From: Donald Robinson [mailto:drobinson@essa.com]

Sent: 16-Jun-2015 11:54 AM

To: 'Clint Alexander' **Cc:** <u>drobinson@essa.com</u>

Subject: NMFS questions re: SacEFT - Rick Wilder May 28th email

Hi Clint

In the Version 2 RoD (which Rick quotes), it states in 4.2.4 that **Spring-run Chinook spawning and rearing** use **Fall-run Chinook** curves. This was because there was no empirical evidence to draw upon, and I was advised by Mark Gard to use this mapping and cited him as "pers. comm.". For **Steelhead spawning** the values we use in EFT are taken from USFWS (2003, p.37), which is based in turn on USFWS (2000), a study from the American River. I'm guilty of not citing USFWS (2000), but the linkage is cited in USFWS (2003). Last mystery: where did I get **Steelhead rearing** curves? Rick is correct that I did not document this (my bad). These curves are mapped from **Late-Fall Chinook rearing**.

In summary:

Target mapping		Source	
data	Authority		
Spring Chinook Spawning WUA	<-	Fall Chinook Spawning WUA	Mark Gard
pers. comm. Spring Chinook Rearing WUA	<-	Fall Chinook Rearing WUA	Mark Gard
pers. comm.			
Steelhead Spawning WUA	<-	Steelhead Spawning WUA	USFWS
(2003) <- USFWS (2000)			
Steelhead Rearing WUA	<-	Late Fall Chinook Rearing WUA	?? Mark Gard
pers. comm.??			

Conclusion

I clearly recall a series of extended phone calls with Mark, during which he recommended the mappings, in addition to figuring out how to get TUGS gravel to work with WUA. I can't conceive of deciding on my own to map Steelhead rearing from Late-Fall rearing, without getting this advice directly from him. It therefore seems very likely to me that Steelhead Rearing was also discussed and decided at that time, and that my SacEFT documentation just missed extending the "pers. comm." reference to include that. I've spent a couple of hours checking the database, reviewing literature and hunting without success for an email or paper trail leading back to Mark Gard. Next step would be to call Mark, which I will do if you request it.

In addition to checking the curves, I also compared the spawning and rearing **locations** documented in the V2 RoD against the SacDeltaEFT database, and they agree.

Cheers, Don