

# Nutrient Monitoring Council

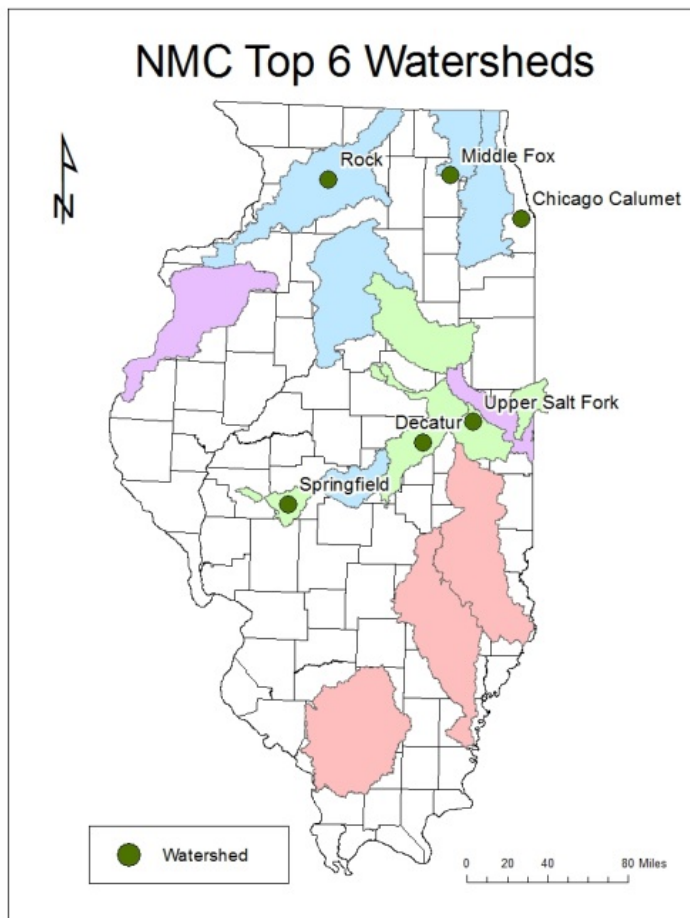
## Meeting Notes

Meeting 2: September 16, 2015, Springfield, IL

### Summary

Noon	Lunch
1:00 pm	<ul style="list-style-type: none"> <li>- Re-Introductions and Opening Comments - Miller</li> <li>- INLRS Implementation Overview – Where does the NMC fit in? – Miller</li> <li>- Review of NMC Charge/Goals and Priority Watersheds – Good</li> <li>- USGS Super Station Network Overview and Status Report, NMC Goal 1(a) – Yeskis               <ul style="list-style-type: none"> <li>➤ <b>The 8 USGS Superstations are the first time monitoring like this has been done. Further, a significant amount of monitoring is being done by NMC members.</b></li> </ul> </li> </ul>
1:45 pm	<p>Mapping Exercise – Where’s the Monitoring? Good and Hollenbeck Purpose: To visualize where nutrient monitoring is occurring (e.g., a monitoring inventory), identify gaps, facilitate data aggregation, and assist in development of monitoring plans for each of 18 priority watersheds identified in the NLRs.</p> <ul style="list-style-type: none"> <li>- Individual Organization Monitoring Site Maps – NMC Member Overviews</li> <li>- Aggregated Organization Monitoring Site Maps, Two Examples – Upper Fox/Des Plaines-DuPage and Big Muddy               <ul style="list-style-type: none"> <li>➤ <b>Small-scale priority watersheds (to show local WQ trends/improvements) should be within the 18 priority watersheds. NMC should look at scale of monitoring data within priority watersheds to help us determine what scale we are trying to show local WQ improvement.</b></li> <li>➤ <b>Baseline date for 8 big rivers is 1980-1996. Baseline date for HUC8 level is 1997-2011.</b></li> </ul> </li> </ul>
3:00 pm	Break
3:15 pm	<p>Discussion Regarding Next Mapping Steps – Good</p> <ul style="list-style-type: none"> <li>- Additional maps and mapping details needed?</li> <li>- What are the “Top 5 (or 6)” of the 18 priority watersheds to concentrate on first regarding development of monitoring plans and associated costs?               <ul style="list-style-type: none"> <li>○ Monitoring to determine <u>loads!</u></li> <li>○ Monitoring to determine <u>trends!</u></li> <li>○ Monitoring to determine <u>water resource quality improvements!</u> <ul style="list-style-type: none"> <li>➤ <b>NMC decided that we need to know what is needed, so we know what to monitor. Need other groups to tell us where existing BMPs are and where future BMPs are planned. Meanwhile, the group decided that their Top 6 watersheds with the most robust monitoring data is within the following (see map next page):</b> <ul style="list-style-type: none"> <li>● <b>Upper part of Salt Fork (NO<sub>3</sub>)</b></li> <li>● <b>Lake Springfield (NO<sub>3</sub>)</b></li> <li>● <b>Middle Fox (P)</b></li> <li>● <b>Lake Decatur (NO<sub>3</sub>)</b></li> <li>● <b>Rock (NO<sub>3</sub>)</b></li> <li>● <b>Chicago/Little Calumet (P)</b> (not identified as one of the 18)</li> </ul> </li> </ul> </li> </ul> </li> </ul>

	<p>priority watersheds, but in the NLRS, it states, "it does contribute a substantial TP load (3.69 million lb/yr) it does not rank at the top of the prioritization due to current water quality and the lack of watershed-based plan in the watershed.")</p>
3:45 pm	<p>NMC Work Plan Development and Other Questions – Miller and Good</p> <ul style="list-style-type: none"> <li>- Overall Timeline – When does the NMC need to have firm, documented recommendations to the Nutrient Policy Workgroup regarding a prioritized list of nutrient monitoring program activities and associated costs needed to accomplish all NMC charges/goals? 1.5 years from now? 2.0 years from now? 2.5 years from now?</li> <li>- What are major interim steps and associated completion dates?</li> <li>- Who will develop the 18 Priority Watershed Monitoring Plans? Is this “Other duties as assigned,” or will there be a budget for their development?</li> <li>- How do we ultimately retrieve, aggregate, and display monitoring data collected by multiple agencies?</li> <li>- Other <ul style="list-style-type: none"> <li>➤ <b>NMC will be looking at monitoring design with different objectives in mind.</b></li> <li>➤ <b>May have to prioritize what questions we answer.</b></li> <li>➤ <b>May have to set up models.</b></li> <li>➤ <b>Could look at it intensively in certain areas where monitoring is intense.</b></li> </ul> </li> </ul>
4:15 pm	Open Discussion
4:30 pm	Next meeting date(s)? Let’s get them down and on our calendars!!
5:00 pm	Adjourn



## Next Steps

- Modify NMC email list as needed.
- Put working group member lists on Illinois EPA nutrient webpage.
- Update NMC charge
- Katie Hollenbeck to develop 6 new maps focused on the Top 6 Watersheds. Will send out to NMC to ask what monitoring and other gap filling approaches are needed.
- Consider adding the National Aquatic Resources Survey (NARS) program of the USEPA as another possible monitoring source. NARS is a national survey in rotation of Coastal Shorelines, Wetlands, Lakes, Rivers and Streams on a 1 year rotation between each, except for the Rivers and Streams which takes 2 years, on a 5-year cycle.
- Doug Yeskis mentioned the National Rivers and Stream Survey (NRSA) sites (monitored in 2008-2009 and 2013-2014) as possible sites to look at trends or water quality improvement over time. Therefore, we (Katie Hollenbeck) need to generate a map of those stations monitored in those years and see if they are located within any of the 18 priority watersheds.
- Katie Hollenbeck to use available monitoring site coverages already sent to her to develop Aggregated Organization Monitoring Maps like she did in the presentation given at the meeting in the Big Muddy and Fox/Des Plaines/DuPage basins. Once developed and reviewed, will send out to NMC members to check over, and see if there are other monitoring sites in those basins available. Also, a more detailed listing of sites monitored, parameters, frequency, etc., will be requested. May follow the format that Laura Keefer developed, and shared (but did not pass out) at the meeting.
- Miller and Willhite to attend an Ag Water Quality Partnership Forum on September 22. Will share with them that from a "Monitoring perspective," the six watersheds were identified as being in the best shape regarding current monitoring activity to try and show improvements. Without telling them which watersheds they were, they will ask them from an "Implementation perspective," where will the most point and nonpoint implementation be occurring in the next 5 years or so. Hopefully there will be some overlap, and for those watersheds, that's where we'll concentrate on developing the first NLRs High Priority Watershed Monitoring Plans.
- Present a summary at the Policy Working Group meeting. This would include the top 6 watersheds and reasons for not listing Quad Cities and Southern IL. Ask them about data sharing policy.
- **Future NMC meeting or webinar topics:**
  - Presentation of maps and data sets of our Top 5-6 potential High Priority Watershed Monitoring Plan areas.
  - USEPA and some states that are doing edge of field studies, etc. in the Great Lakes Basin with Great Lakes Restoration Initiative funds (Yeskis).
  - Fox River monitoring activities (Skrukrud and possibly Elana from ISWS).
  - GLTG platform demonstration (Lee).
  - Discuss how to develop monitoring plans for the Top 6 Watersheds.
  - Salt Fork field trip?

## Meeting Notes

In attendance: Jong Lee, NCSA (U of I), Laura Keefer, ISWS, Andy Casper, INHS, Doyn Kellerhals, INHS, Justin Vick, MWRD, Shawn Wilcockson, Illinois EPA, Ann Holtrop, IDNR, Mark David, U of I, Laura Gentry, IL Corn, Richard Breckenridge, Illinois EPA, Earl Greene, USGS, Doug Yeskis, USGS, Brian Miller, IWRC, Eliana Brown, IWRC, Katie Hollenbeck, IWRC, Gregg Good, IEPA, Marcia Willhite, IEPA, Cindy Skrukud, Sierra Club

### *Introductions*

BRIAN MILLER: So first an update of where we are on the NLRS and how NMC fits in. NLRS is out electronically and soon copies will be printed. Two versions are out. The 1<sup>st</sup> came out in July, and the 2<sup>nd</sup> version is now finished after some errors were fixed. NLRS has a science based background. When it was developed, it initially called for 5 groups. Now we have 7 groups. The groups are as follows: The Nutrient Monitoring Council is us. The Agriculture Water Quality Partnership Forum are agricultural leaders in the state, represented by those in leadership roles and agency heads. The Forum answers questions like, “where do we focus resources? Cost sharing?” Urban Stormwater Working Group is focuses on stormwater. Although stormwater is a small contributor to Hypoxia, it causes local water quality problems. Policy Working Group is the group that started all of this with formal representation and monthly meetings. They deal with higher policy issues. The Nutrient Science Advisory is developing recommendations: 1) What are the numeric nutrient criteria 2) Are these numeric nutrient criteria by the state or do they vary by watershed? Point Source is a new committee and so is the Performance Benchmark Group, which will be used to determine how we are doing and if we are reaching scheduled benchmarks.

ANN HOLTROP: Where can we see who is on all of these committees?

ELIANA BROWN: I do have attendees in the minutes.

BRIAN MILLER: We have formal list. We can put those names up on the website. The AWQPF Tech Subgroup thinks about the land BMP side of the equation and answers questions like “how do we measure or how do we decide?” The good news is that there are 12 other states wrestling with the same thing. Iowa developed the logic model, so now we need to answer “what is the data we should have and what should we be monitoring? What should we be doing for the land to help the water?” The Tech Subgroup talked about what we can measure on land to see how BMP adoption is going for the water. We have developed a matrix now circulating among agencies. Are we making progress and do we have data?

MARK DAVID: What goes in in the boxes?

BRIAN MILLER: Datasets that contain this data and how they are aggregating it. There will be some places where we don't have data and some places that we do. Then we get to aggregate that data.

CINDY SKRUKRUD: What is NASS?

BRIAN MILLER: National Agricultural Statistics Service.

MARK DAVID: So, we are trying to get NASS to do a different survey for us.

SHAWN WILCOCKSON: What about federal to state data sharing?

BRIAN MILLER: One state to make most progress is Indiana. But, there have since been legal issues. Federal data to state data is subject to FOIA. So, there are issues. Now to Gregg unless there are any questions, but I wanted to show what has been happening in the background.

GREGG GOOD: So here is the big picture. We are contributing to the hypoxic zone. In the agenda - make sure what NMC goals and objectives are, what everyone is doing, and what the work plan is. As for our charge, we have monitored more and there are a lot of stories of what has gotten cleaner. I am the co-chair and Mark David is co-chair as well. Here are the NMC members (visible on PowerPoint slide). Maybe we would also like to contact Lake Springfield and Lake Decatur watershed representatives.

ANN HOLTROP: What does local watershed mean? Is it smaller than priority watersheds on a map and what level are we shooting for? What are the stressors? Are they uniform across basins or are they different across basins? So, ideally would we identify small scale watersheds?

GREGG GOOD: Focus is on the 18 watersheds.

CINDY SKRUKRUD: Nutrient watershed groups are mostly covered.

LAURA KEEFER: It would help to review how these 18 got selected and why. Decatur got selected because of the point source, but it has a lot of nonpoint.

MARK DAVID: Decatur is located right after the plant.

LAURA KEEFER: Defining between the local and large watersheds to determine why they were selected in the first place and why.

MARK DAVID: There was more than just nutrient data. 5-6 things were used including data.

BRIAN MILLER: There was a scoring table with 5-6 criteria.

CINDY SKRUKRUD: We should be conscious if there are local efforts targeted at local watersheds.

ANN HOLTROP: Determine if there is a smaller watershed?

GREGG GOOD: If they are priority, that's where we should be focused.

MARK DAVID: Question for the "develop a program" section; who actually does this? For example, I gave Trevor all our data. Who fills in that gap and actually does all this?

GREGG GOOD: Is it 1) people in this room or 2) it is contracted out. How would we do that for other uses such as swimming use, water use, aquatic use, etc.

LAURA KEEFER: The key thing is what is the program design? What question are we asking so we can design it so we don't collect more than we need or spend more than we need?

AC: How do we make use of the existing programs that are out there?

GREGG GOOD: There are more organizations out there that aren't accounted for collecting data. This state collects a lot of data.

CINDY SKRUKRUD: Did you say that you should flip items 2 and 3 (visible on PowerPoint NMC charges slide)? <NEXT STEP>

JONG LEE: How about the data sharing policy? When we start collecting more data based on priorities. Sharing among the group is probably fine, but what if someone else wants raw data?

GREGG GOOD: Our data at IEPA is all publicly available. Each group varies with their own rules.

JONG LEE: Is it better to hash out ideas and concerns? We can come up with a policy to deal with embargos.

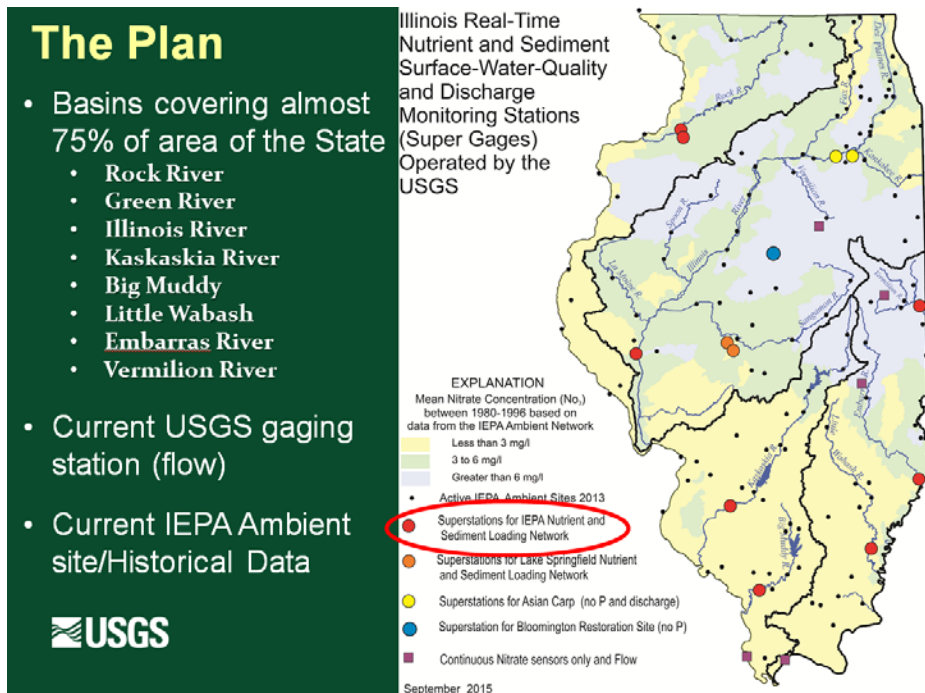
ANN HOLTROP: I see it as an issue regarding to land use sharing and agricultural groups. Doing it across the board instead of each group may be better.

DOUG YESKIS: How are you scaling this study? What comes first, the chicken or the egg?

GREGG GOOD: Moving on to the Doug Yeskis' slides.

DOUG YESKIS: I am going to give an overview and the plan. The 8 stations are listed below. The stations will measure what is the load and what is leaving Illinois. We have several real-time nutrient and sediment stations. Some nitrate only stations and some Asian carp stations. The infrastructure for the sites is completed except for one. All stations should be publically available in the next week or two and should be running and operating by October 2, 2015

(website: <http://waterdata.usgs.gov/il/nwis/current/?type=quality&group%20Key=basin%20cd> where you can link to the real-time data). Our goal is to get them up and running to see if there are any issues with the stations. In Danville, we had an issue with sand burying the equipment and the pipes holding the equipment. Samples are collected by the pipes for QA/QC to make sure the sensors are accurate, and additional cross-section, vertically weighted samples are collected and compared to the sensor samples to ensure the sensors accurately represent the whole river. The installations were delayed outside of our control because of the high river levels (especially in southern Illinois) and are in the process of catching up. A report will be issued with all the calculations of total nitrogen and phosphorus sediment loads after enough data is collected to develop the regression equations needed (to be released around 2016-2017). Nitrate will be done immediately but others will have to go through surrogate development and review. The methodology of development of the surrogates is in the continuous monitoring of sediment and nutrients in the Illinois River at Florence report (website: <http://pubs.usgs.gov/sir/2015/5040/>).



GREGG GOOD: In preparation for this meeting, here is what we asked you to provide to us.

PowerPoint with Agency Maps

KATIE HOLLENBECK: The first 9 maps are WQ data. Each agency will have its own maps with its own programs identified. The macroinvertebrate/habitat slide and fish slide contains multiple agencies. There are also aggregated maps that show all of the agencies' sampling programs.

GREGG GOOD: IEPA Surface Water has 3 programs, Streams: Intensive Basin Survey Program, Streams: Ambient WQNM Program, and Lakes: Ambient Lake Monitoring Program. Intensive Basin Program is cooperative program with the DNR. Our agency is the macroinvertebrate people. We use this data to formulate the 303(d) list. Each time we go to a basin 80-90% are the same sites. May through October is when we sample on a 3-4 year rotating basis. Ground Water section has Ambient Network wells, Nitrate Network wells, and IDA wells.

LAURA KEEFER: ISWS water monitoring. When we do monitoring, it's part of a research effort for a grant, etc. This data shown is done and available. We don't release the data unless the work has been published. We did do work for a few years in Northern Vermillion Watershed. Our longest record is here in Decatur watershed. Money didn't go as far as time went on. We had much smaller local stations. There are some resurrected stations for an NSF grant, which is seasonal experimental and not long term monitoring. We have had IDNR pilot program. We have a few in the Hurricane Creek Watershed and there is an active ongoing project. We collect all parameters except nitrate. We get very refined data. There is some in the Spoon and two in the Panther and Cox Creek. There is a small station in Big Creek. We can distribute the reports for the finished programs.

DOUG YESKIS: Surface water is stream gages with several networks. Well networks are also in several areas. We have continuous sensors on Fox River for continuous nitrate and specific conductance. We also have intensive data collection and continuous nitrate sensor. There are many different networks.

EG: National Network "HBN" Hydrologic Network. They are headwater conditions watersheds to understand.

DOUG YESKIS: We do get some "NAQWA" site funding. There are continuous nitrate sensors in several locations managed by other centers.

MARK DAVID: UIUC sites are continuous, in 3 watersheds, since 1993 or 1997. It is still ongoing, and we have never been funded. The "Embarras" is a Lake Fork branch of Kaskaskia.

JUSTIN VICK: We lost half of the MWRD stations in 2012. Before 2012 there were 59 stations, now there are 28. 15 were annual and now there are 26 annual. The biological has a 4 year cycle. The CDOM has fluctuated over the years. We collect hourly year round data. Once thing that's not shown is Illinois Waterway data that got cut in 2012. We used to do 49 stations down and 49 stations up. With biological data we did fish and bugs and habitat.

GREGG GOOD: We have a contract with ISWS to generate a relational database to help us answer questions.

JONG LEE: GREON has collected data every 15 minutes, LTRM, Riverwatch is a macroinvertebrate volunteer program.

ANDY CASPER: LTRM Program core engineer is funded through USGS. There is a 23 year record of water quality. Sites are monthly most of the year except in some winter months. And then for several months, we sample twice a month. We do nutrients and physical data. Nutrients in the backwaters and side channels are quarterly. LTRM has a fish and WQ component for 23 years. It does do water quality in the Wabash and Kankakee and Ohio River, but not nutrients.

CINDY SKRUKRUD: I only provided sampling points that are long term sampling. The group on the Rock River have been sampling the last 4-5 years. DuPage Salt Creek watershed sampling is at least 15 years. Samples are done by Sierra Club volunteers that use HACH kits. Monthly sampling is typical. Rock River doesn't do winter, but DuPage does. Other sites are monthly or quarterly. On the Fox River, a multi-stakeholder monitoring group samples monthly since 2002. The entire river is sampled at same time including nutrients, TSS, chl-a, etc. The data is all readily available. There are a few other efforts. DuPage County Salt Creek Work Group does project and biological monitoring. But for 6-7 years, a new group is going up in Des Plaines, the Des Plaines Watershed Work Group. They have their design but haven't started yet. QA project plans have been submitted to IEPA.

GREGG GOOD: Marcia, how were the priority watersheds selected?



MARCIA WILLHITE: It's in chapter 4. We had a few choices, 1) proceed on yield information from science assessment, so nutrient yield and number of impaired segments in there, 2) whether there was an active watershed group in there. There is a really big watershed point source in Decatur.

MARK DAVID: It's the 3<sup>rd</sup> largest point source in the state.

LAURA KEEFER: But it is below the dam.

MARCIA WILLHITE: Where will we focus our point source and non-point source efforts?

GREGG GOOD: Every 5 years, surveys for river streams, lakes, wetlands, and coastal. As a data source – NRSA has rivers and streams assessments.

ANDY CASPER: The sites were fixed for fish sampling for LTEP. We sample water but not nutrients. It is one time a year sampling. LTRMP is 3 times a year and they are fixed sites. Wabash is 30km with random sites, Ohio is 20km with random sampling, as well as Illinois and Mississippi confluence.

ANDY CASPER: 2006-2007 was the end of macroinvertebrates for LTRM.

JUSTIN VICK: MWRD end of macroinvertebrates was 2010.

ANN HOLTROP: INHS basin surveys are supposed to be labelled IDNR. Fish sampling started in the early 1980s but systematic is sampling started in the mid-late 1980s. Many sites are sampled on a 5 year rotating basis. If we figure out which places we want to work, we can provide that. Staff is already working with local maps.

GREGG GOOD: Next on to aggregated maps, first Laura Gentry will speak.

LAURA GENTRY: We appreciated the NLRS representing all of the stakeholders. The bad news is that the corn growers don't do a good job of sampling monitoring. The Council for BMPs is doing the most work from WQ agricultural samples. These may work into monitoring programs. The agricultural groups are represented by the Farm Bureau, Corn Grower, Pork Producers, Soy Growers, Monsanto, etc. CBMP efforts are less than a year old and funded on year by year basis. Lake Springfield Watershed Project – we are taking twice weekly grab samples from 23 stream sites. We are partnering with Vermillion County weekly grab samples from 10 sites. Kaskaskia Watershed Association is providing funding. Data was collected from 1980-2004. There are 14 monitoring stations and coming back now to do same assessment. We are partnering with American Farmland Trust and the Pork Producers support CBMP. The corn growers are assisting USGS on water monitoring stations in Springfield and Indian Creek. AFT has healthy soils for healthy water and monitors total phosphorus.

Return to Aggregated Map Discussion

GREGG GOOD: There were lots of dots on map for this watershed to generate maps.

MARK DAVID: Little long term water quality data down south is represented. Outside of your program (IEPA), there isn't that much continuous long term monitoring programs.

Break

GREGG GOOD: Okay, now I'm not so confident on what to talk about. What additional steps are needed? Is our charge to develop 18 watershed monitoring plans? Perhaps we do 5 to start? What I was thinking as a need is a recommended monitoring plan. What's the background, what's the monitoring design, what's the scope and goals, and who is doing this stuff? That's what I think we should do for some watersheds – put together this document. We are talking about maybe developing a recommended monitoring plan for the state and maybe the 18 watersheds. Is that what this council's vision is? I assume that's what we need to do based on implementation of NLRS.

LAURA KEEFER: What is the question being asked, again? For trends – you will want to take advantage of long term stations. What's causing a trend? Focus in on some of the targeted watersheds.

ANN HOLTROP: Compare trends based on a 1980-1996 baseline. What is the baseline and where are the locations?

MARK DAVID: For the 8 big rivers, it goes back to 1980. When you get to the HUC 8 level, we didn't go back that far. We were establishing the more recent nutrient loads.

CINDY SKRUKRUD: For priority watersheds, the low hanging fruit are watersheds where they are already looking at WQ problems. So incorporate that into the statewide program the program is already in place.

MARCIA WILLHITE: Keep it for the Crop will already be looking at problems that are occurring in watersheds. I think we are going to be looking at monitoring designs with different objectives. With superstations, we have a great tool to look at nutrients leaving the state. For tributaries, what do we do there?

ANDY CASPER: Two audiences 1) what's leaving the state gulf hypoxia, 2) talking about moving into priority watersheds. Try to connect trends to local groups and planning.

MARCIA WILLHITE: 1) Address actions that get nutrients that get into Mississippi R 2) what is the impact on instate designated uses, impact to drinking water sources, impact to aquatic life. How can we achieve everything?

ANDY CASPER: Associate with BMPs?

MARCIA WILLHITE: Looking at limited conditions, like wadeable streams. What's the source of the stressors and what are the actual stressors? We may have to prioritize what questions we answer.

BRIAN MILLER: Talk about adaptive management. Talk about nutrient loads and how they are changing and report on implementation. If you want to do adaptive management, then you have that causality question.

LAURA KEEFER: Set up monitoring plans to mathematical models.

BRIAN MILLER: Does it make sense to do it in every watershed? Or can you do it intensively in a few places?

MARK DAVID: Not every watershed will tell the same story.

CINDY SKRUKRUD: We are trying to get watersheds off of impaired waters list. We want to be working with IEPA and IDNR, not going to be cookie cutter. We want to be watershed specific since every watershed is unique. Are there differences in your monitoring design?

MARCIA WILLHITE: What are elements of monitoring design? A biologically focused monitoring design or focused on the water quality piece?

GREGG GOOD: In theory, more implementation will happen. What are the council's next steps in order to go back and check for the next 10 or 15 years? There will be more effort put into heavily dominated watersheds, more money. And you will see load reduction and improvement.

MARK DAVID: Where are we going to be focusing efforts?

ANDY CASPER: Reprioritizing efforts for implementation as opposed to need.

MARCIA WILLHITE: Model the Fox in the urban, Keep it for the Crop is in agricultural. There are places where they are focused on implementation. What kind of implementation and monitoring plan is associated with Keep it for the Crop?

ANN HOLTROP: Are we trying to document load or impacts? Are we going to key into mussel and fish information to help tell the story? But for smaller watersheds, we might not have that information.

GREGG GOOD: Do we need load and water quality documentation? There are 5 superstations in different watersheds.

DOUG YESKIS: If you have watersheds you want to focus in on, you can set up a small scale sampling and focus in on it.

MARK DAVID: Salt Fork we have that, but shaky legs – the one with the sensors the change has gone nowhere. It's a nice small watershed but not much getting down.

LAURA KEEFER: Implementation is falling apart. The setup is up is nested. Sites have been established, closed now, but the implementation!

MARK DAVID: Monitoring is still going on Salt Fork. There are few places in the state, but a few small places.

LAURA KEEFER: You have to throw a lot of money. Monitoring is too expensive and crop insurance pays more.

MARCIA WILLHITE: An interim objective is looking at IEPA that have ongoing monitoring program.

MARK DAVID: It's helpful on the 18 that are not superstations. We would have a few more samples.

GREGG GOOD: Then, it gets into what this study costs for the people and the contract. Who's going to do it and what are the dollars to get it done right?

MARCIA WILLHITE: From a scientific standpoint, what is needed and what we can do?

ANN HOLTROP: Can we talk to the other committees?

GREGG GOOD: What do the other folks think is top 5?

ANN HOLTROP: Which of the 18 are we more poised to monitor on based on existing monitoring.

LAURA KEEFER: Lake Springfield is an active county, brought up a few times, I'm sure there are others like that.

MARCIA WILLHITE: Going back to the maps, were there a variety of focus or do we need to drill down further? Is this ongoing for a period of time? Is there the right kind of data and frequency? What are our top five watersheds. Would this be one of our models?

LAURA KEEFER: That might be a driving question later.

ANDY CASPER: Top five within the 18?

MARCIA WILLHITE: Yes.

BRIAN MILLER: What are the top 5 you are poised to monitor now? Then we can charge the AWQPF with what are the top 5. They are charged with coordinating cost share. What are the top 5 you feel?

MARK DAVID: Upper Salt Fork. We have several pieces and monitoring efforts.

SHAWN WILCOCKSON: Why has it stalled out? If implementation is difficult, how would it work?

MARK DAVID: Price of corn, loss of leadership, lots of reasons.

SHAWN WILCOCKSON: Consider implementation, what are we monitoring. We have the agriculture community's attention and our message is being received. The window of opportunity is unique.

MARCIA WILLHITE: Happily we are poised to do good monitoring.

CINDY SKRUKRUD: Lake Springfield?

LAURA GENTRY: There is a CBPM project on Lake Springfield funded by CWLP and USFWS.

MARCIA WILLHITE: Uncertain about monitoring.

LAURA GENTRY: 23 stream sites.

MARK DAVID: Lots of sampling now with implementation.

CINDY SKRUKRUD: I'm putting in the Fox as well. We have a lot of models and they indicate answers from the field to see if our models reflect reality. We have a monitoring need. So we should look at the lower half of the Upper Fox and the upper half of the Lower Fox.

MARCIA WILLHITE: We can be flexible.

LAURA KEEFER: Not aware of implementation, trying to get mini superstation at Monticello. There is a gap in data; if it was to be restarted – for Lake Decatur – it has the possibility of a lot of data. There is lots of loading data, water quality, etc. on various scales, from ditches to huge watersheds. Looked at loading trends in Lake Springfield and Decatur, what trend are we looking at?

GREGG GOOD: Loading reductions, trends, and local water quality improvement. Are we picking lake Decatur or Springfield watershed?

ANDY CASPER: Are you saying whatever is reduced to appropriate response variable?

ANN HOLTROP: For fish, we do streams more than lakes. If we have water quality benefits, we would have improvement in reach of fish assemblages.

MARK DAVID: The scope for improvement is large. Such a system is to show how many pounds we took out a year.

MARCIA WILLHITE: For nutrient feasibility, I'd be interested in seeing Decatur.

CINDY SKRUKRUD: Chicago Calumet watershed, is not part of 18 priority watershed but should be considered.

ANDY CASPER: So we have left alone upper and lower part of state since we are focused on nutrient load reduction, correct?

MARCIA WILLHITE: We are looking at agriculture watersheds for nitrate and blue ones and non-point for phosphorus.

ANN HOLTROP: Rock Green River is in conservation areas. There is a separate set of actions identified for Rockford.

MARCIA WILLHITE: We can focus on how we can expand when we identify.

MARK DAVID: The Upper Rock is in Wisconsin.

CINDY SKRUKRUD: There is a National Water Trail in the Rock so it is interesting. Can we fold the water quality into the attention it is already receiving?

GREGG GOOD: So Katie, overlay dots in 6 prime basin watersheds.

ANN HOLTROP: We didn't provide once upon a time data, like mussels from long time ago.

MAPS: Six maps from these areas that we have identified. What else do you got?

MARCIA WILLHITE: Use what we have and use other map filling to see what we have or still need.

DOUG YESKIS: Multi-scale coordinating, BMP work, larger watershed scale monitoring is ongoing in the Great Lakes because they wrestled with these same issues before they decided on their design. For presentations at some point I suggest that we invite someone from EPA in charge of the overall design that has been running in the Great Lakes for several years. Address some of the management issues and will see if I can get people to come and get a presentation. Maumee is one of the focus issues.

MARCIA WILLHITE: If it doesn't work out for them to hit on of our meetings, maybe we can get a webinar.

GREGG GOOD: Cindy can you provide an update on what is going on with the Fox?

BRIAN MILLER: Jong, you can do the demos for the platform that is currently operating?

GREGG GOOD: What is our goal a year and a half or two years down the road here? Document statewide loadings? Do we want to get together and digest?

LAURA KEEFER: I want to discuss more about the data that is already available. I want a backstory on what each site tells, if it get meatier.

BRIAN MILLER: Can we do that after the AWQPF?

LAURA KEEFER: Don't tell them what our top 6 is first, let them decide.

CINDY SKRUKRUD: Attribute tables can help hold that data.

ELIANA BROWN: For next meeting dates, AJ or Corrie will send out an email asking for dates. Please provide us with standing meetings. I will be selecting dates after that, unless there is major conflicts.

GREGG GOOD: Forward that to everybody in this room.

ELIANA BROWN: Point Source Workgroup has meetings, IL Farm Bureau meets on Tues. I'm trying to schedule a year in advance. I will send out a clarification email.

BRIAN MILLER: We would alternate between Springfield and Champaign.

GREGG GOOD: Time frame? 1<sup>st</sup> or 2<sup>nd</sup> week of December?

MARCIA WILLHITE: That sounds good.

ELIANA BROWN: December 3 or 4? December 3<sup>rd</sup>? Thursday!? 10 – 2:30. We will be talking in Champaign.

GREGG GOOD: We will go over maps, the Great Lakes restoration presentation, Cindy monitoring on the Fox, and a short GREON presentation.