From:	Cathy Marcinkevage - NOAA Federal <cathy.marcinkevage@noaa.gov></cathy.marcinkevage@noaa.gov>
Sent:	Thursday, April 4, 2019 10:15 AM
То:	Barbara Byrne - NOAA Federal
Cc:	Howard.Brown; Garwin Yip - NOAA Federal; Dan Lawson - NOAA Federal
Subject:	Re: check-in re: killer whale analysis, including some questions and action items for ROC
	management

My responses are in blue below.

On Wed, Apr 3, 2019 at 4:18 PM Barbara Byrne - NOAA Federal <<u>barbara.byrne@noaa.gov</u>> wrote: Dan set up a call this morning with John Hannon to go over John's Chinook production analysis; I sat in as well. Dan, please weigh in if I forgot, or mischaracterized, anything.

Highlights:

- John fielded questions from Dan (and a few from me)
- **Bottom line:** Based on models used and current assumptions, the percent abundance change in adult Chinook in the Ocean from COS to PA = -0.14%.
- John will make a few revisions based on our questions/suggestions; he will send those revisions to me & Dan next week (I don't think the revisions are substantive enough to postpone review of the current draft).

Action Items/Questions:

## 1. Dan would like feedback on the approach of comparing PA to COS.

--In an earlier call with John and Dan, we let John know that we were generally using the COS scenario as our "baseline".

--John pointed out that the modelers generally recommend using the models to compare scenarios, rather than interpret absolute outputs.

--John pointed out that the '09 analysis compared the PA to a "Max production" scenario that assumed the projects were operated for max benefit to fish. He still has those runs if we wanted to do that comparison. **Action Item:** ROC Management (and Naseem?) to discuss.

I advise that we stick with a comparative approach, and compare it to COS. I feel like even working out a "max production" value could be quite contentious and difficult. Is there an issue with looking at the estimated PA production in comparison to the estimated COS production and assessing risk to species based on that?

2. **Expert eyes on overall approach and assumptions.** Can we get the SWFSC or maybe someone in SFD to do a quick review of the overall approach and assumptions for this wrap-up of CV-wide Chinook production? (This is Barb's suggestion, but fully in line with Dan's first question)

Action Item: ROC Management to discuss.

We can try and discuss this. I'm not sure who it would go do, and how well they would understand the bounds/limits of what we need to do vs. what they typically do with stock estimates, etc.. We can discuss.

## 3. Dan would like to get the master Integration & Synthesis stressor tables ASAP.

Action Item: Barb will send Dan Division-specific I&S tables on Thursday, 4/4. Whenever we develop a "master table", we can share that with him.

## 4. Dan would also like to understand and document which stressors are "accounted for" in the

**modeling, and which aren't.** One option we discussed was to explicitly add an additional column into the stressors table -- I suggested that maybe he and I could sit down with Cathy to work through that but am open to the most efficient approach. Might be easier to describe the general kinds of stressors that each model is, and is not, sensitive to rather than cover every single stressor.

Action Item: Cathy to advise best way to meet this need.

I think that most efficient is for me to go through the list/table of stressors and indicate which models could (in my opinion anyhow) be reasonably assumed to capture that stressor. I can maybe do this tomorrow.

5. **Modeling documentation.** During the call, we touched on the lack of model documentation/explanation of results. John tracked down some information, but hasn't captured that in his write-up. Are there model descriptions/run assumptions in the CWF BiOp or BA that we can use?

Action Item: Cathy to advise best way to meet this need.

John shouldn't have to track anything down. At the least, nearly all methods were used in CWF, so there are descriptions/documentation in either the CWF BA (an appendix) or the CWF BiOp (if it was a method that was only used for the BiOp). I've been compiling some documentation on things as ICF/Rec has delivered them to add some speed, but in reality the CWF sources have good explanations. If you let me know what you need, I can point you where to look.

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