

Stakeholder Experiences in Collaborative Learning



Photo: Kimmes-Tobin Mitigated Wetlands, Douglas County, Wisconsin

Katy Thostenson
December 2014

Graduate Intern and Science Collaborative Project Assistant
Lake Superior National Estuarine Research Reserve

M.S. Conservation Biology and Sustainable Development
Nelson Institute for Environmental Studies
University of Wisconsin-Madison



Acknowledgements

This study was made possible by the contributions and support of many generous individuals. I would like to thank Sue O'Halloran, Project Coordinator for the Lake Superior Watershed Framework for Assessment of Wetland Services, for supporting my work, sharing her knowledge, and helping to coordinate this study. This study would not be possible without the stakeholders of the project's watershed planning committee, who gave their time to interview with me and share their knowledge. I would also like to thank my graduate advisor, Bret Shaw, and the Lake Superior NERR Reserve Manager, Erika Washburn, for their qualitative research expertise and guidance. Sarah Wilkins, a recent graduate of the University of Wisconsin-Madison Nelson Institute for Environmental Studies, contributed her valuable knowledge and resources from her pre-assessment study for the project. Thank you to Emily Troisi-Rauschenberger, with the University of New Hampshire Center for Collaborative Science, for her services transcribing the interviews. Finally, I would like to thank my graduate program chair, Janet Silbernagel, for connecting me with this valuable professional opportunity.

This study was conducted during my professional internship with the Lake Superior National Estuarine Research Reserve in Summer 2014, as part of the Conservation Biology and Sustainable Development Master of Science program at the University of Wisconsin-Madison. Funding for the study came from a National Estuarine Research Reserve System Science Collaborative grant.

About the Lake Superior National Estuarine Research Reserve

The Lake Superior NERR, located in Superior, Wisconsin, is one of 28 National Estuarine Research Reserves located in coastal areas around the United States. The Lake Superior NERR joined the reserve system in 2010 and is one of two reserves located on the Great Lakes. The reserve protects 16,000 acres of Lake Superior's freshwater estuary, and contributes to long-term research and environmental monitoring, education, and stewardship through partnerships with the local community.

About the Nelson Institute for Environmental Studies

Founded in 1970 and renamed in 2002 after Wisconsin Governor and U.S. Senator Gaylord Nelson, the Nelson Institute at the University of Wisconsin-Madison is an interdisciplinary education and research institute built upon a historical legacy of environmental protection and innovation. The Institute values fostering community partnerships, catalyzing interdisciplinary collaboration and scholarship, and approaching environmental issues through diverse perspectives that integrate the natural sciences, social sciences and humanities.

Executive Summary

As a result of historical land use changes and the loss of coastal wetlands, the volume and velocity of water flow in the Lake Superior Basin has increased, threatening the resiliency of coastal communities. Wetlands provide valuable services including storing floodwaters and filtering stormwater runoff. In addition, they contribute to the unique biodiversity of the region, providing habitat for many of Wisconsin's vulnerable species.

The goal of this study was to assess the progress of the Lake Superior Watershed Framework for Assessment of Wetland Services (a National Estuarine Research Reserve System Science Collaborative project). The project seeks to improve the resiliency of coastal communities in Douglas County, Wisconsin by strategically identifying wetland projects that will provide essential wetland services to local watersheds. To address local town representatives' concerns and incorporate wetland projects into local land use plans, the project also seeks to formalize a process that would increase local input in wetland mitigation and restoration siting in the county.

The project aims to meet the above goals by "bringing local stakeholders and scientists together to develop a process for incorporating wetland science, watershed planning and geospatial tools into decision-making at the local level" (O'Halloran, 2013). To engage this diverse group, the project is using collaborative learning techniques. Collaborative learning is a powerful process that builds collective knowledge and engages local stakeholders as equal partners to address a coastal management challenge. In addition to assessing the progress of the project, this study aims to evaluate stakeholder experiences in the collaborative learning process and provide recommendations to guide the process moving forward.

Methods

This study, conducted in Summer 2014, serves as a mid-project evaluation from the perspective of key stakeholders who have participated on the project's watershed planning committee for the past year. Stakeholders who attended at least three of five committee meetings were invited to participate in a one-on-one semi-structured interview. Sixteen local stakeholders were interviewed, including town and county elected officials, local government staff, natural resource managers, industry and business representatives, and non-profit representatives. Interviews were transcribed and qualitatively analyzed by developing descriptive codes and organizing codes into emergent themes.

Key findings

Participants expressed that the project successfully improved communication and collaboration between diverse stakeholders. The meetings' structure and the slow, methodical process created a friendly, inclusive learning environment which *decreased the emotional level of discussions, improved dialogue and understanding of other stakeholders' motivations and concerns*, and allowed for *greater transparency* between parties. Stakeholders lauded the collaborative process and felt project leaders and other stakeholders valued their input. As a result, they felt the project is making progress toward shared goals.

All stakeholders (without prior expertise) felt that their general understanding of wetland services, wetland mitigation and watershed planning improved as a result of the project. Nonetheless, uncertainty remained about tax assessment changes when land is re-classified as undeveloped wetland. Stakeholders were also optimistic yet uncertain that the outcome of the project would successfully incorporate local input into the wetland mitigation siting process. Both political and economic realities pose challenges to a watershed-based plan. Multiple stakeholders felt that success depended on community support for the project. Town officials, landowners and other community stakeholders influence land use decisions which affect the long-term health of local watersheds. Broad support for this project's watershed-based plan is necessary to ensure future development projects, wetland projects, and general land use decisions align with the plan.

Recommendations

Five key recommendations were pulled from stakeholder responses:

- 1) Communication: The group should revisit and confirm shared goals and knowledge, in order to present a united front to outside stakeholders and the broader community.
- 2) Community engagement: Project leaders should consult the stakeholder group to develop a strategy for engaging and earning the support of town officials and the broader community, and to identify key individuals to approach in the community who will help garner support for the plan.

- 3) Mitigation siting: To address lingering uncertainties related to including local input in the wetland mitigation siting process, the project should identify and share concrete action steps toward this goal, a clear timeline, and provide opportunities for stakeholders to dialogue with regulatory agencies.
- 4) Tax assessments: To build shared understanding of tax assessment changes on wetland mitigation sites, the topic should be revisited by inviting multiple tax assessors to a workshop to provide additional perspectives and information.
- 5) Education: Without delaying progress toward project goals, the project should continue to build stakeholder confidence by improving knowledge of wetland services, the wetland mitigation process and watershed planning.

Table of Contents

Introduction	6
Methods	9
Results	10
Question 1 – Stakeholder’s main wetland-related issues	10
Question 2 – Stakeholder project goals and desired outcomes	11
Question 3 – Progress of the overall project	12
Question 4 – Value of input	14
Question 5 – Progress on local input	15
Question 6 – Aspects of project working well	17
Question 7 – Aspects of project working poorly or needing change	18
Question 8 – Usefulness to stakeholders’ work	20
Question 9 – Interest in future collaborative learning	21
Question 10 – Encouraging others to participate in collaborative learning	22
Question 11 – Understanding of wetland services	23
Question 12 – Understanding of wetland mitigation	24
Question 13 – Describing watershed planning in Douglas County	25
Discussion and Recommendations	27
Conclusion	29
References	30
Appendix	31

Introduction

Wetlands and Coastal Management in Douglas County, Wisconsin

The Wisconsin State Legislature defines a wetland as “An area where water is at, near, or above the land surface long enough to be capable of supporting aquatic or hydrophytic (water-loving) vegetation and which has soils indicative of wet conditions” (WDNR, 2013). Historical land use changes have resulted in the loss of 47% of Wisconsin’s original 10 million wetland acres. Most of the 5.3 million remaining wetland acres are in the northern third of the state (WDNR, 2014). Coastal wetlands contribute to the unique biodiversity of the Lake Superior Basin and the broader state, in part because their functions contribute to higher rates of biological productivity; 32% of Wisconsin’s listed species are wetland-dependent (WDNR, 2014). Situated within the Lake Superior Basin in northwestern Wisconsin, Douglas County is home to 3.6% of Wisconsin’s wetlands, which cover over 23.2% (194,169 acres) of the region (WDNR, 2013). These wetlands provide valuable services to coastal communities, including storing floodwaters and filtering stormwater runoff, which improves water quality and reduces sedimentation and turbidity. Wetlands also reduce the volume and the velocity of water flow on the landscape, particularly during major storm events and the snowmelt in spring (O’Halloran, 2013).

Douglas County is home to 43,287 people (as of 2010), of which 27,368 live in the City of Superior (NRPC, 2009). Land use changes and wetland losses threaten local communities in part due to the calcareous red clay soils which cover a full fourth of the county. These red clay soils, deposited 10,000 years ago beneath a glacial lake bed, are finely textured, impervious and erosive (Douglas County, 2009). When wet, clay soils are particularly unstable, causing erosion into streams and land slumps along coastal bluffs (NRPC, 2009). Local stakeholders recall the June 20, 2012 severe storm event, which dropped 8-10 inches of rain and caused significant infrastructure damage and flooding in the City of Superior and parts of Douglas County. This project seeks to address these coastal management challenges and build resiliency by strategically protecting and restoring wetlands.

Section 404 of the 1972 Clean Water Act requires that when impact to waters, such as wetlands, is *unavoidable*, compensatory mitigation is required to “replace the loss of wetland and aquatic resources functions in the watershed” (USEPA, 2003). Due to development pressures in the City of Superior and elsewhere in the region, compensatory wetland mitigation projects are inevitable. In 2008, the Wetlands Compensatory Mitigation Rule was revised with new standards that included emphasis on siting wetland mitigation according to watershed needs. In February 2012, Wisconsin passed a wetland regulatory reform bill that encouraged greater public input in the wetland mitigation permitting process, in response to appeals by the Wisconsin Towns Association (USEPA and Army Corps of Engineers, 2008). Despite these developments, this project intends to address concerns still held by many stakeholders, by formalizing a process for greater local input in wetland mitigation and restoration siting in Douglas County and aligning mitigation projects with local watershed needs.

An Introduction to the Lake Superior Watershed Framework for Assessment of Wetland Services

This interview study is part of a National Estuarine Research Reserve System Science Collaborative grant awarded to the Lake Superior NERR in 2013. This study focuses on the collaborative objective of the project, “to bring local stakeholders and scientists together to develop a process for incorporating wetland science, watershed planning and geospatial tools into decision-making at the local level” (O’Halloran, 2013). Diverse local stakeholders joined the project’s watershed planning committee. They contribute to all aspects of the project, including the assessment, design, implementation and evaluation. Through a collaborative learning process, the project incorporates local knowledge and engages stakeholders as equal partners to strategically identify areas for wetland restoration that meet watershed needs, fulfill compensatory wetland mitigation requirements, and honor community values. This study serves as a mid-project evaluation of stakeholder experiences with the collaborative process and also evaluates changes in understanding of key topics, both of which will assess the project’s progress toward shared goals.

As part of the project, a technical committee is using applied science and geospatial tools to develop a functional wetland assessment of Lake Superior sub-watersheds in Douglas County, which will produce wetland maps that identify existing and potentially restorable wetland areas with a high or low capacity to provide wetland services (O'Halloran, 2013). Wetland services that will be assessed include flood attenuation and water quality improvement, key concerns visible during the June 2012 storm event that caused widespread damage to community infrastructure across Douglas County.

This project is the first phase in a longer-term project and sets the stage for local stakeholders to incorporate wetland functional assessment findings into a prioritization of local wetland mitigation and restoration sites that meet community and watershed needs. Project leaders will work with regional planning staff to integrate this information into local land use plans, including the Douglas County Land and Water Resource Management Plan. Local stakeholders will be encouraged to suggest additional applications of the findings (O'Halloran, 2013).

Stakeholder Meetings/Workshops

In this study, stakeholders were interviewed to assess their experience participating in the project between September 2013 and July 2014, which primarily comprised of the Watershed Planning Committee workshops listed below. These workshops included a focus on wetland-related education, one of the project's and stakeholders' goals: "...to increase stakeholders' knowledge of local wetland resources, wetland services, and wetland policy and planning options" (O'Halloran, 2013). During the meetings, stakeholders had the opportunity to discuss local challenges, tensions and opportunities related to these topics.

September 12, 2013

Topics: Introductions, project overview, the collaborative process, development of a situation map

October 30, 2013

"A Primer on Wetlands in the Lake Superior Basin"

Topics: Watershed basics, wetlands on the landscape, wetland functional assessments, working session to finalize situation map

January 28, 2014

Topics: Wetland mitigation basics, the mitigation process, current land use regulation policies in Douglas County

March 26, 2014

"Douglas County Land Use Changes and Tax Base Impacts"

Topics: Tax assessment practices in Douglas County, changes in property taxes at wetland mitigation sites

June 12, 2014 & June 24, 2014

**An informal workshop was held on June 24 for participants who were unable to attend the June 12 workshop.*

"Planning to Slow the Flow"

Topics: Watershed-based planning, landscape-level indicators of watershed health, table discussion using layered maps of the Middle River watershed.

A Collaborative Learning Process for Coastal Management

The collaborative learning model

Collaborative Learning is a technique that brings to the table a diverse group of people to dialogue and learn from one another (Feurt, 2008). In a group setting, people connect their unique sources of knowledge and expertise, reach an understanding of others' interests and concerns, and create a shared vision for the future. In the case of this project, this technique is used to enhance collaboration among local elected officials, government staff, scientists, planners, natural resource managers, industry and business representatives, and other local stakeholders. These connections build social capital and enable the integration of both science and community values into coastal management decisions.

Pre-project stakeholder assessment

In the summer of 2013, Nelson Institute for Environmental Studies graduate student Sarah Wilkins set the stage for the grant project with an assessment to identify stakeholder interests and concerns related to wetlands and wetland mitigation in Douglas County, Wisconsin. Wilkins (2014) conducted semi-structured interviews with potential stakeholder participants. In September 2013, interview results were compiled into a situation map and shared at a community meeting, which the stakeholder group then discussed and edited to reach a shared understanding of the problem from the diverse perspectives of the participants (Appendix B). A situation map is “the process of graphically representing a situation in order to create a shared or systematic understanding of it” (Feurt, 2008).

The study in this report, conducted a full year later in summer 2014, uses stakeholder feedback from one-on-one semi-structured interviews to evaluate the progress of the project and compare it with Wilkins’ initial assessment. Key recommendations for the project that came out of Wilkins’ initial assessment included:

- *Communication and involvement*: Wilkins identified critical misconceptions in understanding between parties, and recommended identifying communication needs, reducing tensions and bridging relationships between town and county officials, environmental regulators, and industry stakeholders.
- *Tax base/profits*: Wilkins acknowledged gaps and inconsistencies in knowledge about tax revenues from wetland mitigation banks, and land classification changes when land is converted from agricultural use to a wetland. Wilkins recommended inviting a tax assessor to provide information about these concerns.
- *Education*: Wilkins noted the stakeholders wanted more wetland education for constituents and decision-makers, and recommended field trips and educational workshops to address the idea that wetlands are more than just “swamps or a ‘hindrance to development’” (Wilkins, 2014).
- *Land availability and comprehensive planning*: Wilkins recommended that the project’s technical committee should consult the broader stakeholder group for input in developing the wetland functional assessment, due to concerns expressed by many stakeholders about incorporating wetland mitigation into county, town and village land use plans.

Evaluation for assessing progress toward shared goals and adaptive management

The Collaborative Learning model emphasizes continuous evaluation and stakeholder input in the process: “Participants are a critical source for evaluating the process of Collaborative Learning and progress toward shared goals” (Feurt, 2008). For successful adaptive management, evaluation is important through each phase of the project, and it can take many forms, from brief written surveys after each workshop to formal interviews. This study aimed to gather stakeholder feedback on both the underlying structure of the project and the overall collaborative process.

Methods

Selecting the interview participants

From June to July 2014, qualifying stakeholders were invited by email to participate in one-on-one interviews. The target group comprised of stakeholders who participated in the Lake Superior Framework for Assessment of Wetland Services workshops from 2013 to 2014. Participants were invited to interview if they attended at least three of the five workshops over the course of the project. All 16 participants who met these criteria agreed to interview.

The interview participants represented a diverse sample of stakeholders involved in the project (Table 1). Note that participants' perspectives varied slightly based on the workshops they attended: six stakeholders attended 3 workshops, five attended 4 workshops, and five attended all 5 workshops.

Designing the interview questions

Interview questions were designed to assess three main concepts:

- Perception of the main issues and desired goals or outcomes
- Project progress via the collaborative learning process
- Self-identified changes in understanding of wetland services and mitigation

The interview questions were open-ended and semi-structured to enable the stakeholders to talk about anything relevant and important based on their experience (Appendix A). This structure avoided leading questions to ensure that evaluation of the project was solely based on the experience of the participant. Additional probing questions were asked as needed to clarify or elaborate on responses. Each interview was one-on-one and confidential, to encourage participants to speak freely about their experiences.

Analyzing the data

Interviews were audio recorded and transcribed verbatim. MAXQDA, a qualitative analysis tool, was used to assign codes. There were no a priori codes or themes. After initial codes were assigned to the transcripts, codes from across all interviews were organized into emergent themes.

Table 1. Interview Participant Affiliation

	Participants
Women	5
Men	11
Total	16
City Government	2
County/Town Government	7
State Government	2
Business or Industry	2
Non-profit	2
Other	1
Total	16
Wisconsin resident	14
Minnesota resident	2
Total	16

RESULTS

Interview Question 1 – Stakeholder’s main wetland-related issues

From your perspective, what are the main wetland-related issues in Douglas County that this project is trying to address?

Interviews kicked off with a warm-up question, intended to re-assess the main concerns among the stakeholders. The issues identified by stakeholders reflect those identified in Wilkins’ (2014) original pre-project interviews and situation map, including concerns about tax assessments, communication and collaboration with town officials during wetland mitigation siting, and the need for wetland education. Most stakeholders listed multiple, interrelated issues in response to this question, demonstrating their awareness of the complexity of the project.

Land use and mitigation siting

- Losing valuable land within townships, particularly agricultural land, to wetland mitigation projects
- Identifying acceptable wetland mitigation/restoration/preservation sites

Tax assessment and property values

- Losing local tax revenues after land is converted to wetland mitigation
- Assessing mitigation property unfairly

Communication and collaboration between stakeholders

- Failing to include town officials in mitigation siting process
- Lacking communication between stakeholders

Watershed health and water resources

- Increasing sedimentation and flooding
- Diminishing water quality

Wetland education

- Lacking knowledge of the functional value of wetlands
- Perceiving wetlands as barriers to development, rather than assets

Multiple, interrelated concerns can be heard in this participant’s response: *“They’re destroying their wetlands, and then they come out and mitigate their destruction on our resources, which might be our future chance to expand our town and do things in our township, which we have no say over. And that’s my biggest concern I guess with this wetland mitigation, is that I believe the process is flawed, and there are ways to not only fix that but to partner with the towns [...]”* This stakeholder personally feels the loss of valuable land in his/her town, and identifies communication and collaboration issues embedded in the mitigation siting process.

Other stakeholders focused on the natural impacts to watershed health in Douglas County as a result of wetland losses and land use changes on the landscape: *“Sedimentation is a big one up here. Slowing the flow, keeping the sediment out of Lake Superior and rivers. Uhm, but then there is also I guess, the direct impacts from wetlands loss. Loss of habitat, loss of the plants and critters that use that habitat. But system-wide it would be the sedimentation.”*

Interview Question 2 – Stakeholder project goals and desired outcomes

As a community stakeholder, what is your main goal for this project? What specific outcomes would you like to see at the end of the project?

A year out from initial interviews and development of the original situation map (Wilkins, 2014), we wanted to reassess the stakeholder's desired goals and outcomes. Stakeholders typically listed multiple, overlapping goals. These goals demonstrate awareness among the stakeholder group that the project has the potential to provide both social and environmental benefits for the region. Stakeholders' overarching project goals are listed below, including related, specific outcomes mentioned by one or more participants:

Mitigation planning

- Formalizing a process for local input
- Identifying acceptable wetland mitigation sites
- Increasing mitigation collaboration between all stakeholders

Community engagement and support

- Educating and involving town officials in the project
- Increasing community support for wetlands
- Recruiting "cheerleaders" for community engagement
- Improving the environmental behavior of individuals

Community planning and development

- Facilitating community growth
- Protecting town infrastructure
- Contributing to regional planning initiatives

Environment and watershed health

- Identifying wetland sites that will benefit the watershed
- Preserving functional wetlands
- Protecting Lake Superior and Douglas County's environment
- Educating stakeholders about the value of wetlands

Interview Question 3 – Progress of the overall project

Tell me about how the project is making progress, or not, on the issues and the goals that are important to you?

In a collaborative learning process, it is important for project leaders to continually gauge how stakeholders feel the project is progressing, based on shared goals. Responses included both specific feedback and generalized statements regarding the progress of the project.

Nearly all of the stakeholders were pleased with the project's progress. Many participants acknowledged that the project's slow, methodical pace was necessary to the project's success, accommodating the diverse stakeholders and numerous steps involved: *"I'm pretty content with the way it's been moving. It isn't moving like there is...a pants-on-fire kind of approach. They're very encompassing, and I think that's the way you have to do this sort of thing. You have to include everybody, take your time, think things through, so I guess in the overall picture I am pretty happy with what's going on right now."*

Participant's responses can be organized into two categories: those that feel the project is making progress and those that feel progress is limited. Major themes within these two categories of responses are explored, and can provide guidance on the future direction of the project.

Making progress toward shared goals

Engaging and improving collaboration between stakeholders

- Connecting with local stakeholders

Participants felt that the collaborative process at workshops was enabling connections between key local stakeholders, particularly between town officials and industry representatives: *"[The project has] definitely helped me connect a lot more with the local stakeholders. There were some individuals in the program that I knew previously, but now knowing more of the folks at the county level and township level and hearing directly from them on their concerns, has been very good."*

- Improving transparency between parties

Additionally, communication between stakeholders is improving mutual understanding and providing opportunities for collaboration. One stakeholder shared that they have already facilitated a meeting between industry representatives and town officials on an upcoming wetland mitigation project in the community: *"[...] we've been able to calmly bring the town board and the company together...they've come in with their maps and explained what they're doing...there is more transparency and that's a really important part of it."*

Building stakeholder understanding and knowledge

- Improving understanding of the issues, the process and future outcomes
- Improving understanding of wetlands and watershed values
- "Building a knowledgebase"

Stakeholders feel both they and others are improving their understanding and knowledge of wetlands, which contributes to overall confidence in the project's progress: *"We're building this knowledgebase as we go along and it's been very beneficial to me. I certainly have always understood the value of wetlands [...]. But, I seem to see the other people sitting at the table around me starting to maybe understand some of the values."*

Gathering watershed data and mapping the watershed

Some stakeholders feel that gathering scientific wetland data on Douglas County watersheds is invaluable to the project's success: *"It's also gathering a lot of information on what the functions and values are and what the wetlands are doing for the local communities. I think that's great. It's interesting to see the interest in that."*

Feeling satisfied with the structure of the project

Stakeholders emphasize that the project is successful in part because it is well-structured. Examples include using table maps to engage stakeholders in dialogue, bringing in experts to address specific stakeholder concerns, and having well-educated and organized project leaders.

Making limited progress toward shared goals

A small number of stakeholders were supportive of the project, yet expressed hesitation about the progress the project has made.

Engaging the broader community

Many stakeholders are in positions where they regularly interact with the broader community on wetland-related issues, and so they feel that change must happen at a community-wide scale. Some stakeholders feel that without community support, the project may not be successful:

"I think it's going in the right direction. It takes time – I mean, when you deal with all this stuff, it doesn't happen overnight. But at some point we're going to have to get the community involved. We haven't done that at all yet."

"In my opinion [...] success is really determined by the outcome in the community engagement phase. We can sit around as those in the know and some experts and talk about...go through all the data and the process and talk about why wetlands are important...but if it stays in this contained atmosphere and doesn't go anywhere, it's of no value, or very limited value."

Improving wetland mitigation and watershed planning

Though developing shared understanding and improving education among stakeholders is important, some stakeholders feel that success is ultimately dependent on the creation of formalized plan for wetland restoration and mitigation siting: *"I think the majority of the people in the room were familiar already with a lot of material we covered at first, and so it felt itching like...come on let's go...we know this part, let's get to the meat of it, which is you know a watershed plan or something that will serve as that, that will give guidance to the Army Corps and WDNR, requiring them to take input from the towns [...]."*

Interview Question 4 – Value of input

When you provide input during the project, how is your input valued or not valued? Please share any examples that come to mind.

The purpose of this question was to determine whether or not the stakeholders felt their voice was being heard. This is important in part because one of the main concerns driving the project was increasing local input in the mitigation process. Interestingly, when interviewees responded to this question, they cared how both the project leaders *and* other stakeholders listened to and valued their input.

All of the stakeholders felt their input was valued, due to the foundation of a friendly, receptive and inclusive environment for dialogue and learning. Themes included:

- Feeling listened to.
- Feeling free to ask questions and receiving answers.
- Feeling that others are considering and accepting stakeholders' input and concerns.
- Feeling part of the group despite differing interests and perspectives.
- Having strong project leaders.
- Building a level of comfort and familiarity between stakeholders, and decreasing the emotional level of the discussion.
- Facilitating open dialogue between different stakeholders in order to build understanding of one another.

Stakeholder responses evoke satisfaction with the collaborative process:

"Those who know me would say I'm usually not too shy about speaking up but I think the first one was the icebreaker, lets everybody get to know who's here and why. I think [the project leaders] worked to put people at specific tables strategically to facilitate the dialogue that maybe wouldn't have occurred otherwise."

"A lot of that came out the first few meetings, there were comments...and that emotion was still boiling to the surface. And we're still going to see some of that but I see less and less of that each time this group gets together. And partly that's just the cohesion of the group starting to know each other, and coming to that common level of understanding."

Though all stakeholders expressed satisfaction, a few spoke briefly of exceptions. A number of stakeholders commented on how they were unable to attend a few workshops and therefore missed important opportunities to learn or provide input. Additionally, one participant mentioned that there is still the need to build more trust between stakeholders. One other participant also mentioned that his/her written comments on workshop evaluations were not acted upon regarding her concerns about the slow pace of the project. Nonetheless, this participant said he/she ultimately trusted the leadership team's decisions about the project.

Interview Question 5 – Progress on Local Input

One goal identified by stakeholders is to ensure “local input in siting future wetland mitigation projects.” How is the project making progress, or not, on this particular goal?

Similar to question #4, this question is important because the issue of “local input in siting future wetland mitigation projects” was one of the initial drivers for this project. Of note, all of the interview participants automatically accepted the stated goal within the question as important. Responses to this question varied, with some participants feeling satisfied with progress towards local input, some feeling that action on local input was coming up in the next phase of the project, and others feeling that there has not yet been any concrete change to the mitigation process to include local input. Given these various perspectives, it is clear that stakeholders are not in agreement that the project has made progress on local input.

Making progress on local input

Multiple stakeholders emphasized that merely having a diverse group stakeholders continuously involved in the project was valuable to the goal of increasing local input. In fact as described earlier, one stakeholder noted that already the project has facilitated connections and collaboration between industry and town representatives on an upcoming wetland mitigation project in a Douglas County community. Relatedly, a few stakeholders felt that taking the time for learning and building shared understanding has facilitated the process of including local input in wetland mitigation siting. Multiple stakeholders felt the project is making progress by:

Involving diverse local stakeholders in the process

Participants felt the project was actively involving all stakeholders at the beginning: *“It’s trying to bring in all the players, again, they’re not all there at the same time, all the time. But I think it is very clearly trying to build that ability that they’re going to have input in the final outcome.”*

Building shared understanding among stakeholders

- Improving dialogue by dispelling misinformation about wetlands and mitigation
- Providing opportunity for stakeholders, particularly town representatives, to voice their mitigation concerns

For industry representatives and regulators, there was a misunderstanding of towns’ interests, while town representatives misunderstood the motivations of industry and regulators for wetland mitigation projects: *“... the first meeting was probably the most...I don’t want to say uncomfortable, but maybe contentious... because everyone came with their preconceived notion of the issue, and what we were going to do about it, and I think there’s been good learning, myself included, on different aspects on what is mitigation, why do we need it, where does it go?”*

Creating opportunities for everyone to comfortably learn and engage

- Allocating time for non-experts to understand technical details
- Answering questions written on anonymous notecards during the workshops
- Developing watershed maps to facilitate dialogue and future site identification by towns
- Giving local representatives a seat at the table with industry and government

Many stakeholders felt the structure of the workshops allowed for everyone to learn at their own pace and ask lingering questions, which contributed to the foundation of an inclusive and collaborative environment: *“So the substance is very technical, and people could get very bogged down [...]. We’re not compressing the process to get to an answer, when it’s much more complicated, and so people are given an opportunity to sort of absorb all of this and come to the logical conclusion.”*

Progress on local input is still to be determined

A few stakeholders expressed understanding that progress on local input was coming up in the next phase of the project. Stakeholders were generally optimistic that the project was moving in the right direction, yet some still expressed concern whether change to include local input in wetland mitigation siting would actually occur: *"I need to have a say in it as a town official. We need to have a say in that part of the process. I think they get that. I don't know if it will change but I think it could."*

In response to this question, a few stakeholders offered suggestions. One stakeholder expressed the importance of including townspeople in the planning process as early as possible. Another said that the stakeholder group could do a better job of stepping away from their respective positions and emotions to listen to and understand one another to arrive at a solution.

One of the stakeholders, who incidentally is not a town representative, felt that local input is not being fully included in the mitigation siting process: *"We talked about where in the process [the townspeople] would play a role, and not just have a voice in the public comment period, but have a voice as in they could stop the process if they wanted to. So at that meeting, I think we made progress in getting [the towns] to understand the mitigation process and see some potential avenues for making input, but it was just kind of like here's some options, and then we rolled onto the next topic. I don't think they know still how they could make a difference in this. So I hope that there's more coming in terms of formalizing the process."*

Lacking progress on local input

The main reasons some of the stakeholders felt the project was not making progress on local input yet were related to communication, collaboration and trust. Main concerns included:

- Building trust between the town representatives and other stakeholders
- Encouraging stakeholders to step away from their pre-determined positions and embrace collective progress
- Meeting the needs of town chairmen and involving them in the process early: *"I still feel the town chairmen are probably concerned about what has gone on in the past, and why those sites are being selected."*
- Changing the status quo of the mitigation process

A number of stakeholders felt that even though the group is aware of town officials' concerns related to wetland mitigation siting, the project has not moved from the educational stage to the action stage:

"No [progress], none. But that's part of the problem...without the local representatives there, it's difficult to gauge. I understand what their concerns are quite clearly, but whether or not this process has been successful up to this point in addressing some of those concerns...? I don't think it's addressed anything yet. I think it's still: here is the information that we're synthesizing to move on to the next stage."

Interview Question 6 – Aspects of project working well

What specific aspects of the project are working well?

The purpose of this question was to identify specific aspects of the project's structure and process that are contributing to its success. Respondents were encouraged to comment on both small, specific details and broad elements. Responses were organized into seven main themes, with specific, related examples of responses.

Of note, eight of the respondents expressed that they felt positive about the project and were glad to be a part of it.

Providing a comfortable atmosphere

- Serving dinner at the workshops
- Answering questions anonymously from note cards
- Hosting workshops at a comfortable, convenient location
- Treating participants well

Reducing the emotional level of discussions

- Recruiting calm participants and avoiding extreme perspectives/ideas
- Moving at a slow pace to "assuage" participants' anxieties, enable learning, and support rational dialogue

Increasing dialogue between stakeholders

- Attracting diverse and influential stakeholders to each meeting
- Mixing stakeholders with different interests or perspectives at a table
- Providing free time for networking
- Learning of shared needs and ideas among diverse stakeholders

Accommodating different levels of understanding/awareness

- Making concepts approachable to diverse people
- Sharing technical information at an appropriate pace
- Allowing people to come to their own logical conclusions
- "Bringing people to a common level of understanding"

Structuring the meetings well

- Having great organizers/leaders/facilitators
- Blending open discussions with presentations from experts
- Bringing in knowledgeable participants and guest presenters

Educating participants

- Clearing up misconceptions and misinformation
- Improving general education and levels of understanding on a breadth of topics and issues
- Providing a workshop to educate about taxes and assessments as a result of mitigation
- Using table maps/overlays as a teaching tool

Making progress toward outcomes/goals

- Taking action on town comprehensive plans
- Developing a beneficial functional wetland assessment
- Creating a usable template that is transferable to other communities facing similar issues

Interview Question 7 – Aspects of project working poorly or needing change

What specific aspects of the project are not working well and need to change?

In response to this question, a few stakeholders expressed satisfaction with the way the project is planned and implemented, and did not have any specific comments. Some stakeholders responded with concerns, while others provided recommendations for improving the project and identified important next steps.

Project concerns

A few stakeholders mentioned different topics or activities that were less beneficial to them personally, though other stakeholders felt these same topics and activities were beneficial. This suggests a need to diversify activities and opportunities for learning to accommodate the different interests and learning styles of the stakeholders.

One regulatory stakeholder expressed concern about the amount of time allowed by higher management in his/her organization to allocate toward the project. Moving forward, it may be important for project leaders to reassess the commitment and time availability of key stakeholders.

There were a few recurring concerns mentioned in response to this question by multiple stakeholders:

Missing meetings/workshops

A number of stakeholders were uncomfortable commenting on certain aspects of the project because they had missed one or more workshops. Concerns over missing meetings/workshops was a common theme, because it hindered the progress of the project and stakeholders' awareness of what was going on. A few stakeholders recommended condensing the time between workshops and speeding up the pace. One stakeholder commented that it was difficult to recall previous discussions because of the extended time between meetings.

Other stakeholders felt that missing meetings hindered the development of common knowledge and understanding among stakeholders:

"I don't want to miss any of the meetings, but when you do, you miss a big chunk...because when you can sit there and hear what everybody's saying it's different than being brought up to speed, because there's little things that you're missing that you pick up on."

"And each meeting, you can see it's building a little, and the hardest part is that not all of the players are at the table at every meeting. Certain players are missing a piece here and there, so I'm not sure how you bring them back into the same common knowledge."

Feeling concerned that the wetland mitigation process will remain the same

A number of stakeholders expressed concern about whether the project will bring about change. Reasons included concern over the ability of wetland mitigation actors (such as Enbridge or mitigation bank owners) and regulators (such as WDNR and Army Corps of Engineers) to change their process. A few stakeholders expressed the desire to see more involvement from the WDNR and Army Corps in order to assuage some of these concerns.

Stakeholder recommended changes and next steps

Most stakeholders offered suggestions for how the project could move forward. One stakeholder said he/she would have liked to hear from multiple tax assessors about property values and tax base impacts. This may be a valuable recommendation, given that throughout the interviews it appeared that stakeholders were not all in agreement about the impact of wetland mitigation sites on the local tax base. Another stakeholder suggested it would be beneficial to create a map of all the wetland mitigation projects in Douglas County. Other than these comments, overarching ideas emerged:

Strategizing community engagement

Nearly half of the stakeholders recommended beginning to engage local town officials and building strong relationships with people in the broader community. Stakeholders recommended presenting the project to different groups in order to prepare communities, particularly community decision-makers, for the future. Recommendations included bringing in town board chairs to workshops and presenting the project to local science teachers, the Towns Association, and even the general public. One stakeholder recommended publicizing the project with the media.

Overall, the need to set the stage for the project by strategically engaging the community and preparing town representatives was a strong, recurring theme: *"But communication is a big deal and if we're going to make this process work so that people understand it, we've got a long way to go [...] Because you know, you mention the word wetland and you could start a fight...it's mostly because they don't understand what it does, why we are so concerned about it...I definitely probably have a different perspective now than I did when we started, because I'm the same way."*

Educating the public, youth, town officials, county committees

Nearly half of the stakeholders also recommended developing strategies for sharing information and educating different groups on various topics: the project, wetland mitigation, tax assessments, and watershed planning and management: *"Education is going to have to be first, cause I mean you could take my other two supervisors on my board, they don't know nothing about... they haven't spent the time on this. And because of elections, your officials change all the time. So, there has to be continual education on that."*

Setting an example for other communities

A number of stakeholders talked about how this project and its process can set an example for individuals or other communities working on similar initiatives.

Involving more stakeholders

Many stakeholders had ideas for whom to bring into the project moving forward. Some wanted more commitment from regulators and power players such as the WDNR, Army Corps, the City of Superior and the Wisconsin Department of Transportation (WDOT). Others wanted to begin to engage local community leaders, such as town officials and representatives from interest groups (ex: lake associations).

Shared understanding among stakeholders

Many stakeholders felt that it was important to ensure the stakeholder group fully supported and had a shared understanding of the process moving forward, of expected outcomes and goals, and of the key values of wetlands and the need for mitigation. They expressed that shared understanding and goals was important to make final decisions that culminate in a successful wetland mitigation and watershed plan, and to successfully present the project to the public: *"You know, I know we're getting close to bringing it forward out to the public, so the review of everything is obviously going to have to take place before that happens so that everybody can go there with the same understanding, with the same interpretation, with the same goal I guess, and confidently say "yeah this is...we feel that it's working [...]."*

Implementing the wetland mitigation / watershed plan

Stakeholders offered different thoughts on implementing wetland mitigation changes in the future. Some thoughts related to the regulatory process, and others to ecological and environmental principles:

- Questioning how the Army Corps will incorporate the plan into the mitigation siting process
- Changing how wetland mitigation sites are assessed via the Department of Revenue
- Requiring all actors (government and private interests) to implement a wetland mitigation project in the same local watershed where the original wetland was disturbed.
- Ensuring the final watershed plan is used long-term, even after new elected officials take office
- Identifying functional wetlands that meet current or future watershed needs, rather than returning to pre-settlement conditions.
- Incorporating wildlife values into wetland assessments and mitigation projects

Interview Question 8 – Usefulness to stakeholders' work

What specific aspects or outcomes of this project are useful, or not, to the particular work that you do?

The purpose of this question was to gauge how the outcomes of this project would contribute to the participants' professional work. Based on the interviews, this question was often unnecessary to ask given respondents' previous comments. It became clear based on earlier responses that the project would generally be useful by alleviating conflict as a result of streamlining the mitigation and planning process and including local input. As a result, the question was only asked when it seemed necessary to clarify beyond previous comments. Of note, the following results correspond to only seven interview participants.

A few respondents felt the project would not effect their work because they were retired or had only a personal interest in the project. Another stakeholder felt that the project would not alleviate work-related stormwater issues in the City of Superior, but that the project would benefit other facets of his/her life.

Other stakeholders expressed ways the project would be useful to their work:

- Improving local awareness and support for watershed planning and wetland management.
- Streamlining the planning process, including wetland mitigation site selection.
- Improving wetland mitigation site selection that fits the needs of the watershed/landscape.
- Alleviating conflict by incorporating local input to identify mitigation properties.
- Indirectly improving wildlife and game species habitat.

Interview Question 9 – Interest in future collaborative learning

Based on your experience with this project, how do you feel about participating in a similar stakeholder-driven collaborative project in the future, and why?

All stakeholders responded that they would be interested in participating in similar, stakeholder-driven collaborative projects in the future, and they all valued the collaborative process. They expressed that the project was a valuable use of limited time, and many elaborated on the reasons why they were willing to volunteer their time:

Giving local townspeople a voice

- Engaging townspeople in planning
- Increasing local control of land use decisions

Collectively building knowledge and sharing the knowledge with others

- Identifying a common message about wetland protection
- Sharing new knowledge about wetlands to inform town decision
- Learning from a group of people who bring diverse perspectives

One stakeholder expressed greater confidence in sharing knowledge as a result of the project: *"Well there's all this knowledge, all this experience, all that you get to share and to hear... and when I go back to the town I can feel like I'm giving them good solid information, and I can feel confident that what I say is accurate. And when I'm confident, they accept things and believe."*

Dialoguing as a group to identify the issues and possible solutions

- Facilitating change at the local level
- Bringing hard-to-reach stakeholders to the table
- Hearing diverse perspectives on an issue to identify a way forward supported by everyone

Stakeholders discussed both broader observations about collaborative learning and particular activities that were beneficial: *"I definitely would participate because I think that dialogue is key to solving any issues. You know, getting people in a room together to talk about the hard issues whether or not everyone can agree, and what is a reasonable path forward that we can all support? When we did the mind mapping exercise at the first meeting, I think that was a pretty powerful tool for folks to start looking and breaking apart the issues [...] I think hearing other people's viewpoints and working together to solve the problem instead of one focused subset of group working on it... so yeah, I would definitely participate in another stakeholder type collaboration."*

There were only a few caveats mentioned about future participation in a similar project. Firstly, participation would depend on an their ability to fit the project into their already busy schedules. Secondly, stakeholders would only participate if the project was on an issue they were personally interested in. These two caveats are important to consider when recruiting future participants to a collaborative learning project: accommodating and respecting stakeholders' busy schedules, and connecting the project to their interests.

Interview Question 10 – Encouraging others to participate in collaborative learning

How do you feel about encouraging others to engage in a similar stakeholder-driven collaborative project in the future, and why?

All of the stakeholders were supportive of the idea of engaging others they know in similar collaborative learning projects. Nonetheless, they expressed some challenges they would face engaging others in a long-term project. They emphasized that people will only volunteer time to participate if they have a strong personal interest in the issue. Despite their complaints about a particular issue, people are hesitant to volunteer their time to provide meaningful input and solutions. Additionally, one stakeholder noted based on his/her personal experience that people may be apprehensive about participating in controversial projects, because of the uncertainty of how they will be received by others in the group.

In response, stakeholders also provided strategies for how they would encourage others to participate in these valuable projects. They would emphasize that these projects provide an opportunity to learn about an issue of personal interest, and to connect with other people involved in the issue. In other words, participation in a stakeholder-driven, collaborative project is educational and creates opportunities to build new relationships. Many stakeholders emphasized the need to connect the project to a person's interests, to convince them to volunteer their valuable time: *"We're all so busy with everything. My close friends [and I] all value our personal time, so we don't give that up very readily. So, [the project] has got to tie in very personally either work or home-wise. And if it does you'll get them to come, but if it doesn't you're not going to get them to come. It's just too big of an investment, especially if this is a 1-2 year process."*

Interview Question 11 – Understanding of wetland services

How would you rate your understanding of wetland services before this project? Now? Please explain how you feel your understanding has changed, or not.

The purpose of this question was not to identify exactly how much each stakeholder learned, but rather to allow the stakeholders to self-identify how they've learned and benefited from information on wetland services. A majority of the stakeholders expressed that they were already aware of wetland functions and values, due to their professional or educational backgrounds. A few of the stakeholders said they were uninformed or had little understanding of wetland functions and values prior to the project, and they felt the project gave them more confidence about their knowledge of wetlands. Those stakeholders who were less knowledgeable about wetland services did not express their learning in detail - rather they expressed in simple terms that they have learned about wetland services through the project.

Interestingly, both those who started with a limited understanding of wetland services and those who started with a self-identified strong understanding felt their knowledge was enhanced by the project in some way. Some of their thoughts on wetland services education included:

- Acknowledging they lack detailed, expert knowledge of wetlands, yet feeling that high-level knowledge is not necessary for successful collaboration
- Learning how other stakeholders perceive wetland services was beneficial
- Learning about the Wisconsin Wetlands Inventory was beneficial
- Feeling more confident about sharing knowledge outside of the group
- Improving understanding of watershed concepts:
 - How wetlands respond to floodwaters
 - How open lands impact watershed health
 - How land use impacts the watershed and water flow
 - How to prioritize functional wetlands to improve watershed health

One stakeholder identified the June workshop as the most beneficial for connecting wetlands with watershed concepts, in part because the workshop taught concepts through a case study of the Middle River watershed: *"Before the project I didn't think so much about the connection of the wetlands at the headwaters of the watershed, and how that changes as you go further down the watershed. I just... I understood the functions of the wetlands at an individual basis, but the larger perspective I didn't really think about. The night that we were talking about that and did an overview of the Middle River watershed, that was a big learning night for me."*

Multiple stakeholders acknowledged they still did not clearly understand how wetlands function; yet, they accepted that detailed information about wetland services was not necessary for everyone: *"There are some pieces that are still missing, because I'm not a hydrologist. There are still things I still don't understand about the different types of wetlands and all the attributes that go into their various functions, such as storm water storage and release and uptake in nutrients. All those kind of functions I don't fully understand cause I don't have that knowledge and I don't think that's been presented that detailed, and I don't know that we should for the entire crew [...]"*

Interview Question 12 – Understanding of wetland mitigation

How would you rate your understanding of the wetland mitigation process and policies in Douglas County before this project? Now? Please explain how you feel your understanding has changed, or not.

Nearly all of the stakeholders acknowledged that their understanding of wetland mitigation in Douglas County has improved, including the half of the participants that had prior familiarity and experience working with wetland mitigation.

Multiple stakeholders felt their understanding had increased greatly about:

- Property valuation and tax assessments
- The importance of wetland mitigation and restoration for watershed health
- Local communities' concerns with wetland mitigation and including town input in the process

Other stakeholders identified an increased understanding of the role of regulating agencies such as the WDNR and the Army Corps, the motivations of industry, business and city parties, and the process of mitigation banking. One stakeholder appreciated learning about current mitigation projects within the county.

Despite these self-identified project benefits, it was clear that uncertainty and concerns remained for many stakeholders. Multiple stakeholders felt they still did not fully understand how mitigation sites are selected and the decision-tree. It seemed much uncertainty was related to the fact that the project has not yet developed a prioritization process and plan. Some stakeholders were unsure how mitigation sites would be prioritized and how the process would incorporate local concerns, such as farmland preservation.

Additional individual concerns and interests arose, including:

- Addressing how mitigation banks operate as a business, and related property valuation and tax impacts
- Addressing who is responsible for the long-term management and care of wetland mitigation sites
- Assessing mitigation sites for successfully delivering long-term biological and functional goals for the site (such as flood attenuation or plant diversity)
- Restricting mitigation development opportunities by creating additional local regulations to meet project goals
- Developing strategies for small parcel mitigation and wetland preservation on agricultural land
- Modifying the Army Corps' mitigation rules to allow for preservation of existing functional wetlands
- Including highly erodible banks in land use regulations

Clearly, wetland mitigation remains an uncertain and contentious issue for these stakeholders. A few stakeholders acknowledged that wetland mitigation techniques and policies would continue to evolve. The following comments reflect a general awareness by most stakeholders that the project is tackling wetland mitigation issues and will begin to formalize details to a plan that meets shared goals:

"I think it's just a general comment that tackling this issue...I think that was a really good idea, and I'm really happy that it's moving forward. And the outcome...I hope that it can translate into other communities and watersheds that are facing some of the same issues.... and smarter planning as we proceed with projects and planning mitigation [sites] instead of [following] black and white what the rules say."

"You know there's just a lot of logistics that have to be worked out. I want to land on something that's going to really work for everybody. So alleviate that conflict going forward, but I think we need to be really forthright about what that plan is and try to troubleshoot some of those issues so what we land on really does work."

Interview Question 13 – Describing watershed planning in Douglas County

How would you describe “watershed planning” and its role in Douglas County to one of your colleagues?

Stakeholders responded to this question with very diverse perspectives on the role of watershed planning in Douglas County. Because the question was so open-ended, stakeholders emphasized different aspects of watershed planning. Common reactions in response to the question were:

- It’s complex and difficult to describe
- The project is just getting started with watershed planning
- Watershed planning is important for Douglas County because it is a watershed-rich region with valuable water resources.

Additional themes emerged that watershed planning in Douglas County would require navigating political and economic interests and strategizing how to educate on and build awareness of watershed concepts among different groups of people. Stakeholders also noted the benefits of watershed planning: it would facilitate community development while protecting infrastructure, would protect water resources, and provide ecosystem services.

Navigating political and economic interests

A number of stakeholders expressed that the challenge with watershed planning is when political and economic interests conflict with watershed health. For example, a few stakeholders expressed concerns about the pressure on private landowners to sell their land for wetland mitigation projects, in spite of future local land use or watershed plans. A separate stakeholder felt that despite best efforts, there was broadly a lack of political will for improving watershed management. Alternatively, one stakeholder said that it seems the State of Wisconsin encourages watershed planning. Another stakeholder expressed the need to regain local/county control of watershed planning, in order to protect water resources. Clearly a number of stakeholders feel that the ability to manage watershed health faces political and economic barriers.

Explaining watershed concepts to others

A number of stakeholders expressed that there is a need to teach people and build their understanding of watershed concepts, including educating about groundwater flow, optimal land use and land cover effects, and connections between upstream land use and impacts downstream. One stakeholder said it is valuable to use smaller scale, sub-watershed maps and other visual tools to educate people. A few stakeholders commented that the concept of a watershed is strong in Douglas County compared to other regions in Wisconsin, so this is a good region that is receptive to a watershed plan.

Improving ecosystem services while facilitating community development

Stakeholders talked about the role of watershed planning to improve watershed capacity to minimize damages during a rainstorm (road washouts, damages to homes) and improve water quality. They discussed the need to identify areas of concern and then protect natural infrastructure from development. One strategy mentioned was to prevent people from building structures in high risk areas within the watershed, such as areas prone to flooding: *“I think watershed planning also includes where people live. Are people living where they should be? Whether they want to live there or not is not the point. Why should we keep rebuilding some things when maybe they just shouldn’t be there?”*

One stakeholder expressed the challenge of convincing communities and landowners to invest money to “slow the flow” to prevent costly infrastructure damages and a long financial recovery after major storm events. Multiple stakeholders felt the need to simultaneously facilitate development and agricultural expansion while improving watershed health.

One stakeholder eloquently described watershed planning as connecting community infrastructure with natural infrastructure: *“I would maybe describe it kind of like county planning, or any level of government planning but instead of having your lines drawn on political boundaries, it’s drawn on terrain boundaries. But much like any other unit of government you have the services that you need to*

provide and you have the people that live there and then you have your inputs. They're just different. It's not taxes, its inputs like the natural resources that are there and the rain that falls on it, and then the services are things like flood retention and all that. So just like you need to manage your infrastructure as a county or a town, you kind of have to think about your natural infrastructure in a watershed, so when you're doing planning you plan for how to protect that infrastructure."

Protecting water resources and improving habitat

Stakeholders offered thoughts on how watershed planning could protect water resources and improve wildlife habitat, such as identifying functional wetlands to preserve and studying downstream effects, restricting harmful agricultural practices, and protecting natural infrastructure.

Guiding the planning process

Some stakeholders emphasized watershed planning's unique, holistic approach. They described watershed planning as:

- Shifting the planning focus around the river corridor
- Identifying the best land uses within a watershed
- Identifying the appropriate watershed/sub-watershed scale for planning
- Employing scientific expertise, data and tools (such as maps) to guide the planning process

Discussion and Recommendations

Communication and involvement

As stated in the introduction, Wilkins' (2014) initial assessment identified critical misunderstanding between stakeholders and recommended reducing tensions and bridging relationships between town and county officials, environmental regulators, and industry stakeholders. This study found that the collaborative project has successfully addressed these recommendations. One of the key themes throughout the interviews was that the project has *decreased the emotional level of discussions, improved dialogue and understanding of other stakeholders' motivations and concerns*, and allowed for *greater transparency* between parties.

Part of this success stems from the project's structure, which maintains a slow, methodical pace and friendly, inclusive environment that welcomes all stakeholders to fully participate and build understanding at their own pace. Participants said they felt part of the group, despite holding different perspectives. One of the most beneficial structural aspects of the project was the opportunity to share a table with different stakeholders and dialogue with them. When asked, stakeholders did not hesitate to express that they felt project leaders and other stakeholders *valued their input*.

Recommendations

Though this stakeholder group is more collaborative and misunderstandings have been assuaged, participants acknowledged that misunderstanding and tensions related to wetlands and mitigation remain in the broader community. As a result, they recommended revisiting and confirming shared goals and knowledge, so that the group demonstrates a united front when it is time to engage local communities.

Community engagement

A common theme among the stakeholders was the importance of engaging and earning the support of the broader community on the project. Many stakeholders work in positions where they regularly interact with the broader community on wetland-related issues and recommended that the project *develop a strategy to engage town officials and other community stakeholders*. A number of stakeholders felt the ultimate success of the project was dependent on community support for the plan.

Recommendations

It will be important to decide at what time the town officials and other community stakeholders, or the general public, should be engaged in the project. In addition, it will be important to consult this stakeholder group for community engagement strategies and for recommendations on key individuals to approach.

Education

Wilkins' (2014) noted the stakeholders wanted more wetland education for constituents and decision-makers, and recommended field trips and educational workshops to address the idea that wetlands are more than just "swamps or a 'hindrance to development'" (Wilkins, 2014). The workshops over the past year have included education on wetland services, the wetland mitigation process and policies, tax assessments, and watershed planning. This study relied on self-identified knowledge and found that general *understanding of wetland services has improved* among all stakeholders who had limited prior knowledge of wetland services. One stakeholder even expressed that his/her confidence in sharing this knowledge with others has improved.

Additionally, stakeholders clearly *expressed the value of watershed planning* and the importance of identifying functional wetlands that meet watershed needs. Though many stakeholders did not eloquently describe their understanding of wetland services and watershed planning, they did support the importance of watershed-based planning to achieve ecological or social goals.

All stakeholders also felt that their general *knowledge of the wetland mitigation process and policies has improved*, though many stakeholders acknowledged they only had a basic understanding of wetland mitigation. With such a complex process, it is difficult for stakeholders to fully understand wetland mitigation unless they work with the process

directly. Multiple stakeholders felt they still did not fully understand how mitigation sites are selected, which likely contributes to uncertainties about how local input will be incorporated into the mitigation siting process.

Additional knowledge gaps were more related to uncertainty about the future of wetland mitigation, such as whether mitigation sites meet biological and functional goals in the long-term, or who will be responsible for managing a mitigation site in the long-term.

Recommendations

Clearly, wetland mitigation remains an uncertain and contentious issue for these stakeholders, though knowledge about the process and its policies has improved. For both wetland services and wetland mitigation, knowledge and clarity can always improve, and it will be important to *continue to build stakeholder confidence by revisiting these topics*.

Additionally, it will be beneficial to provide opportunities for stakeholders to engage with regulatory agencies, such as the WDNR and Army Corps of Engineers, who can provide insights into alternative options and potential changes to the mitigation siting process that were suggested by stakeholders. Some stakeholder concerns can be addressed through greater transparency and dialogue, while others will only be addressed through concrete action.

Tax base/profits

Wilkins' (2014) identified gaps and inconsistencies in knowledge about tax revenues from wetland mitigation banks and land classification changes. To address these gaps, the project invited a tax assessor to a stakeholder workshop to address concerns. Stakeholder interviews revealed continued inconsistencies in understanding, despite these efforts. Though many stakeholders identified the workshop on tax assessments as one of the most beneficial and enlightening workshops, there were also a few stakeholders who still felt uncertain about changes in tax revenues when agricultural land is converted to a wetland. Additionally, at least one stakeholder expressed frustration that wetland mitigation properties are not treated as businesses, and are therefore not taxed appropriately to begin with.

Recommendations

Given these gaps and the importance of building shared understanding before engaging the community, it is recommended that the group revisits and discusses tax assessments. One stakeholder recommended inviting multiple tax assessors to a workshop to provide multiple perspectives. After this workshop, it may be beneficial to identify action steps to appease any lingering concerns. It is important to address and clear up misinformation on this subject before approaching town officials and the broader community, since this is a common concern related to wetland mitigation and restoration projects.

Overall progress toward wetland/watershed planning

During the interviews, stakeholders expressed concerns about the slow pace of the project and felt uncertain that local input will be successfully incorporated into wetland restoration and mitigation siting in Douglas County. Nonetheless, many stakeholders acknowledged that incorporating local input into the siting process was coming up in the next stage of the project. This feedback relates to Wilkins' (2014) recommendation for the project technical committee to consult the broader stakeholder group to address concerns about integrating wetland mitigation with local land use plans. Most stakeholders were optimistic that the project was moving in the right direction toward this shared goal.

Recommendations

Uncertainties about local input will remain unless concrete action steps, a clear timeline, and a formalized process that includes local input are discussed, identified and shared with the group. Many of the stakeholders were aware of challenges that inherently slow down the process. As such, openly communicating and discussing these challenges and sharing project decisions with the group may address some of these concerns.

Conclusion

For this project, collaborative learning initiated shared understanding and relationship-building between Douglas County stakeholders, despite their diverse perspectives on wetlands, mitigation and land use management. Participants expressed that stakeholder-driven collaboration is beneficial and even imperative to address local issues. While the project has made great progress toward shared goals up to this point, it is important to acknowledge that these interviews took place just one year into a project addressing a complex ecological and social issue. As a result, concerns expressed in the interviews about the ultimate success of the project may be premature. Many stakeholders who were interviewed have had limited time to engage with the project, participating in only three or four meetings throughout the past year. It will be important to re-assess stakeholder perceptions of the progress and the collaborative learning process following each completed phase of the project.

Stakeholders expressed optimism, were glad to be a part of the project and felt the project was moving in the right direction, yet they were uncertain about the ultimate outcome of the project. Stakeholders acknowledged that the formalized process for identifying acceptable wetland mitigation sites must be economically and administratively feasible for developers who rely on wetland mitigation projects, and also must be integrated into the existing mitigation siting process by regulatory agencies.

Despite these challenges, stakeholders are eager for creative solutions to restore or preserve wetlands and improve watershed health, whether it's to "slow the flow" or to enable preservation of locally valuable land for community development and agriculture. They hope the project will be a model for other communities in Wisconsin, or elsewhere, facing similar coastal management challenges.

References

- Douglas County. (2009). *Land and Water Resource Management Plan for Douglas County, WI*. Retrieved from: <http://www.douglascountywi.org/DocumentCenter/Home/View/357>
- Feurt, C. (2008). *Collaborative Learning Guide for Ecosystem Management*. Retrieved from: http://www.wellsreserve.org/sup/downloads/collaborative_learning_guide.pdf
- Northwest Regional Planning Commission (NRPC). (2009). *Douglas County Comprehensive Plan 2010-2030*. Retrieved from: <http://www.douglascountywi.org/DocumentCenter/Home/View/840>
- O'Halloran, S. (2013). *Lake Superior Watershed Framework for Assessment of Wetland Services: National Estuarine Research Reserve System Science Collaborative Proposal*. Superior, WI: Lake Superior National Estuarine Research Reserve.
- United States Environmental Protection Agency (USEPA). (2008). *Wetlands Compensatory Mitigation Rule Factsheet*. Retrieved from: <http://water.epa.gov/lawsregs/guidance/wetlands/upload/MitigationRule.pdf>
- United States Environmental Protection Agency (USEPA). (2003). *Wetlands compensatory mitigation*. Retrieved from: http://water.epa.gov/lawsregs/guidance/wetlands/upload/2003_05_30_wetlands_CMitigation.pdf
- Wilkins, S. (2014). *Community-based Wetland Management: Collaborative Learning and Assessment in Douglas County, Wisconsin* (unpublished white paper). University of Wisconsin-Madison. Madison, WI.
- Wisconsin Department of Natural Resources (WDNR). (2014). *Wetland communities of Wisconsin*. Retrieved from: <http://dnr.wi.gov/topic/EndangeredResources/Communities.asp?mode=group&Type=Wetland>
- Wisconsin Department of Natural Resources (WDNR). (2013). *Wetland functional values*. Retrieved from: <http://dnr.wi.gov/topic/wetlands/function.html#whenis>
- Wisconsin Department of Natural Resources (WDNR). (2013). *Wisconsin wetlands: county by county acreage*. Retrieved from: <http://dnr.wi.gov/topic/wetlands/acreage.html>

Appendix A.

Interview Protocol

Interview Protocol June 2014

This interview is part of a study examining local stakeholder collaboration in the development of a science-based wetland assessment that addresses watershed needs in Douglas County, Wisconsin. You are an important stakeholder, and our goal is to assess your perspective on the progress made by this collaborative project after one year. Different perspectives will be compiled to help guide the next phase of the project.

During the interview, you will be asked to respond to questions that relate to your thoughts about the collaborative process so far, and your understanding of wetland services and mitigation policy in Douglas County. There are no right or wrong answers – we are interested in learning about your individual perspective and experience. The results of this study will be included in a white paper and an exit seminar as part of my professional internship at the University of Wisconsin-Madison. They will be shared with the Lake Superior National Estuarine Research Reserve and others interested in the project and may be published. Neither your name, nor any other specific identifying information linking you to the interview will be shared. Only group characteristics will be published to provide a contextual understanding of stakeholder perspectives. The interview should take approximately 30 minutes to one hour to complete.

Do you have any questions about what I just shared with you?

Have you had a chance to read the consent form that I emailed to you prior to the interview?

- If “yes”:
 - Do you have any questions about the consent form? Do you consent to participate in the interview?
 - The audio file from this interview, and its transcription, will be stored in a secure location, and will be accessed only by my research group and me in order to maintain strict confidentiality. The file will be destroyed once the study is complete. Is it okay to record this interview?
- If “no”: Please take a few minutes to review the consent form now. Do you have any questions about the consent form? Do you consent to participate in the interview? Is it okay to record this interview?

Warm-up Questions

Question 1: From your perspective, what are the main wetland-related issues in Douglas County that this project is trying to address?

Question 2: As a community stakeholder, what is your main goal for this project? What specific outcomes would you like to see at the end of the project?

Collaborative Learning Project

The following questions will evaluate how the project is progressing based on your own experience with the project.

Question 3: Tell me about how the project is making progress, or not, on the issues and the goals that are important to you.

Question 4: When you provide input during the project, how is your input valued or not valued? Please share any examples that come to mind.

Question 5: One goal identified by stakeholders is to ensure “local input in siting future wetland mitigation projects.” How is the project making progress, or not, on this particular goal?

Question 6: What specific aspects of the project are working well?

Question 7: What specific aspects of the project are not working well and need to change?

Question 8: What specific aspects or outcomes of this project are useful, or not, to the particular work that you do?

Question 9: Based on your experience with this project, how do you feel about participating in a similar stakeholder-driven collaborative project in the future, and why?

Question 10: How do you feel about encouraging others to engage in a similar stakeholder-driven collaborative project in the future, and why?

Wetland Ecosystem Services and Watershed Planning

During the project, we’ve discussed the services that wetlands might provide to communities in Douglas County. Examples of these services include storing and filtering floodwater and surface water run-off, which improves water quality and diminishes damaging floods. We’ve also discussed wetland mitigation policies and permitting, land use classification and tax assessments.

Question 11: How would you rate your understanding of wetland services before this project? Now? Please explain how you feel your understanding has changed, or not.

Question 12: How would you rate your understanding of the wetland mitigation process and policies in Douglas County before this project? Now? Please explain how you feel your understanding has changed, or not.

Question 13: How would you describe “watershed planning” and its role in Douglas County to one of your colleagues?

Question 14: What questions do you still have about wetland services, wetland mitigation, or watershed planning that you think the project committee should address?

Wrap-up Questions

Question 15: Is there anything you would like to add or elaborate on before we conclude the interview?

Question 16: Do you have any questions for me?

Appendix B.

Shared situation map created at a community meeting in September 2013 (Wilkins, 2014).

