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Sent: Thursday, May 16, 2019 8:50 AM

To: Howard Brown; Cathy Marcinkevage; Garwin Yip; evan.sawyer@noaa.gov; Brian Ellrott;

Derek Hilts; Barbara Byrne

Subject: Notes from Reclamation meeting on why storage will improve in PA

Sharing these partial notes from yesterday

Maria's notes:

Per discussions from Reclamation on 5/15:

Per Reclamation, there are four operational planned changes that explain the modeled result that storage overall will be greater, as compared to historical or COS.

- 1. April and May restrictions in Delta are relaxed; therefore they are able to pump water in spring to fill San Luis - this has long term effect on saving water at Shasta. We will have to make sure this assumption and modeling doesn't change as we add back in Delta performance objectives.
- 2. Fall X2/outflow; this is reduced in modeling and has significant effect on storage. However the PA has since been changed to add fall outflow back into the operation. Reclamation will change PA to prescribe order to how this is met.
- 3. Fall minimums relative to fall run - Reclamation states that historically fall flows have been higher than PA. We compared language in PA and in 2009 RPA and it seems similar, we we think operations would not be different. We agreed to look at actual historic fall data, to see if we agree there is potential for significant storage savings. Reclamation will do side analysis.
- 4. COA adjustment. This explains some gains in storage in some year types. Kristin sent email earlier today with some analysis that we will look at.

Reclamation is open to technical assistance on decisions.

Sent from my iPad