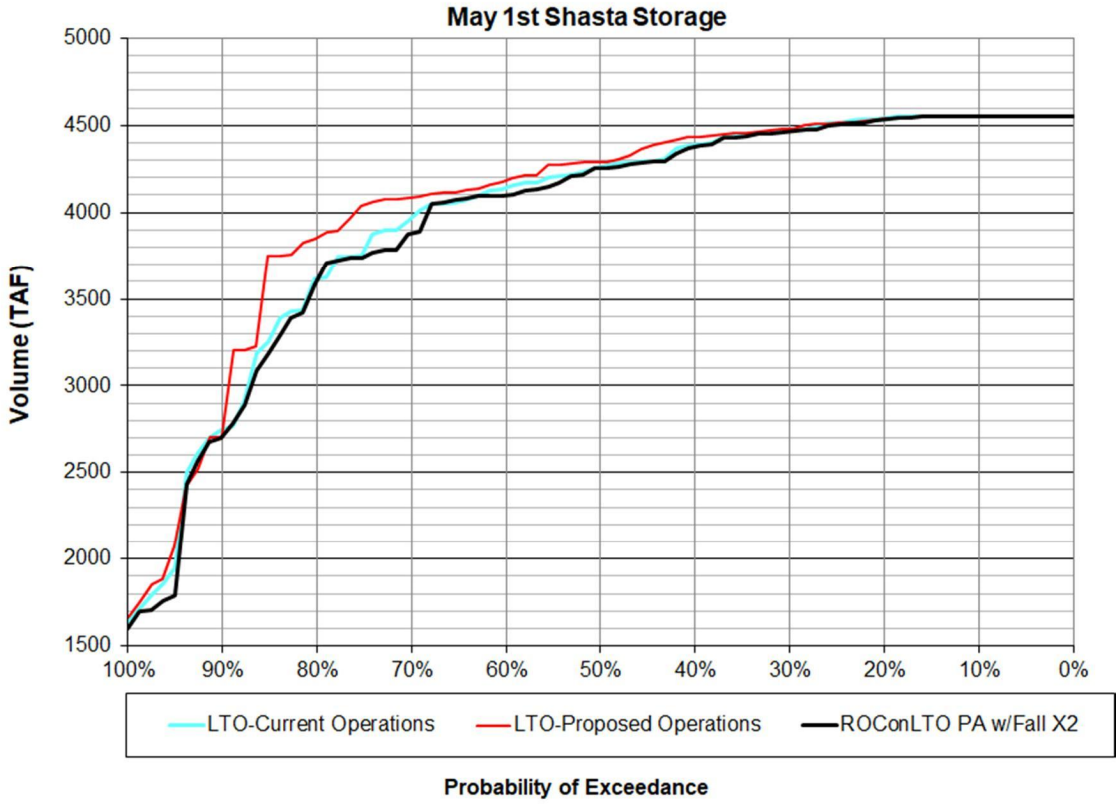
From: Hilts, Derek <derek_hilts@fws.gov>
Sent: Thursday, May 23, 2019 3:50 PM
To: Evan Sawyer - NOAA Federal
Cc: Maria Rea - NOAA Federal; Howard Brown; Cathy Marcinkevage; Garwin Yip
Subject: Re: [EXTERNAL] Re: Notes from Reclamation meeting on why storage will improve in PA

Maria, et.al.,
In the recent meetings I've attended, it's been said there are three or four things that would cause greater Shasta Storage under the ROC on LTO. In the meeting yesterday, I tried to point out that the PA's minimum instream flow requirements in the PA modeling isn't one of them, but it seems the conversations were always jumping between comparison of model-to-model and model-to-recent past ops. I have my doubts that USBR will be able to do better (at gaining Shasta storage) than they have in recent years. Flood control and demands downstream (be them delta water quality or otherwise) OFTEN drive Fall Keswick releases. If the PA includes some real capability to reduce the need for water downstream of Keswick in the Fall, then I'll reduce my doubting somewhat.

Strictly looking at model-to-model comparisons, it appears that the dominate reason by far for improved May 1st Shasta storage is the elimination of Fall X2. I base that statement on having just run the PA with Fall X2 added back in. See chart below.
Derek



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On Thu, May 16, 2019 at 11:35 AM Evan Sawyer - NOAA Federal <evan.sawyer@noaa.gov> wrote:

Attached are my notes from yesterday's meeting.

Evan

On Thu, May 16, 2019 at 8:50 AM Maria Rea - NOAA Federal <maria.rea@noaa.gov> wrote:

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

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