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**From:** Cathy Marcinkevage - NOAA Federal <cathy.marcinkevage@noaa.gov>  
**Sent:** Tuesday, May 7, 2019 11:14 PM  
**To:** Barbara Byrne - NOAA Federal  
**Subject:** Re: OMR Topics/Questions

One more note: I want broad understanding of our tools and analyses, but I don't think that the best use of efforts is to get into detailed descriptions of the methods that \*Rec\* provided to \*us\*. We haven't been demure at all about what analytical tools we are considering using. The list I sent previously went to Russ and others in Feb. All results came from Rec or one of their contractors (besides WRLCM); nothing was done in-house to NMFS. In the presentation on analytical approach, I ended with a slide listing all that we had received and had in the mix, including the WRLCM and the Perry/Pope/STARS analysis, with the note that this was preliminary since we were drafting effects analyses. They have had that list since April 15. I think it is ok to describe how a component of the PA is causing a particular driver that manifests in a model's result, but I'm not sure that it is the right time or audience to get into a review of the full suite of tools at our disposal. So I guess I just caution to be careful of getting pulled into that. We're in a tight(er) time of balancing these meetings with producing our document and our analysis, which has to get done whether Rec understands the details or not.

And I'm frankly a little jaded by our AM effort, where we spent WAY too much time trying to get them on board and in actuality they were not even going to consider it from the start. So many hours and we ended up writing what we would have in the beginning: there is no AM in this project to give us a certainty on process or way to methodically address gaps in knowledge. I kind of think that we'll end up writing what we already have written regardless of their level of understanding or agreement with Delta results.

Ok, that's all for now, thanks for listening ;).

On Tue, May 7, 2019 at 8:23 PM Barbara Byrne - NOAA Federal <[barbara.byrne@noaa.gov](mailto:barbara.byrne@noaa.gov)> wrote:

yes. I was thinking, at least to start, a list of our modeling tools that have relevance to the Delta. Then show if/how CALSIM and/or DSM2 feed into them, and what Delta response comes out (entrainment into the the DCC, flow splits at junctions, survival, etc.). Then summarize the assumptions for CALSIM and DSM2 re: OMR/exports/DCC/HORB in the modeling appendices-- I can do this piece pretty quickly (I just saw that the DSM2 assumption for the COS is HORB in only in the fall --- that could be problematic). Then show which results we have/have used/not used...which is in flux because I know that Jeff is trying to add more modeling results.

Another model to add is the Russ Perry stuff that's on the way; that (I think) will get directly at enrainment into the Delta for Sac-side fish; haven't used it yet because we haven't got it yet.

Call tonight if you want or we can talk tomorrow..or just do your thing -- not sure I have more to add (other than I can pull the assumptions quickly). I'll be up; I just got home from Best Buy with my big monitor so I can work at home and not be driven crazy by my tiny laptop screen!!!!

On Tue, May 7, 2019 at 6:46 PM Cathy Marcinkevage - NOAA Federal <[cathy.marcinkevage@noaa.gov](mailto:cathy.marcinkevage@noaa.gov)> wrote:

I'm at little league game right now and probably won't be back at it all until around 9. Are you thinking of a map of model tools and how they feed into each other?

**Cathy Marcinkevage**  
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On May 7, 2019, at 5:51 PM, Barbara Byrne - NOAA Federal <[barbara.byrne@noaa.gov](mailto:barbara.byrne@noaa.gov)> wrote:

Cathy -- I have a few thoughts about a modeling "map" that would be easier to tell you about than write out. If you do have any time tonight or tomorrow; call me on my cell anytime (or try my desk if I don't answer; maybe I'm still here...but planning to head home shortly)

On Tue, May 7, 2019 at 4:49 PM Cathy Marcinkevage - NOAA Federal <[cathy.marcinkevage@noaa.gov](mailto:cathy.marcinkevage@noaa.gov)> wrote:

For 1, I think that Marin from ICF or someone who originated these analyses should be the person to go into these methods (salvage- density right?). This is not a NMFS product. I can go back through documentation to see if we were presented with caveats on its use earlier than now.

For 2, it is probably more that DSM2 was used rather than CALSIM. Though CALSIM feeds into that. I'm predicting they they will try to say that you can't use CALSIM results to analyze this because that model doesn't predict presence of fish. That's fair, but we need to analyze \*something\* and with no cost defined process or confidence in an alternative to what is in the modeling, that's what we have to use. This is wholly consistent with other approaches.

For 5...they are in the baseline or not analyzed at all because there's no definition or certainty. I'd be wary of them trying to pull in SIT analyses to say that there's a way to attribute X more fish to the two-sentence "commitment" they make to restoration of some amount at some time on some place.

I'm out Wed morning but I can look into this some tonight. Lemme know!

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On May 7, 2019, at 4:33 PM, Howard Brown - NOAA Federal <[howard.brown@noaa.gov](mailto:howard.brown@noaa.gov)> wrote:

Well, if you can cover the first 4 bullets, then we can take the last one. Perhaps you can write up a response that we can share with them so that we have something on the record.

Howard

On Tue, May 7, 2019 at 3:24 PM Barbara Byrne - NOAA Federal

<[barbara.byrne@noaa.gov](mailto:barbara.byrne@noaa.gov)> wrote:

3rd bullet I can do with not too much work; if 4th bullet is just asking about exposure analysis I can cover that as well fairly easily (but even the easy ones take some time to pull into to tell the story). First two bullets feed into modeling, which I would want to spend some time on to make sure I fully understand and can explain. Last bullet I defer to you three on -- FYI I do have some restoration in the Stan that (as of now) is NOT considered part of the EB.

Am focusing today on Delta write-up; will check in tomorrow on how to work this stuff onto my desk.

On Tue, May 7, 2019 at 2:54 PM Callejo, Russell <[rcallejo@usbr.gov](mailto:rcallejo@usbr.gov)> wrote:

Howard,

For our technical meeting on OMR Thursday, please consider the following general topics/questions to jump-start our discussion:

- Please explain the methodology for determining fish loss at export facilities. (steelhead and spring-run in particular)
- How was CalSim used to assess entrainment into the Central and South Delta?
- The proposed action included salvage thresholds and triggers that would reduce entrainment and result in less adverse long-term average OMR than modeled. How were these real-time OMR adjustments incorporated into the analysis?
- What considerations or divers were incorporated in addition to OMR flows? (e.g., presence, location, behavior)
- How was proposed habitat restoration factored into the analysis? (e.g., growth and reduced vulnerability to predation)

Thanks,  
Russ

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