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**From:** J. Stuart - NOAA Federal <j.stuart@noaa.gov>  
**Sent:** Wednesday, April 10, 2019 4:21 AM  
**To:** Garwin Yip - NOAA Federal  
**Cc:** Howard Brown; Cathy Marcinkevage; Barbara Byrne  
**Subject:** Re: Delta Effects Bullets

To clarify:

- I used "loss" instead of salvage in describing the tables initially. That is corrected in the revised document I sent. That was my mistake. The salvage density modelling estimates the salvage of Chinook salmon, steelhead, and green sturgeon, not loss for the PA and COS scenarios. You can estimate loss using the generic expansion multipliers of 4.33 for the SWP salvage, and 0.68 for the CVP salvage.
- The date for the 95% of steelhead population is not in the briefing document. I indicated to Howard in my initial email that there are a lot of issues within the Delta created by the PA, but that the memo hits the key factors. The criteria for ending OMR management have multiple issues which are assessed in the effects section. The date for reaching the 95% of the steelhead population passing Chipps Island (April 29 on average using the SacPas information) is but one of the factors. It also has to be looked at with the other criteria, namely Delta smelt off ramp of 25 degrees C for CCFB. Both Delta smelt and salmonid criteria need to be met in order to off ramp the OMR. The Delta smelt provision could provide protection through May, but in dry years may not protect all the way through the month. It also only needs 3 days to reach the criteria which could happen in a "hot spell" followed by cooler weather, in which case the off ramp could be met earlier than anticipated.

On Tue, Apr 9, 2019 at 8:51 PM Garwin Yip - NOAA Federal <[garwin.yip@noaa.gov](mailto:garwin.yip@noaa.gov)> wrote:  
Jeff,

Please confirm (through edits to the attached bullets), or clarify, my understanding in my e-mail, below, specifically, " Also, you mentioned yesterday that the estimated offramp of 95% juvenile steelhead emigration out of the delta would be around April 27, which would mean much less protection for San Joaquin steelhead (I:E ratio spans April 1-May 31 which isn't proposed, and any protections steelhead would've had with OMR and the density trigger would be offramped). Do those points show up in your briefing paper?"

-Garwin-

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*Garwin Yip*  
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----- Forwarded message -----

From: **J. Stuart - NOAA Federal** <[j.stuart@noaa.gov](mailto:j.stuart@noaa.gov)>

Date: Tue, Apr 9, 2019 at 2:34 PM

Subject: Re: Delta Effects Bullets

To: Garwin Yip - NOAA Federal <[garwin.yip@noaa.gov](mailto:garwin.yip@noaa.gov)>

Cc: Howard Brown - NOAA Federal <[howard.brown@noaa.gov](mailto:howard.brown@noaa.gov)>, Cathy Marcinkevage <[Cathy.Marcinkevage@noaa.gov](mailto:Cathy.Marcinkevage@noaa.gov)>, Barbara Byrne <[barbara.byrne@noaa.gov](mailto:barbara.byrne@noaa.gov)>

Corrected table with the "right" headers (and an explanation for how to get loss from the salvage numbers from the generic multipliers). Sent this to Brian earlier to help him with his I&S section, forgot to attach it this morning to my earlier email to all of you

On Tue, Apr 9, 2019 at 11:23 AM Garwin Yip - NOAA Federal <[garwin.yip@noaa.gov](mailto:garwin.yip@noaa.gov)> wrote:

Thanks Jeff. Did you intend to attach the delta effects bullets with the corrections?

Also, you mentioned yesterday that the estimated offramp of 95% juvenile steelhead emigration out of the delta would be around April 27, which would mean much less protection for San Joaquin steelhead (I:E ratio spans April 1-May 31 which isn't proposed, and any protections steelhead would've had with OMR and the density trigger would be offramped). Do those points show up in your briefing paper?

-Garwin-

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*Garwin Yip*

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On Tue, Apr 9, 2019 at 10:15 AM J. Stuart - NOAA Federal <[j.stuart@noaa.gov](mailto:j.stuart@noaa.gov)> wrote:

Morning Howard,

I corrected an oversight on my part in the bullets I sent you last week. The numbers provided in the modelling for salvage density are for salvage, based on historical salvage numbers and proposed exports. I had labelled them as loss. to get to loss values, the SWP salvage should be expanded by 4.33 (multiplier) and

the CVP should be multiplied by 0.68 (typical multipliers for the two facilities). The trend is unchanged, more exports create more salvage and more listed salmonids will be salvaged under the PA than the COS, but the estimated loss, particularly for the SWP component is much greater than the estimated increase in salvage. The PA is actually worse than I had originally told you. Sorry I didn't catch my misstatement earlier. Things are moving a little too quickly to do an adequate check on our drafts and catch any errors or omissions.

Jeff

Jeff

On Wed, Apr 3, 2019 at 11:31 AM J. Stuart - NOAA Federal <[j.stuart@noaa.gov](mailto:j.stuart@noaa.gov)> wrote:  
Hi Howard,

Here is a quick highlights of the Delta findings. There are other things to discuss but this hits the key points.

Jeff

On Wed, Apr 3, 2019 at 10:07 AM Howard Brown - NOAA Federal <[howard.brown@noaa.gov](mailto:howard.brown@noaa.gov)> wrote:  
Hi Jeff,

Thanks for your candid comments yesterday about the Delta Effects Analysis. We have been elevating significant concerns to the Directors for awhile and so far have not signaled any concerns regarding to what you mentioned to Barry yesterday. We have a 3 agency director meeting tomorrow and it would be helpful to have some talking points about what your analysis is revealing. I am meeting with Maria and Barry today at noon and I am going to need at least a first cut of talking points for to have ready for that conversation. Can you please put something together for me by noon?  
Thank you!  
howard

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**Howard L. Brown**  
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