To: 'Anurag Mishra'[Anurag.Mishra@respec.com]
From: Shaikh, Taimur
Sent: Mon 2/5/2018 10:08:09 PM
Subject: RE: Scenario Thoughts ... a few questions for our call tomorrow

Hi Anurag,
Your file triggered this error.
Any thoughts?
Taim.
00:00:28.171 Main:StartToFile 2018-02-05 02:15:17
00:00:28.171 Main:Begin Logging
00:00:28.172 WriteStatus:(LOGTOFILE C:\Users\TSHAIKH\OneDrive - Environmental Protection Agency – EPA\Illinois River Watershed TMDL\FY2018\Model Runs\Base\IRW_base.log)
00:00:28.172 Main:Pre: F90_ACTSCN (-1, 0, 100, 0, IRW_base, 8)
01:46:35.429 Main:Post: F90_ACTSCN (-1, 0, 100, 132160, IRW_base, 8)
01:46:35.430 Main:ERROR - HSPF execution terminated with return code 132160.
at WinHspfLt.modWinHSPFLt.Main()
01:46:35.434 Main:Msg:ERROR - HSPF execution terminated with return code 132160.
at WinHspfLt.modWinHSPFLt.Main():Title:HSPF Error:Style:0
01:46:56.596 Main:MsgResult:1:Ok
01:47:00.357 WriteStatus:(EXIT)

Taimur A. Shaikh, Ph.D.
Assessment, Listing, and TMDL Section (6WQ-PT)
Water Division | EPA Region 6

From: Anurag Mishra [mailto:Anurag.Mishra@respec.com]
Sent: Friday, February 02, 2018 6:34 PM
To: Shaikh, Taimur ; Paul, Sabu
Cc: Tony Donigian
Subject: RE: Scenario Thoughts ... a few questions for our call tomorrow

Taim and Sabu
I ran the attached UCI file and output WDM (DSN 6320) had hourly TP concentrations. I averaged the hourly TP concentrations to get daily TP concentrations. The resultants geometric mean is 0.067 which is less than your value of 0.108. I have attached the excel file with the results.
Please let me know what you think.
~A

ANURAG MISHRA
650.962.1864 office // 650.395.7224 cell

From: Anurag Mishra
Sent: Friday, February 02, 2018 1:39 PM
To: 'Shaikh, Taimur' <Shaikh.Taimur@epa.gov>; Paul, Sabu <SPaul@mbakerintl.com>
Cc: Tony Donigian <Tony.Donigian@respec.com>
Subject: RE: Scenario Thoughts ... a few questions for our call tomorrow

Taim and Paul
I located the outfall of the NACA station based on the permit. You can verify its location by opening the attached KMZ file in Google Earth.
In the pointsources2015.wdm file, the Fayetteville-NOLA point source has been zeroed out. However, we want to confirm about the status of Fayetteville-West. Is that plan supposed to discharge in the base run?
Thanks
~A

ANURAG MISHRA
650.962.1864 office // 650.395.7224 cell

From: Shaikh, Taimur [mailto:Shaikh.Taimur@epa.gov]
Sent: Friday, February 02, 2018 7:07 AM
To: Tony Donigian <Tony.Donigian@respec.com>
Cc: Paul, Sabu <SPaul@mbakerintl.com>; Anurag Mishra <Anurag.Mishra@respec.com>; Brian Bicknell <Brian.Bicknell@respec.com>

Subject: RE: Scenario Thoughts ... a few questions for our call tomorrow

Hi Tony,

Glad we got confirmation on the 2011 NLCD. I have attached the calculation file for the standard. Looking forward to our discussion.

Thanks.

Taim.

Taimur A. Shaikh, Ph.D.
Acting Section Chief | NPDES Management Section (6WQ-PO)
Home Section | Assessment, Listing, and TMDL Section (6WQ-PT)
Water Division | EPA Region 6

From: Tony Donigian [mailto:Tony.Donigian@respec.com]
Sent: Thursday, February 01, 2018 6:15 PM
To: Shaikh, Taimur <Shaikh.Taimur@epa.gov>
Cc: Paul, Sabu <SPaul@mbakerintl.com>; Anurag Mishra <Anurag.Mishra@respec.com>; Brian Bicknell <Brian.Bicknell@respec.com>
Subject: RE: Scenario Thoughts ... a few questions for our call tomorrow

Taim/Sabu –

Here are a few questions we have re: scenario runs, for our call tomorrow:

1. We need to be clear on the Base run (run 1992-2009), make whatever changes are needed, process the output ... so our results are the 'same', or consistent with, those generated by Taim ... they won't be the same since we need to add in NACA .. AND we want to be sure we are processing the results in the exact same fashion as Taim has done for the Principals/State reps.
    a. So, Taim, please resend the spreadsheet you use to process the output and generate the GeoMean values for TP, at the Stateline and TenKiller.
2. We (RESPEC) needs to process the NACA 2015 point source data consistent with the current Base run.
3. Taim – You were going to check into how the 2011 NLCD data were processed and added in to the Base run
4. Taim – You sent the following bullets for scenarios to be run:

- A general reduction from all sources (same reduction percentage)
    - We will generate the Load allocation tables for the Base Run, as a basis to determine what '% Reduction' this should be. Probably will need a call or at least emails to settle on the reduction %.
- Setting permits to 0.1 mg/L and **commensurate reduction** in non-point
    - How do we determine this reduction? ... maybe generate the load tables again and base it on what that shows.
- Leaving permits at current permitted levels and reducing NPS.
    - We need to be clear on how we represent this ... will need some discussion, both on the permit levels, and what NPS reduction we want to use.

That's all for now ... I'm sure others will come up as we delve into the details.

Talk to you all tomorrow

Tony

p.s. Sabu - I didn't copy DSLLC Chris and Silong .... So please forward if they are to be on the call.

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TONY DONIGIAN
650-962-1864 // 650-962-1868 D // 650-722-2669 C

From: Shaikh, Taimur [mailto:Shaikh.Taimur@epa.gov]
Sent: Tuesday, December 19, 2017 9:53 AM
To: Tony Donigian <Tony.Donigian@respec.com>
Cc: Paul, Sabu <SPaul@mbakerintl.com>; Anurag Mishra <Anurag.Mishra@respec.com>; Brian Bicknell <Brian.Bicknell@respec.com>
Subject: RE: Scenario Thoughts

Hi Tony,

I have inserted my comments/responses below. Tony, feel free to give me a call this week.

Thanks.

Taim.

Taimur A. Shaikh, Ph.D.
Acting Section Chief | NPDES Management Section (6WQ-PO)
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

From: Tony Donigian [mailto:Tony.Donigian@respec.com]
Sent: Monday, December 18, 2017 6:04 PM
To: Shaikh, Taimur <Shaikh.Taimur@epa.gov>
Cc: Paul, Sabu <SPaul@mbakerintl.com>; Anurag Mishra <Anurag.Mishra@respec.com>; Brian Bicknell <Brian.Bicknell@respec.com>
Subject: RE: Scenario Thoughts

Taim –

Brian came into the office and helped us come up to speed on our latest IRW model runs. I asked him to review the Base run, so that we can all be clear as to what the Base represents … then we can discuss what we want to change for the various scenarios you listed below.

Here is Brian's analysis of the Base run UCI:

The Base run has the following changes from the calibration run:

- The model time span is 1992-2009; the calibration span is 2001-2009
- The Base run point sources are monthly values from 2015 that are applied to each year of the run; we processed data that Taim sent on **7/18/16**. The comment at the top of the UCI file about using 2009 data is incorrect. Also, **neither run has NACA point source**; this might be an error in the Base run. **This needs to be resolved before we finalize the Base run.**
    - TAS – Let's get NACA in there.
- The land use is changed to NLCD 2011 (based solely on the comment in the UCI; I didn't research this further). This is a complex change because of the different pasture types! **Taim, we believe you made these changes for the 2011 land use, possibly based on some scenario runs we did earlier … do you recall how you changed the land use to 2011?**
    - TAS - I apologize folks. I do not recall the exact methodology. I do recall that Brian and I worked on it together. I'll go through my emails and see what I have there…we did that around June or July of 2016.

- Both runs have the artificial baseflow added to RCHs 150, 304, 308.
- Expert System/hydrology output (COPYs) has been removed from Base run.
- Litter application rates in Base run are set to 2009 values for all years.
- Both runs have the updated monthly distribution for litter and the updated 10% surface and 90% upper layer for litter applications.
- Both runs have Taim's updated RCHRES denitrification rates.
- Both runs have same N fertilizer added to non-litter pasture.
- Both runs have same parameter values

Taim, we need to resolve the 2 questions in **RED** above, and confirm all the other changes are consistent with your discussions with the State folks.

Let me know if you want to discuss this, this week. Anurag and I are in this week, but our office is effectively close most of next week. But let me know if you want to discuss next week, as we will likely be in some times on Thursday and/or Friday. Otherwise, we'll plan to touch base on this after the New Year.

MERRY CHRISTMAS!!

Tony

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TONY DONIGIAN
650-962-1864 // 650-962-1868 D // 650-722-2669 C

From: Shaikh, Taimur [mailto:Shaikh.Taimur@epa.gov]
Sent: Friday, December 08, 2017 9:25 AM
To: Tony Donigian <Tony.Donigian@respec.com>
Cc: Paul, Sabu <SPaul@mbakerintl.com>
Subject: Scenario Thoughts

Here are a few thoughts

- A general reduction from all sources (same reduction percentage)
- Setting permits to 0.1 mg/L and commensurate reduction in non-point
- Leaving permits at current permitted levels and reducing NPS.

Please let me know what you think.
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Thanks.
Taim.

Taimur A. Shaikh, Ph.D.

Acting Section Chief | NPDES Management Section (6WQ-PO)
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