From:	Evan Sawyer - NOAA Federal <evan.sawyer@noaa.gov></evan.sawyer@noaa.gov>
Sent:	Saturday, May 25, 2019 8:57 PM
То:	Cathy Marcinkevage - NOAA Federal
Subject:	Re: If You Do Have Some Time

Response to your first email:

1) Yes, I have cross-checked the effects section with the I&S tables. Should be clear but everything was pretty fast and loose.

2) Yes, I think so? Stephen was helping with the I&S tables that I hadn't gotten to but ultimately he didn't make the changes. It was a hard job to pawn-off so I did it myself. So I ended up doing the part that i had asked him to do. I still need to work on my delegating.

3) I'm confused? I did apply this conversion (table) in the analysis? I did so dynamically in excel, where I applied the location-based, monthly, conversion factor to whichever 7DADM threshold was being considered. It's there, just maybe not as well explained as it could be. This is from the spring-run section of tier 1 (pg. 62) "As discussed earlier, the 61°F threshold is based on the 7DADM criteria described in the EPA (2003) Region 10 water quality guidance. The 7DADM temperature roughly equates to a DAT threshold that ranges between 2.25 - 1.25°F cooler. With the converted daily average temperature, HEC-5Q modeling results indicate that during the temperature management seasons of Tier 1 years, the DAT threshold at Balls Ferry for salmon adult holding prior to spawning is exceeded in about 1 percent of days."

Response to second email:

a) Yes, that is an accurate characterization. The problem we have with the Anderson Model is that we feel that it under estimates mortality by assessing temperature effects ONLY during the critical hatch period (5 days prior).

b) The ramping rates comment on pg 37? I didn't assume any ramping rates. No ramping rates were proposed. It's not common practice to assume the action agency would take an action when one is not proposed? c) No gauge data, Reclamation's modeling of the PA. In May, flows at RBDD (above Mill and Deer) average 10,000 cfs, at Hamilton City (downstream Mill and Deer) the average is 8,000 cfs. I haven't done a historical analysis but I took a peek at 2018 and in May, average flows at Bend Bridge (BND) were about 10,000 cfs, and *surprisingly* during the same period, flows at Hamilton City (HMC) were around 7,500 cfs. This is despite Mill and Deer creeks adding ~400 cfs to the Sacramento during this period = ~ 3,000 cfs total drop in flow in May (2018).

CRAP! I just remembered the SacRSP Charter. You, Deanna, and OMI have signed off, we need Maria to OK one last time and let Lilah know. Can you ask Maria to date and initial the google routing sheet? <u>https://docs.google.com/spreadsheets/d/1YRWTcAMHEgArLz6RVJPHaOWMt0YQqSoA4FxFbI9G2H</u> w/edit?usp=sharing

Thanks, Evan

On Sat, May 25, 2019 at 12:17 AM Cathy Marcinkevage - NOAA Federal <<u>cathy.marcinkevage@noaa.gov</u>>wrote:

....here's what I need (sorry if you are telling me this for the second or third time).

1. Assurance that you've done the cross-checks for Shasta section with I&S tables.

2. Assurance that you've tied up what Stephen was helping with.

3. Table 2.5.2-13 (conversion of 7DADM to monthly mean). Rec questions why we have this in here since we aren't applying it in our analysis. We have agreed to provide info on how/why this is used. Would we propose this be a screening tool? Or applied to modeling results of monthly temps? We've also agreed to caveat that flow is a factor in this conversion (duh I guess but whatever).

That's all for now, but I haven't opened the Shasta section to see either your or Naseem's recent additions. Need to save something for Saturday.....

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