From: Garwin Yip - NOAA Federal <garwin.yip@noaa.gov>

Sent:Friday, June 14, 2019 12:48 AMTo:Cathy Marcinkevage - NOAA FederalSubject:Re: Shasta text for smelt habitat

I shut down my laptop, so working off iPad.

- 1st paragraph, 1st sentence: Aren't exports a primary objective, also?
- Works for me.
- So, at the framework level, what would you say about general effects? I would say neutral to negative—neutral if tap other reservoirs, negative if Keswick releases had to increase. I don't see any positives.

Sent from my iPad

On Jun 14, 2019, at 12:17 AM, Cathy Marcinkevage - NOAA Federal < cathy.marcinkevage@noaa.gov > wrote:

Let me know of any changes you think are required.

## 1.1.1.1.1 Shasta Summer Operations

During the summer, Reclamation's operational considerations are primarily flows required for Delta outflows, instream demands, and temperature control downstream of Keswick Dam. These underlying operational considerations remain the same for both the COS and the PA.

The PA includes the Delta Smelt Summer-Fall Habitat action component, which proposes to use structured decision-making to annually implement habitat actions that support Delta Smelt recruitment in the summer and fall (June through October). This action is intended to maintain low salinity habitat in the estuary when water temperatures are suitable, manage the low salinity zone to overlap with turbid water and available food supplies; and establish a contiguous low salinity habitat through the estuary. This is proposed as a collaborative planning action. The PA identifies that Reclamation intends to provide any needed Delta outflow augmentation in the fall primarily through export reductions, but that storage releases from upstream reservoirs may be used to initiate the action by pushing the salinity out further in August and early September. The need for this initial action will depend on the particular hydrologic, tidal, storage, and demand conditions at the time. Because the ROC on LTO PA does not include specificity in resources, timing, or defined actions by which releases may be used, effects are included in this analysis of effects at the framework level.