**Sent:** Tuesday, March 26, 2019 8:58 AM

**To:** Cathy Marcinkevage

**Subject:** Discrepancy in SJR yeartype in CALSIM trend reporting tool and SIT model floodplain

analysis?

**Attachments:** SJR WYT comparison Calsim reporting tool vs Stan floodplain results.xlsx

Cathy, Please share the concern/questions described below with Katrina for help.

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Attached is an excel sheet comparing what I believe to be the modeled SJR yeartype from two sources:

## Columns A & B.

File:

Reclamation\_ROConLTO\_Trend\_Reporting\_rev17cy\_DV3\_ELTQ5\_CALSIM\_\_WOA11\_COS6\_PA5(woVS A) 011519

Specific place in file: Column G of the "Conv Flags" tab

## Columns D, E, and F.

File: Flood\_Habitat\_Tables\_and\_Plots\_Stanislaus 3.15.2019 - Copy (which I believe is the SIT model output) Specific place in file: Columns A-C of the "WY Type" tab

The SJR yeartype is based only on hydrology, so should be the same in all scenarios and all modeling summaries. I assume the modeled yeartype differs (in some years) from historical SJR yeartypes because the modeling is all based on the ELT Q5 climate change scenario.

Concern: There are 21 discrepancies in yeartype designation between the two sources (see attached for details). For example, 2001 and 2001 show as 4 ("Dry") in the floodplain workbook but as 5 ("Critical") in the Calsim "trend reporting" workbook. Those years were "Dry" in the real world.

Questions: I wonder if the yeartypes in the floodplain analysis are actual SJR yeartypes, rather than ELT Q5 yeartypes? If so, the summaries aren't quite right. Can you please flag this to Katrina and ask about this discrepancy, and whether it might be an issue for all the floodplain analyses (I haven't checked the other watersheds)?

Next steps: If, in fact, the real-world rather than modeled yeartype was used with the modeled flows, I think it might be possible to quickly re-summarize results by updating the WY Type lookup table to match the ELT Q5 yeartypes. At a quick glance, all the summaries are automated and should cascade correctly. Please ask Katrina to check with her folks if that's correct; if so, I should be able to fix it myself. If not easily fixable, I want to understand the discrepancy so I can correctly capture it in the record and note why I didn't use those results.

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