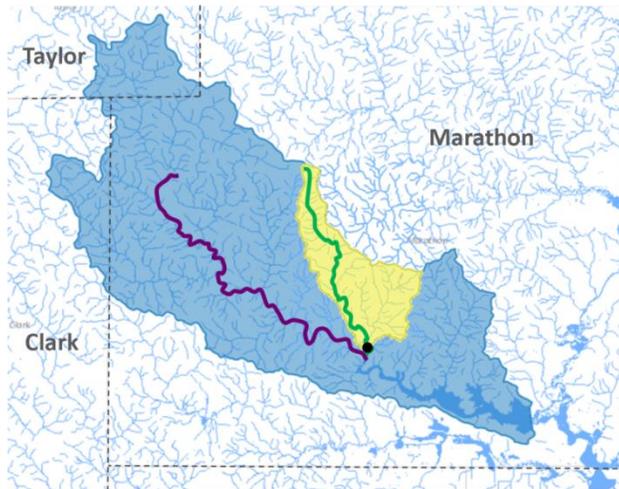




FENWOOD CREEK COMMUNITY ENGAGEMENT PLAN

Hydrologic Unit Code (HUC) 070700021602



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April 2017

Introduction

Fenwood Creek Project

Water quality and fish habitat are degraded within the Big Eau Pleine (BEP) Reservoir by agricultural runoff within its drainage basin. The Fenwood Creek watershed is one of three watersheds within the basin that adds agricultural-sourced soil sediment, organic matter, and nutrients to the surface waters leading to this problem. Nutrients wash off the landscape due to low infiltrating soils and lack of vegetation to absorb nutrients. These nutrients come from exposed soil, fertilizer, or livestock manure. Phosphorus is the limiting nutrient for plant and algal growth in the BEP, so when it washes off into streams it eventually results in excessive algae blooms in the reservoir. These blooms can be toxic to humans and their pets and reduces recreational opportunities in the reservoir. Most importantly, when algae die at the end of a growth season, their accumulation on the bottom of the reservoir and ultimate decomposition consumes dissolved oxygen to levels that can lead to massive fish kills.

Marathon County is concerned not only about the loss of recreational and fishing opportunities in this reservoir, but also the loss of the economic opportunities that an ecologically robust reservoir would offer. In response to these water quality challenges, Marathon County has developed a watershed management plan to address these water quality concerns within the watershed (Marathon County Department of Conservation, Planning, and Zoning, 2016a). An important planning element of the watershed management plan is the commitment to facilitating information and education efforts within the community "...that will be used to enhance public understanding of the project and encourage the public's early and continued participation in selecting, designing, and implementing the appropriate non-point source management measures" (Environmental Protection Agency, 2008, p. 2-15). Therefore, a key part of the watershed management plan for Fenwood Creek is to build a community capacity of shared purpose for engaging in watershed management issues.

Outcome based results and vision

There are three specific attributes that are the key to successful watershed management. First, the project participants need to acknowledge that small portions of the landscape disproportionately contribute more pollutants than others. Therefore, rather than applying a "one size fits all" standard for addressing water quality issues, effective watershed management should recognize that managing runoff concerns in a watershed should be based on targeting limited resources to where it can make the largest impact. The Wisconsin Buffer Initiative (Nowak, 2012) provides a science-based approach to water quality concerns that is targeted with the intent to maximize water quality improvement with minimal resources. Using this model is critical for project success because it ensures that public funds and farmer resources are used toward projects that will have the most positive impact on water quality.

Secondly, successful watershed management practices and programs must be founded upon building soil health. Soil that has low infiltration and/or is improperly managed increases nutrient and sediment loading into streams and the reservoir where it can cause water quality concerns. Therefore, agricultural practices that allow farmers to improve the health of their soils are not only critical for successful watershed management, but will also improve the profitability of agriculture by minimizing input needs.

Thirdly, community engagement is a key component to watershed management. Water quality is a community interest and water quality improvements must be a community shared activity. Community members such as residents, faith organizations, schools, recreationalists, and agricultural producers are

the ones who develop a connection to their landscape, have local knowledge, and are best suited to make a lasting impact on their watershed. Based upon their positive “sense of place”, their participation and action is critical to successful watershed management. The key here is finding ways to best engage farmers and community members/organizations with one another so they can use their diverse knowledge and skillsets to work together and take action on water quality issues. Organizing community groups with a common motivating vision and organizational structure will encourage group dialogue, cooperation, and unified purpose which is critical to long-term success.

If farmers, concerned citizens, and public institutions work together, it is possible to create a future of clean water that benefits recreation, sustains a healthy fishery, and leads to agricultural prosperity. Marathon County CPZ certainly cannot do this alone, and will need partners from many representatives of the community such as universities, private civic groups, and non-profits to ensure success. Therefore, Marathon County is exploring the idea of forming a collective partnership which will be able to provide the necessary support for the communities of the Fenwood Creek watershed (and potentially others) to create a capacity for civic governance aimed at addressing water quality concerns in the watershed. We believe that civic governance is a critical to engage effective dialogue between all stakeholders in the watershed and is a keystone ingredient needed for long-term success.

Need for Community Engagement in the Decision Making Process and Implementation

Public Engagement vs Civic Engagement vs Civic Governance

Community engagement can be organized in various forms, each having unique limits, strengths, and effectiveness. The key is to design and customize outreach in a way that meets the readiness and capacity of the specific Fenwood Creek community. For this report, Marathon County recognizes three different forms of community engagement:

- a. **Public Engagement.** Public engagement is a standardized design with specific modules which is an internal organizational tool that provides staff and officials with guidance on customized outreach strategies and clear community participation roles. The goal of public engagement is to gain information and seek feedback from the community on policy design and program effectiveness. It is an essential component to organizational success of Marathon County to ensure that it is designing policy in a way that best addresses the needs of its constituents (Marathon County Department of Conservation, Planning and Zoning, 2016b).

Marathon County has identified public engagement as a communication objective in its 2012-2017 Strategic Plan. Specifically, the county intends to “expand communication with Marathon County residents and provide educational opportunities which improve the public’s understanding of the services provided and the issues confronting Marathon County government” (Marathon County Strategic Plan, 2012-2017).

- b. **Civic Engagement.** Civic engagement “...entails regular discourse, coordination, and compromise across Non-Government Organizations (NGOs), public governance departments, private firms, and other watershed residents and stakeholders, solving problems in an interactive and sustainable manner” (Red Cedar River Water Quality Partnership, 2015, p. 44). Civic engagement allows for public organization personnel to come together, usually forming a partnership, to discuss ways to encourage community

members to be part of the process, ideally leading to civic governance (Adler and Goggin, 2005).

- c. Civic Governance. Civic governance cannot be directly or solely created by public or civic engagement partnerships. It is externally organized outside any public organization and is a much more flexible process.

Civic governance is organized by the community itself, and can come in a variety of forms that allow for collaborative decision making, such as town meetings. However, civic engagement groups can provide information, resources, opportunities, and expertise to catalyze the formation of groups that will lead to civic governance (Red Cedar River Water Quality Partnership, 2015).

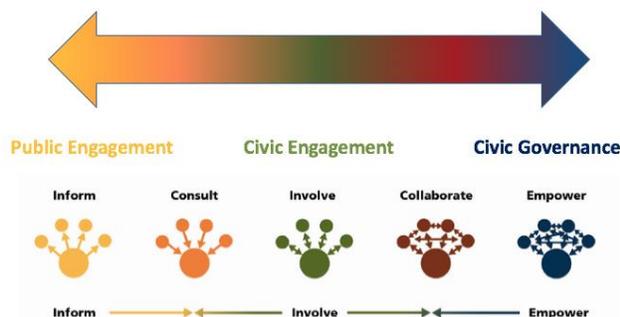


Figure 1: The Community Engagement Spectrum. Lower part of figure from Monash Council (2014)

Community engagement can be viewed as a spectrum, from public engagement to civic governance (Figure 1). There is no right or wrong form of community engagement to use on any specific water quality project. The community’s culture, knowledge of water quality issues, and structure of public organizations all play into which form of community engagement will work best for addressing certain water quality issues within a community.

Civic engagement and governance are key watershed management strategies because effective watershed management requires the act of individuals who are deeply connected to the landscape to collaborate and create solutions to water resource challenges (Morton and Brown, 2011).

Marathon County, or any partnership it may become involved with, cannot directly create civic governance groups and force community members to sit down and discuss solutions to their watershed management problems. It is up to each community member to develop the vision, passion, and connection to their land and water to care enough to address their local water quality and soil resource problems (Zerr, 2014). However, Marathon County and/or collective partnerships can serve as an orchestrator or facilitator to involve and motivate community leaders to participate in civic governance groups that focuses on the needs of their community to address water quality concerns in a watershed.

Marathon County’s History on Civic Engagement

Marathon County has a history of working with farmers and community members on using civic engagement practices to promote, educate, and support improved soil and water management. The Marathon and Lincoln Counties Managed Grazing Project and the Big Eau Pleine Lake Management Planning project are two notable examples of how Marathon County has acted as an orchestrator for civic governance practices.

Managed Grazing Project

In 1994, Marathon County worked with a dozen grass-based farmers and agricultural professionals to provide educational and technical services for the adoption of managed grazing practices. These individuals banded together to form the Central Wisconsin River Grazers Network. Their mission statement was “to promote the feasibility of grazing-based farming as a profitable way of farming that

enhances lifestyles and projects and improves the environment” (Marathon County Land Conservation and Zoning Committee, 2012, p.2). Since grazers came together to form this network, they have collectively discovered innovative solutions to decrease livestock production costs and improved environmental performance. Grazers learn production techniques from their fellow grazers on how to design travel lanes, how often to rotate their cattle between fields, and how to conserve fields for after the growing season. These practices have also lead to decreased soil erosion, and therefore sediment and nutrients out of surrounding water bodies, since all fields always remains 100% covered with vegetation. In 2016, this group had managed to write managed grazing plans for 20,175 acres of land in Marathon County. In the Fenwood Creek, there are three managed grazing farms that will serve to help share their production insights to other watershed farmers. The plans have helped landowners implement practices for pasture management that continue to have profound impacts on water quality, soil conservation, and the economic vitality of the region (Marathon County Land Conservation and Zoning Committee, 2012).

Big Eau Pleine Lake Management Plan

Marathon County serves as an advisor to the Big Eau Pleine Citizens Organization (BEPCO). The purpose of the organization “...is to preserve, protect, and improve the quality of the Big Eau Pleine Reservoir, its watershed area, its surroundings, and to enhance the water quality, fishery, boating safety, and aesthetic values, as a year round public recreational facility for today and for future generations” (Big Eau Pleine Citizens Organization, 2011). Today BEPCO, the River Alliance of WI, and several partners have collaborated in a partnership to engage landowners and citizens who recreate or own land nearby the reservoir to take action toward its organizational mission. In addition, these organizations are building their capacity to lead community change and reservoir management through a community and organizational partnership. They have had success in leading the effort for creating a lake management plan which will guide their response to how they will manage fish kills, reduce agricultural runoff, and promote social partnerships in the region to conserve the ecological vitality of the reservoir (Big Eau Pleine Citizens Organization, 2016).

Civic Engagement and Designing a Partnership

Challenges to Civic Engagement

Civic engagement takes time and patience. There are many obstacles between the creation of a civic engagement group (defined here as a partnership) and success (relative to resource improvements). A partnership founded upon the idea of community engagement (with unique processes and forms) needs time to develop and it may need to overcome challenges such as:

- a. Finding enough partners to join their group. A common concern is finding farmer representation
- b. Failing to create a common vision and goals
- c. Partners lacking time to fully contribute
- d. Lacking resources necessary for implementation
- e. Finding enough charismatic individuals within a community to help jump-start civic governance practices in the watershed.
- f. If one charismatic leader leaves a group it may leave the partnership to disarray and inevitable collapse
- g. Even if a partnership is successful in engaging the community and forming civic governance groups, the civic governance groups may not be successful in their endeavors to control nutrient runoff (Sabatier et al., 2004)

When standards are set by the EPA or State of Wisconsin, the failure of these groups may result in financial penalties for municipalities. Therefore, local governmental groups may need to consider regulatory action through public engagement where it can be applied for maximized impact with constituent support. If, however, a civic engagement approach is deemed appropriate for the region due to a high level of community resistance to regulations, it may be the only option for success. In this case, both civic engagement and civic governance groups should be implemented and designed with active monitoring, resiliency, and a diversity of knowledge. Civic engagement partnerships need to ensure that they are setting not only themselves up for success, but also for the civic governance groups in their watershed (Sabatier et al., 2004).

This shouldn't come off as a skeptical view of civic engagement and civic governance. These practices can be extremely useful when deployed with the right people, tools, and resources. However, one must realize the paradox watershed management has entered into and the challenge these groups face. When farms are struggling and competing in a globalized market, they need to do everything in their power to produce goods as efficiently as possible. Externalized costs such as water quality are a product of the pressures of our current economic system. Therefore, farmers need to be creative in investigating different strategies and using their community as a resource in order to remain profitable while meeting water quality management challenges.

In addition, it is nearly impossible, both politically and systematically, for governmental organizations to adopt blanket regulations that force farmers to comply with lofty water quality standards because it would likely put many farmers out of business. In this scenario, civic engagement and governance strategies can act in a way to ensure the needs of farmers are met while allowing them to work with organizations and public institutions to find solutions to address their water quality challenges. Most importantly, farmers and citizens need help from one another to design strategies, educational content, learning opportunities and sharing, and possible penalties that work for their community.

Synopsis of the Red Cedar Partnership as a Model

The Red Cedar River Watershed is a HUC 8 watershed draining approximately 1,900 square miles of land running through northwest Wisconsin. The watershed contains about 45% agricultural land which is the source of 72% of phosphorus loading. The phosphorus allocation plan (Total Maximum Daily Load) is written for two large lakes in the watershed, Tainter and Menominee, and aims to reduce phosphorus concentrations for each lake from 150 and 108 ug/L P to 59 and 57ug/L P, respectively (Red Cedar River Water Quality Partnership, 2015).

A stakeholder group called the Red Cedar River Water Quality Partnership came together in 2013 to address the water quality challenges in this watershed. Their efforts are designed to oversee and develop accountability of partners in implementation of the 9-key element plan). This partnership includes members from UW-Extension, DNR, NRCS, county and city departments, NGOs, lake associations, corporate representatives, and citizens. The group strives to maintain a diversity of members in the group to enhance a diversity of knowledge about topics in the watershed and to maintain an inclusive and effective implementation strategy (Red Cedar River Water Quality Partnership, 2015). The Red Cedar River Quality Partnership (2015) identifies themselves as a "...Civic Organizing entity that works for the common good of water quality within the Red Cedar River Basin through the practice of Civic Governance; whereby the partners develop the civic imagination, and organize the civic infrastructure needed to produce sustainable water quality, while coordinating the implementation of water quality strategies for the Basin" (p. 55). The group started to meet about every other month starting in January 2016.

Partnership Benefits, Design, and Goals

Reaching the nutrient and sediment reduction strategies of the Big Eau Pleine watershed will be more effective with the implementation of a similar partnership. It would likely be more effective to gather a diversity of stakeholders from both of the two HUC 10 sized watersheds that comprise the Big Eau Pleine watershed compared to the Fenwood at a HUC 12 size (Morton and Brown, 2011). A partnership at the Lake Du Bay Watershed (HUC 8) could be considered as well, but would include a substantial portion of Marathon, Lincoln, and Langlade counties. This report recommends a partnership at the Big Eau Pleine watershed level. It is felt that a partnership at this level would help Marathon County meet the goals of the Upper Wisconsin River TMDL, diversify and connect stakeholders involved in the Big Eau Pleine watershed, and provide resources and assistance to developing civic governance practices in not only the Fenwood Creek but also other HUC 12 watersheds within the Big Eau Pleine watershed.

Partnership design is a key element for the success of a Big Eau Pleine watershed partnership. First, the partnership needs to set quantifiable goals and monitor progress toward these goals annually. These goals should be based on meeting the objectives of the TMDL for the Upper Wisconsin River. Therefore, specific goals would be based on pounds of phosphorus loading reductions, and would use models to calculate loading decreases based on landscape management changes. With the extremely lofty goals set by the TMDL and minimal resources to accomplish these goals, it is imperative that the partnership works to monitor their progress. Progress will take time, in some cases some goals may be set for greater than a decade. Empirically monitoring progress toward these goals is essential because it will allow the partnership to track performance and consider alternative strategies if performance is falling short.

A partnership also needs to ensure that it is working to maximize the collective wisdom and knowledge of all its internal stakeholders. In order to do this, partnership leadership needs to actively encourage an environment of participation within their group. For example, Daniel Zerr from the Red Cedar River Water Quality Partnership constantly reminds members “not to be just a seat warmer” during partnership meetings. A partnership facilitator must encourage an inclusive and collaborative environment where each member feels that they play a critical role in the partnership, engage in dialogue, and feel they can challenge any underlying assumptions of the group. There is no right answer on how a partnership works and functions. Tapping into the collective wisdom of all members is imperative to reach challenging water quality goals. In addition, a group facilitator must actively seek feedback from group participants on the functionality of collaboration projects and meetings. Each member should feel that they are gleaning important tools and ideas from being involved in the partnership. This will assure that members will not only remain active in the partnership but also allow them to maximize their impact on the communities and ecosystems they are trying to serve.

Effective Community Governance
Via reforms in Local Government



Figure 2: Aiming for the proper balance of engaging citizens, getting work done, and monitoring results needs to be achieved. Monash Council (2014)

Potential Partners for a Big Eau Pleine watershed Partnership

The Marathon County CPZ should consider numerous partners to be involved in a Big Eau Pleine watershed partnership. A list of potential partners includes:

1. Big Eau Pleine Citizens Organization
2. University of Wisconsin Extension
3. North Central Nature Conservancy
4. Farmers, Farm Bureau /Farmers Union /Professional Dairy Producers of Wisconsin/ Dairy Business Association/ National Farmers Organization
5. Golden Sands
6. Department of Natural Resources
7. Department of Agriculture, Trade, and Consumer Protection
8. Natural Resources Conservation Service
9. Wisconsin Valley Improvement Company
10. Marshfield Agricultural Research Station
11. Muskie First
12. Trout Unlimited
13. UW Stevens Point
14. River Alliance
15. Agronomists
16. Smaller Community Groups:
 - i. 4-H
 - ii. Fenwood Lions Club
 - iii. Faith-Based Groups
 - iv. Municipal Groups (Village of Fenwood)
 - v. Schools (North Central Technical College, Edgar, Stratford)

The Marathon County CPZ may reach out to many of these groups to gauge interest. Ideally, Marathon County could produce a working draft of a partnership plan to share with potential partners its ideas on partnership goals and expectations of group members.

How Civic Engagement leads to Civic Governance

A partnership as described in the last section focusing on the Big Eau Pleine watershed would help provide structure to the civic engagement process. Ideally, this group could provide technical and logistical resources, educational opportunities, and networking connections to citizen leaders hoping to form watershed based civic governance groups. Marathon County could serve an orchestrator of the partnership to help all partners contribute in a meaningful way.

Resources needed from a Partnership for effective civic governance groups

Partnerships can play a critical role in the formation of civic governance groups by providing them with technical and logistical resources. Due to the implementation of a 9-key element plan for the Fenwood Creek, it is advised that a Big Eau Pleine watershed partnership focuses its attention to this watershed first. Within this priority watershed, a partnership could work to encourage the formation of specific service or membership groups such as a farmer’s council, sportsman groups, municipalities, or citizen’s watershed group. Partnership members should be prepared to delegate time to applying for grants (such as the Producer-Led Watershed Protection Grants explained by Wisconsin Department of Agriculture, Trade, and Consumer Protection (2016)) and explore other funding sources for these groups. The Red Cedar River Water Quality Partnership usually ensures they have enough funding for a 0.5 FTE employee (a project coordinator) for each newly developing civic governance group. Curtis et al. (2002) support the need for this as well, stating that “It is simply unrealistic to expect an effective network of [watershed groups] to be sustained without substantial investment by government to provide for program management, group coordination, and cost sharing for on-ground work” (p. 1207).

A project coordinator can help members with setting group goals, providing organizational support, and facilitating the first few meetings. Ideally group members within these newly formed civic governance groups can learn how to operate on their own after some initial assistance, but the efficiency of this transition may depend on the group's members and organizational structure.

Ways a partnership can act as a catalyst for watershed group formation

With the help of a project coordinator delegated to assisting with watershed civic governance groups, a Big Eau Pleine watershed partnership could deploy a variety of different tools to engage with their community. There is not one type of collaborative approach that works for every watershed. Each community is unique and can be most effective in managing their water resources in their own way. There are a few techniques that usually work best for communities, and learning more about the community is key to determine which technique is the most effective. Luckily, a socio-economic assessment has been completed by Dr. Aaron Thompson at UW Stevens Point (Thompson and Haney, 2015) on the Big Eau Pleine watershed community. This survey is a great starting point for a Big Eau Pleine partnership to consider effective strategies in engaging with the watershed's community on water quality issues. The partnership may also consider one-on-one conversations with various community leaders about the various ways the partnership could engage their community (Morton and Brown, 2011).

One implementation model that a Big Eau Pleine watershed partnership could consider is the Hewitt Creek model. This model is used by many watershed partnerships and civic organizing groups in Wisconsin. It encourages a constant feedback loop with the steps of Awareness, Assessment, Goals-Plans, Targeting, Performance, and Evaluation with certain civic engagement strategies connected to each step (Morton et al., 2016). However, the civic engagement strategies defined in this model are just one avenue that worked for one individual community in Iowa. It is the task of a Big Eau Pleine watershed partnership along with the project coordinator to consider which civic engagement strategy or strategies will work for the Big Eau Pleine watershed community. Here is a summary of the different civic engagement tools that could be considered:

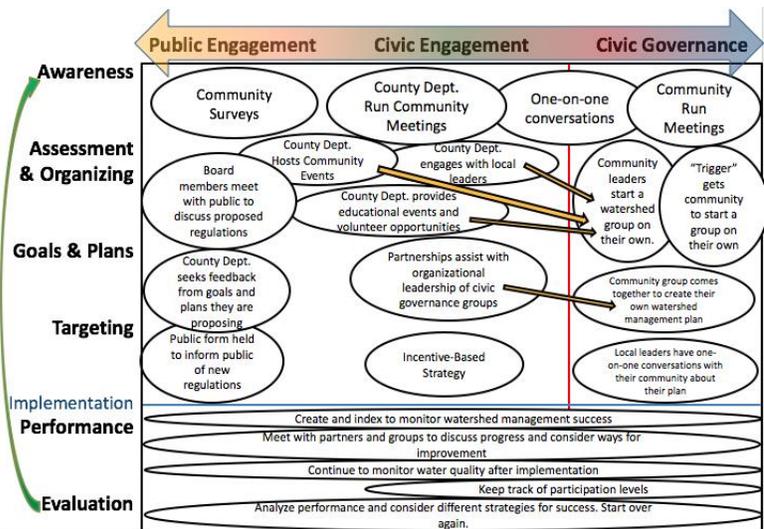


Figure 3: The spectrum of community engagement graphed against an action framework provided by the Hewitt Creek Model. Yellow lines represent areas where civic engagement groups can encourage civic governance groups to form. Red line represents a line that public organizations cannot cross; it is up to the community to form civic governance groups.

1. Do nothing and let the community become engaged on their own through an ecological trigger

Although not recommended, this approach is still an option. In this scenario, the communities only becomes motivated and possibly organized in response to devastating ecological impacts such as fish kills, soil erosion, cyanobacteria blooms, or a public health

concern. The formation of BEPCO in response to fish kills in the Big Eau Pleine Reservoir is one example of this within the Big Eau Pleine watershed.

PROS: Minimal resources needed by public agencies to form these groups. Also, these groups are typically enthusiastic for their cause and usually form well-structured and organized civic governance groups (personal correspondence with Dan Sitz, Conservation Engineer Technician with Pierce County Land Conservation). An internal trigger to the community may encourage stronger motivation from a community compared to an external trigger from public organizations or partnerships.

CONS: An ecological trigger usually occurs when an ecosystem hits a tipping point. Many times this means a significant and sometimes irreversible loss of ecosystem services. This can be devastating for the community which relies on these services for recreation and the economic opportunities that are tied to them. Furthermore, without a governance structure founded upon a common vision, these responses are short-lived.

2. Engage with Local Leaders (Hewitt Creek Model)

The partnership identifies 2-3 individuals who are passionate about water resources in the watershed to partner with, provide resources to, and assist with starting up a community watershed group. Many different watershed groups have started this way including three in western Wisconsin (Hay River, Dry Run, Horse Creek). Each of these groups was formed by partners who hired a project coordinator to start from scratch by sending out mailings and organizing kick-off meetings.

PROS: Possibly the best way to encourage the formation of a civic governance group from scratch. Finding and harnessing effective leadership can help develop a shared vision between leaders and the partnership, build trust networks, open areas for clear communication, and allow for the benefit of group collaboration to be expressed fully.

CONS: It is possible that these groups are not as organized and structured compared to groups that formed on their own due to a response from an ecological trigger. (personal correspondence with Dan Sitz, Conservation Engineer Technician with Pierce County Land Conservation).

3. Host a Community Event with Information about the benefits of Watershed Groups

Some partnerships choose to focus their efforts on hosting community events to hopefully draw in community support. Dunn County used this technique to engage with a community in one watershed. County staff sent out a mailing invitation to community members with 40 or more acres of land for a picnic served by the local 4-H club using start-up funds. The effort was targeting farmers who owned land greater than 40 acres in the community to create a farmer's council (However, Dan Prestebak, County Conservationist for Dunn County, later admitted this was a mistake given that many farmers rent land in the area and there was also a significant interest of the general community to form a group). Relatively high turnout of around 30 or 40 farmers may have been due to the 4-H club's fundraising effort. The event contained educational material on watershed management in the town and information about the importance of civic governance strategies around watershed management. A partnership may also consider inviting individuals outside of the watershed to speak at an event. One example would be to invite farmers who belong to a farmer's council to an event in the watershed to discuss the benefits of the council for farmers or inviting staff from the Marshfield Agricultural Research Station to give a demonstration on effective cropland management practices.

PROS: A great way to connect with the community on a more personal level and avoid farmers having the reaction “why are you contacting me and what am I doing wrong?” With this strategy, farmers can feel less pressured and may end up being more receptive to different ideas and new management strategies.

CONS: May not be as effective at accomplishing the end task of forming civic governance groups. Individuals may come to the community event, but they may not have had the more intimate one-on-one connection that may be necessary to inspire some individuals to form their own civic governance group.

4. Engage with current community groups in the area

A partnership may explore working with various networks and community groups that already exist in the area. It is possible that some of these groups may be interested in getting involved with civic governance practices on watershed management in their community.

PROS: No need to “reinvent” a community group to address water quality concerns if there are other civically involved groups in the watershed that have an interest in watershed management.

CONS: Current groups may have their own separate mission and may be spread thin due to their current commitments.

5. Provide volunteer opportunities in the watershed

A partnership may take a slightly more withdrawn approach and try to provide opportunities for the community to develop a deeper sense of place in their watershed. Here, the partnership may consider organizing community work days to pick up trash along local waterbodies, remove invasive species, or have a community recreation day on one of their lakes.

PROS: A great way to get the community involved which may help individuals develop a deeper sense of place and connection to their water resources. Learning about the importance of water resources through connecting to them may empower citizens to consider their collective impact on water quality and what role they can play in its conservation.

CONS: Due to this more withdrawn approach, civic governance groups may be less likely to develop their own groups with this tool alone.

A Big Eau Pleine watershed partnership may explore one or several of these various ways to encourage the formation of watershed based civic governance groups. Once a civic governance group has formed, the partnership should explore how to work with them so that they can self-govern and set appropriate plans and goals. There are two different ways these goals may be implemented:

1. Group-based discussion (Hewitt Creek Model)

Here, the project coordinator is either still leading the group through this process or is simply checking in with a group to see if they need any additional assistance. If the group is still being led by the project coordinator, the coordinator should be acting as a moderator for the group. In this role they should be acting in a neutral capacity engaging the group about their specific watershed management and soil conservation goals. They should also work with members to determine specific skillsets each member brings to the group as a whole. If the group already has their own leader to guide them through this process, the

project coordinator should work to provide them with resources and tools on how to run their meetings and maximize member involvement.

PROS: This is a great way to encourage civic members to feel valued, make them feel part of the decision making process, and chart out the foundation of their group.

CONS: Sometimes the group may not set strong enough goals on their own. To avoid this, the project coordinator should work to advise group members on specific objectives that they need to be met in order to comply with regulations and partnership goals.

2. Civic-based community involvement in forming a regulatory plan

Here, civic governance groups would meet with the partnership to discuss specific goals that they should set. Partnerships would inform them of specific TMDL goals and potentially provide specific language that they think the civic governance group should include in their plan.

PROS: Better way to get community organized groups to set the goals and vision needed to meet TMDL objectives.

CONS: Civic governance groups may feel that they do not have power in the decision making process and that all decisions are being made for them.

In order to ensure the formation of strong groups that contain individuals who feel they are part of the decision making process, a partnership will likely choose to go with a group-based discussion to assist civic governance groups to form their goals and objectives. Partnerships should, however, consider what goals and objectives were set by group members and feel free to give feedback. That way, civic governance groups will better maintain their independence from the partnership but still use them as a resource.

After a civic governance group forms, they will likely start developing strategies to get their community on board so that they can successfully fulfill their water quality objectives. There are numerous ways a civic governance group may do this:

1. Incentive-based strategy (Hewitt Creek Model)

If funding is available, many farmer-based civic governance groups may consider the Hewitt Creek incentive-based strategy model to encourage community members to enact water quality standards. This model uses indexes and tests to assess soil and plant nutrient levels and the potential for loss of these nutrients and loss of organic matter into aquatic systems. Users then need to relate the beneficial impact and cost of certain management practices and assign an incentive value to each practice (Morton et al., 2006). "As operators regularly use performance indexes, they can begin to make future management decisions based on their findings. They can also document their accomplishment to the watershed community" (Morton et al., 2006, p.3). Review Morton et al. (2006) for more information.

PROS: Incentives work to encourage farmers to maximize their water quality and soil conservation improvement management strategies. In addition, they will consider strategies that may cost them money (such as implementing buffers around waterways) if they are able to neutralize that cost with incentive payments.

CONS: Need of funding sources to provide farmers with incentives.

2. Local leaders having one-on-one conversations with community members

If there are a few charismatic leaders in charge of a civic governance group that are connected to the community, one-on-one conversations could be extremely effective in encouraging the adoption of water quality management practices. Civic governance group

members need to be sure to explain why it is valuable for their fellow citizen to consider their impact on soil conservation and water quality and adopt different practices.

PROS: Doesn't cost a civic governance group anything except time. Citizens of a specific community talking to one another about water quality issues may be much more effective than governmental employees telling their constituents what needs to be done.

CONS: Difficult to get some farmers on board if they see they will lose revenue from adopting certain water and soil management strategies.

3. Provide multiple platforms where community members can access information and connect to each other

Civic governance groups should collaborate with their partnership or program coordinator to ensure that their community has access to multiple platforms to learn about water quality and soil conservation issues. A diversity of resources available to community members will be more likely to reach constituents of various demographics. Mailing flyers, creating educational websites, providing networking opportunities to the community through listservs, and ads on a local radio station are all techniques that could be used to inform the greatest number of constituents. Civic governance groups could also consider ways to help their community learn their watershed address. For example, finding funding for road signage delineating their watershed boundary on local roadways may have an impact for the whole community in developing a connection to their watershed.

PROS: Informing and providing educational resources to a community about their role in their watershed will provide an avenue for the community as a whole to learn more about their water resources.

CONS: Less potential for community members to develop a sense of the importance of their water resources using various forms of media compared to actual group meetings or one-on-one discussions that provide a human connection.

If funds and other resources are available, a civic governance group may consider all of these mechanisms to engage with their community. Otherwise, the group should consider at least one strategy that they feel will work best for their particular community.

As a civic governance group works with their community on promoting water quality, they should work with their project coordinator and partnership to monitor their progress toward their water quality goals. There are a variety of ways to do this, including:

1. Create an index to monitor watershed management success (Hewitt Creek Model)

When farmers cooperate and design incentives for water quality management practices, partnership staff should check to ensure they are meeting the standards they claimed they would. Management practices should be quantified and modeled for a program impact assessment. For example, if 20,000 more acres of agricultural land is cover cropped from one year to the next, modeling results could estimate the amount of phosphorus loading decreased as a result of implementing that management practice.

PROS: When incentives are provided, it is fairly simple quantifying the amount of incentives acquired and what work they were used for. Having this data makes it easy to translate these management changes into progress through modeling.

CONS: Modeling is not always the most accurate way to calculate decreases in phosphorus loading. Also, partnership staff will have to delegate someone within their group to calculate progress in the watershed.

2. Monitor water quality indicators.

This approach focuses on monitoring the actual changes in water quality over time. Here, a civic governance group would work with their partnership to recruit the DNR or other personnel that could collect water chemistry samples and stream flow measurements to calculate phosphorus loading for each season.

PROS: Very accurate results on changes in water quality from year to year within a watershed.

CONS: This approach is usually more costly since it requires trained technicians collecting water samples and stream flow data and laboratory technicians analyzing water quality samples for stream nutrients. It also may not quantify progress made when riparian buffers are planted for a number of years until the buffer is more developed.

Both civic governance groups and partnerships need to work together to track their progress toward meeting watershed management goals. Every one to three years, partnerships should be sure to quantify progress toward long-term goals. If they are falling short of reaching a long term goal, both partnerships and civic governance groups need to work together to consider changes to their implementation strategy. Ensuring that both partnerships and civic governance groups are designed in a way that encourages continued evaluation and feedback loops will provide these groups to meet the evolving challenges of watershed management over time.

Both partnerships and civic engagement groups also need to consider how they will sustain involvement over many years. Both groups should be asking themselves the following questions and adapt their group meetings or the purpose of their group as necessary to meet goals of all members:

1. Are meetings being held regularly enough in order to fulfill the objectives of the group?
2. Are meetings being held too often that it is leading to inefficacy?
3. Are we doing enough to recruit other stakeholders to our group?
4. What would happen if we lose our group leader? Who would facilitate meetings if this happens?
5. How do we ensure that critical perspectives stay representative in this group? What happens if one member from a specific organization leaves that was critical to the functionality of the group?
6. What stakeholders are not represented in our group? What can be done to recruit these stakeholders?
7. Is everyone contributing to group dialogue? If not, why are certain people not contributing to dialogue?
8. Are group meetings being held in an effective manner? If not, how can meetings be adapted in order to be more effective?
9. Is everyone in the group feeling like they are contributing a valuable perspective?
10. Is everyone in the group feeling like they are benefiting from being part of it? If not, how can meetings or group objectives change in order to accomplish this?
11. Are we still passionate about our unified group goals and organizational mission? Does it still represent our collective interest?

Encouraging an inclusive environment where these questions are commonly considered will likely result in a strong partnership and/or civic governance groups. When people in the group feel valued and feel that they are benefiting from the group, then they are much more likely to work to sustain the group and ensure it is able to accomplish its goals. Strong systems are greater than the sum of their parts. Fostering a group environment where everyone works together as a team is a recipe for success.

Recommendations

1. Marathon County CPZ works to identify and recruit partners for the a Big Eau Pleine watershed Partnership
2. A Big Eau Pleine watershed Partnership works together to harness unifying goals, mission, and vision and applies for funding sources that will enable them to fulfill their intended objectives.
3. The partnership identifies its strategy to engage with communities, starting with the Fenwood Creek watershed, which will hopefully lead to citizen and farmer-based civic governance groups.
4. The partnership works with these civic governance groups to develop their own unifying goals, mission, and vision.
5. The partnership continues work to develop new civic watershed groups, provide technical and logistical resources to current groups, and monitor progress of the watershed in fulfilling its water quality goals.

Conclusion

Meaningful change never can be implemented solely by one group. No county department or farmers' council can do everything on their own. Change happens when different groups and individuals at different levels collaborate to create a unified vision and mission (Floress et al., 2011). Different perspectives and ideas need to be championed in order to limit in group bias and ensure that action is being carried out in a way that works for most of the stakeholders involved. Marathon County recognizes the potential of various stakeholders and citizens to make meaningful community-based change. When partnerships and civic governance groups work together they can overcome obstacles that currently seem daunting and almost impossible to address today. Water quality management in the Fenwood Creek is one of obstacles, and success can only be achieved with unified commitment and support to take action.

A Big Eau Pleine watershed partnership, including stakeholders from county departments, UW-Extension, non-profits, various organizations, and community groups, can act to encourage the creation of civic governance groups in the Fenwood Creek watershed. Hopefully a focused effort in the Fenwood will allow the partnership to develop strategies on what kinds of civic engagement tools work best for the region. When the partnership develops this capacity, they will have the tools needed to create an ecosystem of civic governance groups in the watershed that can work together and develop strategies for watershed management that work for their community. Starting from scratch in a community is like starting a cornfield without any topsoil. If that is the case, one needs a group that can apply the resources onto the field needed for growth. A collective partnership can act in that capacity, and create an environment where civic governance can grow and prosper to create effective community-based change.

However, one very important note is that civic governance is only one tool in the toolbox. Public engagement along with county regulations and enforcement should be considered for some policy actions that work in the political and economic climate of Marathon County. Marathon County and affiliated partnerships should be using tools like the Public Engagement Planning Tool developed for CPZ by Bill Rizzo from University of Wisconsin-Extension Local Government Center. Tools like this provide a framework for finding the right community engagement strategy that would work best for a community to address specific water management issues. Public organizations need to work along with citizens and

community groups to consider regulatory strategies that can be deployed that work for their community. Some issues can be solved much quicker with regulations and public engagement compared to using civic governance techniques.

Overall, community engagement takes time and patience. There is no silver bullet that works for each community. Watershed management in the Fenwood Creek watershed is a wicked problem that needs creative solutions. When different groups and individuals come together and discuss ideas and potential solutions on how to address water quality issues, the collective wisdom of the group takes over. Harnessing this diversity of knowledge is critical to guide public organizations and communities toward solutions that work for their community to address lofty water quality management goals.

Literature Cited

- Adler R.P. and J. Goggin. (2005). What do we mean by “Civic Engagement”? *Journal of Transformative Education*. (3)3, p. 236-253.
- Big Eau Pleine Citizens Organization. (2011). By-Laws. Retrieved March 7, 2017, from <http://nebula.wsimg.com/6768ccd7e7845908ce41b88de3da926f?AccessKeyId=DC6D3534BC4FB72AF135&disposition=0&alloworigin=1>.
- Big Eau Pleine Citizens Organization. (2016). Strategies for Reducing Fish Kills in the Big Eau Pleine Reservoir.
- Curtis, A., B. Shindler, A. Wright. (2002). Sustaining Local Watershed Initiatives: Lessons from Landcare and Watershed Councils. *Journal of the American Water Resources Association*. 38(5). p. 1208-1216.
- Monash Council. (2014) Defining Conduct and Ethics. Retrieved April 13, 2017 from <https://monashandyou.wordpress.com/2014/02/16/defining-conduct-ethics/>
- Environmental Protection Agency. (2008). Handbook for Developing Watershed Plans to Restore and Protect our Waters. Retrieved March 3, 2017, from <https://www.epa.gov/nps/handbook-developing-watershed-plans-restore-and-protect-our-waters>.
- Floress, K., L. Prokopy, S.B. Allred. (2011). It’s Who You Know: Social Capital, Social Networks, and Watershed Groups. *Society and Natural Resources*. 24 (9), p. 871-886.
- Marathon County Department of Conservation, Planning, and Zoning. (2016a). Fenwood Creek: Watershed Management Plan.
- Marathon County Department of Conservation, Planning and Zoning. (2016b). Marathon County: A Public Engagement Initiative.
- Marathon County Land Conservation and Zoning Committee. (2012). Managed Grazing in Marathon and Lincoln Counties Fifteen Years of Progress. Retrieved March 3, 2017, from http://www.co.marathon.wi.us/Portals/0/Departments/CPZ/Documents/grazing_booklet_2012_updated.pdf.
- Morton, L.W., J. Rodecap, S. Brown, and G.A. Miller. (2016). Performance-based Environmental Management: The Hewitt Creek Model. Iowa State University Extension. Retrieved March 28, 2016 from https://www.google.com/url?sa=t&rc=tj&q=&src=s&source=web&cd=2&cad=rja&act=8&ved=0ahUKEwjzPi94rTAhWk0YMKHTzcA1cQFgghMAE&url=https%3A%2F%2Fstore.extension.iastate.edu%2FProduct%2FPerformance-Based-Environmental-Management-The-Hewitt-Creek-Model-PDF&usg=AFQjCNH64nB5vvmHtgW21qL5shpFWUrI5g&sig2=y12cs3WP_w4CRWw0oSlGaQ.
- Morton, L.W., and S.S. Brown. (2011). *Pathways for Getting to Better Water Quality: The Citizen Effect*. Dordrecht: Springer.

- Nowak, P. (2012). Wisconsin Buffer Initiative. Retrieved February 17, 2017, from <http://faculty.nelson.wisc.edu/nowak/>.
- Red Cedar River Water Quality Partnership. (2015). A River Runs Through Us: A Water Quality Strategy for the Land and Waters of the Red Cedar Basin. Retrieved March 2, 2017, from <http://naturalresources.uwex.edu/redcedar/pdf/RedCedarPlanFinalMedResolution.pdf>.
- Sabatier, P. A., W. Focht, M. Lubell, Z. Trachtenberg, A. Vedlitz, & M. Matlock (Eds.). (2005). *Swimming Upstream: Collaborative Approaches to Watershed Management*. Cambridge, MA: MIT Press.
- Thompson, A., and R. Haney. (2015). *Big Eau Pleine: A Socio-Economic Assessment*. Retrieved March 10, 2017 from http://www.uwsp.edu/cnr-ap/clue/Documents/Public/UWEX-CLUE_Thompson-BEPCO_SocialAssessment.pdf.
- Wisconsin Department of Agriculture, Trade, and Consumer Protection. (2016). *Producer-Led Watershed Projection Grants: Farmers finding ways to save Wisconsin's waters*. Retrieved February 16, 2017, from <https://datcp.wi.gov/Documents/PLWPGBrochure.pdf>.
- Zerr, Daniel. (2014). *A Citizen's Guide to Watershed Planning in Wisconsin*. Retrieved February 15, 2017, from http://fyi.uwex.edu/watershedplanning/files/2014/11/Watershed_Planning_in_Wisconsin.pdf.