From: <u>Michael Chotkowski</u>
To: <u>'Maria.Rea@noaa.gov'</u>

Cc: <u>Dan Castleberry; 'Michael Tucker@NOAA.GOV'</u>
Subject: Re: Fwd: Four Decision-tree assignments

Date: 07/09/2012 08:36 PM

Thanks, Maria. Mike's summary is on-target. Item #2 will require special attention, as it touches on important and imcompletely resolved questions about how the 'decision tree process' will work. I am not sure how many of these need to be resolved before the announcement: let's talk when there's time. Mike

-----Maria Rea <maria.rea@noaa.gov> wrote: -----

To: "Dan_Castleberry@r1. Gov" <dan_castleberry@fws.gov>, Mike Chotkowski

<michael_chotkowski@fws.gov>

From: Maria Rea <maria.rea@noaa.gov>

Date: 07/09/2012 06:32PM

cc: Mike Tucker < Michael. Tucker@noaa.gov > Subject: Fwd: Four Decision-tree assignments

Dan and Mike - I asked Mike T to summarize where we are with respect to each of these assignments. See below. It sounds like there is a lot of work that needs to be done this week. I am trying to reach Laura to compare notes. I plan to start forwarding this up our chain -let me know if you have a different view on any of the items below. I don't have any comments on your write-up of the effects analysis - - so please go ahead and share.

- Maria

Maria Rea Supervisor, Central Valley Office NOAA's National Marine Fisheries Service 650 Capitol Mall, Suite 5-100 Sacramento, CA 95814 (916) 930-3600

----- Forwarded message ------

From: Michael Tucker < michael.tucker@noaa.gov >

Date: Mon, Jul 9, 2012 at 6:18 PM Subject: Four Decision-tree assignments To: Maria Rea < <u>Maria.Rea@noaa.gov</u> >

Hi Maria,

Below is an update on each of the four decision-tree-related assignments that came out of the principals workshop.

1. Define entrainment as it pertains to the decision tree:

We did not get to this topic at our meeting with ICF last week. We need to schedule another meeting to address this topic. My opinion is that this concept

should encompass all sources of loss related to the diversion of water by the projects. This would include direct entrainment at the S. Delta facilities as well as the indirect losses related to the hydrodynamics created by large scale diversions. As far as actual operational criteria that could be manipulated in the decision tree process, I would include OMR and total S. Delta diversions as they relate to SJ River flows as well as HORB and other barrier operations. There is not much that we would be likely to manipulate in the North because it will be difficult to know much about the effects of those diversions prior to operating them. Some areas where we might gain new information on the likely effects of the new N. diversions is in studying the new Red Bluff screen effects, and by scrutinizing/improving the hydrodynamics modeling to more clearly understand the bypass flows that are necessary to prevent increased entrainment of fish into the Central Delta through Georgiana Slough and other connections.

2. Identify the adaptive range for each branch of the decision tree:

The only element of this topic that we discussed with ICF was the fact that the range needs to include operations criteria more restrictive than those found in CS5 due to the very real possibility that new science or a changing ecosystem may reveal that more restrictive initial operations measures than those currently contemplated will be necessary to contribute to the recovery of covered species. This point was not agreed to by ICF.

3. Recommend how the effects analysis should be performed.

This was the primary topic discussed with ICF. Their proposal was to analyze as the Proposed Project the operations described in Alt 4 from the EIS because much of the necessary modeling has already been completed. They felt that Alt 4 ops were close enough to what we described in CS5. We strongly disagreed with this conclusion and pointed out many differences between Alt 4 and CS5 (upstream storage criteria, N. Delta bypass criteria, spring outflow, etc). We all seemed to talk past each other for a while, then we agreed that each party (ICF and Fish Agencies) would write down a clear description of what we felt needed to be included in the next analysis and how that analyses should be structured. Our draft write-up is attached. We have not seen or heard anything from ICF on their write-up.

4. Compare CS5 operations to the decision trees and the other operations in the "Proposed Project":

As described above, ICF recommended that the PP be essentially identical to Alt 4, and that any variations between CS5 and Alt 4 were not significant enough to produce any differing biological results. We did not agree with this conclusion. So as it stands now, the ICF PP is very different from the operational criteria described in CS5. We were fine with including Alt 4 operational elements within the decision tree process, but stated that CS5 ops also needed to be included (which ICF agreed with), AND that for those elements that did not include a decision tree, the PP operations criteria needed to be those described in CS5 (which ICF did not agree with).

Michael Tucker
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[attachment "effects analysis brief DRAFT 2012 07 09.docx" removed by Michael Chotkowski/R8/FWS/DOI]