Questions on East Side Division elements of the 2019 ROConLTO BA

1. *(High priority)* What is assumed for Vernalis flows, year-round, in COS and PA scenarios? For example, does Table 7 for the COS scenario on PDF page 30 of Appendix D in Attachment 2-1 (excerpted below) describe required flows Feb 1-Apr 15 and May 16-June 3 or for the entire Feb-June period? What flows are assumed Apr 15-May 15? ***Resolution during call:*** *Reclamation will review modeling assumptions and get back to group.*

Table 7. Bay-Delta Vernalis Flow Objectives (average monthly cfs)

60-20-20 Index	Flow Required if X2 is West of Chipps Island	Flow required if X2 is East of Chipps Island
Wet	3,420	2,130
Above Normal	3,420	2,130
Below Normal	2,280	1,420
Dry	2,280	1,420
Critical	1,140	710

2. *(High priority)* What is assumed for Vernalis EC requirements in the COS and PA scenarios? ***Resolution during call:*** *Reclamation will review modeling assumptions and get back to group.*

3. *(Medium priority)* COS assumes 1987 USBR-DFG agreement; PA scenario does not. Was this approach agreed to by CDFW? ***Resolution during call:*** *Issue still under discussion between Reclamation and CDFW. PDF page 53 of Appendix D (within Attachment 2-2) notes that COS assumes both '87 agreement and NMFS BO flows while PA assumes just SRP flows. However, modeling for COS assumes that 2-E flows cover the '87 agreement and doesn't include any 87 agreement flows additional to 2-E flows.*

4. *(High priority)* Appendix D, Attachment 2-1, PDF page 27-28 indicates that the COS flow requirements are implemented based on the New Melones yeartype. However, all Stanislaus-River-related COS results in 3-1 (Storage), 3-2 (flow), and 3-4 (temp) are summarized based on the yeartype defined by the 60-20-20 Index (the method in the PA), NOT the New Melones yeartype.

   While that summary is useful in that the yeartype bins for the COS results contain the same set of years as in the PA scenario, the yeartype bins for the COS results do not accurately represent the modeled operations. For example, The Critical year bin in the COS results might include years in which the modeling implemented the Dry or Below Normal year schedule, because the 60-20-20 Index was Critical while the New Melones

yeartype was Dry or Below Normal. The bottom table of Table 37-3 (Appendix D, PDF page 559), which shows a lot of differences in modeled flows in the Critical, Dry, and Below Normal years even though the PA and COS share identical flow schedules for those yeartypes. My guess is that much of that difference is because, for example, PA flows for a Critical yeartype are being compared with COS flows from the same years, but a mix of New Melones yeartypes – what is Reclamation's explanation for PA vs. COS differences in Critical, Dry, and Below Normal years?

Additional information is needed to (a) summarize the observed flows in the COS scenario based on New Melones yeartype, and (b) some sort of crosswalk to compare yeartypes for all years in the CALSIM record according to the two yeartype determination methods. ***Resolution during call:*** *Derek Hilts (FWS) will prepare requested summaries for NMFS and provide to Barb Byrne.*

5. *(Low priority)* Tulloch Dam and Goodwin Dam are non-CVP facilities located on the Stanislaus River downstream of New Melones Reservoir. What is assumed for Tulloch operations in the WOA scenario, and how does that modify the flows coming out of New Melones? ***Resolution during call:*** *Reclamation will review modeling assumptions and get back to group.*

6. *(Low priority)* What is assumed about the outlet capacity at New Melones and about how downstream channel capacity might limit the release at New Melones in the WOA scenario? ***Resolution during call:*** *Reclamation will review modeling assumptions and get back to group.*

7. *(High priority)* No biological modeling (including for FR relevant to SRKW analysis); no assessment of floodplain inundation/spawning/rearing areas. Very high-level, qualitative description of effects. Absent this information, we have limited scope for our effects analysis for CV steelhead and for the SRKW analysis. ***Resolution during call:*** *Byrne (NMFS) acknowledged ongoing discussions about getting some estimates of Chinook production under the PA scenario for the Trinity and Central Valley. Reclamation pointed out figures on p. 5-362 and 5-363 (based on the CVPIA SIT model) showing spawning habitat needs on the Stanislaus River as a function of adult escapement.* ***Follow-up post-call question:*** *Conservation measures for the East Side Divison on p. 4-60 of the Proposed Action describes an annual gravel placement goal of 4,500 tons and an additional 50 acres of rearing habitat. How does the 4,500 ton commitment relate to the 14.58 acres of "current spawning habitat" in Figure 5.14-22 on p. 5-362?*