

Meeting Notes
Leadership for Wisconsin Watersheds – March 20, 2012 in Stevens Point

Watershed Manager's Panel – What Makes Their Projects Work?

Pat Sutter, Dane County Conservationist – Pecatonica River / Pleasant Valley Project

- Purpose is to test the WBI hypothesis- that targeting watershed implementation to the fields that contribute the most nutrients will improve water quality
- Many project partners, 10 year project – 2006-2015
- Implementation funding critical to getting this started
- Using the Wisconsin PI to target high P loss areas, mapped field PI across watershed
- 12%-15% of fields had PI above 6, those are not evenly distributed
- Night pastures, grazed woodlots, historical animal areas can have high PIs
- Important to address the whole farm—not just cropland
- Initially focus on areas above 6, Phase 2 between 3 and 6
- Farmer buy-in important – what do they think should be done to involve others?
- Communication with agronomists important
- Estimate that they will need a 30% reduction to see a measurable effect

Greg Olson, Project Coordinator-- West Branch Milwaukee River Project

- South of Fond du Lac
- Project to acquire data to link agricultural land management with water quality
- Using Snap Plus
- Early efforts to get nutrient management plan information was not useful to farmers or project, now having plans reviewed by an independent agronomist and revisions made
- Found some farmers did not believe individual fields could cause problems. Using edge of field flumes and display of water samples collected to demonstrate impacts

Brown County - -Bill Hafs

- Historical perspective—from Priority Watershed projects to today—more than 8 million dollars invested
- Most popular practices have been manure storage, barnyard runoff and nutrient management
- Least popular have been grassed waterways, buffers and cover crops, this might reflect the decreasing land area in farms (since 1954, farmed land has gone from 300,900 acres to 162,000 acres)
- From the perspective of some private agronomists, the 590 plan good for decisions on where to spread animal waste but the clients may not want recommendations for waterways and buffers
- Agricultural land source of 44% of total phosphorus in Lower Fox and Duck Creek
- Need qualified staff to make projects work
- Need marketing to make projects work
- Brown County has a \$0.50/acre fee for nutrient management planning. This is a service for the farmers and they try to convey that it must be paid for
- Survey of dairy farmers in Lower Fox found 86% agreed it is their responsibility to protect water quality. Only 14% willing to pay more to improve water quality.
- Dairy farmers believe water quality problems primarily from activities other than agriculture
- Three quarters of dairy farmers plan to maintain or expand herd size
- Brown County puts conservation practices directly on property deed
- Do we need to ask if there is a limit to the number of cows we can carry on the land?

Big Eau Pleine, Marathon County- Paul Daigle

- Watershed and reservoir are both important economically – 850 farms, important recreation and tourism, reservoir is a WVIC facility to augment flow in the Wisconsin River for power during low flow
- 238,000 acre watershed, 60% cropland, 17,000 cows/17,000 heifers
- Fine textured soils, flashy hydrology, low slopes with man-made drainage
- Fish kill in 2009
- Task force formed to remediate reservoir aerator and develop long term strategies

- Aerator was restored and long-term management plan developed
- Many partners—Citizens Organization, Local Government, State and Federal Agencies
- Watershed project being developed with monitoring, education, nutrient management and assessment of methods to reduce nutrient loss to water

Watershed Managers Panel Discussion

Buffers. Emphasis on buffers in Brown Co has led the question-- what is a stream? A stream network may start at 60 acres. They appear to be seeing an increasing acceptance of the buffers. The research suggested it was the right thing to do. With increasing expense of inputs on crops, the economic value of the near-stream area may not be worth the expense of the inputs, there may be more benefit to be in a buffer. In Brown County these can be harvestable buffers—farmers want that. It can be an important source of forage in Brown County where land is in short supply.

Tiles —The Milwaukee River project has been exploring options with respect to tile drainage water management—including water control structures on the outlet. The Dane County project has been including tiles in some of their monitoring. In a lot of cases you may not know where the tiles are. Farmers may also now be installing their own.

Follow-up Table Discussions—Key Points Contributed

Topic #1 -- What makes a project work

- Practices that are economically viable
- Need accurate data for targeting
- Stable funding for qualified staff (related comment on exploring fee arrangements, related comment on comparing the investment we make in human wastewater management)
- Knowledgeable partners, partners active in projects
- Positive, pro-active marketing
- Meeting the minimum standards even without cost share
- Land management must be linked to water quality—make the changes that actually improve water quality
- Making the linkage between farmers and water quality
- Know your client – qualified staff important in that regard
- Partners need to be accountable, they need goals to achieve

Topic #2 – What did you see that was innovative or unique?

- Small-scale, such as base of field, monitoring devices. Useful for information and education
 - o Related question—a concern that we apparently continue to need to demonstrate this—how often do we have to demonstrate this?
 - o Is there enough data sharing on the information that has already been collected?
- Merging this small scale (e.g., field) information with larger scale (watershed) planning.
- The discussion on relating the number of animals to the available land base. Do we need approaches to evaluate the mass balance?
- Go directly to the farmers—what do they think the answers are?
- More BMP flexibility
- Be flexible to take on more projects
- Have a regulatory component
- Using monitoring and modeling to target activities
- Expand the role of agronomists but ensure accountability
- Getting projects moving in low resource counties is a challenge
- Connect BMPs to the deed

Afternoon Presentations

Matt Diebel, WDNR Bureau of Science Services, Developing Goals and Strategies to Improve Water Quality

- Phosphorus concentration criteria in Wisconsin, median of a growing season measurements
- Consider statistically evaluating the number of samples you will need to see change
- Other factors beyond fields such as stream channels and stream banks may obscure improvements achieved with upland practices
- Baseflow and stormflow loads may respond differently to management practices
- Baseflow- tile drainage may be important in short term, soil P in the long term
- For lakes, the total load is important
- For selecting a watershed project—limit the other sources of pollutants, consider impact of bank erosion, incorporate ecological thresholds- they may show threshold behavior
- Lag times between change and stream response

Laura Good, UW-Madison Soil Science – The Inventory: What is it good for?

- Snap Plus is a nutrient management tool also being used to provide a quantitative assessment of P and erosion risk
- PI distributions across a watershed—it always has a tail. Example shown where 20% were over a PI of 6
- It is not surprising that most nutrient management plans show a PI of 6—it's a plan and the crop consultant is paid to plan according to the rules. It is also important to determine what actually happened or is happening, and be able to track that as it changes on the land
- The target PI of 6 is not based on water quality
- Not all sources of sediment and phosphorus are in the PI, such as bank erosion, gully erosion, barnyards, grazed woods, groundwater
- Seeking to improve the PI estimates for pastures
- Recommend staying digital in your record keeping
- New tools to merge multiple farms together—MergeFarm Tool
- Important to keep updating inventory as practices change in the watershed—this can be difficult to do, need to go back to farmers, find out what they did
- Recognize that monitoring will show year to year variations, show an example where the ratio between reference and study watershed were generally consistent from year to year

Andrew Craig, WDNR Runoff Management – Nutrient Management Plans That Help Meet Watershed Improvement Goals

- There is a relationship between increasing cost, complexity as you include more activities in your nutrient management plans
- Strive to get more plans used by farmers, consider different marketing tools, farmers may not know about the problems
- Targeting fields may be important for water quality and useful for discussing with landowners
- Landowner identity protection may be an important issue
- Financial resources may be useful to getting plans used
- May be able to provide data entry service, soil sampling, tracking what happens over time
- Advantages of nutrient planning include economics, soil health, and the environment
- Track trends via both monitoring and modeling

Afternoon Discussion at Tables

Question #1 - Key Points on Picking Watershed

- Small scale, consider 12 HUC in size
- A stream that can be improved
- Political and/or economic significance
- Part of a larger effort—eg GLRI, Gulf of Mexico
- Where there is an opportunity to learn or demonstrate
- Is there a land owner who can serve as a respected leader?
- Where the resources, people and financial, are greater than the cleanup cost

- Many small farms versus a few larger farms
- Start with the largest contributors in the watershed
- Is there adequate political and social will to provide an opportunity for success?

Question #2 - Assessing Change

- Map out the practice changes over time
- Use and understand your water quality measures, chemistry, fish, invertebrates, other resource responses
- Track the social indicators
- Important to get accurate data on the land
- Need to understand the sources other than fields
- Track changes on the land, in the water, and in the community
- Communicating change is important

Question #3

Increasing adoption of Nutrient Management Plans

- Make it easier for the farmer to use and relate to
- Target specific areas—propose small-scale changes on a farm—rather than the whole farm
- Offer some type of crop insurance to take away risk of change
- Strip trials or field demonstrations
- Include the entire farm in the plan, including the high risk areas
- Don't penalize the farmer for giving you all the information—don't penalize honesty
- Need for increased staff—additional education and technical assistance for implementation of the plans and staff for checking (follow-through)
- Should every farm be required to have a plan—down to 20 acres or 20 animal units?
- Improve communication skills— conservationists, agronomists, and farmers
- Holding everyone(CCAs and others) accountable
- Farmers should review and understand their plans
- Linking the PI information to water quality standards in the plans
- Farmer-led councils and stakeholder groups involved

Topics for Future Webinars

- How can Wisconsin's new phosphorus rule can work for you
- What's new in monitoring
- What do you need to do a successful monitoring project
- Total integration of farmers, agronomists, agricultural industry into the conservation movement. How to engage Farm Bureau as a partner and/or advocate. Engaging other nontraditional partners such as agricultural lending and faith-based groups
- Clearing house for funding sources—updates on when other sources of watershed funding - this could be added to the website
- Controlling nutrient loss through subsurface drainage
- Watershed projects related to nitrate in groundwater
- Adaptive management 101--- more details on how that can be implemented— how do we start having the dialogue
- Marketing – tools that folks can use to engage and communicate with folks in the watershed and engage stakeholders. This could also be on the website
- Learn from farmers who are involved in making the water quality connection, farmers who are leaders in conservation—why do they care and what motivates them?
- Comment on webinar logistics—don't go over an hour

Opportunities for Sharing Resources

- Sharing Data—how can we improve that
- Communicate with NRCS—how can farm bill programs facilitate this better

- Success story gathering—consider bringing in EPA and legislators
- Have a subcommittee develop a process map for how to develop a watershed project—put it in writing – the planning principals and distribute it
- Get out information on what is being done in other parts of the state—this would be useful to others who want to start projects but are unsure of how to start.

Concluding comments from Steve Richter, The Nature Conservancy, and Joseph Britt, Sand County Foundation

Attendees

Julie Ammel, USDA
Jim Amrhein, DNR South Central Region
Chris Arnold, Columbia County Land & Water
Greg Baneck, Outagamie County LCD
Chris Baxter, UW-Platteville
Connie Billings, WI DNR
Steve Bradley, Portage County Conservationist
Joseph Britt, Agricultural Incentives Director
Amy Callis, DNR
Chris Clayton, River Alliance of WI
Andrew Craig, WDNR
Paul Daigle, Marathon County Conservation
Matt Diebel, WDNR
Casey Eggleston, WIFO
Chris Ertman, Sheboygan County
Craig Ficenec, USDA
Dave Fodroczi, Kinnickinnic River Land Trust
Scott Frank, Shawano County Land Conservation Division
Adam Freihoefer, WI DNR
Ken Genskow, UW Madison-Ext.
Mike Grimm, Door County Project Office
John Haack, UW Extension
Bill Hafs, Brown County
Dan Heim, DNR-Horicon Service Center
Marty Jacobson, UWGB
JT Jenson,
Matt Krueger, River Alliance of WI
Paul La Liberte , WI DNR
Dick Lamers, Tainter/Menomine Lake Improvement Assoc. Inc.
Melissa Malott, Clean Wisconsin
Paul McGinley, UW-Stevens Point
Phil Meyer, NRCS Appleton
John Nelson, WIFO
Greg Olson, Sand County Foundation
Ruth Person, WI DNR
Rebecca Power, UW-Extension
Kurt Rasmussen, WI DNR
Steve Richter, WIFO
Michael Sorge, WI DNR
Pat Sutter, Dane County
Nancy Turyk, UW Stevens Point
Jean Unmuth, DNR Lower WI River Basin
Jim Vandenbrook, DATCP
Michael Vollrath, WI DNR
Laura Ward Good, UW Madison
Allison Werner, River Alliance of WI
Monica Zachay, St. Croix River Association
Dan Zerr, UW Extension