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**From:** Cathy Marcinkevage - NOAA Federal <cathy.marcinkevage@noaa.gov>  
**Sent:** Wednesday, April 24, 2019 8:51 AM  
**To:** Evan Sawyer - NOAA Affiliate; Stephen Maurano; Kate Spear - NOAA Federal  
**Cc:** garwin.yip@noaa.gov; sarah.gallagher@noaa.gov  
**Subject:** Fwd: Location of Stressor Intro Review and comments

Hi all --

Sarah had to switch back to Clear Creek work, I have a meeting today with state folks, and Evan had some time. So I asked Evan to pick up the lead in shepherding these intros through the rest of the work needed. I expect Evan to take a look at Sarah's first pass and then coordinate work with Stephen and Kate to address the outstanding issues. I can definitely take a look and assist but having you all work out some task distribution is really helpful! I wanted to be sure you all knew where the ball was with this (with you all) and who was calling the plays (Evan right now).

Feel free to come to me with any questions!

Thanks!  
Cathy

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Begin forwarded message:

**From:** Sarah Gallagher - NOAA Federal <[sarah.gallagher@noaa.gov](mailto:sarah.gallagher@noaa.gov)>  
**Date:** April 19, 2019 at 4:39:00 PM PDT  
**To:** Cathy Marcinkevage <[cathy.marcinkevage@noaa.gov](mailto:cathy.marcinkevage@noaa.gov)>, Garwin Yip - NOAA Federal <[garwin.yip@noaa.gov](mailto:garwin.yip@noaa.gov)>, Howard Brown - NOAA Federal <[howard.brown@noaa.gov](mailto:howard.brown@noaa.gov)>  
**Cc:** Evan Sawyer - NOAA Federal <[evan.sawyer@noaa.gov](mailto:evan.sawyer@noaa.gov)>  
**Subject:** **Location of Stressor Intro Review and comments**

I have completed my review of Kate and Stephen's stressor intro, and it is located here:

**R:\Draft BiOp\2\_ESA\Stressor materials\Stressor Intro Review**

There are three documents. One each for Kate and Stephen's sections, and a document with some ideas and notes for the hatchery stressor section. Everything is in track changes.

I attempted to delete sections that had too much information, or were not pertinent, and noted or added information for ones that needed more.

After my review, I think the section would be more clear if for each stressor, we focused on this layout: 1) define the stressor; 2) identify what causes it -either note specific examples or include everything from the divisions, and 3) state how it affects spring run, winter run, steelhead, sturgeon, where appropriate. It seems simpler to leave out information from baseline or status of species, and I tried to note those sections or delete. Also, it seems important to make sure we address stressors for all the species.

I can continue to work on this, and and make things more final-incorporate my edits or suggestions. Cathy/Evan, let me know after you take a look or need to discuss.

**Sarah Gallagher | Fish Biologist**

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