From:	Micko, Steve/SAC <Steve.Micko@jacobs.com>
Sent:	Saturday, May 25, 2019 9:28 AM
To:	Vamsi Sridharan - NOAA Affiliate
Cc:	Perry, Russell; Cathy Marcinkevage - NOAA Federal; Adam Pope; J Stuart; Leaf, Rob/SAC; Sumer, Derya
Subject:	Re: [EXTERNAL] Re: Preliminary ROC on LTO plots to start discussion
Attachments:	image002.png

Hi Vamsi,

This implementation of DSM2 DCC gate operations was not a design choice for these particular runs. It is consistent with 2015 LTO and WaterFix implementation.

I am not familiar with other methods for coupling DSM2 DCC gate operations with CalSim II results.

Please let me know if you have any questions.

Best,
Steve
_____
From: Vamsi Sridharan - NOAA Affiliate <vamsi.sridharan@noaa.gov>
Sent: Friday, May 24, 2019 12:47:07 PM
To: Micko, Steve/SAC
Cc: Perry, Russell; Cathy Marcinkevage - NOAA Federal; Adam Pope; J Stuart; Leaf, Rob/SAC; Sumer, Derya
Subject: Re: [EXTERNAL] Re: Preliminary ROC on LTO plots to start discussion

That's very interesting. I did not know this nuance about DSM2's gate operations.

Steve, do you know if this was a design choice for those particular runs or if you can have greater control over how you want to operate the gates in DSM2 coupled with a Calsim run?

Best,
Vamsi

Vamsi Krishna Sridharan, PhD
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Institute of Marine Sciences,
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On May 24, 2019, at 2:31 PM, Micko, Steve/SAC <Steve.Micko@jacobs.com<mailto:Steve.Micko@jacobs.com>> wrote:

Yes, that is correct.

Best,
Steve

Sent from my iPhone
_____
From: Perry, Russell <rperry@usgs.gov<mailto:rperry@usgs.gov>>
Sent: Friday, May 24, 2019 8:29:58 AM
To: Micko, Steve/SAC
Cc: Vamsi Sridharan - NOAA Affiliate; Cathy Marcinkevage - NOAA Federal; Adam Pope; J Stuart; Leaf, Rob/SAC; Sumer, Derya
Subject: Re: [EXTERNAL] Re: Preliminary ROC on LTO plots to start discussion

Got it. So I imagine CalSimm II is modeling how many days in a month the DCC will be open, and in DSM2, it will open from the first day of the month up the number of days indicated from the CalSim II output. Is that correct?

Russ

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On Thu, May 23, 2019 at 4:34 PM Micko, Steve/SAC <Steve.Micko@jacobs.com<mailto:Steve.Micko@jacobs.com>> wrote:
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<mailto:rperry@usgs.gov>>
Sent: Thursday, May 23, 2019 11:35 AM
To: Vamsi Sridharan - NOAA Affiliate <vamsi.sridharan@noaa.gov<mailto:vamsi.sridharan@noaa.gov>>; Micko, Steve/SAC <Steve.Micko@jacobs.com<mailto:Steve.Micko@jacobs.com>>
Cc: Cathy Marcinkevage - NOAA Federal <cathy.marcinkevage@noaa.gov<mailto:cathy.marcinkevage@noaa.gov>>; Adam Pope <apope@usgs.gov<mailto:apope@usgs.gov>>; J Stuart <J.Stuart@noaa.gov<mailto: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
[image.png]
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<mailto: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<mailto: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

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kk&r=2lS0HOOBv3c55PfBJOhh2cFd-n-prm_hT-9AA6KOEzw&m=EBZliarZEqvknEk_n9FdqcmoQfavTasf-
THdKMpLUK8&s=gVr2CItS9Ul1pcj0NnhLT4ufhO-aWonPw9VBqFSuBlQ&e=>

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Assistant Project Scientist (Hydrodynamics) Division of Physical and Biological Sciences University of California, Santa Cruz

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3A__www.vamsikrishnasridharan.wordpress.com&d=DwMFaQ&c=OgZOSER8c1RLeytEexU279Q2qk0jVwkrOdYe5iSi-
kk&r=2lS0HOOBv3c55PfBJOhh2cFd-n-prm_hT-9AA6KOEzw&m=EBZliarZEqvknEk_n9FdqcmoQfavTasf-
THdKMpLUK8&s=F6l0niG1BMNhEa9OY7-lHbOyN6TF4G5kXupSCOk5Lro&e=>

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