March 12, 2019: ROCON LTO Shasta Temperature follow up meeting. Sarah Gallagher's notes.

The proposed action (PA) is in Hec5Q. Modelers pulled out 5 example years to look at more analysis-to give a better understanding as to what was modeled in the PA.

Temperature targets were changed between current operations (COS) and PA. Explained the **difference** from the 82 year approach between COS-(same as 2015 LTO –remand & water fix) and PA which uses a temperature target at a monthly scale at CCR, at or below 56F (focused on July/Aug 37-67 days)

Approach:

- Monthly time analysis approach, even though Hec has 6 hour, because driven by Calsim for flow and storage (monthy)
- Summarized performance of model from SRTTG management strategy; used the outcome at the end of April with no adjustment in the summer from Calsim; warming observed in river from Shasta to compliance point .
- Used model results and distribution of outcomes to look at cold water pool-can end up with more cold water when using end of April End of April storage gives you the tier.
- PA strategy is a gliding scale while SRTTG choses a compliance point.
- May is a half month, tiny violations are a modeling artifact, storage is the most sensitive input and increases.
- Assumptions: monthly temps, daily warming applied, look at situation and more or less aggressive early on, balance violations may/June and sept/oct

Take away: PA spends cold water to prevent drop to extend the shoulders to >56 if can; magnitude of changed between COS and PA,Look at Appendix B in 2009 Biop for American River, similar approach; The mortality models for Martin and Anderson (hatch) are better than Salmod and IOS.