

## Stephen Maurano - NOAA Federal

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**From:** Stephen Maurano - NOAA Federal  
**Sent:** Thursday, April 25, 2019 4:15 PM  
**To:** Kate Spear - NOAA Federal  
**Cc:** Evan Sawyer - NOAA Federal; Cathy Marcinkevage - NOAA Federal  
**Subject:** Re: Location of Stressor Intro Review and comments

Heya Evan,

Thanks again for the guidance and support. Definitely learned more about BiOp's and the relevant stressors working on this...

- My latest version is in the same folder as Kate's: R:\Draft BiOp\2\_ESA\Stressor materials\Stressor Intro Review\Kate's & Stephen's Write Ups\ROC LTO Stressors 20190425 Stephen
- Like Kate noted, additional review would be appreciated, particularly for a few comments/issues Sarah posed that I wasn't familiar enough with to respond to.
- I formatted all my stressors (except the ones you're working on) to follow your format. One thing I was wondering about: your examples began by addressing salmon, but I didn't see your example sturgeon language, so those sections in my document could potentially be expanded upon (but hopefully without duplicating all the salmon discussion, since many of the stressor pathways/effects are shared).

I'm out of the office Fri/Mon, but just hanging out with kiddos, so if anything is unclear (what I wrote, finding references, etc), feel free to give me a ring. My toddler also is also a big fan of fish and whales, so if nothing else, I can put him on the phone and he might have some suggestions :-)

--Stephen

On Thu, Apr 25, 2019 at 2:07 PM Kate Spear - NOAA Federal <[kate.spear@noaa.gov](mailto:kate.spear@noaa.gov)> wrote:

Great, thank you!

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On Thu, Apr 25, 2019 at 2:05 PM Evan Sawyer - NOAA Federal <[evan.sawyer@noaa.gov](mailto:evan.sawyer@noaa.gov)> wrote:  
Hi Kate,

I got it, thanks. I'll fold all the versions together sometime at the end of the day, emailing you, Stephen and Cathy when I do. Once it's all together I'll give it a read through.

Evan

On Thu, Apr 25, 2019 at 1:28 PM Kate Spear - NOAA Federal <[kate.spear@noaa.gov](mailto:kate.spear@noaa.gov)> wrote:

Hi Evan,

I'm about finished drafting my sections. Would you mind checking if I listed the correct options for probable change in fitness? I highlighted them for each stressor. (Attached, or here: R:\Draft BiOp\2\_ESA\Stressor materials\Stressor Intro Review\Kate's & Stephen's Write Ups\Kate 4\_25\_19).

Let me know if you see anything else at this point. I hope these are helpful, I tried to follow the general format you gave us and keep it short and simple. This info is all still new to me so I'm sure someone will want to review it further.

Thanks!

Kate

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On Thu, Apr 25, 2019 at 7:49 AM Evan Sawyer - NOAA Federal <[evan.sawyer@noaa.gov](mailto:evan.sawyer@noaa.gov)> wrote:  
Hi Stephen, Kate,

Thanks for providing the update. I think your understanding of next steps are correct.

I need to finish the entertainment section and move what I've done to the same folder as where you and Kate have your drafts.

If either of you have any questions feel free to give me a call (I'm teleworking) 510-919-3857

Thanks,  
Evan

On Wed, Apr 24, 2019 at 4:27 PM Stephen Maurano - NOAA Federal <[stephen.maurano@noaa.gov](mailto:stephen.maurano@noaa.gov)> wrote:

Hi All,

Quick update...

- Kate & I accepted or responded to as many of Sarah's edits as possible, although a few remain and will need to be answered by someone with more familiarity with the various operations and issues.
- Evan wrote or revised three sections (Loss of Floodplain Habitats, Loss of Riparian Habitat and Instream Cover, Entrainment)
- Kate & I are editing our respective sections to be consistent with Evans example, and add additional info where needed. Our current versions are at R:\Draft BiOp\2\_ESA\Stressor materials\Stressor Intro Review\Kate's & Stephen's Write Ups
- We understand that Thursday is the goal, so we'll write through COB tomorrow to finish writing.

Let us know if you have any other directions. Otherwise, thanks for the info and instructions!

On Wed, Apr 24, 2019 at 1:15 PM Evan Sawyer - NOAA Federal <[evan.sawyer@noaa.gov](mailto:evan.sawyer@noaa.gov)> wrote:

I've also created a folder for what I've used as source documents here:

R:\Draft BiOp\2\_ESA\Stressor materials\Stressor Intro Review\Evan's revisions\reference docs

the documents include:

appendix A of the GSRP (threats assessment)

appendix B of the CV salmonid RP (threats assessment)

GS SAIL document

WR SAIL document

Evan

On Wed, Apr 24, 2019 at 12:22 PM Evan Sawyer - NOAA Federal <[evan.sawyer@noaa.gov](mailto:evan.sawyer@noaa.gov)> wrote:

OK here's my (hot) take:

Attached is an example of what I think the stressor intros should look like. I looked at "loss of riparian habitat and instream cover" and using the threats assessment documentation for the recovery plan and the Salmon and Sturgeon Assessment of Indicators by Life Stage (SAIL) synthesis I tried to describe and link the stressors to species response and effects. I think if we can describe all the stressors according to this format we'll be good?

I haven't yet but we could also cross-walk the sturgeon specific stressors to those for salmonids if we're repeating ourselves.

My next step will be to try and format "passage impediments/Barriers" to the example style.

I have to step out but we can talk at 1:00 if you want or need some clarification.

Evan

On Wed, Apr 24, 2019 at 8:50 AM Cathy Marcinkevage - NOAA Federal  
<[cathy.marcinkevage@noaa.gov](mailto:cathy.marcinkevage@noaa.gov)> wrote:

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

**Cathy Marcinkevage**  
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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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