cross Channel gates, which would reduce survival of outmigrating fish in the Delta (BiOp pp. 59; 402), including reducing estimated survival of juvenile salmon in November from 45 percent to 30 percent (BiOp pp. 390). It would also eliminate NMFS authority to respond to unanticipated fish kills caused by project operations.

⁵ http://www.pcouncil.org/wp-content/uploads/Salmon EFH Appendix A FINAL September-25.pdf

⁶ http://www.pcouncil.org/wp-content/uploads/2016/03/FMP-through-A-19 Final.pdf

The Proposed Project would Lead to Salmon Declines

While the BiOp concludes that the proposed project would not jeopardize ESA listed salmonids, the analysis contained therein clearly shows that the proposed project operations would lead to declines in salmon populations throughout the system that support Council-managed fisheries, as well as ESA-listed salmonid populations threatened with extinction. The BiOp states unequivocally, "reductions in the survival and productivity of all CV Chinook salmon populations (including fall-run and late fall-run Chinook salmon) are expected to occur throughout the proposed action, and the greatest effects will occur during the drier water years when effects of the proposed action are most pronounced." (BiOp pp. 683)

Impacts to ESA-listed winter run Chinook salmon, which constrain Council managed fisheries, are likely to occur as a result of proposed project operations. The BiOp demonstrates that there is a greater risk of population declines and extinction than under the 2009 BiOp (BiOp pp. 706-707). Winter run Chinook salmon in particular, are assigned a 97 percent likelihood of decline under proposed project operations. The BiOp also projects significant increases in the rates of entrainment of winter run and spring run Chinook salmon at the Delta pumps in all year types (BiOp pp. 489, 500), resulting in decreased migratory success.

Conclusion and Request for Recommendation to Conserve EFH

As noted above, the Council believes that the proposed action would result in adverse impacts to Council-designated EFH. Consistent with MSA §305(b)(4)(A), the Council requests that you make recommendations to the Secretary of the Interior regarding measures that can be taken to protect EFH for managed species from the adverse impacts likely to occur from the proposed project. Further, we request that no Record of Decision be issued for the proposed project until an analysis of the impacts of the proposed project to EFH is completed and any Reasonable and Prudent Alternatives, including but not limited to those identified here or developed in order to minimize and mitigate impacts to EFH and to critical habitat for ESA listed stocks resulting from the analysis, are incorporated therein.

In general terms, West Coast fisheries and coastal communities rely on a healthy level of salmon production from the Central Valley for their economic, cultural, and recreational benefits. Freshwater habitat and migratory conditions are critical for salmon populations, and careful water management throughout the Central Valley is essential in sustaining and recovering salmon populations as required under the MSA and the ESA. The myriad benefits to fisheries, fishing communities, and the nation as a whole, including hundreds of millions of dollars of economic benefit and irreplaceable cultural value, must be taken into account, and supported, by BOR water operations decisions as it fulfills its mitigation obligations for development of those water resources. The Council fears that the proposed project would fail to support these benefits.

In closing, the Council urges you to scrupulously evaluate the proposed project's impacts to all Central Valley and Klamath/Trinity River salmon EFH. Such an evaluation would include differential impacts to EFH of ESA-listed and unlisted Council-managed stocks based on geography, phenology, or other factors in light of the significant reductions in salmon populations

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stated to be likely as a result of the proposed project, and the impacts that the operational changes contained therein pose to Council-managed fisheries and Council-designated EFH.

If you have any question, feel free to contact me or Jennifer Gilden of my staff.

Sincerely,

Charles A. Tracy Executive Director

JDG:rdd

Cc: Pacific Council Members

Charles a. Fracy

Ms. Maria Rea, Assistance Regional Administrator, California Central Valley Area

Office at NMFS Habitat Committee

Salmon Advisory Subpanel Salmon Technical Team