California Department of Fish and Wildlife, 12-7-2018

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DFW comments on Draft ROC on LTO Proposed Action

DCC operations

Our understanding of what was included in the PA:

October – November: Open unless KLCI WR trigger is met, then closed.

Dec 15 – early February: If no KLCI trigger open periodically to maintain compliance with D-1641

Early Feb – May: Closed

- Clearly state that the existing KLCI winter run trigger would be maintained as written in the 2009 BiOp.
- Otherwise adhere to existing D-1641 requirements.

Fish collection facilities at CVP/SWP

- The PA indicates changes in salvage sampling frequency at Jones based on an unquantified trigger of "few fish". It lacks any clear description of sampling frequency at Skinner. The current sampling methodology should be, at a minimum, maintained. Clarity and a common understanding of how salvage will be conducted is an essential foundation to proposed salvage triggers proposed for South Delta operations and Storm Event operations.
- We also suggest future discussions regarding the need to increase frequency of sampling at South Delta facility to account for the fact that salvage based triggers are being given much more weight in determining operations. This is especially important to consider during storm event operations when pumping rates could be much higher than previously during a time of year when fish are present in the south Delta.

Suisun Marsh facility operations:

- Operation of the SMSCG to provide smelt habitat in the Marsh may be promising but is not yet certain. Many hydrological factors influence the success of this option. We suggest including the ability to operate the gates June – November in a future ITP application but to make decisions based on prior observation and modeling each year about how to conduct these operations and carefully monitor outcomes. The efficacy of this action in creating DS and LFS habitat in the Marsh would be developed over time through an AM process conducted on an annual time step.

I:E Ratio (4.2.1 NMFS BiOP RPA): DFW has submitted numbers in previous comments regarding the importance of retaining the I:E ratio for protection of all four CESA listed species.

LFS Spring outflow: As in the Water Fix ITP we suggest including a component to maintain spring outflow from March – May to minimize impacts of the project on longfin smelt.

OMR management:

- Bottom of page 31: "Reclamation and DWR propose to maximize exports by incorporating real-time monitoring of fish distribution, hydrodynamic models, and entrainment models into the decision support for the management of OMR to focus protections for fish when necessary and provide flexibility where possible, consistent with the WIIN Act Sections 4002 and 4003."

  This text provides an example of wording that is of concern to DFW. If there is a shift in decision making authority away from collaborative operations groups and wildlife agencies we need clear descriptions of specific modeling tools, how they will be used, how the results will be posted publically, and quantifiable triggers that can be used to determine changes in operations.

- We are willing to accept the ability to use rapid genetic testing to inform WR salvage triggers over the long term. Given proposed changes to operations during storm events. Salvage triggers should be maintained as hard triggers without flexibility per BOR risk assessments or conversations with USFWS, NMFS and DFW.

- CDFW acknowledges that existing winter run length at date triggers provided ancillary protections for spring run. In the absence of length at date triggers these protections of spring run have been diminished. We propose developing new techniques to better track spring run migration, particularly into the Delta and the zone of influence of the CVP/SWP facilities. In addition to better monitoring and tracking of spring run we suggest establishing spring run salvage triggers based on best available methods at the time (length at date or genetic testing).

  In the interim we suggest maintaining spring run surrogate releases (Coleman late fall run surrogate release) to inform the distribution and timing of spring run migration. Over the long term DFW is interested in participating in ongoing discussions about to improve spring run migration monitoring. For example, adding spring run releases from Feather River hatchery to the existing late fall run release monitoring and/or adding new locations of rotary screw traps along spring run migratory routes.

- Proposal to operate based on the OMR Index:
  - Please note that previous scientific analyses (cited in the PA and relied upon by five agencies) were conducted using USGS empirical tidally filtered OMR gauge data, not the proposed OMR Index. As a result it creates an internal inconsistency within the PA and associated effects analysis. DFW is open to the possibility of allowing operations based on the OMR Index, and potentially compliance triggers based on OMR Index. However

this needs to be carefully justified and clearly linked to effects analyses supporting an ITP application ad CEQA document.

- The 2009 LFS ITP risk assessment matrix considers and frequently relies upon consideration of QWEST magnitude and direction in analyzing longfin smelt salvage risk. We suggest including consideration of QWEST as a hydrologic indicator of salvage risk in operational criteria and/or effects analyses to support an ITP application and CEQA document.

- "Onset of OMR management" bullet:
  - It is our understanding that this portion describes base operations and criteria governing operations for OMR management during the period of fish presence in the Delta. We assume that all of these criteria and triggers remain intact and would serve as both onramps and off ramps for subsequent proposed "storm flex operations". This understanding is very important to our subsequent comments on components of OMR management as described in the PA.

  - Grimaldo 2017: Our interpretation of this study are that multiple factors are drivers of changes in salvage at the facilities including FMWT index, SWP and CVP exports, and OMR. As a result it is necessary to consider all of these factors in setting operational criteria and in conducting effects analyses to support an ITP application and CEQA document, not just assume that a -5000 OMR is sufficiently protective at all times and conditions. An additional point is that the paper indicates it is possible that exports would be a greater driver of salvage than OMR, further indicating that a more balanced perspective on managing salvage risk is needed when considering analyses of impacts to species in the South Delta.

  - "Onset of OMR management – First flush" bullet: DFW supports the effort to tighten up the timeframe in which a turbidity trigger is analyzed to allow for more rapid change in operations and avoid formation of a turbidity bridge. We also support the reliance on multiple turbidity stations to provide a more broadly based trigger to evaluate the present of a forming turbidity bridge. We also suggest continuing ongoing DWR turbidity monitoring to assess the potential to form a turbidity bridge and considering how to incorporate data obtained from these surveys into a turbidity operations trigger. Because this bullet is focused on first flush protection DFW suggests moving OMR to -2000 (instead of -5000) for the following 14 days to ensure protection of the first flush. Subsequence protections and triggers would then focus on managing OMR to prevent entrainment following delta smelt movement up into the system by formation of a turbidity bridge. This is covered under the turbidity bridge bullet below.

  - "Onset of OMR management – Winter run" bullet:
    DOSS is responsible for estimating the % of the winter run population that has moved into the Delta. If this 5% trigger is maintained this operational criteria would need to

directly reference advice provided by DOSS as the decision making point. Additionally, the ITP would need to maintain DOSS throughout the duration of the ITP.

- "Onset of OMR management – spring run" bullet: We suggest modifying this language to ensure that the majority of the distribution of spring run in the Delta are protected: "After **January 1 or** when more than 5% of spring-run Chinook…"
  The comment on the winter-run bullet regarding reliance on DOSS advice also applies here.

Additional Real-Time OMR Restrictions:

- "First flush and turbidity bridge avoidance" – This criteria should focus on turbidity bridge avoidance because the bullet above focuses on first flush protection. If this change is made DFW supports the wording in the on ramp portion of this bullet. However, DFW has concerns about the lack of larval DS triggers and protections in this PA. These need to be considered and included in an ITP application and associated CEQA document.
- "Salvage thresholds" bullet:
  - DFW suggests including larval and juvenile Delta smelt and longfin smelt salvage triggers in this section. Please see comment above about the need for larval DS and LFS protection in an ITP.
  - DFW is unable to analyze the impacts (or benefits) of the first sub bullet under OMR restrictions because it does not contain criteria or commitments to change operations to be more protective.
  - Please clearly support the process used to produce the annual JPE by the winter run project work team and approved by NMFS. It is important to maintain the existing protocol to rely upon this estaimte for operational triggers.
  - In the third and fourth sub bullets the following language is included: "If Reclamation desires a different restriction, Reclamation will confer with USFWS and/or NMFS, depending upon species."
    The ability to reinitiate a BiOP or an ITP is implicit in the process. It is not appropriate to include this language in the trigger because it undermines the utility of the trigger in the decision making process.
  - "Schedule export reductions to restrict OMR to -2,500 cfs (or more positive if determined by Reclamation) when cumulative salvage loss exceeds 75 percent of the threshold." This wording needs to be much clearer. An operation trigger should result in a *change* in operations and associated hydrology. This wording needs to be edited to reflect a commitment to change operations to result in an observed hydrology.
- In summary, there is no clear reliance on density triggers to make operational adjustments below -5000 OMR or in storm events. As a result, operations will not be responsive to fish presence or entrainment and these operational criteria would not serve to minimize impacts to

the species which is a requirement of CESA. Because this section does not include density triggers which would allow operations to respond to changes in fish presence it does not fit the requirements of CESA to avoid and minimize impacts to listed species. These operations do not provide fish the opportunity to move out of the system once they are entrained into the zone of influence and the Central Delta.

- "Storm related OMR flexibility" bullet: The preceding comment also applies to this section.

  Please note that current BiOp and ITP requirements include high flow offramps that could allow increased capture of peak flows during storm events.

  Because there is no clear definition of a "storm event" or "peak flows" this text could allow operations to any level of pumping capacity and OMR when Reclamation and DWR determine that a "storm event" is occurring throughout the entire year. This is not sufficiently protective of listed species. Please see DFW's comments on the last draft we reviewed for WIIN Act criteria. These included consideration of both storm flex operations on ramps and off ramps.

- "End of OMR management" bullet:
  - The temperature off ramp typically occurs prior to June 30th and would allow ending restrictions according to this timeframe. However, in rare years favorable temperatures extend through the end of June. These years are especially important to boost production of DS and should be protected through the end of June.
  - We suggest conducting analyses to consider whether a temperature compliance point in the CCF is the most appropriate location to ensure protection of DS in the vicinity of the pumping facilities (Central Delta) where temperatures may be cooler and sub-lethal.

Conservation Measures

DFW considers all of these points, and any existing mitigation requirements, to be part of the baseline to mitigate impacts of the long term operations of the SWP and CVP. Additionally, it is worth noting that the required habitat restoration has not been implemented according to required timelines.