



# Agriculture Water Quality Partnership Forum

## Meeting Minutes

Thursday, February 27, 2020 1:30 – 3:30pm

Illinois Department of Agriculture FFA Room

**In attendance:** Kristi Jones, Illinois Dept. of Agriculture; Christine Davis, Illinois EPA; Trevor Sample, Illinois EPA; Dennis Bowman, Illinois Extension; Steve Stierwalt, Association of Illinois Soil and Water Conservation Districts; Lisa Martin, Certified Crop Advisors; Kim Martin, Farm Service Agency; Megan Dwyer, Illinois Corn Growers Association (via phone); Justin Ramey, Illinois Department of Natural Resources; Lauren Lurkins, Illinois Farm Bureau; Jason Solberg, Illinois Fertilizer & Chemical Association; Ryan Arch, Illinois Land Improvement Contractors Association; Julie Armstrong, Illinois Nutrient Research Education Council; Guanglong Tian, Metropolitan Water Reclamation District of Greater Chicago; Emily Bruner, S.T.A.R. Program; Adrienne Marino, The Nature Conservancy; Eliana Brown, Illinois Extension; Kate Gardiner, Illinois Extension; Michelle Bloomquist, Illinois Department of Natural Resources; Rosario Johnstone, Illinois Department of Agriculture; Beth Whetsell, Illinois Department of Natural Resources; Kevin Rogers, Illinois Department of Agriculture; Austin Omer, Illinois Farm Bureau; and Chuck Crawley, Illinois Department of Agriculture

## Summary and Next Steps

### Welcome and Introductions

Eliana Brown welcomed everyone and thanked the group for rescheduling the original meeting. All attendees introduced themselves.

### Review BMP Tracking Sources

Trevor Sample reviewed the sources for tracking BMPs listed in the NLRS and posed the question of whether the AWQPF should be looking at other sources for data besides the NASS Survey. The group agreed to continue using the NASS Survey, as it's valuable to compare data from year to year, and to seek additional sources where possible. Potential additional sources include Farm Service Agency cover crop data and Illinois Fertilizer & Chemical Association survey information. The Farm Service Agency will work on a news release to inform farmers that they are accepting cover crop data until July 15<sup>th</sup>. Forum members will share the information with their members.

### Mapping of Filter Strips in TP Priority Watersheds

The AWQPF discussed the Iowa mapping project and the possibility of a similar project in Illinois. Julie Armstrong informed the forum that Shani Golovay, Research Manager at NREC, is currently pulling together a group of researchers who could do this work. It's possible that Illinois could launch a pilot mapping project in one of the priority watersheds and scale up from there.

### Additional Implementation Scenario Development

Trevor Sample shared that Illinois EPA is working on an agreement with Dr. Reid Christianson to develop additional implementation scenarios. These scenarios would be developed using the established practice efficiencies and would include various combinations of practices. This would give Illinois a better idea of the scale needed to reach both the long-term and interim strategy goals. Hopefully this can be completed by this fall so that Dr. Christianson can present it at the 2020 NLRS Workshop in November.

### **Rock River Watershed Nitrate Load**

Trevor Sample showed the increased nitrate load in the Rock River Watershed and opened the floor to the forum. Kevin Rogers, Illinois Department of Agriculture, noted that the watershed has a unique groundwater situation and suggested that irrigation could be linked to the increased loads in that watershed.

### **Biennial Report Discussion**

While the 2019 Biennial Report was a significantly longer document than the 2017 Biennial Report, the AWQPF members agreed that it was better to include all the information in the report rather than move certain aspects to an appendix. Trevor Sample encouraged members to reach out to him or Eliana Brown if they had any additional comments or concerns.

### **Partner Updates**

Illinois Department of Agriculture and Illinois EPA engaged with the other states at the Hypoxia Task Force meeting in Washington D.C.

Illinois EPA is also updating the Illinois Nonpoint Source Management Program and is coordinating development of a NLRS presentation for the 2020 AISWCDs Summer Conference in July 2020.

Illinois Fertilizer and Chemical Association is continuing to conduct an ag retailer survey to collect data on fertilizer management practices. They are continuing to investigate options for partnering with a software company that could develop a framework for voluntary collection of fertilizer application data from ag retail facilities.

Illinois Farm Bureau has funded 15 projects in 29 counties this year and will host more field days.

Farm Service Agency will work with their county directors to reinforce the need to collect cover crop data from farmers when reporting their crop acres.

Metropolitan Water Reclamation District produced a Fulton County grass buffers guide, worked with Illinois NREC on nutrient management and biochar research, and is collaborating with Illinois Farm Bureau to host additional field days.

The Illinois Department of Natural Resources is working with Laura Keefer at the Illinois State Water Survey to see if CREP acres are affecting nutrient loads.

The Association of Illinois Soil and Water Conservation Districts is continuing to collaborate with many partners, including USDA – NRCS, and is seeking additional funding to keep up with the increasing demand for the services that the SWCDs provide.

Illinois NREC released their Cover Crop Guide 2.0, hosted an array of researchers and farm influencers at NREC Live on February 13<sup>th</sup>, and will release their 2021 RFP soon.

The delegates at the NACD annual meeting passed a resolution to support S.T.A.R. Program nationally. The Illinois Department of Agriculture is going to require anyone applying for the cost-share program to fill out a S.T.A.R. sheet for FY20.

American Farmland Trust is continuing to work on the cover crop discount program, released the second soil health case study for Illinois, and hired a new employee to assist in the growth of the Illinois Sustainable Ag Partnership.

Illinois Land Improvement Contractors Association has been focused on edge-of-field practices and will continue to host additional field days.

The Nature Conservancy shared that Soil Health Training is expanding to the Quad Cities area in June, in partnership with Illinois Corn Growers and Illinois Extension.

Illinois Extension is continuing to partner and reach stakeholders via the watershed coordinators, distributed the Illinois NREC Cover Crop guide via the Commercial Agriculture team, hosted a soil and water webinar, and is looking into how to best report their strategy implementation.

Illinois Corn Growers is continuing to develop their Precision Conservation Management program, kicking off a new water quality testing program, hosting a conference in June, and they also received a grant for a promotional blitz on Conservation Habitats, Soil Health, and Nutrient Management tools.

### **Next Steps**

- Kim Martin, FSA, will work on a news release to inform farmers that they are accepting cover crop data until July 15<sup>th</sup>. When ready, forum members will share the information with their members.
- Policy Working Group meeting is Mon. March 9.
- Nutrient Partnership Workshop is Fri. November 6.

## **Full Meeting Minutes**

### **Welcome and Introductions**

Eliana Brown welcomed everyone and thanked the group for rescheduling the original meeting. All attendees introduced themselves.

### **Review BMP Tracking Sources**

Trevor Sample reviewed the sources for tracking BMPs listed in the NLRs and asked if the AWQPF should be looking at other sources for data besides the NASS Survey.

Julie Armstrong: That's what Iowa NREC has been working on. Rather than a survey, it's more of an audit, where people go around collecting that data. They may be willing to share what went on in the backend.

Trevor Sample: There were some new questions in the most recent NASS Survey, so we couldn't compare that data to previous years.

Lauren Lurkins: It was a new survey when we first started and it takes a while for farmers to become familiar with it and have a growing level of acceptance. We should keep long-term collection data and maybe layer new sources on top.

Trevor Sample: It could take years to find a replacement for the Agribile project. We're looking at new ways.

Lauren Lurkins: It's (NASS Survey) an inexpensive and quick way to get a good amount of data. If we get funding to have something that's supported by our agencies, that would be good too.

Trevor Sample: Inexpensive is good. Let's talk to Kim with FSA because we know the easiest and cheapest way to get cover crop data is through farmer-reported acres.

Kim Martin: We put out generic information about reporting crops and cover crops annually and include what is considered a cover crop. Whether or not farmers read the information is hard to say. We're going to try to enhance that, though we are still required to send it out through our normal channels. Maybe we could have signage in our office as a reminder to provide cover crop data and have information available at the counter in the county offices to remind farmers that we want that information. Our FSA employees are so busy trying to get the commodities reported that cover crops just aren't something we're thinking about. We're hoping there could be a partnership between the producers and the FSA staff. Farmers have until July 15<sup>th</sup> to report both commodities and cover crops. In years prior, they only had until December to report and they didn't want to make two trips to the office, so oftentimes they just didn't report.

Trevor Sample: I would like to see a media blitz on this from now until July, maybe those here who have newsletters could help get the message out to farmers.

Kim Martin: When we get our information put together, we can forward it to the group.

Trevor Sample: Could you do a news release?

Kim Martin: I'd like to, we have to work with our public affairs staff person on what we're able to put out. We sometimes need to get approval at the national level.

Trevor Sample: Everybody okay with that?

\*Nods\*

### **Mapping of Filter Strips in TP Priority Watersheds**

Julie mentioned that Shani Golovay, Research Manager at NREC, has worked with Anthony Studer on a USDA grant, and pulled together people from the University of Illinois College of ACES who are working on nutrients. There's also a group at Southern Illinois University who is looking at their capacity to do a similar mapping project. This was a huge project in Iowa. If you haven't seen their mapping project and its outcomes, she can send it to the group. The good news is that the University of Illinois Crop Sciences and Natural Resources and Environmental Sciences departments are on board. It's great to have them working together toward a single goal.

Trevor Sample: I think this is something that everyone agrees it is worth trying, at least in a priority watershed. It tells you what practices are there and what is not, letting us know what we could put there.

Julie Armstrong: That's what Shani has talked about too – a pilot in a priority watershed – and determining what resources are needed in that watershed. Then we can scale it up.

Lauren Lurkins: What would be NREC's involvement? Would NREC fund it?

Julie Armstrong: It would make sense for the project to come through our RFP process. It's not listed as a priority in this current RFP, but it could be listed in the next one and could come to the NREC Council as a special request.

### **Additional Implementation Scenario Development**

Trevor Sample: I brought this up at the Policy Working Group meeting in December. Illinois EPA is going to have an agreement with Dr. Reid Christianson to develop additional implementation scenarios with different combinations of practices, so that we can have more information and graphs in the Adaptive Management chapter of the report. This would give us an idea of the scale needed to reach both the long-term and interim goals. My goal is for him to complete this by the fall so that he can present it at the 2020 NLRS Workshop on November 6. He would be using the established BMP performance efficiencies, could potentially update costs, and said he would develop six or nine different scenarios, with about half focusing on meeting the interim goals.

Steve Stierwalt: Would it be useful to talk about what kind of scenarios would be the most beneficial for a particular area? Like what would be most beneficial for the tile-drained areas or the phosphorus areas?

Trevor Sample: I can talk to him about it. We hadn't talked about that specifically. We're trying not to be prescriptive. Except for cover crops and tillage, the practices for those areas are mutually exclusive and we need to know statewide what those numbers look like.

Steve Stierwalt: It could be useful for the SWCDs and maybe local farmers. It's hard to tell how statewide practice goals affect individuals. But if you have examples on how it could be met in a particular area, it could make it easier to know what to do.

Trevor Sample: The scale of implementation is so large that it could be difficult to tell. I can talk to Reid.

Emily Bruner: I've been looking at metrics we could use consistently for calculating load reductions and have been playing around with numbers from the science assessment. It would be helpful to have some numbers by county.

Trevor Sample: It could be helpful for local goals.

Emily Bruner: There might be room somewhere in the Biennial Report for a mixture of statewide and local goals.

Trevor Sample: And that goes back to BMP performance – different BMPs perform better in certain areas. Eventually, we'd like to get regional performance for BMPs, we're just not there yet. We encourage local watershed planning and implementation.

Lauren Lurkins: When Reid is doing his work, is he looking at the science from the original science assessment? There were some assumptions built into that. Some scientists who look at it now wonder what the numbers are based on.

Trevor Sample: It goes back to BMP performance. Reid is going to use the same numbers because we haven't had anyone suggest different BMP performance numbers. I want to talk about the assumptions of how the practices themselves were written. There may be some practices that we want to include and others we want to eliminate. It depends on how we want to look at some of these practices. We can make strategy goals a bit more implementable and easier to track by acres. Some of the practices are currently difficult to track.

Julie Armstrong: This is separate from the process of reviewing the practices?

Trevor Sample: Yes.

Julie Armstrong: The science has to be submitted by December of this year?

Trevor Sample: Yes.

Julie Armstrong: Shani is working on saturated buffers and WASCObS, since those are not in the strategy. So that review process is happening, just not as part of this work?

Trevor Sample: Right, a few people at the 2019 Illinois NLRS Partnership Conference said we need to be looking at additional scenarios.

Julie Armstrong: So Reid is going to use the current removal rates in the NLRS, but there is potential for those numbers to be updated?

Trevor Sample: Right. I think there could be some small tweaks. That's why we have a system where we can update the strategy when we need to update it.

Lauren Lurkins: We took what we had at the time for the purpose of creating a strategy and now we're using it for lots of different purposes. It makes sense for someone to take a fresh look at it.

Trevor Sample: Are there any practices the AWQPF would like to remove or not include in the implementation scenarios?

\*No response\*

### **Rock River Watershed Nitrate Load**

Trevor Sample: The updated science assessment showed an increase in nitrate load for 2013-17 in the Rock River watershed. It also experienced an increase in water flow. We brought it up at the NREC Live event in February and perhaps we will have some studies.

Kevin Rogers: The watershed covers a unique groundwater environment up there. It ranges from deep bedrock aquifers to shallow, sandy aquifers. What I would propose is that BMPs include some of the groundwater issues up there and measure impact on the Lower Rock and what kind of practices they use for fertigation or fertilizers. In the lower part of the Rock basin, it's shallow and different than the upper basin, where it's deeper. The distance is quite a bit different in the north and south watershed. There's a hydrogeological difference, so the practices will be different. In the northern part, everything would go to the river. In the southern part, that's not so sure. There needs to be additional monitoring or additional sampling where the Green River comes in.

Trevor Sample: There are probably some additional ambient monitoring stations we could look at.

Kevin Rogers: Everything from Byron to Streator is different.

Trevor Sample: We have plenty of data that Mclsaac used. What's changed in the last five years? Dramatic agriculture practices or more tiling?

Kevin Rogers: There is a center pivot irrigation system in the south that might have an impact, if the direction of flow to the river has changed or how they fertilize those fields.

Eliana Brown: How long have you been monitoring that?

Kevin Rogers: We've had wells there for about 20 years. The irrigation system should have an impact on that river.

Lauren Lurkins: I think back on the first nutrient strategy. I think Warren [Goetsch] and Dennis McKenna put together a chapter on groundwater implications. We've been more focused on the surface water.

Trevor Sample: When it comes to practices, I'd need some education on what affects groundwater instead of just surface water.

Kevin Rogers: The irrigation.

Trevor Sample: We have priority watersheds that are high in nitrogen that don't have irrigation in the whole watershed. If we look statewide the amount irrigated is small compared to the rest of the state. If that's an issue in the Rock that we need to look at, let me know.

Kevin Rogers: It's an issue in the Rock and it's an issue in Illinois.

### **Biennial Report Discussion**

Trevor Sample: The 2019 Biennial Report is a much larger report than the one released in 2017. We put a lot of work into these reports and want them to be useful. In both reports, the agriculture chapter is the longest chapter. Do we want to leave it alone and not worry about size, or shorten it somehow? We just want your feedback for next year's report.

Steve Stierwalt: I wasn't around when this started. Was there a discussion of what the goal was for reporting? Is it just the idea of reporting numbers as we see them, or what is the goal?

Trevor Sample: We said that every two years, we would put out a Biennial Report. We can go back to that.

Steve Stierwalt: I'm not dissatisfied with the report at all. When we try to make it better, we just need to think about what we're trying to do.

Trevor Sample: For reporting, we try to follow the logic model. We report on progress and have turned the Biennial Reports into a way to update the NLRS as we go.

Julie Armstrong: Going back to the way Iowa reports, we're still in that phase of changing behavior then making changes on the land. If there's ever a question of what agriculture is doing, the agriculture chapter is the place to look. And the agricultural sector is doing a lot.

Trevor Sample: That's why it's the biggest chapter.

Lauren Lurkins: Iowa does annual reporting on implementation activities. I think we're meeting the guidelines on how to report. It's going to be hard for someone not following this issue to understand what it means. It's important to show everyone that activity is happening. The page number isn't a concern for me.

Trevor Sample: I'm not looking to not report on anything, just a question of whether some information should be put in an appendix. But if I'm hearing that everyone's happy with how it is, we'll keep it the same for the next report. I'm so glad that you all made it here today, thank you all for coming and helping with this issue. There are some states that have tens of millions of dollars to spend on their nutrient strategies and they're still trying to figure it out, so I thank you all.

Eliana Brown: Is there a reason to put the partner updates at the beginning of the chapter to put greater focus on it?

\*not reason to change\*

Trevor Sample: Are there any other comments on the Biennial Report?

Lauren Lurkins: Good job!

Eliana Brown, Trevor Sample: It's a group effort, we couldn't do it without all your help.

### **Partner Updates and Next Steps**

Kristi Jones, Illinois Dept. of Agriculture: Trevor and I were at the Hypoxia Task Force meeting. It was quick to hear 10 minutes from each state and we spent a lot of time breaking down into committees. I'm working with Marcia Willhite from Wisconsin on a research committee. We look at the numbers states have and it seems like they're in similar positions. Some groups want to look at legacy phosphorus and it may be important to catalogue research. Our group meets for the first time in the next couple weeks, so I'll update everyone on that. Chris, Trevor, Brian Rennecker, and I are meeting with our counterparts in Iowa.

Trevor Sample, Illinois EPA: I'm going to work with federal agencies and other states to address water quality monitoring issues. Each state had about 10 minutes to share their updates. I was blown away by some of the resources these states have for their efforts. After the Baton Rouge meeting last May, the feds asked the states to tell them what they needed help with. Iowa took the lead in preparing a letter detailing state's needs and the feds split us up into committees to work on it. Kentucky is in a similar situation we are with losing state funding for super gages. I talked about the watershed coordinators and podcasts, which the other states were interested in.

Jason Solberg, Illinois Fertilizer & Chemical Association: In an ideal world, we'd still be working with Agrible. We're not going to stop looking for a replacement because we want to create a platform to get the information directly from the retailers. Jean gave a presentation on the fall 2018 survey results. Since then, we've completed a spring 2019 survey and we are sending out a fall 2019 survey soon. Until we find another entity to replace Agrible, we will continue sending out our surveys. We want to contribute as much as we can.

Lauren Lurkins, Illinois Farm Bureau: We tuned into the webinar on the Hypoxia Task Force, we thought you guys did a great job. I think it's important that we have leadership from our state agencies. We added Austin Omer and we have a lot of good ideas, but that does mean more work for us. We decide what gets funded at the state office and we always have more requests than we can fund. This year, we were able to go up to \$150,000. Look out for more information on field days. We have 15 projects in 29 counties. We've also heard from a lot of our farmers and they are weighing in on what NREC should research.

Kim Martin, Farm Service Agency: We will be working on collecting cover crop information.

Guanglong Tian, Metropolitan Water Reclamation District of Greater Chicago: We made a guide with Illinois Extension Crop Sciences. We measured the effectiveness of perennial grass buffers in Fulton



County and did a watershed comparison. We continue to work with the Farm Bureau and look forward to more field days this year. Continue the NREC project and biochars.

Justin Ramey, Illinois Dept. of Natural Resources: I am the new representative from the Illinois DNR and am working closely with FSA on CREP. The Illinois DNR is finally fully staffed. Michelle Bloomquist started in May and I started in September. We're working on making some fundamental changes to the program with 15 year easements with the potential to extend. We would remove the 35 year option and are looking to reduce the size of the tracts to 10 acres to attract smaller landowners. We're also working with Laura Keefer and her group at the Illinois State Water Survey to see if our CREP acres are affecting nutrient loads.

Steve Stierwalt, Association of Illinois Soil and Water Conservation Districts: Our main partner is NRCS and they have a hard cap on the number of employees they can have across the state. The way EQIP and CSP work is that the money is attached to the program, so they have more money to spend than they have staff to get these things out the door. Our goal has been to increase our technical capabilities so that we can take some of load that they're unable to get to due to understaffing. There are so many great efforts that are represented here today and many will partner with a local SWCD. There is increasing demand for the services that we provide, so we are asking for an increase in funding so that we can increase our technical capabilities.

Julie Armstrong, Illinois Nutrient Research and Education Council: We put out an updated cover crop guide, which came out last fall. It has been well received and we have sent out over 7,500 copies, many of which went to SWCDs, county farm bureaus, and Extension offices. The biggest focus was our February 13<sup>th</sup> NREC Live event. We had over 120 people in attendance. There were several 30 minute presentations, which are available on our YouTube channel. In addition, we had a poster contest with almost 30 students from the University of Illinois, Southern Illinois University, and Purdue. We developed our 2021 RFP and the biggest difference from last year is that we are looking to get into the next level of research. We are looking into the causes of increased loads in the Rock River Watershed and Illinois River watershed. Look for that, it'll go out on our website and other distribution channels.

Emily Bruner, S.T.A.R. Program: At the recent annual conference, there was an initiative to pass S.T.A.R. nationally. To date, we have 64 counties enrolled in Illinois, 3-4 additional Illinois counties nearly enrolled, and a few in Indiana as well. The Department of Agriculture is going to require anyone applying for the cost-share program to fill out a S.T.A.R. sheet for FY20. This is the first year that the program will move from reporting to documenting metrics to get a baseline.

Emily Bruner, American Farmland Trust (on behalf of Kris Reynolds): American Farmland Trust is continuing to work with the cover crop discount program and are excited about the partners and engagement around that program. We just got news from NRCS that they will have additional funds as well. At the national level, AFT has been doing soil health case studies and as of this week, we just released the second one for Illinois. AFT recently hired a new employee, who is splitting her time helping to grow the Illinois Sustainable Ag Partnership. Emily will share the S.T.A.R. Program sheet with the partners so that they can familiarize their farmers with it.

Ryan Arch, Illinois Land Improvement Contractors Association: Illinois LICA had a busy year with a focus on edge-of-field practices and water quality. We will have more field days this year as well.

Adrienne Marino, The Nature Conservancy: The Nature Conservancy is going to add capacity to their program and is hiring someone new. Soil Health Training is expanding to the Quad Cities area in June, in partnership with Illinois Corn Growers and Illinois Extension. We will reach out to several target audiences, including outreach professionals to be more comfortable in talking to stakeholders.

Dennis Bowman, University of Illinois Extension: Haley Haverback-Gruber and Jennifer Woodyard are doing great work, as many of you know from working with them. They're pretty busy between soil health training, workshops, and watershed planning, so we need to be strategic about how we use them. The Illinois Extension Commercial Agriculture team distributed the Illinois NREC Cover Crop guide and Duane Friend hosted a webinar on soil and water, which was targeted to CCAs. However, the webinar had low turnout so we would like your thoughts on why that might be.

Eliana Brown and Kate Gardiner, University of Illinois Extension: We met with other Extension staff to capture what Extension is doing for strategy implementation.

Megan Dwyer, Illinois Corn Growers Association: I echo what Emily had to say about the cover crop insurance program. Our Precision Conservation Management program continues to grow and we received a grant that we're excited about. We're also kicking off a new water quality testing program and mailings will go out to all Corn Grower members. We're hosting a conference in June, which will target farm influencers. Illinois Corn Growers also received a grant for a promotional blitz on Conservation Habitats, Soil Health, and Nutrient Management tools.

Chris Davis, Illinois EPA: Illinois EPA Bureau of Water has a retired staff person back on contract to update the monitoring strategy on surface water. They are updating the nonpoint source management program and will identify Illinois' partners and accomplishments. We are also putting together a presentation during the AISWCD summer conference to give an update on the strategy and encourage them to reach out to the NLRs partners.

Lisa Martin, CCA Program Coordinator: Addressing Dennis' concern, I think we have so many more soil and water continuing education credits than we used to have. We make a concerted effort to educate our CCAs and there are many more opportunities than there were ten years ago.

Trevor/Eliana/Kristi: Thank you all for attending. PWG is Mon, Mar 9 and Nutrient Partnership Workshop is Fri, Nov 6.

*Adjourn*