

**Craver, Patti**

**From:** Krieg, Rebekah <rebekah.krieg@pnl.gov>  
**Sent:** Monday, March 07, 2011 1:52 PM  
**To:** Logan, Dennis  
**Subject:** RE: CGS BA and EFH

I took the sentence in question (including the next sentence in that paragraph) from the DSEIS (Page 4-42). The NMFS 2010b actually applies to both sentences. However, in relooking at that reference I could not find a distinct place where they used the word "mismanagement", although I think the implication was there. However, since this is a rather strong term, I suggest we rewrite this -

Pressures from recreational and commercial fishing within the Columbia River Basin contribute to the cumulative effects on the aquatic resources in the vicinity of the CGS. Historically, the fitness of some species has declined (e.g., Upper Columbia River spring Chinook salmon), because of the mismanagement of some hatchery programs. Release of fish that are not genetically diverse and have behaviors that may result in increased predation are some of the issues of past hatchery practices that are currently being addressed by new programs (NMFS 2010b).

To this

Pressures from recreational and commercial fishing within the Columbia River Basin contribute to the cumulative effects on the aquatic resources in the vicinity of the CGS. Hatchery programs can negatively affect the fitness or productivity of a species through competition between the hatchery and the wild stocks, behavioral variations (resulting in increased predation) reduced adaptive genetic diversity, and disease (NMFS 2010b).

And while I'm at it, I changed the last sentence from this -

Predation by pinnipeds (seals and sea lions) on adult salmon migrating upstream and smolts migrating downstream can also be substantial (USFWS 2007).

To this -

New programs are currently addressing the negative aspects of hatchery-bred fish (NMFS 2010b). Predation by pinnipeds (primarily sea lions) on adult salmon migrating upstream and by birds (Caspian terns and double-crested cormorants), and fish (northern pikeminnow, American shad, channel catfish, crappie, largemouth bass, smallmouth bass, walleye and yellowperch) on smolts migrating downstream can also be substantial (USFWS 2007; NMFS 2010b).

Becky

**From:** Logan, Dennis [mailto:Dennis.Logan@nrc.gov]  
**Sent:** Monday, March 07, 2011 6:37 AM  
**To:** Krieg, Rebekah  
**Subject:** RE: CGS BA and EFH

Becky,

In first reading, I saw only one thing: On page 70 the sentence "Historically, the fitness of some species has declined (e.g., Upper Columbia River spring Chinook salmon), because of the mismanagement of some hatchery programs" needs a citation, as this is not our conclusion.

-Dennis

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**From:** Krieg, Rebekah [<mailto:rebekah.krieg@pnl.gov>]  
**Sent:** Friday, March 04, 2011 4:18 PM  
**To:** Logan, Dennis  
**Cc:** Mcdowell, Bruce K  
**Subject:** CGS BA and EFH

The CGS BA and EFH does not seem to be getting through to the NRC email addresses. So I have placed it on EARRTH at this location - [https://earrth.pnl.gov/Site%20Documents/Alternative%20Sites/watts%20bar/Biological%20Assessment/Dennis%20Logan/ESA\\_and\\_EFH\\_CGS\\_March\\_2011.docx](https://earrth.pnl.gov/Site%20Documents/Alternative%20Sites/watts%20bar/Biological%20Assessment/Dennis%20Logan/ESA_and_EFH_CGS_March_2011.docx). It is easier to use EARRTH than an FTP site (and much quicker than Express mail) so I hope you don't mind.

I tried to stick closely to the template that you sent, although I did add another table that illustrated the life-stages of Chinook salmon that reside in the vicinity of the CGS site. With the different runs of salmon, it made it a bit confusing, and the table was an attempt to clarify.

This document has been edited, and text processed. It was reviewed by Joanne Duncan (general background on aquatic biota in the Hanford Reach and familiar with NRC EISs). Her comments are incorporated. I have also sent it to Bob Mueller who is our steelhead/fall Chinook expert. I have not received his comments yet. I will communicate to you any changes he suggests as he reads through it.

I look forward to your comments!

Becky

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