

## Mark Gard

Mark Gard  
Fish and Wildlife Biologist at US Fish and Wildlife Service

On 07/05/15 5:30PM, Mark Gard wrote:

I would be OK with what they are doing, but would be good as a sensitivity analysis to use our butte creek spring run spawning criteria and clear Creek steelhead rearing criteria to see what difference it would make

Sent from LinkedIn [for iPhone](#)  
<http://nkd.in/ios>

On 07/05/15 10:22AM, Sophia Unger wrote:

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Hello again, Mark.

Thank you for connecting. Now that I have a higher character limit for my message, I'll try to explain a bit better what I'm after. I am working with ICF on the BDCP project. We are currently developing fisheries analyses with NMFS for ESA consultation on Chinook salmon, and have been relying heavily on your WUA modeling work in the Sacramento and American rivers. As far as I have been able to determine, no WUA curves have been developed for spring-run in the Sacramento River - hardly surprising given their uncertain status there. However, we understand that ESSA Technologies have used the fall-run WUA curves you developed for the Sacramento River as a stand-in for spring-run WUA analyses. Also, they are using the late fall-run rearing curves for steelhead rearing. I've been somewhat uneasy about these substitutions, especially after reading in your reports for Clear Creek that the rearing WUA curves you modeled for fall-run and spring-run in Clear Creek were quite different. In any case, I would be very grateful for a response from you about using the fall-run WUA curves for spring-run in the Sac, and the late fall-run WUA rearing curve for steelhead. If you'd prefer to phone me, my number is (916) 642-6043. Thank you very much for any help you can provide.

Sophie