

Nutrient Monitoring Council (NMC) 11th Meeting

August 29, 2018

Edward R. Madigan Laboratory, Room 350B
1201 West Gregory Drive, Urbana

In attendance: Gregg Good, Illinois EPA; Trevor Sample, Illinois EPA; Kelly Warner, USGS; Paul Terrio, USGS; Paul Davidson, University of Illinois; Ann Holtrop, Illinois DNR; Jong Lee, University of Illinois – NCSA; Cindy Skrukud, Illinois Sierra Club; Laura Keefer, Illinois State Water Survey; Justin Vick, MWRD; Greg Mclsaac, University of Illinois – NRES; Eliana Brown, Illinois Extension; Kate Gardiner, Illinois Extension; Tim Hodson, USGS; Ted Kratschmer, NGRREC; and Bill Kruidenier, NGRREC

SUMMARY

Welcome/Housekeeping – Gregg Good and Eliana Brown

Newsworthy Notes

Amy Walkenbach is retiring September 30, 2018.

NLRS Annual Workshop November 13, 2018.

NOAA Dead Zone Forecast lowest since 1985.

NMC March 15, 2018, Meeting Review and Minutes – Gregg Good

There were no comments on the meeting review and minutes. Minutes are approved.

NLRS Watershed Coordinators Update – Trevor Sample

Watershed Coordinators have been hired and have started working. Haley Haverback is in Galva, IL working on nitrogen-priority watersheds. Jennifer Woodyard is in Effingham, IL working on phosphorus-priority watersheds.

NLRS Science Team and Science Assessment Update – Trevor Sample

The NLRS Science Team is meeting on September 6th. Illinois EPA wants them to provide technical support to the coordinators and update conservation practice performance and approve new practices.

Dr. Mclsaac will update the Science Assessment with statewide and HUC8 nutrient loads. This is expected March 2019.

USGS Happenings and Updates – Kelly Warner and Paul Terrio

USGS 2nd Year Super Gage Results Report – Results through Water Year 2017:

Results from the eight original super gages will be shown in this 2nd year report – the MWRD-funded Des Plaines station at Joliet will not be in this report. The report goes through each of the eight superstations, showing the annual load and annual yield (lb/acre) for nitrate, phosphate, and suspended sediment. From 2016 to 2017, the results didn't vary by much, the stations that had high and low yields last year generally remained the same.

Super Gage Stations Update:

The stations have had some problems collecting data due to turbidity, so there are some gaps in the

dataset. Florence is likely the most successful station. We're starting to expand our gages to include water quality and VEMCO samplers that will detect tagged fish and will include bat sensors. We are not currently pursuing a super gage station at Rockton.

Other USGS updates:

USGS is working with American Farmland Trust to monitor two sites to target BMPs in phosphorus-priority watersheds in the Macoupin area. They're doing weekly samples and using a weekly observer.

NLRS - Nutrient Science Advisory Committee Update – Paul Terrio

NSAC is putting the finishing touches on their recommendation to the Illinois EPA, which will be finished within the next few months. The target date is October 22. After the initial review by Illinois EPA, there will be a public comment period.

Great Lakes to Gulf – Illinois NLRS Data Portal Update – Jong Lee

The Great Lakes to Gulf website has launched and changes have been made based on feedback from the Illinois EPA. There are new sites as a result of a collaboration with University of Iowa. NSF has given grant to University of Iowa. NCSA is hosting big data hub for Midwest.

Version 3 is coming soon. Version 3 improvements include: mobile friendly, simplified search function and new capabilities: grouping map layers, added legend for map layer, added SPARROW 2002 Model Results for Nutrients, Gulf Hypoxia, NOAA annual precipitation. Have worked with Dr. Mclsaac to add linear interpolation for nutrient trend analysis and are working with Reid Christianson to add BMP data and visual representation.

The Welcome Page can be customized per NMC's suggestions. Please interact with the website and send any comments to Jong.

Havana Lowlands Groundwater Study Update – Kelly Warner

The study is in the second season of data and so far they have seen the water levels go up in May-June. One of the reasons they installed the well in that location is because there is a lot of irrigation and fertigation, which is adding fertilizer to the irrigated water. Study expected to be completed in March 2019 with a report out that September.

Potential Grant Opportunity for NLRS Monitoring Project – Gregg Good

Grant has already been spoken for.

Potential Phosphorus Load Reductions from Recovering Wastewater Phosphorus in the Upper Sangamon HUC 8 – Greg Mclsaac

We're focusing on the Upper Sangamon River Basin first, then generalizing a broader model to cover the Corn Belt. Since this is part of an NSF grant, the end result of our work will be incorporating environment, technology, and economics into modeling the nutrient cycle. Decatur contributed 25% of the increase in phosphorus from 2015 to 2017 (17% total increase). The main reason for the high phosphorus input from Decatur is the two corn processing plants. We also estimated the TP discharge

from the Sanitary District of Decatur (SDD).

NMC Member Updates – Exciting or Boring News to Share?

Gregg Good: We have a contract to do continuous monitoring of pH, temperature connectivity, dissolved oxygen, and chlorophyll in Starved Rock, Seneca, and Marseilles since May this year. We had an algal bloom on the Illinois River earlier this year. My staff were out and took samples and spoke to folks at public water supply. There was a small algal bloom at Rend Lake as well. Our integrative report that comes out every two years should be ready in the next couple of months.

Cindy Skrukud: The new USGS gage on the Stratton Lock and Dam will give us a better idea of what's coming into our study area on the Fox River. The Illinois State Water Survey has been working on a trends report for us from 1997 to 2016 and Laura will be presenting in Algonquin soon. We're also working with the group in Wisconsin working on the Fox River. A Sierra Club group is doing some monitoring work on phosphorus coming in and out of Long Lake and the Sierra Club group in the Quad Cities now has data available online from their monitoring on the Rock River. We put together a resolution for legislature to voice their support for the NLRS and are working on a letter to the governor. The Illinois environmental groups are emphasizing clean infrastructure funding.

Ann Holtrop: Brian Metzke has joined our team and we were at the Illinois State Fair this year.

Laura Keefer: Laura has just been named the State Hydrologist. The Illinois State Water Survey now has a director, Kevin O'Brien. This winter we may have an intermediate report and an analysis of our benchmark sediment monitoring program, which we have been monitoring consistently since 1980.

Justin Vick: Continued optimization of existing nutrient recovery initiatives, WASSTRIP (waste activated sludge stripping) added at Stickney WRP and pilots for EBPR (enhanced biological phosphorus removal) are being designed for Egan and Calumet WRPs.

Paul Davidson: Science Team has a meeting next week and then we will be meeting with Trevor later in the month.

Kelly Warner: Now officially part of the Central Midwest Water Science Center (IL, IA, and MO). There will be 6 science teams, one of which is nutrient and sediment science. There will be lots of remote work, hiring of new team members, and expansion of green infrastructure work to St. Louis. We're looking at drinking water supplies in Iowa and just put in for federal funding for two more sites in the Mississippi River.

Tim Kratschmer and Bill Kruidenier: We are working with other states on their nutrient strategies, continuing monitoring, and have shifted more towards question- and research-based monitoring rather than just ambient monitoring.

Next Steps – Eliana Brown and Gregg Good

Today's Action Items?

- Look at Great Lakes to Gulf website and send any feedback to Jong

Topics/Presentations for Next Meeting?

Next Meetings – We need to select some dates!

- November 13th NLRS Workshop – the group decided that they don't need a breakout session.
- March 2019
- November 2019 NLRS Conference

DISCUSSION

Welcome/Housekeeping – Gregg Good and Eliana Brown

Gregg Good: Amy Walkenbach is retiring September 30, 2018. We will all miss her and appreciate her work on the Nutrient Loss Reduction Strategy. The NLRS Annual Workshop is November 13, 2018 at the ACES Library in Champaign-Urbana, and the NOAA Dead Zone forecast is the fourth smallest since 1985.

NMC March 15, 2018, Meeting Review and Minutes – Gregg Good

No comments – meeting minutes approved.

NLRS Watershed Coordinators Update – Trevor Sample

Trevor Sample: Since our last meeting, we have now hired both coordinators - Haley Haverback in Galva, who is working on the nitrogen priority watersheds, and Jennifer Woodyard in Effingham, who is working on the phosphorus priority watersheds. They are working closely with SWCDs and anyone else they can collaborate with. Started doing some podcasts covering NLRS topics and meet with local watershed groups and forming new groups where there's interest to write plans.

NLRS Science Team and Science Assessment Update – Trevor Sample

Trevor Sample: The meeting is September 6th and we can talk about their role in the strategy. We want them to provide technical support to the coordinators and update conservation practice performance in NLRS updates. Reid has worked with Iowa to come up with something and we want to do something similar.

Gregg Good: Can you have a new practice outside of what NRCS says is a good practice?

Trevor Sample: I guess we could. The saturated buffer has been the only practiced Iowa has added to theirs.

Gregg Good: Is the saturated buffer something approved by NRCS?

Trevor Sample: Yes

Paul Davidson: Saturated buffer is one that Iowa included that we didn't. I know there's a lot of work ongoing to get to the point where we can make a decision.

Trevor Sample: Greg Mclsaac is going to work on updating the water loads. At the PWG meeting, we talked about how we wanted to report this. We think we can show reductions on point source now and working on HUC 8, we can separate by point source and non-point source. We think we can come up with something to add in the next BR>

Cindy Skrukrud: So you have a standard method that you'll use for the HUC 8 watersheds? The Illinois State Water Survey has looked at trends and water quality for us in the Fox River Watershed. We can share our information with Dr. Mclsaac.

Trevor Sample: These are an example of the tables and graphs that we can update in the report. We can add data onto those graphs for the long-term trends of N and P, updating the yield maps to see if that has changed. That's all I have.

USGS Happenings and Updates – Kelly Warner and Paul Terrio

Paul Terrio: We have annual reports of continuous nitrate and semi-continuous phosphate. We provide an informal update to the Illinois EPA. These stations were put in 2015 – originally eight but funding with MWRD let us add a ninth in Des Plaines. We also have two tributaries to Lake Springfield measuring the same things – nitrogen parameters, etc. Originally funded through Illinois Corn Growers, but the funding is up next month so we'll see what happens. Tim Hodson is here with me and he has kind of taken over the loading and modeling work. I wanted to introduce him to you all. For each station, we have a summary of the station itself and summarize what equipment is there, what it measures, how frequently, issues that may have gone on with the station in the past year, and how complete the dataset is, including periods of missing data. We present our loading models for SSC and TP. Following the initial summary, we have panels of N, TP, and SSC, with measurements for stream flow, continuous nitrate concentration, and the load in tons per day. We started monitoring continuously in 2012 and then built the eight gage superstations. The Florence station is probably our best station, we've had problems with other ones. The report goes through each of the eight superstations, showing the annual load and annual yield of (lb/acre) for nitrate, phosphate, and suspended sediment. From 2016 to 2017, it didn't vary a lot – the stations that had high and low yields last year generally remained the same. In Danville, we didn't have enough data to include it in 2016, but it actually had the highest yield in 2017. Are there any questions or comments on that?

Gregg Good: Green River near Geneseo, is that the same?

Paul Terrio: It was the lowest in 2016, but Murphysboro was actually the lowest in 2017. The numbers from 2016 have been updated.

Gregg Good: So for our agreement for the eight stations, you produce this report. Is there a separate report for the MWRD station? It would be nice to have it in this one.

Paul Terrio: Our agreement for Des Plaines – Joliet is that a product will be delivered to them, but at that point it's a public resource and they can do what they want with it.

Kelly Warner: The data is public, so if MWRD says “yeah, we’d like you to periodically include this with your NLRs,” then we can.

Paul Terrio: If we wanted to include it in this final report, it would have to be a discussion. The final report will be more comprehensive at the end of the road.

Tim Hodson: When we started monitoring, there weren’t a lot of options so we had some issues with turbid waters, which is where most of the load occurs. The problem with these single piece sensors is we’ve been deploying them and they take a lot of time. When we come back, often it’s because the sensor has failed and we’re unable to collect the data, it’s much more problematic in some areas than others because of the turbid waters.

Gregg Good: So it’s actually doing wet chemistry on the spot? NGRECC, you’ve been using these too?

Ted Kratschmer: Yeah, they’ve been unreliable and we’ve been having the same issues.

Paul Terrio: We knew at some sites, it would be pushing the limit but it turns out some sites have been pushing their capability. We have a lot of data gaps, these tools have been very maintenance-intensive and frustrating. With these instruments, we usually had to go out there because we had a storm event and the instrument got too dirty or something. Since we bought the initial instruments, they’ve come out with a new model and we couldn’t afford to purchase them. The issue they were having with the old models is now happening with the newer models. They just don’t seem to be functioning well with turbidity.

Kelly Warner: Iowa has stepped back from continuous monitoring.

Trevor Sample: How many sites are you monitoring?

Paul Terrio: We’ve been monitoring routinely at Green and Rock and if a sensor is down, we’ll try to get out there. We just got some instruments back and there’s a new issue with them. So we have four instruments that are operating now, one of them is questionable. We’re trying to figure out what to do about that – one option is different analyzers. At Danville, we had problems with high turbidity and high phosphorus. The analyzer is great, the only downfall is that it needs power and we don’t have that at most of our sites. We’re looking at going back to auto-samplers to fill in the gaps, especially during storm events.

Gregg Good: How many sites do we have A/C power at?

Paul Terrio: Just three – the cost of running power varies from site to site.

Gregg Good: Going into this five-year effort, we never thought the phosphate would be this bad. So kudos to you guys for starting up this large of a project.

Paul Terrio: Well, I think we based it on the Illinois River at Florence, which is our best site, but every site is different. There’s one analyzer that measures total phosphorus and uses a grinder to get the particulate stuff and we’re trying to get the manufacturer to let us try it.

Kelly Warner: Have you heard of the Nutrient Monitoring Challenge?

Gregg Good: I haven't really heard the details.

Paul Terrio: None of them met the guidelines yet, of keeping it affordable yet accurate. Now they have a field trial challenge going on.

Cindy Skrukrud: What is the frequency you would want for manual sampling? There's nothing Sierra Club members love to do more than go out and collect water samples.

Paul Terrio: Generally weekly, but with an emphasis on storm events.

Kelly Warner: The hardest part would be the safety. The storm events probably wouldn't be safe. I would probably be afraid of the liability and safety of that.

Gregg Good: So would you do every hour, every 2 hours?

Paul Terrio: We trigger ours based on turbidity and sometimes that spikes very quickly, so you have to get out there quickly.

Tim Hodson: When the program started, I think people were wanting a solution for continuous data. We didn't get that, but we've learned a lot. We can save our resources for those problem sites.

Cindy Skrukrud: Are you always taking a grab sample when you're out to service? How frequently is that?

Paul Terrio: Yes. Our standard service frequency is monthly, but we're often out there more often than that. That was our target in terms of frequency. We had the opportunity to offer to Illinois EPA to run trends on our ambient water quality sites. Tim's pretty efficient with programming, so we thought we'd give him a workout. USGS is providing funding to run trends and loads at HUC 8 locations. We're pulling the data, it's going to be a pretty quick and dirty calculation. We'll try to start that soon, I think our target date was March or June of next year.

Gregg Good: So would it be trends for the entire period on record or just the last 5-10 years?

Paul Terrio: It depends on how long it takes. We'd like to get the entire period on record and maybe split it up into long-term trends.

Cindy Skrukrud: I was thinking back about the report Matt Short did. Would that be incorporated?

Paul Terrio: It wouldn't include that period. I'd like to sit down with you and Gregg and talk about this kind of stuff.

Gregg Good: The effort is going on and we probably need to talk a little bit more about it.

Paul Terrio: Right, my point is it will be a pretty simple, straight-forward analysis. We won't be spending much time cleaning up datasets. We're working with American Farmland Trust to monitor two sites to

target BMPs in phosphorus-priority watersheds in the Macoupin area. We're doing weekly samples and using a weekly observer, she's still a student at SIU, but she's very reliable. I think that covers our activities regarding nutrients.

Kelly Warner: The Army Corps of Engineers fund part of the gages and came back earlier this year saying they couldn't fund a big portion. But just last week they came back and said they will fund two of the sites in question. I think right now it's good, but it's a question of what's going to happen in following years. We're starting to expand our gages to include water quality and VEMCO samplers will detect tagged fish and have bat sensors. So we're looking at other ways to make these gages more applicable to a wider water category.

Paul Terrio: I think that the bat sensors would be helpful and we could take advantage of other types of monitoring because we do have a pretty good network.

Ann Holtrop: There is a national effort to collect acoustic bat data. I think in Illinois we have 21 grids set up. Are you working with the state of Illinois?

Kelly Warner: We're working with the Upper Mississippi Science Center because they wanted to get the data in real-time.

Ann Holtrop: Oh okay, I don't think that's the one we're doing. It would be great if you could incorporate that into the national one too.

Kelly Warner: Right now they have it set up to go to these little raspberries and sending it back to us. In the weekend they set it up, they had 7 different species they identified.

Cindy Skrukruud: Any update on pursuing a supergage at Rockton?

Gregg Good: There isn't funding available for it right now, but if Sierra Club has funds we could definitely use it.

NLRS - Nutrient Science Advisory Committee Update – Paul Terrio

Paul Terrio: NSAC is working on the report, the draft is being reviewed, and we have a target date of October 22nd to deliver it to the Illinois EPA. Different sections were drafted by different members, so we need to edit it for consistency. The actual NSAC members are supposed to get their writing done in the first week of September.

Gregg Good: I did talk to Amy W. and I didn't realize there were next steps after release. So it's coming to Illinois EPA and Amy mentioned there will be at least a 60 day public comment period and two public meetings to get comments on it.

Cindy Skrukruud: Have you been talking to folks in the EPA?

Paul Terrio: They've been involved – Amy and Brian Koch. And again, our report will be a recommendation. There will still be some decisions to be made in terms of criteria before it goes out to

public comment. Illinois EPA will have to make some decisions about our recommendations before they release it.

Great Lakes to Gulf – Illinois NLRs Data Portal Update – Jong Lee

Jong Lee: Right now, the site is up. We asked the Illinois EPA for feedback and based on the feedback, we customized the About/Welcome page, updated the accordions, updated naming of EPA sites and Supergages, updated phosphorus data, and updated parser to get additional data. The Welcome and About pages are very easy to edit, so if you have information you'd like to add or highlights about meetings, we can do that. If you want to add the HUC 8 level to the predefined area, the user can do that. We have a collaboration with Iowa Water Quality Information Systems, so we can see their data. We have updated from Version 2 to Version 3. Many people want it to be mobile-friendly, so we're adding that. People also think the search page is too complicated, so we're fixing that. They also added a legend for the map layers and additional GIS layers – SPARROW 2002 Model Results for Nutrients (Nitrogen Load and Phosphorus Load), Gulf Hypoxia (2005 – 2017), and NOAA annual precipitation (2017). Signup/Login available soon for users to save their "favorite" searches. All of these updates will be coming up this fall.

Jong Lee: There are three stages of GLTG: 1) Data 2) Data to Knowledge 3) Knowledge to Decision Support. We want to update our user-interface model. We are working with Reid Christianson, who worked on SERA-46, to visualize this data. We welcome your comments and feedback.

Gregg Good: So the site is open to everyone now?

Jong Lee: Yes. NSF has four sections regarding big data and we fit into the big data hub. We are basically leading this effort in various domains.

Kelly Warner: So IIHR has their own network and display their own graphs that are different than ours. Will you incorporate that?

Jong Lee: They would have access to our data and vice versa. It's hard to bring everything together because we are targeting different audiences.

Kelly Warner: That makes sense that they keep them separate. So the big thing is the sharing of data?

Jong Lee: We are focusing on how to bring infrastructure to scientists and showing data in a consistent manner. This is a very common trend right now.

Kelly Warner: So bottom line, as a user, I could get all the Illinois and Iowa data?

Jong Lee: Yes, you just log in.

Gregg Good: So bottom line, everyone's got the site and if they have any questions, they can reach out to you.

Jong Lee: Yes, they can contact me with any questions or feedback on the site.

Havana Lowlands Groundwater Study Update – Kelly Warner

Kelly Warner: So this is an update on the continuous nitrate sensor that we have in Havana, IL. We still have nitratax there, it's a shallow well about ~35 ft. deep. Now we're into our second season of data and we've seen the water levels go up in May-June. One of the reasons they installed it at that location is because there is a lot of irrigation and fertigation, where they put fertilizer in the irrigated water. We also found that surface water was the highest at that peak season too.

Greg Good: When would they normally fertigate?

Kelly Warner: They only put it in when they have certain levels of parameters and it has to do with precipitation and the time since their last use. The nitrate seems to be going up between May and June, groundwater is the highest in late winter/early spring. We collect Quiver Creek water quality samples periodically when collecting nitrate samples. The Illinois State Water Survey developed a model of the area, so we put in piezometers based on the flow path. None of the stream samples have had high concentrations of nitrogen, but we do see the concentrations in the groundwater in the well. We're coming up on a year of data for the site, so we just wanted to give you an update. It seems to be that when the system is being flushed through, that's when they've collected samples in the stream that have been higher.

Gregg Good: Quiver Creek is very cool and groundwater-fed, so is the assumption incorrect that it may be feeding into the Gulf?

Kelly Warner: But this may be over a larger part of the basin, so maybe what was proposed as far as accumulative groundwater being a contributor during certain parts of the year may be true. Groundwater is proposed to be a major contributor. So the question is, is it true in streams feeding into the Illinois River and are there certain times when it's being flushed through and are there certain times that groundwater plays a bigger role?

Gregg Good: So when are you done with this?

Kelly Warner: March and then we should have a final report out in September.

Potential Grant Opportunity for NLRS Monitoring Project – Gregg Good

Gregg Good: Something about perfluorinated chemicals has come up, so forget about the opportunity. That's possibly the next big thing coming out of the states.

Potential P Load Reductions from Recovering Wastewater P in the Upper Sangamon HUC 8 – Greg Mclsaac

Greg Mclsaac: This was part of a team that was awarded an NSF grant, so the end result of our work will be incorporating environment, technology, and economics into modeling the nutrient cycle. We're focusing on the Upper Sangamon River Basin first, then generalizing a broader model to cover the Corn Belt. The main reason for the high input from Decatur is they have two corn processing plants and 80-

90% of the phosphorus is coming from the corn processors. There is a long-term gage at Monticello and the phosphorus gage is a little over 1 lb/acre-year. There is an estimated storage of 150 tons/year, which may be being stored in Lake Decatur. To isolate measurements for the Upper Sangamon, we take Water Yield and TP loads in Riverton minus TP load in the South Fork of the Sangamon at Rochester. We also estimated the TP discharge from the Sanitary District of Decatur (SDD).

Trevor Sample: How often is data reported?

Greg Mclsaac: Twice a week they take a sample.

Trevor Sample: And it goes back from 1995?

Cindy Skrukrud: I think sanitary districts are collecting data that they don't necessarily share with Illinois EPA.

Greg Mclsaac: Decatur contributed 25% of the increase in phosphorus from 2015 to 2017 (17% increase). If Decatur were to meet the 1.0 mg/L effluent target, it would achieve ~8% of the 21 million lb/yr reduction needed to meet 45% goal. There's lots of work in trying to quantify phosphorus legacies (P that's been hanging around). Ben Gramig and Steve John are also involved in economic analysis and public engagement that engage stakeholders. Ben is putting together a survey to farmers that will capture their willingness to implement practices. Ben will also estimate non-market benefits and social preferences around water quality, not just for Decatur but for cities with similar wastewater issues. Point source phosphorus reduction options include Ostara, which turns it into Struvite, a form of phosphorus, and can result in a high-quality slow release fertilizer. Recovering phosphorus from corn ethanol process streams could be another possibility. Over the next 3-4 years, his team hopes to provide analysis and recommendations for phosphorus recovery and phosphorus discharge reduction relevant to the Upper Sangamon and Corn Belt.

Ann Holtrop: In case people don't know, that wastewater treatment plant has funded students at Eastern to collect data. I'm not sure if it would be useful, but it's more data to use.

Cindy Skrukrud: We're always hearing this looming shortage of phosphorus, is that one of the motivators of this?

Greg Mclsaac: It's not something that comes up in meetings, but we did include it on our grant application.

Kelly Warner: I didn't hear about that, how are we going to have a shortage?

Greg Mclsaac: A lot of the phosphorus is mined out of the ground and a lot of the sources are depleting.

Gregg Good: Do you recall what Decatur is pumping out?

Greg Mclsaac: Seed concentrations as high as 30, average is probably about 15 or so. People from Decatur are under the impression that will become a problem for them soon.

Trevor Sample: They've been working on it for years, I heard there was a nickel problem too.

Cindy Skrukud: EPA and environmental groups worked for about a year and came to the agreement that there will be a 0.5 mg/L annual geometric mean put in permits for large wastewater treatment plants with compliance in 2030.

NMC Member Updates – Exciting or Boring News to Share

Gregg Good: We have a contract to do continuous monitoring in Starved Rock, Seneca, and Marseilles since May this year. They're not Supergages because they're not looking at nitrogen or phosphorus, but they are tracking pH, temperature connectivity, dissolved oxygen, and chlorophyll. I actually had a chance to use the data because we had an algal bloom on the Illinois River earlier this year, which was my version of the Ohio algal bloom that happened in 2015. ORSANCO gets federal funds to do some of the things the state do and coordinating with lots of people. My staff were out and took samples, talked to folks at public water supply, it was just amazing how there are so many people up and down the river at different capacities and next thing you know we found out we could get the state police to do a flyover. There was a small algal bloom at Rend Lake. I think the highest number we got on the IL River was 150. Right after that happened, there was a big rainfall that dissipated the nutrients. We got all the public comments for our integrative report that we put out every two years, so it should be out in the next few months.

Cindy Skrukud: I have a little list here and I was going to talk about negotiations on wastewater treatment limits. A few updates from the Fox Watershed, mainly things we're doing with partners. USGS just installed a gage on the Stratton Lock and Dam of the Fox River, which will give us a better idea of what's coming into our study area. It's all real-time data, including measuring chlorophyll and dissolved oxygen. The Illinois State Water Survey has been working on this trends report for us from 1997 to 2016 and Laura just met with our board. She's going to be presenting in Algonquin. We're seeing some downward trends, which I think is good. We're also working with the group in Wisconsin working on the Fox River and trying to figure out how to work together on a more regular basis. We have a Sierra Club group active on Long Lake doing some monitoring work on phosphorus coming in and out of the lake. It's had a history of harmful algal blooms so we're excited a group is going there. They're working with Jim Bland and needed money to do this so they had a community fundraiser for their monitoring. The Sierra Club group in the Quad Cities does monitoring on the Rock River and they now have their data on a website and a map that shows their data. One thing that Sierra Club and others have been working on is we put together a resolution for legislature to voice their support for the NLRs. The environmental groups recognize we have not had a capital bill in a number of years and have started talking to people and emphasizing that we need clean infrastructure funding for problems with lead in drinking water pipes, wastewater treatment plant upgrades, agricultural BMPs, dam removal, etc. We're also working on a "Dear Governor" letter.

Ann Holtrop: I just wanted to mention that the department has done a fair amount of hiring, Brian Metzke has joined our team. We have a division of fisheries but haven't had a general ecologist to cover nutrients and water quality, so I'm not sure if he'll be coming or if I'll be bringing him. We also were at the Illinois State Fair this year.

Laura Keefer: Kevin O'Brien was just named the permanent Illinois State Water Survey director a few months ago. IDNR has awarded them another two years of contracting. We have been monitoring in those 5 basins since 2000 so we're working on a trends and loading analysis of these 5 watersheds. I'm hoping this winter we will have an intermediate report and an analysis of our benchmark sediment monitoring program, which we have been monitoring consistently since 1980.

Justin Vick: Continued optimization of existing nutrient recovery initiatives, WASSTRIP (waste activated sludge stripping) added at Stickney WRP and pilots for EBPR (enhanced biological phosphorus removal) are being designed for Egan and Calumet WRPs.

Paul Davidson: Trevor mentioned the Science Team, we have a meeting next week and then we will be meeting with Trevor later in the month.

Kelly Warner: We've rolled out the Central Midwest Water Science Center (IL, IA, and MO). We will have 6 science teams, one of which is nutrient and sediment science. We're doing a lot of remote working since the teams are made up of people in all 3 states. We anticipate hiring some leads for these groups. I think we've talked about everything else. We're expanding green infrastructure work in St. Louis like we've done in Chicago with bioswales. Looking at drinking water supplies in Iowa. Just put in for federal funding for two more sites in the Mississippi River, one of the sites is just below Grafton, IL.

NGREC: We are working with other states on their nutrient strategies, a little with TN and IA. Continuing monitoring and have shifted more towards question and research based monitoring rather than just ambient monitoring.

Next Steps – Eliana Brown and Gregg Good

Today's Action Items?

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- March 2019 Doodle Poll will go out.
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Adjourn