From: Sarah Gallagher - NOAA Federal <sarah.gallagher@noaa.gov>

Sent: Friday, May 17, 2019 10:12 AM **To:** Garwin Yip - NOAA Federal

Subject: Re: Clarification: Table 4-6, deconstruction table, and stressor table for Clear Cr effects

Reclamation calls it both was my point. Geomorphic flows in table 4-6, and channel maintenance in other places in their BA.

Sarah Gallagher | Fish Biologist

NOAA Fisheries | West Coast Region U.S. Department of Commerce 650 Capitol Mall, Suite 5-100, Sacramento, CA 95814 916-930-3712 | Sarah.Gallagher@noaa.gov

On Thu, May 16, 2019 at 10:47 PM Garwin Yip - NOAA Federal < garwin.yip@noaa.gov wrote: Sorry, this is too much to follow. See my responses in red, below, but edits should just be made directly in the section (we'll lose all kinds of trains of thought with separate e-mail discussions, etc.) with limited comments and questions back.

I'm still working through the doc.

-Garwin-

Garwin Yip

Water Operations and Delta Consultations Branch Chief NOAA Fisheries West Coast Region U.S. Department of Commerce California Central Valley Office 650 Capitol Mall, Suite 5-100 Sacramento, CA 95814

Office: 916-930-3611 Cell: 916-716-6558 FAX: 916-930-3629

www.westcoast.fisheries.noaa.gov



On Thu, May 16, 2019 at 10:38 PM Sarah Gallagher - NOAA Federal < sarah.gallagher@noaa.gov > wrote: Red line (edited) table 4-6 in PA lists out components as (1) Whiskeytown Reservoir Operations, (2) Clear Creek Minimum Flows, (3) Clear Creek GEOMORPHIC and Spring Attraction Pulse Flows, and (4) Spring Creek Debris Dam. Of course it is called **channel maintenance** in reclamation's effects section, therefore the accidental mixing in my document. I want to use the term that more accurately describes what 900 cfs will do. I now am thinking its probably geomorphic because they are not

going to work to maintain the channel. **Do you have a preference?** I will make them all the same. I think the PA components should be the same in our BiOp as what Reclamation calls it. Otherwise, it's an easy accusation for Reclamation to accuse us of changing their PA.

We deconstructed the PA slightly differently than Table 4-6.

The stressor table matches format of the sections in the effects, excluding Whiskeyown reservoir operations and spring creek debris dam because we did not analyze them. Seems like deconstruct table should match stressor table, less the components not analyzed. **Does that make sense to you?** Yes. That's my point, that they don't match.

Sarah Gallagher | Fish Biologist

NOAA Fisheries | West Coast Region U.S. Department of Commerce 650 Capitol Mall, Suite 5-100, Sacramento, CA 95814 916-930-3712 | Sarah.Gallagher@noaa.gov