From: Hilts, Derek <derek_hilts@fws.gov>
Sent: Monday, April 8, 2019 2:37 PM
To: Evan Sawyer - NOAA Affiliate
Cc: Garwin Yip; Howard Brown; Cathy Marcinkevage - NOAA Federal
Subject: Re: [EXTERNAL] NMFS ROC LTO Shasta Analysis
Attachments: NOD_PAG_Delivery_Implications_4EvanSawyer.xlsx

Hi Evan,
I'm available to talk today until 4pm and again tomorrow morning starting at 7:30am. I've tabulated the deliveries (extracted from CalSimII output) to North-of-Delta Central Valley Project ag service contractors (CVP NOD PAG) in the attached workbook. I'm thinking these are what Maria and Cathy are calling "discretionary contract deliveries". Certainly the contractors would take issue with that language, but the fact is, they are USBR's lowest priority as far as their various contract types go under USBR's current policy.

In the attached workbook I included the simulated May 1st Shasta storages and tried to show how much it could be improved (through zeroing out of the CVP NOD PAG deliveries) for years when simulated storage didn't hit 4 MAF. The analysis suggests that even with perfect foresight, hindsight and a prioritization of May 1st Shasta storage, the storage would rarely cross that threshold. (I only looked at the ROC on LTO PA simulation). You may want to play with the numbers, i.e., change the threshold, etc.

I thought USBR provided materials to NMFS (several years ago) to support their contention that the magnitude and timing of deliveries to these particular contractors don't significantly affect temperature control, but maybe I'm mis-remembering.

PLEASE call me if you have any questions about the attached workbook or anything else related to the simulations.
Thanks.
Derek

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On Sun, Apr 7, 2019 at 10:31 PM Cathy Marcinkevage - NOAA Federal <cathy.marcinkevage@noaa.gov> wrote:

> Derek --
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> Happy (?) Monday! 😫
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> In preparation for the Tuesday 4/9 3 pm call with Maria, SWFSC, and some of us re: Shasta operations and effects in the ROC LTO, I have some materials to pass on.

As you know, Maria has some key aspects on her mind given her experience. One in particular is concern that the inability to short discretionary contract deliveries (since it is NOT included in the COS modeling) discounts the effect of Reclamation proposing to NOT short those deliveries in the PA. Evan is finding it challenging to describe those deliveries in an exposure-risk-response way (or even measure them since they're not described in the BA). Evan is thinking that making (or, flipwise, shorting) the discretionary contract deliveries would affect Reclamation's ability to build storage. This would affect the Tier for summer ops, and could therefore be captured in the modeling by how often Reclamation expects to be in each Tier. The effects to species are then dependent on the operational Tier -- so maybe that's how to get at "exposure".

Evan's not quite sure how to go at this, but we were thinking maybe you and he could try to talk through it. An idea he had would be to know or plot the May 1 Shasta storage against the quantity (or proportion) of discretionary allocations. This could tell us for a given allocation what the likelihood of achieving a particular May 1 storage is (and what the summer management Tier would be) which ultimately gives us the exposure and risk to species. Does CalSim track the discretionary allocation amount?

You don't have to figure this out by Tuesday, I'm just setting it up based on recent chatter.

To hopefully also help with the conversation, I've attached Maria's markup of the Shasta division effects analysis as of Friday. Her comments on the first half are what I think are most useful for you to read to potentially increase your read on her concerns. While not a biologist, can you take a look at this to see if you can offer some potential ways for NMFS to look into these concerns?

Let us know if you want to touch base about these before the call. Otherwise, talk to you on Tuesday.

Thanks -
Cathy