From: Cathy Marcinkevage - NOAA Federal <cathy.marcinkevage@noaa.gov>
Sent: Thursday, May 23, 2019 10:57 PM
To: Barbara Byrne; Derek_Hilts@fws.gov; Garwin Yip
Subject: Fwd: [EXTERNAL] Re: Preliminary ROC on LTO plots to start discussion

FYI --

The USGS analysis daylights some differences in DCC operations (NOT operational *criteria)* as a result of PA operations. See the thread below in which Steve Micko answers some questions from Russ Perry regarding why the DCC is open more in the PA in Oct/Nov (with example year included).

I'm thinking that we should let Rec know that we see this and that it affects results of this analysis (which it does -- the most significant results relating to travel time, routing, entrainment into south Delta from this analysis is during these months). They did ask on Tuesday if they could see these results; we had not yet even discussed them with USGS so I wasn't keen on sharing at that time. but I feel we could now. I don't want it to be a "late hit" for them given our recent Delta conversations.

Cathy

---------- Forwarded message ---------
From: **Micko, Steve/SAC** <Steve.Micko@jacobs.com>
Date: Thu, May 23, 2019 at 4:34 PM
Subject: RE: [EXTERNAL] Re: Preliminary ROC on LTO plots to start discussion
To: Perry, Russell <rperry@usgs.gov>, Vamsi Sridharan - NOAA Affiliate <vamsi.sridharan@noaa.gov>
Cc: Cathy Marcinkevage - NOAA Federal <cathy.marcinkevage@noaa.gov>, Adam Pope <apope@usgs.gov>, J Stuart <J.Stuart@noaa.gov>, Leaf, Rob/SAC <Rob.Leaf@jacobs.com>, Sumer, Derya <dsumer@usbr.gov>

Hi Russ,

CalSim II develops the DCC operation schedule. Although there is a proposed change to DCC operations, model representation of the proposed DCC operations are the same in COS and PA. Proposed changes cannot be captured within the CalSim model.

I believe the CalSim II implementation of October 1 – December 14 period in NMFS BO Action 4.1.2 causes different DCC operations between COS and PA. In the PA, CalSim II opens DCC gates for more days in October/November (depending on the year) to meet water quality standards at Jersey Point and Rock Slough.

Please let me know if you have any questions.

Best,

Steve

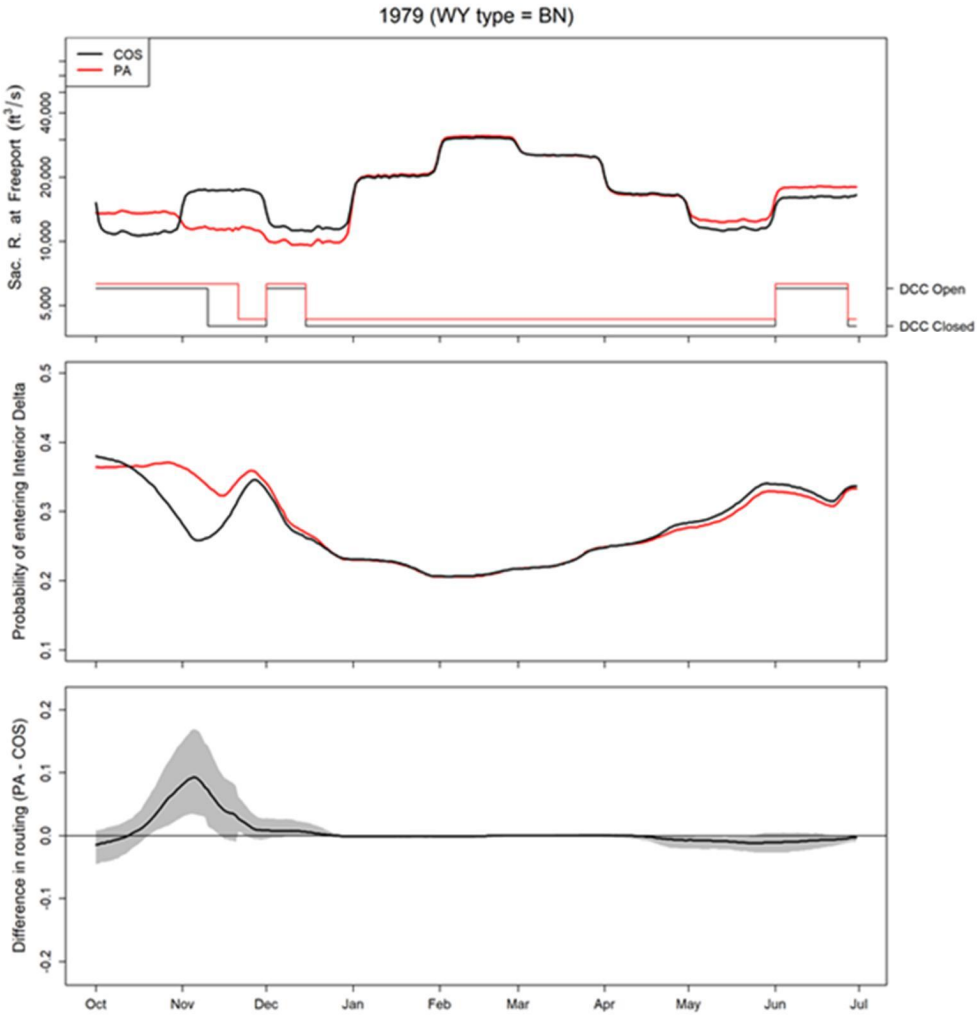
From: Perry, Russell <rperry@usgs.gov>
Sent: Thursday, May 23, 2019 11:35 AM
To: Vamsi Sridharan - NOAA Affiliate <vamsi.sridharan@noaa.gov>; Micko, Steve/SAC <Steve.Micko@jacobs.com>
Cc: Cathy Marcinkevage - NOAA Federal <cathy.marcinkevage@noaa.gov>; Adam Pope <apope@usgs.gov>; J Stuart <J.Stuart@noaa.gov>
Subject: Re: [EXTERNAL] Re: Preliminary ROC on LTO plots to start discussion

Hi Vamsi and Steve,

Thanks for the help in understanding how daily flows were constructed from the monthly flows. I have another question about DCC operations to help us interpret our results. In October/November we are finding some differences in DCC operation between scenarios in some years (see top panel below). Can you tell us the control rule that is causing there to be different DCC operations between scenarios? It doesn't appear to be flows > 25 kcfs, which triggers a DCC closure.

Thanks,

Russ



Russell W. Perry, Ph.D.

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On Thu, May 9, 2019 at 3:35 PM Vamsi Sridharan - NOAA Affiliate <vamsi.sridharan@noaa.gov> wrote:

> Hi Steve,
>
> Hope you are doing great. After running our survival model for the COS and PA scenarios, we noticed that the daily flow into the Delta has distinct monthly jumps, but is more or less constant each day in a given month. It was my understanding that typically DSM2 rim flows from CALSIM monthly flows are disaggregated daily using a spline fit to the monthly histogram.
>
> Am I correct in assuming that in this case, the monthly discharge values from CALSIM have been applied as a constant for each day with some inter-day randomness added in? Please advise.
>
> Regards,
>
> Vamsi
>
> On Thu, May 9, 2019 at 2:33 PM Perry, Russell <rperry@usgs.gov> wrote:
>
> > Hi Cathy,
> >
> > Find attached three pdfs -- one each for survival, median travel time, and migration routing from Freeport to Chipps Island. Each page is a water year showing flows, DCC operations, and survival, travel time, and routing for PA and COS. So there's 82 pages in each pdf. We'll summarize this down into box plots, but I think these are a good place to start understanding how operations change both within and among years and how that affects daily survival, travel time, and routing.
> >
> > Vamsi,
> >
> > Cathy asked if we could summarize the STARS runs that we did for the life cycle model to provide some further insights in the ROC on LTO effects analysis. I'd like to include you as a co-author on our report for for the work that you've done gathering the daily flow and DCC data and summarizing our investigations of using STARS for the life cycle model.
> >
> > All,

The flow data changes daily, but does have obvious monthly "jumps", which seems quite different the from CALSIM daily dissaggregated flow data we used for WaterFix. Is this a characteristic that you've noticed before with these runs?

Are we just focused on COS and PA, or do we want to do anything with WOA?

These are hot off the presses and we haven't had a chance to absorb them yet, so let me know if you see anything wonky.

I will be off much of the next week, but we'll be pecking away at more summary plots and pass them along when we have them. I will be checking email once a day or so. Adam will be available to answer questions that arise.

Cheers,

Russ

Russell W. Perry, Ph.D.

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