From: Hilts, Derek <derek_hilts@fws.gov>
Sent: Tuesday, March 26, 2019 12:37 PM

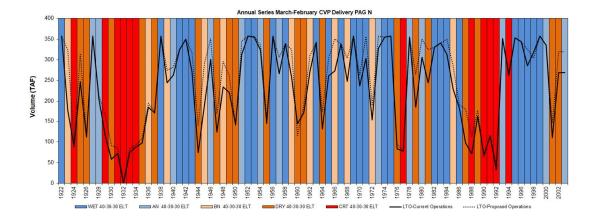
To: Maria.rea@noaa.gov; cathy.marcinkevage@noaa.gov; garwin.yip@noaa.gov;

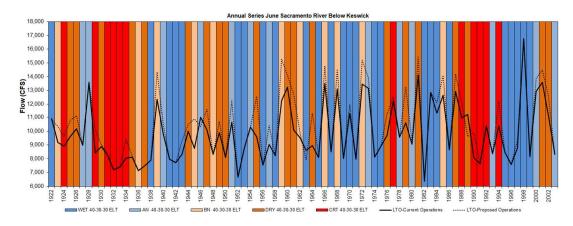
evan.sawyer@noaa.gov; howard.brown@noaa.gov

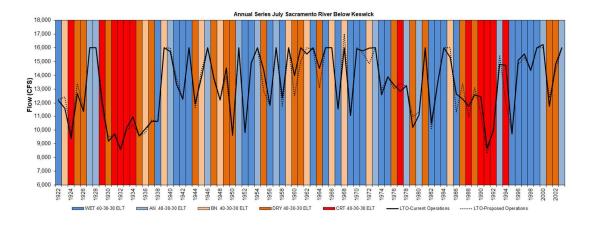
Subject: Re: [EXTERNAL] Question on Shasta Temperature Tier for ROC

Lastly, out of our meeting last week I was suppose to try to get answers to the questions below. My answers are shown in red.

- 1. Did CalSimII for the COS simulation in dryer years cut all non-discretionary deliveries? No. Only in 1932 are CVP ag service contracts allocated zero. See first chart below.
- 2. Did CalSimII for the COS simulation in dryer years explicitly draw on Folsom and Oroville and reduce exports to meet Delta requirements before pulling on Shasta? No, there are many inputs that work together to keep the reservoirs in balance.
- 3. Did CalSimII for the COS simulation in dryer years reduce the required flow level at Wilkins? Yes, the required level drops below 5000 cfs as a function of Shasta storage and delivery levels.
- 4. Did CalSimII for the COS simulation in dryer years explicitly limit June and July flows out of Keswick to 7500 cfs? No. See June releases second chart below and July releases third chart below.
- 5. Did CalSimII for the COS simulation in dryer years consider the location of temperature compliance on the Sacramento? No.







I think that completes my list of tasks from last week's meeting. I'll now turn to answering some questions from Barb Byrnes unless you direct otherwise.

Derek

Derek Hilts M.S., P.E. US Fish and Wildlife Service 650 Capitol Mall Room 8-300 Sacramento, California 95814 Work desk phone 916.930.5633