

## Silver Creek Pilot Watershed Stakeholder Meeting: September 23, 2015

ATTENDEES:	Bill Hafs/NEW Water	Bill Schaumburg/Tilth Agronomy	Wes Johnson/Oneida Nation
	Jeff Smudde/NEW Water	Barry Bubolz/NRCS	Jason Spiegel/Oneida Nation
	Erin Wilcox/NEW Water	Gary Van Vreede/U.S. Fish and Wildlife Service	Jon Habeck/Oneida Nation
	Brent Brown/CH2M HILL	Matt Dornbush/UWGB	Jim Snitgen/Oneida Nation
	Megan Bender/CH2M HILL	Kevin Fermanich/UWGB	Paul Reneau/USGS
	Jeremy Orr/Alliance for the Great Lakes	Paul Baumgart/UWGB	Mike Grimm/The Nature Conservancy
	Todd Brennan/Alliance for the Great Lakes	Tina Reese/Avantti Environmental Group	Jessica Schultz/Fox-Wolf Watershed Alliance
	Don Schmidt/AgVentures	Nick Peltier/Brown County LWCD	Nicole VanHelden/The Nature Conservancy
	Nick Vande Hey/McMahon	Brent Petersen/Brown County	Adam Abel/NRCS
	Jeff Polenske/Tilth Agronomy	Mike Finney/Oneida Nation	

PREPARED BY: CH2M

DATE: October 16, 2015

This meeting summary follows the meeting agenda outline.

### Welcome and Introductions

Bill Hafs/NEW Water welcomed the participants and thanked everyone for their work on the project, and commented on the quality of the data gathered and cooperation between agencies in the Silver Creek pilot to date. He commented about the need for continued cooperation between groups and how the critical stage of the Pilot is now, where all the planning to-date can lead to implementation.

### Meeting Purpose and Review of Meeting Agenda

Jeff Smudde mentioned the purpose of the meeting was to gather stakeholders together, receive feedback from everyone involved and drive the project forward. He mentioned the meeting was an opportunity for learning more about other local projects/ancillary projects. Jeff welcomed feedback and encourage the meeting to be interactive.

### Review of Project Vision and Goals

Jeff Smudde reviewed the project vision and goals and their alignment with the project status and plans for upcoming tasks. He stressed the importance of coordination and collaboration with stakeholders for implementation. There were no comments or questions on the project vision and goals.

## Review Accomplishments, Schedule, Lessons Learned and Opportunities – So Far

Brent Brown/CH2M reviewed a 5-year schedule that tied the pilot project to the NEW Water permit schedule. He summarized major accomplishments of the pilot so far and what remains to be done, including the walking of the remaining 10 fields where grower/landowner agreement has been obtained but crops were too high at the time of the field walks to accurately assess the opportunities for BMPs. Brent also reviewed the schedule of the project and timeline for completion of the pilot, and emphasized implementation activities in 2016 and 2017 that will be needed for the watershed water quality to respond in advance of the 2018 decision by NEW Water for their TMDL permit compliance option.

There were no comments or questions about the accomplishments and schedule of the pilot.

### **Implementation, Funding and Cost Share Approach**

Brent Brown discussed the funding sources for the implementation of BMPs, he discussed how some growers were adamant that funding not be tied to government – many seem very opposed to funding from federal entities.

Jeff Smudde discussed how NEW Water is attempting to stretch their funds and make them go as far as they can especially in terms of July and October EQIP funds, in combination with GLRI and other grant funds. Jeff noted that NEW Water is further refining the grant funding strategy to leverage resources as much as possible, while also prioritizing implementation given the short window of the project timeline.

### **Grants Update and Implementation Agreement (Cost Share Agreement)**

Jeff Smudde discussed overall GLRI grant – At this point the project is 6 months in, and need to prepare a semiannual report in the next few days. NEW Water is working on Quality Assurance Project Plan (QAPP) documentation and has recently hired a grant specialist Annette Weissbach. He also mentioned the Cost Share Agreement contracts are in the final draft stage and are being reviewed. He mentioned the contracts will be administered by Oneida staff for Oneida owned parcels and Outagamie County for the remaining private lands. The contracts will be negotiated and discussed with the grower/landowner, with final approval from NEW Water prior to any installation in the watershed.

Todd Brennan/Alliance for the Great Lakes asked if we need to be very clear about where funding is coming from. Brent Brown/CH2M answered – It is not clear right now if the funding source is actually important to the grower, or if having federal grants (i.e. tax dollars) used for growers with very social conservative views will prevent implementation. Brent noted this is only a few examples, but has come up more than once in grower discussions. Brent noted that having funding sources from non-federal grants would help to remove this barrier, such as Ducks Unlimited and The Fund for Lake Michigan.

Jessica Schultz/Fox-Wolf Watershed Alliance asked if the contracts look different than NRCS contracts, and do the expectations that go along with the practices vary depending on where the funding comes from or are we using standard language no matter where the funding comes from? Jeff Smudde/NEW Water responded that it's complicated; that NRCS funding and GLRI funding have specific rules and requirements that go along with them. He noted that depending on where the dollars come from determines what the language or the focus is, and this is trying to be worked out in the current drafts.

Jessica Schultz asked if the contracts could be shared and if the pilot anticipates landowners signing more than one contract. Bill Hafs/NEW Water responded yes, NEW Water is currently sharing the document now with Oneida and Outagamie County and will be able to share once it has been reviewed by those entities. Jeff Smudde responded yes, part of the strategy of using whatever funding is available will mean multiple contracts.

Todd Brennan asked at what point does the landowner get involved with these discussions? Brent Brown responded that we have had meetings with growers/owners and they are aware of the project.

The pilot had an owner meeting last February, with some very engaged and some are very hands off. Brent noted that we are defaulting to coordination with the grower first, hard practices though require owner engagement. Brent noted that the landowner is generally accepting of what grower wants to do, as long as owner isn't losing revenue.

Todd Brennan asked if the cost share agreements had standard share amount from the farmer or is it field by field, farm by farm? Brent Brown and Jeff Smudde responded that there's no table saying the pilot will pay "X" amount per lineal foot. Brent noted that some growers are looking for cost of seed and they'll take care of maintenance, labor, etc. Brent noted that not all fields are the same in terms of importance or priority and higher priority practices will take precedence.

Todd Brennan and Mike Grimm asked if the economic impact will be tracked through this project, such as impacts on yield and farm income, and mentioned that it would be interesting to report at the end which practices resulted in what yields on what fields. Brent Brown responded that the pilot has not discussed that level of tracking yet, but would welcome feedback on how far to track. Nick Vande Hey/McMahon noted that it might be a challenge to draw definitive conclusions about yield and economic impact because of weather and other discrepancies between fields and growing years. Jeff Smudde suggested that the agronomists will need to determine what the impact will be economically because they know more about what's actually happening on the fields. Jeff noted that we could track statistics but anecdotal evidence and word of mouth might be more important. Jeff Polenske/Tilth noted that SnapPlus will track the yield for the various practices.

## Brief Review Soil Sampling Results

Brent Brown/CH2M reviewed the soil sampling results and how it drove the prioritization of the field walks that have been completed or that are still to come. He reiterated that a small number of fields are driving up the amount of P in the watershed.

### Enhanced Nutrient Management Plan and Conservation Field Walk Update

Brent Brown/CH2M discussed the usual method of having three different eyes on the field to help determine the opportunities for BMPs on those fields. He reviewed the method of reviewing all of the practices field by field in a large room with all of the decision makers present. He went over the iPad collector tool that allowed for those in the field to be completely paperless and allowed for ease of recording various practices and reviewing them especially without requiring post processing time at the end of the field walks. He also brought up the online collector tool and reviewed several fields for EQIP and BMPs and showed what fields will have practices implemented in 2015.

There were several questions about tiling in various fields, and Brent answered by mentioning the desktop analysis that was done prior walking the fields, which looked at determining where field tiles could possibly be located so when the fields were walked, suspected tile outlets and inlets could be identified. Some were in fact found, and broken tiles were also found while doing field walks. These were prioritized with possible BMPs to alleviate them as well. Another question was asked about the confidence of the contribution of phosphorus from drain tile, and Jeff Smudde/NEW Water answered that landowners are unclear whether or not there actually is tile present in their fields, he also mentioned that NEW Water does have interest in tile drainage data, there just hasn't been much of an opportunity when it isn't known for sure where it is. During wet periods would be the best time to look for tile inlets/outlets.

Questions were then asked about whether sampling had been done at any known tile outlets, and Jeff Smudde/NEW Water answered that it had not yet been done. Jessica Schultz/FWWA mentioned that there is a need to coordinate with FWWA about future opportunities to monitor known tile outlets. Mike Grimm/The Nature Conservancy mentioned there have been studies about using GPR to find some

tiles, which is something to think about possibly for this watershed if finding all of the tile is something that becomes a priority.

Brent Brown/CH2M showed how some simple practices had resulted in conservation practices on some of the fields that were able to be implemented quickly this fall, specifically reviewed alfalfa conversion on ONF\_41, which is a good example of quick turnaround of ideas being put into practice. He showed a few more practices that had been able to be put into quick turnaround practice on a few of the fields in the watershed. A question was asked about whether SNAP+ runs were being done on every field, and Brent Brown responded that they were.

Jessica Schultz/FWWA then asked about how many people are involved with the on the ground assessment and how to scale it down to a more real number for a larger watershed. She also asked about the meetings held to aggregate the field walk information. Brent Brown/CH2M answered that the project required about 40 hours of desktop analysis and field walks resulted in about 6 man hours per field. He mentioned the project was front-end heavy in terms of man-hours because of the digital set-up (AGOL), and Nick Vandehey/McMahon mentioned that it started out pretty slowly, but things get more efficient as they move forward. Brent Brown discussed the set-up of the field walk review meetings, and that the next step is finishing up the field walks and having draft conservation plans ready for October 15. He mentioned that the AGOL tool is the way to go and the approach should be considered for a full scale situation.

Todd Brennan/Alliance for the Great Lakes asked if the project has a success story of someone who's done a hard practice and soft practices already, and if there were any showcase farms already in the watershed. He also asked if there was an overall outreach strategy and is the project going to be equated with taking land out of production and whether or not focusing on the dual benefit of the watershed and the farmer is part of the strategy. Brent Brown/CH2M responded that the project is looking at the baseline from the beginning, and that Oneida, Diederich and Robertson were examples of farmers with practices already implemented. He also stated that communication with growers is important for capturing momentum in the watershed. Todd Brennan/Alliance for the Great lakes stressed the importance of farmer to farmer communication and the benefits of farmers seeing one another be successful with BMPs and the project. Brent agreed.

## Demonstration Farms Update

Brent Petersen/Brown County discussed his project of increasing soil health to increase yields through no tilling, inter-seeding, and cover crops. He discussed that the project is a paired Watershed approach with EPA, GLC and USGS. He discussed that the point of the project was to determine if a battery of BMPs reduce the nutrient and sediment loads coming off the farm fields into the watershed. He went over how as little as 0.4 inches of rain results in large amounts of runoff, and how the infiltration rates of unhealthy soil are very low. His goal is to increase the amount of infiltration on his project fields to around 2 in/hr, which he believes would result in very minimal flow of runoff from the fields. He discussed how his main practices include getting cover crops planted, doing inter-seeding in various ways (not using aerial seeding due to a tight time window, he prefers mechanical inter-seeders that do not require a minimal time window), and getting the farmers not to till their properties. He revealed that the growers were initially very nervous about trying out the new practices, but were also very interested in seeing if they would work.

Brent Brown/CH2M asked about the incentive of the farmer to participate in the project, and Brent Petersen/Brown County responded that there was some funding available, but that the farmers themselves were incredibly interested in participating and seeing what would happen, and that some even invested their own money in updating their equipment to improve the soil conditions (one farmer invested \$18,000 to convert his planter to no-till). It was asked how long was the rotation to get the soil loose without tilling, and Brent Petersen responded that it took less than a year and discussed the need

to build organic matter levels up for the crops to produce the best yield, and that the biggest challenge to cover crops and inter-seeding is the equipment necessary. Jessica Schultz/FWWA then asked if aerial seeding would improve when soil conditions improve, and Brent Petersen responded that it would, but it's hard to let growers know who don't have well-conditioned soils.

Brent Petersen/Brown County then discussed the low disturbance manure applicator, which can be run over an established cover crop or in between hay cuttings. He discussed how it allows the farmer greater flexibility, how it applies the nutrients when they're needed by the crop, and that it was a part of the GLRI grant for the project. He mentioned Brown County was hoping to get a second machine for more farmers in the area to use it. He mentioned that it is very promising equipment, and farmers are excited about using it. A question was then asked about the length of time it took to determine if the choice was viable economically for the farm, and Brent Petersen/Brown County responded that it was a loaded question, but that is generally pretty quick. Farmers will see a huge turnaround when you increase organic levels through no till and cover crops. It's a challenge for producers, but organic matter needs to be increased.

Jeff Smudde/NEW Water asked Jessica Schultz/FWWA if the Silver Creek pilot could use the Outagamie county inter-seeding equipment, and she responded that it is for the Plum-Kankapot project, but could be used after their project is over since it was purchased with GLRI money. Brent Petersen/Brown County then mentioned that it can be simple to get started, if growers just use no till drills, and that specialized equipment broadens the ability to keep up the practices but getting started is fairly simple to do.

## Water Quality and Biological Monitoring Update

Erin Wilcox/NEW Water went over her water quality monitoring throughout the watershed, discussing where the monitoring locations are and what data she is collecting. She discussed the 0.075 phosphorus requirement needed to be met by the pilot project in order to show that Adaptive Management could be successful at reducing the phosphorus to appropriate levels. She discussed how we will have access to the GLRI grant soil phosphorus testing information and that Crook Rd has the highest phosphorus levels in the watershed. She went over her graphs that showed the total suspended solids (TSS) spike at County U.

A question was asked about the relationship between the phosphorus and TSS spikes on the graphs being presented, and Erin Wilcox/NEW Water responded that her guess is it's legacy sediments at Crook Road, since it doesn't correlate with the TSS spike. She then discussed how they are going to take in stream sediment samples to determine if it is a legacy problem in the soil.

Jim Snitgen/Oneida Nation then went over the biological assessment that he is in the process of performing on the watershed. He discussed the 25 meter reach starting at the culvert, and how the habitat is of much higher quality upstream of the culvert. The TSS is a big issue in that part of the stream, though he did mention there was really good diversity in the sample, and that there will be a total of 5 sampling events which should give better statistical legitimacy.

## Habitat Implementation Team Updates

### **Wetlands - DU/USFWS and USFWS/Oneida**

Jeff Smudde/NEW Water went over what the wetlands teams are working on, and how they are winnowing the list of potential wetland sites to a more focused list. He then reviewed the sites they are looking at.

### **Vegetated Water Treatment Systems Update**

Matt Dornbush/UWGB discussed the vegetated water treatment systems update, and how the GLRI money came later than expected. He mentioned the process was delayed by not having an employee in

place to carry out the QAPP, which covers all monitoring and data control, sediment nutrient retention design. He mentioned that Mike Troge/Oneida is working on site placement and is going to monitor P levels in the buffers. He said because of the timing of the funding, the work has been pushed back a year. A question was asked about opportunities for setting up monitoring from a tile outlet, and he responded that his project is looking strictly at soil and not water quality.

### **TNC Wetland Project – Fund for Lake Michigan**

Mike Grimm/TNC and Nicole Van Helden/TNC discussed the three components of the Fund for Lake Michigan project, restoration monitoring and outreach. He discussed how they have a concept and a conceptual design, but they need some onsite measurement to determine if the design will work. He said nothing happened this year except for some measurement and design, but that earth moving will take place next summer. He went over the monitoring plans for the wetland, including the culvert downstream of the wetland location, how they will be performing wildlife surveys, and doing comparisons of before and after for the water quality and habitat improvements. He mentioned there is funding for outreach as part of the project as well. Todd Brennan/Alliance for the Great Lakes asked if the primary audience for outreach is agricultural, and Erin Wilcox/NEW Water responded that there is a pending meeting to determine that. A question was asked if this is an Oneida owned field, and Jon Habeck/Oneida Nation responded that it is. Todd Brennan then asked if the removal of land from production was being compensated in some way, and Jon Habeck responded that the field is already in permanent cover and so isn't producing and doesn't need compensation.

### **Discussion on Overlap and Coordination with Conservation Planning**

Jeff Smudde/NEW Water went over the overlap and coordination with conservation planning, and mentioned that three groups need to stay in contact and that he is the intermediary between the 3 groups. He said there needs to be consistency in the approach, mission, vision and goals in improving water quality

## **Fund for Lake Michigan Presentation**

Casey Eggleston/Fund for Lake Michigan discussed the Fund for Lake Michigan and discussed that the Fund for Lake Michigan is a private foundation, funded through the settlement of the Oak Creek power plant. He went over lessons learned from various projects can be spread out to those who are doing similar things. He mentioned that their funding is more flexible than a lot of sources because it's private. He went over the twice a year grant cycle, fall one closes on the 25<sup>th</sup> of September, Spring Cycle starts end of January, pre-proposals by mid or end of February

## **Managed Grazing**

Adam Abel/NRCS went over his work with managed grazing. He mentioned working with several land owners in the area with implementing many acres into prescribed grazing. He went over rotational grazing has denser sod than alfalfa, significantly improves the ability to hold P on the land. He mentioned it was a real opportunity to study this and determine what is really going on with P movement. Several farmers in the Lower Fox River watershed already implemented it, all are excited and glad they've done it. He was asked if these are whole herd grazing patterns, and he responded that the project is focused solely on dairy heifers and dry cows.

Brent Brown/CH2M asked what is the potential for this in Silver Creek, and Adam Abel responded that Silver Creek fields could easily maintain 1 animal per acre, resulting in healthier cows and harvestable hay. A question about manure application on managed grazing was asked, and Adam Abel responded that it can be done, as long as it's specific and the cows have already gone through the acreage.

## SWAT Modeling

Brent Brown/CH2M discussed that CH2M has just begun this process and will meet with UWGB next week to discuss where to go with the SWAT model and how best to collaborate.

## Fox Wolf Watershed GLRI Project Update and Coordination

Jessica Schultz/FWWA – Discussed receiving funding to implement in the Plum/Kankapot watershed. She mentioned there is \$1million for Outagamie county, plus \$2million or more in GLRI funds for field borders, aerial cover crop applications, and other BMP installations on the farm fields in the watershed. The project is set for 5 years, and the landowners are very open to trying cover crops from aerial field application and everyone seems ready to cooperate to get the project implemented. She mentioned it was a paired watershed study to see the impacts of conservation vs no conservation between the East Plum and the West Plum, and she mentioned that the Nature Conservancy (TNC) is also working with the project for wetland work. She discussed the wetland areas in her project were to treat tile outlets, and would include monitoring at both the inlet and outlet to determine how much phosphorus is coming out of drain tiles and what is the best method to treat it. She went over the outreach component and how to look at conservation strategically and prioritize. She went over what do we need the GIS database to eventually tell us, and discussed the 9 key element plans for highest loading subwatersheds to prioritize the order of attack for the funds and BMPs of the project.

## Grower and Owner Update

Jeff Smudde/NEW Water went over the next steps for moving forward with landowners, and discussed how the plan is to put together a nice 2 page information handout flyer with descriptions and timelines to inform the growers of the plans for the project.

## Feedback on Stakeholder Meetings and Other Topics?

Jeff Smudde/NEW Water also went over feedback from this meeting, and asked several questions of the audience about their expectations of the meeting and whether or not it was worth their time. Todd Brennan/Alliance for the Great Lakes asked if there were any thoughts about inviting state or county reps to this meeting and whether there had been any interactions with elected officials about this project. Bill Hafs/NEW Water responded that the time wasn't right yet to do so and this type of meeting is probably too much detail for what they are interested in.

Jeff Smudde/NEW Water then went over his hope for the next meeting to include conversations and presentation by the agronomists in the watershed, since they are the on the ground folks and trusted by the growers. He went over the fact that now is the time to sell the practices to the farmers and to get the BMPs in the ground.

## Next Steps and Adjourn

Jeff Smudde/NEW Water went over the 'Next Steps' slide and discussed that the next stakeholder meeting is going to be held March 23, 2016. He also asked for questions and for anyone who had feedback to please email him or those involved on the project. He then adjourned the meeting.