To: 'Paul, Sabu'[SPaul@mbakerintl.com]
From: Shaikh, Taimur
Sent: Tue 3/20/2018 7:01:28 PM
Subject: RE: EXTERNAL: RE: IL River TMDL reach segments

Sure.

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

From: Paul, Sabu [mailto:SPaul@mbakerintl.com]
Sent: Tuesday, March 20, 2018 2:00 PM
To: Shaikh, Taimur ; Tony Donigian
Cc: Anurag Mishra
Subject: RE: EXTERNAL: RE: IL River TMDL reach segments

Can we have a quick call in couple of minutes?

Regards,
Sabu.

From: Shaikh, Taimur [mailto:Shaikh.Taimur@epa.gov]
Sent: Tuesday, March 20, 2018 2:58 PM
To: Tony Donigian <Tony.Donigian@respec.com>; Paul, Sabu <SPaul@mbakerintl.com>
Cc: Anurag Mishra <Anurag.Mishra@respec.com>
Subject: RE: EXTERNAL: RE: IL River TMDL reach segments

Hi Tony,

TMDLs are waterbody/pollutant pairs. The TMDL would be for the OKWBID. Where we break across a boundary, we need to weight the load accordingly.

Thanks.
Taim.

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

From: Tony Donigian [mailto:Tony.Donigian@respec.com]
Sent: Tuesday, March 20, 2018 1:53 PM
To: Shaikh, Taimur <Shaikh.Taimur@epa.gov>; Paul, Sabu <SPaul@mbakerintl.com>
Cc: Anurag Mishra <Anurag.Mishra@respec.com>
Subject: RE: EXTERNAL: RE: IL River TMDL reach segments

Taim/Sabu –

Please see the attached map that overlays the OK IDs with the HSPF RCH segments. Do we need to produce our TMDL values for the entire waterbody ID, or can we specify it by the RCH numbers?

We can't redo the reaches that cross an ID boundary, but we could weight the RCH values by the stream lengths to get TMDL load values corresponding to the IDs. What do you think?

Perhaps we should have a call on this? ... we have too few hours left to waste any time.

Tony

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

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

From: Anurag Mishra
Sent: Monday, March 19, 2018 5:01 PM
To: Shaikh Taimur <Shaikh.Taimur@epa.gov>; Paul, Sabu <SPaul@mbakerintl.com>
Cc: Tony Donigian <Tony.Donigian@respec.com>
Subject: RE: EXTERNAL: RE: IL River TMDL Scenario

Sabu/Taim

I did TMDL calculation for Reach 630. Please have a look at the attached spreadsheet and we can discuss it further.
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Thanks

~A

ANURAG MISHRA

650.962.1864 office // 650.395.7224 cell

From: Shaikh, Taimur <Shaikh.Taimur@epa.gov>
Sent: Monday, March 19, 2018 2:59 PM
To: Paul, Sabu <SPaul@mbakerintl.com>; Anurag Mishra <Anurag.Mishra@respec.com>
Cc: Tony Donigian <Tony.Donigian@respec.com>
Subject: RE: EXTERNAL: RE: IL River TMDL Scenario

Hi Anurag,

I apologize for not getting back to you on the shapefiles. The link Sabu has provided is up to date on the current approved list for OK. It should be fine for use.

Thanks.

Taim.

Taimur A. Shaikh, Ph.D.

Assessment, Listing, and TMDL Section (6WQ-PT)

Water Division | EPA Region 6

From: Paul, Sabu [mailto:SPaul@mbakerintl.com]
Sent: Monday, March 19, 2018 4:06 PM
To: Anurag Mishra <Anurag.Mishra@respec.com>; Shaikh, Taimur <Shaikh.Taimur@epa.gov>
Cc: Tony Donigian <Tony.Donigian@respec.com>
Subject: RE: EXTERNAL: RE: IL River TMDL Scenario

Anurag,

I have downloaded the 303(d) list from EPA site https://www.epa.gov/waterdata/waters-geospatial-data-downloads#303dListedImpairedWaters. Attached layer Rad_303d_1_IRW_Diss has features like WB_ID (Waterbody ID) and ReachID (corresponding to HSPF). Please doublecheck my assignments, especially for OK121700020220_00 and OK121700030080_00. OK121700020220_00 seems to have contribution from three reaches, but based on the name of the stream "Tenkiller Ferry Lake, Illinois River Arm", I thought my assignment made more sense. Let me know if you have any questions.

Also, if Taim provides an official layer, please use that instead of this.

Regards,

Sabu.

From: Anurag Mishra [mailto:Anurag.Mishra@respec.com]
Sent: Monday, March 19, 2018 3:49 PM
To: Shaikh Taimur <Shaikh.Taimur@epa.gov>; Paul, Sabu <SPaul@mbakerintl.com>
Cc: Tony Donigian <Tony.Donigian@respec.com>
Subject: RE: EXTERNAL: RE: IL River TMDL Scenario

Taim

I started calculating baseline daily load and scenario daily load for the 30-day period when the max of the 30-day GeoMean concentration occurs. For AR, I am supposed to calculate for the Reach 630, but for OK, I am not sure which exact reaches do I have to calculate load for. I think you were supposed to send me the Shapefile for the 303(d) reaches. Could you please send those soon, so that I can go ahead and resolve that?

Thanks

~A

ANURAG MISHRA

650.962.1864 office // 650.395.7224 cell

From: Anurag Mishra
Sent: Monday, March 19, 2018 9:52 AM
To: Shaikh Taimur <Shaikh.Taimur@epa.gov>; Sabu Paul <SPaul@mbakerintl.com>
Cc: Tony Donigian <Tony.Donigian@respec.com>
Subject: Re: EXTERNAL: RE: IL River TMDL Scenario

Taim,

Base and Scenario UCI files are attached. I also attached a spreadsheet that compares NUT-BEDCONC for baseline and 69AR/93OK.

Sabu,

In baseline sceario at RCH 630, instream gains were responsible for 16,752.4 lbs (or 4.8%) and for the 69AR/93OK scenario, instream gains were responsible for 5,516 lbs(5.2%).

Similarly, at RCH 890, instream gains were responsible for 51,846.9 lbs (or 9.3%) and for the 69AR/93OK scenario, instream gains were responsible for 8993.7 lbs(6.4%).

Thanks

From: Shaikh, Taimur <Shaikh.Taimur@epa.gov>
Sent: Monday, March 19, 2018 9:30:14 AM
To: Anurag Mishra; Sabu Paul
Cc: Tony Donigian
Subject: RE: EXTERNAL: RE: IL River TMDL Scenario

Hi Anurag,

What are the NUT-BEDCONC parameters set to? What were they?

Thanks.

Taim.

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: Monday, March 19, 2018 10:15 AM
To: Sabu Paul <SPaul@mbakerintl.com>
Cc: Shaikh, Taimur <Shaikh.Taimur@epa.gov>; Tony Donigian <Tony.Donigian@respec.com>
Subject: RE: EXTERNAL: RE: IL River TMDL Scenario

I will have to process the output binary files and send those results later today.

When I did the test run on Saturday, the in stream contribution (lbs) decreased linearly with the decrease in NUT-BEDCONC.

A

On Mar 19, 2018 8:12 AM, "Paul, Sabu" <SPaul@mbakerintl.com> wrote:

Anurag,

Thanks for the info. For the 69/93 reduction, what is the in-stream contribution?

Regards,

Sabu.

From: Anurag Mishra [mailto:Anurag.Mishra@respec.com]
Sent: Monday, March 19, 2018 11:08 AM
To: Shaikh Taimur <Shaikh.Taimur@epa.gov>; Paul, Sabu <SPaul@mbakerintl.com>
Cc: Tony Donigian <Tony.Donigian@respec.com>
Subject: EXTERNAL: RE: IL River TMDL Scenario

69% Reduction in Arkansas meets standards in Illinois River at Arkansas State line.

69% Reduction in Arkansas and 93% reduction in OK meets standard in Illinois river in OK as well.

~A

ANURAG MISHRA

650.962.1864 office // 650.395.7224 cell

From: Anurag Mishra
Sent: Sunday, March 18, 2018 1:37 PM
To: Shaikh Taimur <Shaikh.Taimur@epa.gov>; Paul, Sabu <SPaul@mbakerintl.com>
Cc: Tony Donigian <Tony.Donigian@respec.com>
Subject: IL River TMDL Scenario

Taim/Paul

Based on the discussions that we had on Friday. I set up new scenarios that included reduction in NUT-BEDCONC parameters as well, along with the reduction in PS and NPS sources. These are constant concentration of PO4 and NH3 in sediment beds. I did not reduce BRBOD parameters as it didn't have any significant effect in loadings or concentrations.

Based on these reductions, AR will be able to meet standards with 69% Global reductions. I will try to find a scenario so that OK can meet the standard as well.

Thanks

~A

ANURAG MISHRA
Senior Environmental Engineer

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