
From: Naseem Alston - NOAA Federal <naseem.alston@noaa.gov>
Sent: Wednesday, May 8, 2019 1:09 PM
To: Garwin Yip - NOAA Federal
Cc: Cathy Marcinkevage; Howard Brown; Susan Boring; Amanda Cranford
Subject: Re: ROC on LTO Intro section

I'm pulling in Amanda for topic one:

If we don't already have a discussion in the effects section on Nimbus HGMP maybe she can write a few statements on what we would expect to come out of that? (better management practices, etc? something about the outof basin steelhead?)

Discussions I've heard is that production is not part of PA, but in the baseline (and is currently described in the EnvB). I know there was talk about I&I but I'm not sure where we are at on that thought.

Here is how the EnvB describes Nimbus Hatchery.

The management of hatcheries, such as Nimbus Fish Hatchery and FRFH, can directly impact Chinook salmon and steelhead populations by oversaturating the natural carrying capacity of the limited habitat available below dams.

Over the past several decades, the genetic integrity of California Central Valley steelhead has diminished by increases in the proportion of hatchery fish relative to naturally produced fish, use of out-of-basin stocks for hatchery production, and straying of hatchery produced fish (NMFS 2014). Potential threats to natural-origin steelhead from hatchery programs include: (1) mortality in fisheries targeting hatchery-origin fish; (2) competition for prey and habitat; (3) predation by hatchery-origin fish; (4) disease transmission; and (5) genetic introgression by hatchery-origin fish that spawn naturally and interbreed with local natural-origin populations (National Marine Fisheries Service 2016c).

Nimbus Fish Hatchery, located on the Lower American River adjacent to Nimbus Dam, produces the anadromous form of *O. mykiss*. However, steelhead from Nimbus Fish Hatchery are not included in the CCV steelhead DPS due to genetic integrity concerns from use of out-of-basin broodstock (71 FR 834 2006). To specifically address this issue and in response to RPA Action II.6.1 contained in the NMFS (2009) biological opinion for long-term operations of the CVP/SWP, genetic testing of American River *O. mykiss* population was completed in 2014 to inform the planning for Nimbus Fish Hatchery broodstock replacement that will support the CCV steelhead DPS (National Marine Fisheries Service 2016a).

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On Wed, May 8, 2019 at 9:54 AM Garwin Yip - NOAA Federal <garwin.yip@noaa.gov> wrote:

We got comments back from Rosalie on the introduction section, and I could use some help to address comments, as follows:

--1.3.2 ESA Consultation on CVP and SWP Hatcheries: Is Nimbus Fish Hatchery production in or out? If Nimbus HGMP and HMP are part of the PA, how would we/would we analyze it?

-- 1.3.4 New section on non-discretionary allocations: Description and why it is considered part of PA

-- 1.3.7 Without Action Scenario: Look it over, make sure it's tight

-- 1.3.11 WIIN Act: Title was a placeholder, new description. I thought I'd just address sharing the draft BiOp, rather than all of the requirements, like sharing a timeline, quarterly meetings, etc.

-- 1.4, Consultation History:

++ Table 1.4-1: I cited Reclamation's BA for the table, so I don't feel the need to populate all of the cells, per Rosalie's comment. Thoughts?

++ end: Brief summary of the major changes to the revised BA. Barb would give me a big ole' long list. I'm thinking about scrolling through the BA and looking for places where there is a lot of red, like aquatic weed mgmt in CCF. Thoughts?

-Garwin-

Garwin Yip

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