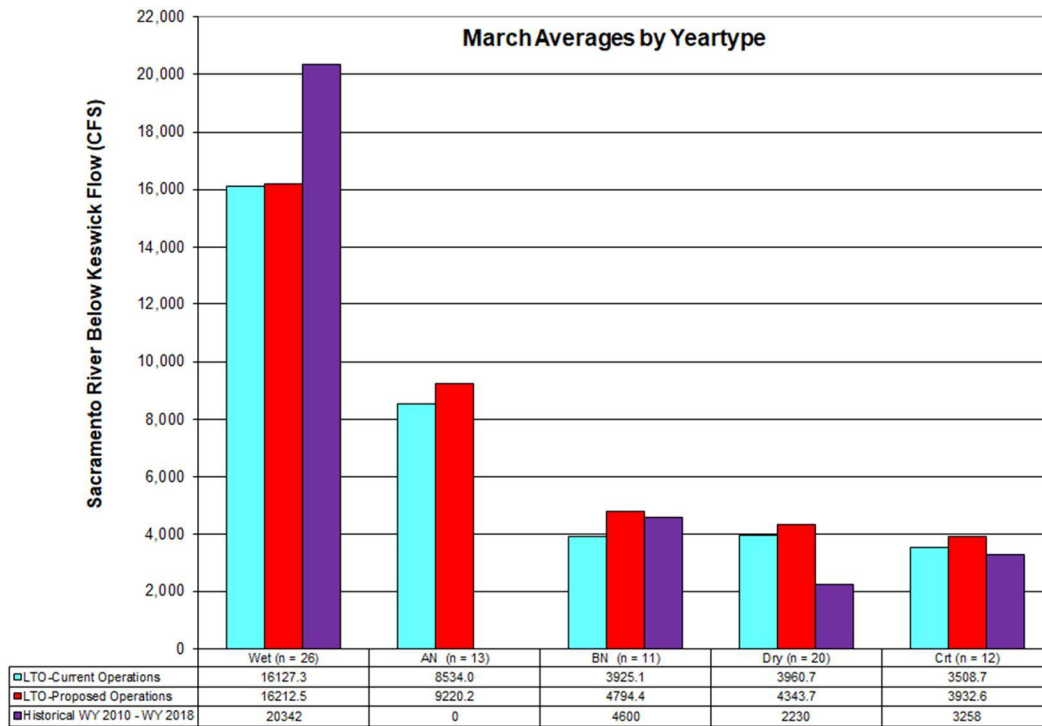
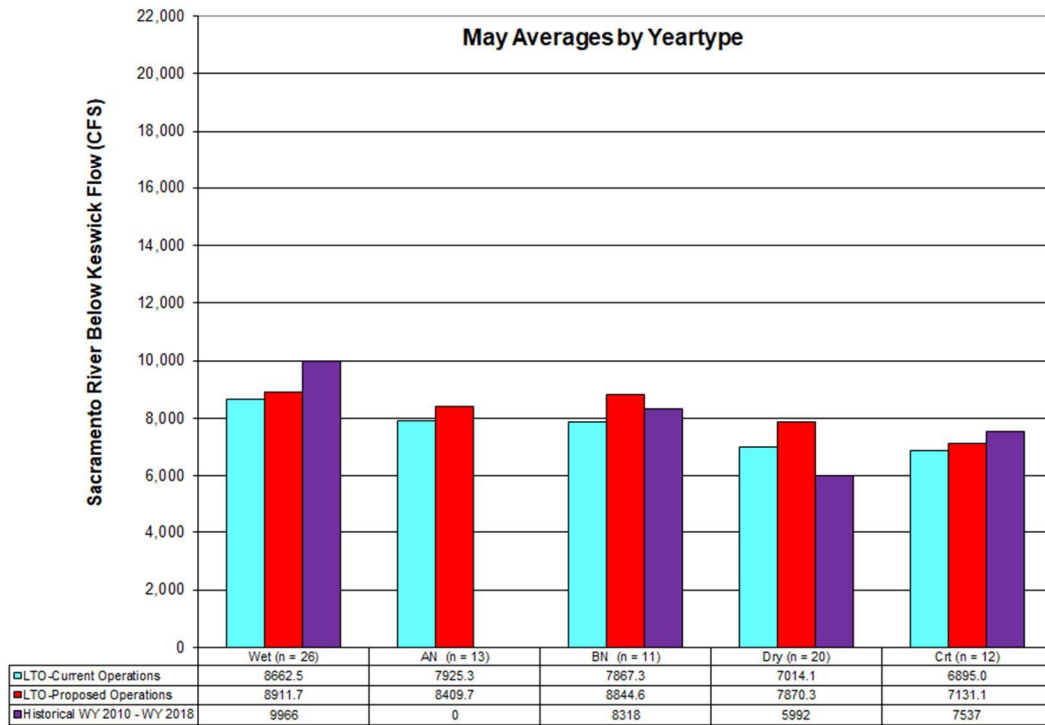
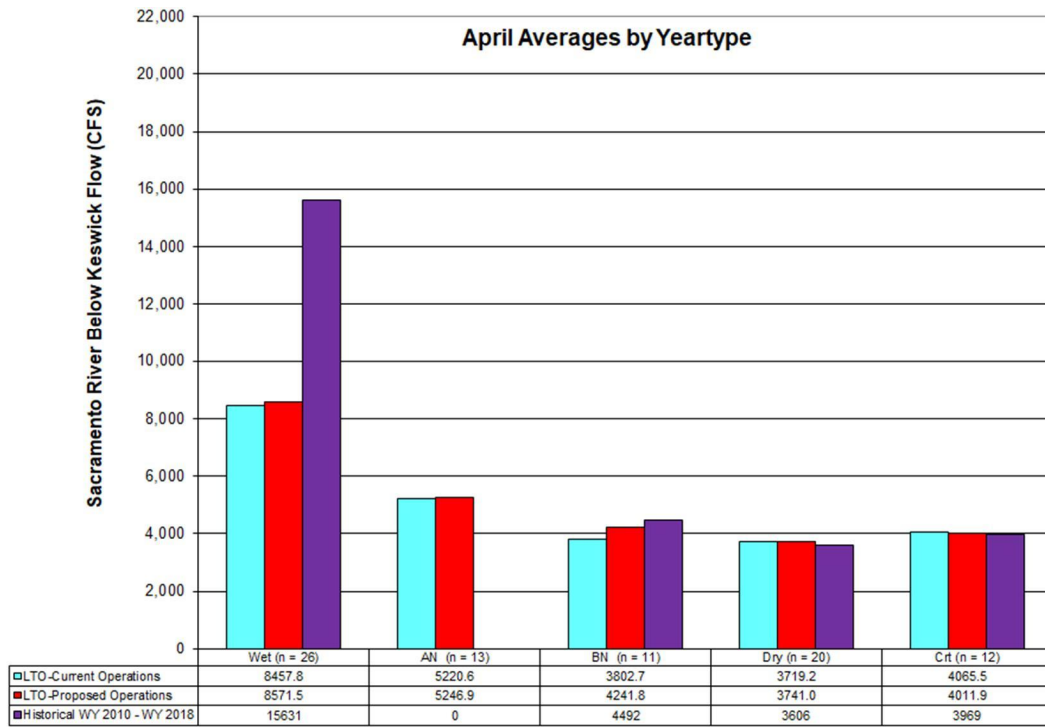


From: Hilts, Derek <derek_hilts@fws.gov>
Sent: Friday, April 12, 2019 11:19 AM
To: Evan Sawyer - NOAA Federal
Cc: Cathy Marcinkevage - NOAA Federal; Garwin Yip - NOAA Federal; Howard Brown - NOAA Federal
Subject: Re: [EXTERNAL] Re: ROC on LTO simulation of Keswick Jun, Jul, Aug releases





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

On Fri, Apr 12, 2019 at 11:12 AM Hilts, Derek <derek_hilts@fws.gov> wrote:

Hi Evan,

Yes, 2013 is the only Dry water year in the 2010-2019 period. The SOD ag service allocation was announced to be 20% on March 22 and stayed that way the rest of the water year. Without looking at CVP San Luis storage conditions, NDOI requirements, maintenance records, etc I'm not sure why they were that low.

I will generate similar bar charts for Mar-May and send them to you shortly.

Derek

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On Fri, Apr 12, 2019 at 11:03 AM Evan Sawyer - NOAA Federal <evan.sawyer@noaa.gov> wrote:

Hi Derek,

This is interesting. I'm wondering what happened in that one Dry year? Looks like it was 2013 which we mark as the start of the drought, so maybe Reclamation really clamped down?

So I think Maria was talking about the restrictions on Keswick releases that occur March - May(RPA I.2.3.B). Are the figures you've provided easy to generate? Could they be done for the months of March - May? I'm curious if the COS was modeled to accordingly. If this request needs to come from higher up, Cathy, Garwin or Howard please chime in.

Thanks,
Evan

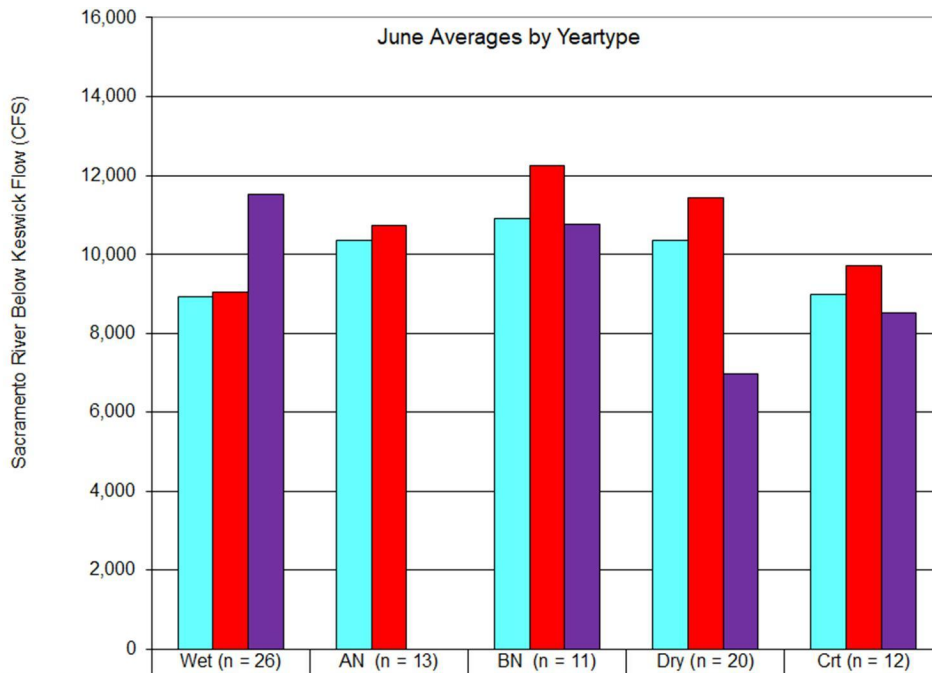
On Fri, Apr 12, 2019 at 10:23 AM Hilts, Derek <derek_hilts@fws.gov> wrote:

You've probably already looked at this. I looked at it with an eye towards Maria's question of does the COS mimic actual actions (lower Keswick releases) since the 2009 BiOp was promulgated?

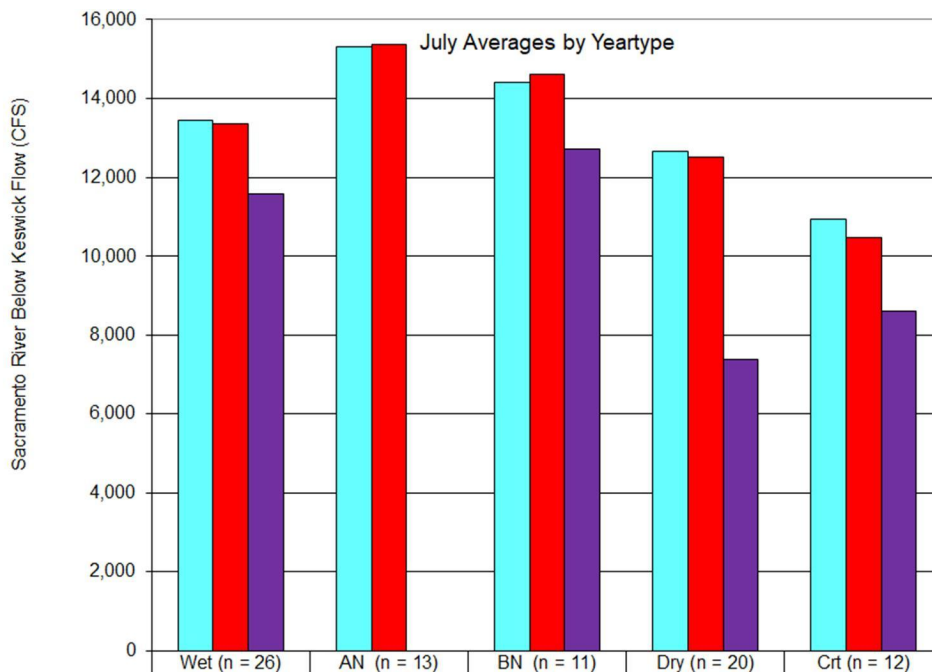
Please use caution interpreting the results as the historical bars have very few years supporting them (zero years in the case of Above Normal).

Derek

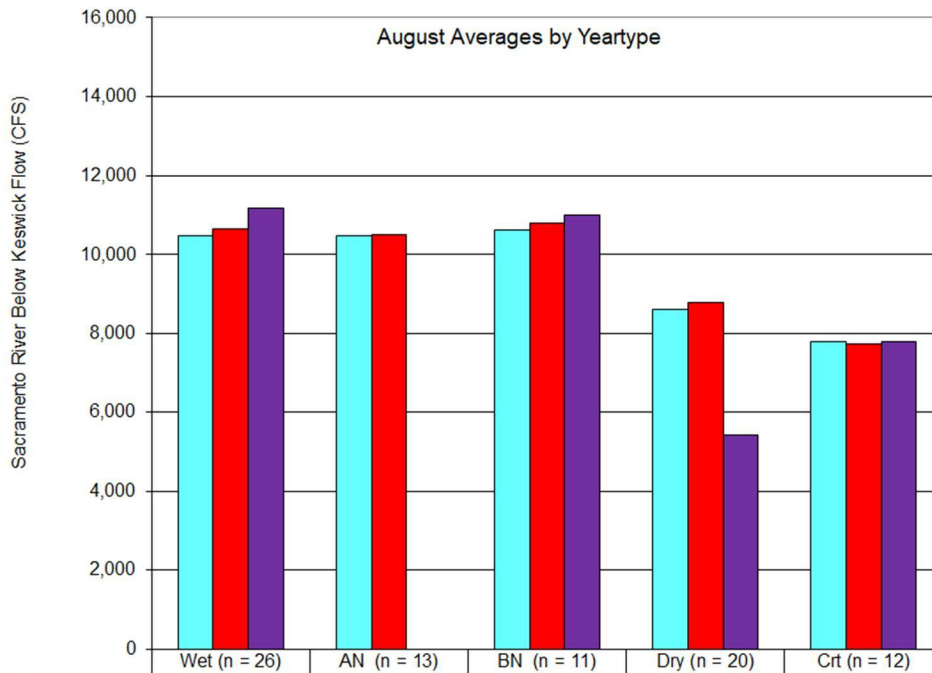
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|------------------------------|--------|---------|---------|---------|--------|
| LTO-Current Operations | 8940.3 | 10358.5 | 10930.1 | 10368.1 | 8983.9 |
| LTO-Proposed Operations | 9046.5 | 10737.8 | 12257.5 | 11440.7 | 9729.4 |
| Historical WY 2010 - WY 2018 | 11516 | 0 | 10776 | 6988 | 8532 |



| | | | | | |
|------------------------------|---------|---------|---------|---------|---------|
| LTO-Current Operations | 13440.4 | 15316.4 | 14421.1 | 12658.4 | 10946.6 |
| LTO-Proposed Operations | 13351.6 | 15382.2 | 14608.9 | 12525.0 | 10480.6 |
| Historical WY 2010 - WY 2018 | 11590 | 0 | 12712 | 7384 | 8606 |



| | Wet (n = 26) | AN (n = 13) | BN (n = 11) | Dry (n = 20) | Crt (n = 12) |
|------------------------------|--------------|-------------|-------------|--------------|--------------|
| LTO-Current Operations | 10474.2 | 10493.5 | 10623.6 | 8607.5 | 7792.9 |
| LTO-Proposed Operations | 10647.2 | 10502.6 | 10806.9 | 8800.5 | 7736.8 |
| Historical WY 2010 - WY 2018 | 11166 | 0 | 10998 | 5420 | 7787 |

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