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**From:** Evan Sawyer - NOAA Federal <evan.sawyer@noaa.gov>  
**Sent:** Monday, April 8, 2019 4:19 PM  
**To:** Sarah Gallagher - NOAA Federal  
**Subject:** Re: [EXTERNAL] Another WUA question for you

Wow, thanks for checking

Kinda calls into question the reliance on habitat restoration as a mitigation measure?

On Mon, Apr 8, 2019 at 4:16 PM Sarah Gallagher - NOAA Federal <[sarah.gallagher@noaa.gov](mailto:sarah.gallagher@noaa.gov)> wrote:

----- Forwarded message -----

**From:** Mark Gard <[mark\\_gard@fws.gov](mailto:mark_gard@fws.gov)>  
**Date:** Mon, Apr 8, 2019 at 4:14 PM  
**Subject:** Re: [EXTERNAL] Another WUA question for you  
**To:** Sarah Gallagher - NOAA Federal <[sarah.gallagher@noaa.gov](mailto:sarah.gallagher@noaa.gov)>  
**Cc:** <[mike.urkov@gmail.com](mailto:mike.urkov@gmail.com)>, <[mtompkins@flowwest.com](mailto:mtompkins@flowwest.com)>

No - could probably do it on area of gravel added times average combined suitability. I would be surprised if habitat is limiting for anything but fall-run though.

Sent from my iPhone

On Apr 8, 2019, at 4:05 PM, Sarah Gallagher - NOAA Federal <[sarah.gallagher@noaa.gov](mailto:sarah.gallagher@noaa.gov)> wrote:

Hi again Mark,

Have you ever updated the WUA curves for the upper Sacramento River since all of the Restoration and gravel additions? If not, how would restoration factor in?

Thanks again for your help.

**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](mailto:Sarah.Gallagher@noaa.gov)

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