**From:** Garwin Yip - NOAA Federal <garwin.yip@noaa.gov>
**Sent:** Monday, July 16, 2018 10:17 AM
**To:** Howard Brown
**Subject:** Fwd: ROC Core Team - Draft Proposed Action--NMFS' red flags
**Attachments:** ATT00001.html; Critical Success Factors for ROC on LTO.docx

FYI

Sent from my iPad

Begin forwarded message:

> **From:** Garwin Yip - NOAA Federal <garwin.yip@noaa.gov>
> **Date:** June 29, 2018 at 9:42:12 AM PDT
> **To:** "Harrison, Katrina" <kharrison@usbr.gov>, "Messer, Dean@DWR" <dean.messer@water.ca.gov>, "Jacobs, Brooke@Wildlife" <brooke.jacobs@wildlife.ca.gov>, Kaylee Allen <kaylee_allen@fws.gov>, Jana Affonso <jana_affonso@fws.gov>, Luke Davis <ldavis@usbr.gov>, Armin Halston <ahalston@usbr.gov>, Daniel Cordova <dcordova@usbr.gov>, "Chao, You Chen@DWR" <youchen.chao@water.ca.gov>, "Cindy@DWR Messer" <cindy.messer@water.ca.gov>, "Ford, John@DWR" <john.ford2@water.ca.gov>, "Wilkinson, Chris@DWR" <christopher.wilkinson@water.ca.gov>, Carolyn Bragg <cbragg@usbr.gov>, "Kuenster, Gail@DWR" <gail.kuenster@water.ca.gov>, "Spanglet, Harry@DWR" <harry.spanglet@water.ca.gov>, Kim Squires <kim_squires@fws.gov>, Katherine Sun <katherine_sun@fws.gov>, Carl Wilcox <carl.wilcox@wildlife.ca.gov>, Garwin Yip - NOAA Federal <garwin.yip@noaa.gov>, Russell Grimes <rwgrimes@usbr.gov>, "Pinero, Janice" <jpinero@usbr.gov>, "Kirkland, Marianne@DWR" <marianne.kirkland@water.ca.gov>, "Allison, Anna@Wildlife" <anna.allison@wildlife.ca.gov>, "Flahive, Kaitlin" <kflahive@usbr.gov>, Justin Ly <justin.ly@noaa.gov>, Mario Manzo <mmanzo@usbr.gov>, Michelle Banonis <michelle.banonis@water.ca.gov>, "McCalvin, Catherine@DWR" <catherine.mccalvin@water.ca.gov>, Patricia Idlof <pidlof@usbr.gov>, "Kundargi, Kenneth@Wildlife" <kenneth.kundargi@wildlife.ca.gov>, David Mooney <dmmooney@usbr.gov>, Benjamin Nelson <bcnelson@usbr.gov>
> **Subject: Re: ROC Core Team - Draft Proposed Action--NMFS' red flags**
>
> Katrina,
>
> As we have discussed in multiple core team meetings, and individually, the timelines for all 3 "tracks" of the Reinitiation of Consultation on Long-Term Operations (ROC on LTO) are very aggressive, so that any slippage in either content or date can upset the rest of the timeline, and possibly the timeline for other tracks. Therefore, I offer the attached critical success factors that would help us to meet Reclamation's expectations in the Gantt charts. I understand that Maria has shared the attached with Federico.
>
> tNMFS is continuing to review the draft EA outline and proposed near-term actions, and will send over a more detailed review in track changes by July 11. However, I wanted to give you a

heads up of some red flags that were previously discussed at core team meetings and also based on a cursory review of the attached draft Environmental Assessment (EA) outline:
-- There were a lot of ideas mentioned within each action type (e.g., I:E ratio) during the various interagency and stakeholder meetings and brainstorming workshops. Some of those ideas, to show sideboards of consideration, should be disclosed in the alternatives considered but not further developed section.
-- Please define "...additional adverse effects..." As I've suggested, "equally or more protective than the existing RPA action" is a tighter metric, should help Reclamation analyze the effects of the near-term actions, and should help with ESA compliance, but the former still shows up multiple times and is the threshold Reclamation appears to be using.
EA section 2.2.1-- OMR reverse flows:

1. The existing RPA Action IV.2.3 provides several flexibilities, for example:
   a. establishing a minimum older juvenile Chinook salmon loss density of 2.5 fish/TAF (for example, the current JPE-based loss density trigger would have been 1-1.5 fish/TAF
   b. not including a fish trigger for young-of-year spring-run Chinook salmon, and therefore, protecting them only to the extent that the OMR at -5,000 cfs would
   c. recent annual approval of the rapid genetic analysis protocol, which specifically protects genetic winter-run, but not yearling spring run that standard length-at-date OMR triggers would protect
2. Reclamation's proposed changes to standard OMR flow management would likely reduce the protections afforded to the listed anadromous fish species in RPA Action IV.2.3 by constricting the window of OMR management, proposing a higher bar in order to change operations, eliminating the fish density triggers, deferring fish protection decisions to Reclamation, and proposing to operate to the incidental take limits, all of which do not indicate equal or more protection to the listed species.
3. OMR Flow Management Action IV.2.3 was not explicitly intended to protect against population effects (for that matter, none of the individual RPA actions), and therefore, should not be the evaluation metric in order to determine "additional adverse effects."
4. If the onset of the OMR action is based on presence of listed species in the Delta, then it should not explicitly exclude an onset prior to January 1
5. The way the proposed OMR action reads and a preponderance of evidence and scientific certainty necessary in order to warrant protecting listed anadromous fish species in the delta, Reclamation will not likely change its operations to a less negative OMR than -5,000 cfs.
6. The EA implies that rearing juvenile salmonids are not vulnerable to the influences of exports, and therefore, do not need protection. This may be a conceptual model with no studies or evidence to substantiate.
7. Storm flexibility (WIIN Act Section 4003): The action needs (more) details in order to better understand what is actually proposed, and especially what and how Reclamation will determine "additional adverse effects" in its risk assessment. It should also provide sideboards, for example, duration of increased exports, negative OMR limit, or export limit.
8. Rapid Genetics Protocol:
   a. The current annual approval of the rapid genetic analysis protocol over the last 2 years already provides flexibility in 2 ways:
      i. "Reverses" false positives. As I understand, during water year 2018, those reversals saved (or provided an additional) 15 TAF of water supply
      ii. It targets genetic winter-run, whereas the current fish density triggers protect older juvenile Chinook salmon. Although the focus of the older juvenile Chinook salmon is to protect winter-run, it also protects yearling spring-run Chinook salmon.
   b. If/Since Reclamation is proposing to eliminate the fish density triggers (which I am not a proponent of), then why the need for rapid genetic analysis?

c. The current practice is for Reclamation (and DWR) to implement an action response "immediately" upon exceeding a fish trigger, while sending tissues for rapid genetic analysis. That immediate action response is already approximately 3 days out from the trigger exceedance. The rapid genetics analysis protocol delays that protection by up to another 2 days....and only for winter-run. I'm not sure how that could be equally protective.

EA section 2.2.2-- I:E ratio:

++ Statistical significance should not be the threshold to determine whether there are actual effects. The lack of statistical significance should not be "evidence" of the opposite, that is, no export effect, and therefore, a proposed action that increases exports from the current RPA Action IV.2.1. Rebecca Buchanan conducted a power analysis to determine the sample size necessary to detect various levels of survival differences, and they were considerably higher than any sample size from the 6-year study.

++ As with the VAMP studies, the 6-year study was only able to test a narrow window of conditions (flows at Vernalis and exports), and 3 of the 4 years that we have results, the water year type was dry or critical.

++ Any indication that a 1:1 I:E ratio would incentivize sales, transfers, etc., appears to be conceptual, so that if there are no (or little) transfers, the flow at Vernalis could be the same as current implementation of RPA Action IV.2.1, with an increased risk of the effects associated with increased exports.

++ The baseline is the construction and operation of the Head of Old River Barrier (HORB) each year. I heard rumblings that part of the proposal is to not construct and operate the HORB. If correct (which I am not a proponent of), that should be included in the proposal, but that's a red flag that to the extent that any given near-term action is intended to be minor adjustments to RPA actions that are equally or more protective to the species, proposing to not construct and operate a HORB is a change in the baseline.

++ The second phase of the 6-year study is like adaptive management, that is, conduct a study, then adjust accordingly. Here, the proposed action is to implement changes to the action, then conduct the study to fill in hydrologic and data gaps to learn. The benefit of the doubt should go to the species, not water supply.

-Garwin-

*Garwin Yip*
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---------- Forwarded message ----------
From: **Harrison, Katrina** <kharrison@usbr.gov>
Date: Tue, Jun 19, 2018 at 6:12 PM

Subject: ROC Core Team - Draft Proposed Action
To: "Messer, Dean@DWR" <dean.messer@water.ca.gov>, "Jacobs, Brooke@Wildlife" <brooke.jacobs@wildlife.ca.gov>, Kaylee Allen <kaylee_allen@fws.gov>, Jana Affonso <jana_affonso@fws.gov>, Luke Davis <ldavis@usbr.gov>, Armin Halston <ahalston@usbr.gov>, Daniel Cordova <dcordova@usbr.gov>, "Chao, You Chen@DWR" <youchen.chao@water.ca.gov>, "Cindy@DWR Messer" <cindy.messer@water.ca.gov>, "Ford, John@DWR" <john.ford2@water.ca.gov>, "Wilkinson, Chris@DWR" <christopher.wilkinson@water.ca.gov>, Carolyn Bragg <cbragg@usbr.gov>, "Kuenster, Gail@DWR" <gail.kuenster@water.ca.gov>, "Spanglet, Harry@DWR" <harry.spanglet@water.ca.gov>, Kim Squires <kim_squires@fws.gov>, Katherine Sun <katherine_sun@fws.gov>, Carl Wilcox <carl.wilcox@wildlife.ca.gov>, Garwin Yip - NOAA Federal <garwin.yip@noaa.gov>, Russell Grimes <rwgrimes@usbr.gov>, "Pinero, Janice" <jpinero@usbr.gov>, "Kirkland, Marianne@DWR" <marianne.kirkland@water.ca.gov>, "Allison, Anna@Wildlife" <anna.allison@wildlife.ca.gov>, "Flahive, Kaitlin" <kflahive@usbr.gov>, Justin Ly <justin.ly@noaa.gov>, Mario Manzo <mmanzo@usbr.gov>, Michelle Banonis <michelle.banonis@water.ca.gov>, "McCalvin, Catherine@DWR" <catherine.mccalvin@water.ca.gov>, Patricia Idlof <pidlof@usbr.gov>, "Kundargi, Kenneth@Wildlife" <kenneth.kundargi@wildlife.ca.gov>, David Mooney <dmmooney@usbr.gov>, Benjamin Nelson <bcnelson@usbr.gov>

Hello all -

Attached is our very DRAFT possible proposed action for the Near-term (formerly Track 1) aspect of the ROC on LTO.

We can discuss this in more detail at the Core Team meeting tomorrow in West Sacramento.

We would appreciate any comments you may have and, in particular, science we may have missed.

Thank you,

Katrina Harrison

On Fri, Jun 15, 2018 at 2:07 PM, Harrison, Katrina <kharrison@usbr.gov> wrote:

> Hello all -
>
> Attached is a draft agenda for the agency meeting we have next week. It is:
>
> - Wednesday, June 20
> - 10 am
> - DWR: 3500 West Industrial Blvd, West Sacramento
>
> We hope to send you the Proposed Action for Near-term actions early next week, so we can discuss it at this meeting.
>
> Thank you,
>
> Katrina Harrison

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