From: Evan Sawyer - NOAA Federal <evan.sawyer@noaa.gov>

Sent: Friday, September 1, 2017 8:53 AM

To: Maria Rea - NOAA Federal

Cc: Cathy Marcinkevage; Garwin Yip; Brycen Swart; Eric Danner

Subject: Re: Shasta RPA amendment science work plan

Hi Maria.

I am available to attend and help.

Both Garwin and Cathy gave me a heads-up that my inclusion on this project was a possibility. I'm happy to work where I'm most useful and I think there is at least some overlap with the work I've done on drought and adaptive management.

As you've suggested I'll review the June 19 Shasta RPA adjustment proposal and compare that to both the 2014 WR Contingency Plan and the Salmonid and Sturgeon Monitoring Plan that was part of the 2015 Interagency Drought Strategy.

Thanks, Evan

On Fri, Sep 1, 2017 at 7:41 AM, Maria Rea - NOAA Federal < <u>maria.rea@noaa.gov</u>> wrote: Evan, Cathy,

Can Evan attend the Shasta meeting this afternoon and play a role in follow up? The task we previously decided upon was to write a joint science and monitoring plan structured like the drought science and monitoring plan. With Brycen leaving, and based on this first draft, we will clearly need a good writer to follow up from the meeting.

I think we should review the categories in the drought plan and see if there is agreement they apply, then volunteer to take the next crack at taking this draft Reclamation product and organizing it. Ultimately, we need a document that can help us agree on priorities.

Sent from my iPad

Begin forwarded message:

From: Garwin Yip - NOAA Federal < garwin.yip@noaa.gov >

To: "Maria.rea@noaa.gov" < Maria.rea@noaa.gov>

Cc: "Brycen.Swart@noaa.gov" <Brycen.Swart@noaa.gov>, Eric Danner <Eric.Danner@noaa.gov>, Aimee Moore <Aimee.Moore@noaa.gov>

Subject: Shasta RPA amendment science work plan

Maria,

Dave Mooney gave me a hard copy of the attached Draft Science Work Plan (Plan) when I was at a different meeting in his office, so I don't think it was really a well-developed plan ready for review and comment, but rather, a work in progress to start the discussion. In fact, the document says, "Initial drafting for coordination." I haven't heard any progress made on the Plan, and certainly do not have a revised document. Eric Danner, Brycen Swart, and I reviewed the Plan. We appreciate Reclamation taking the lead in putting together the initial thoughts in the Plan, but we all agree that it is too rough to provide salient comments, therefore we offer the following general comments:

- We agree with the purposes of the Plan.
- The Plan mentions many things that do not pertain to the specific effort at hand, that is, developing a science work plan for temperature management and protection of winter-run. For example, the Plan mentions the 4 Hs (hydrology, habitat, hatcheries, and harvest), and other non-temperature dependent factors like predation.
- There are very few (and incomplete) hypotheses that could be developed and included into the Plan. There are also multiple questions that maybe we all are grappling with, but not developed into studies that could be implemented in order to move us towards finding answers.
- Frankly, the Plan is all over the place and very disorganized, but something to start with.
- Under Science Partnerships, "Reclamation envisions an approach that provides for Reclamation taking a lead role in the development of physical/operational modeling, with NMFS focusing more specifically on leading biological modeling." NMFS-SWFSC is very concerned with this proposal. Parallel physical modeling between Reclamation and the SWFSC may not make sense, but Reclamation would need to be very transparent and be able to (and willing to) make changes to their models when new information comes in. Otherwise, it makes sense for the SWFSC to retain and develop in-house physical modeling capabilities. There is a big sensitivity issue with funding if the SWFSC's physical modeling capabilities would require Reclamation funding.

-Garwin-

Garwin Yip Water Operat

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