

DEVELOPING LAKE MANAGEMENT PLANS AND MESSAGING OPTIONS FOR 33 WAUSHARA COUNTY LAKES

Grant 1 includes the preparation for planning and developing lake management plans for eight lakes.

PROJECT AREA

Waushara County is a small rural county with a full time population of about 25,000. Between 1980 and 2000, Waushara County grew by more than 20% with most of the population increase being located upon the lakes and streams. This population increase has resulted in a greater need for the facilitation, technical assistance and education for residents in Waushara County, including information on the lakes and streams and how to minimize impacts to these resources from their land management practices.

Waushara County is located in south-central Wisconsin and occupies 408,122 acres, 6,105 of which reflect surface water coverage. Two cities, six villages, and eighteen townships lie nestled among the rural roads of the county. The area boasts a dynamic landscape with affordable land, lakeshore properties, rural character, and recreational opportunities. In recent years it has attracted so many new residents that Waushara was deemed one of the fastest growing counties in Wisconsin. Settlers hailing from larger cities are seeking habitation in Waushara County as a place of tranquility away from the hustle and bustle of more populated areas. The influx of new residents may have a positive influence on the economy as well as lakeshore and wooded property values (value has increased 150-250% since the early 1990s) but at the same time the county needs to be prepared to avoid the potentially detrimental impacts of population growth on the lakes.

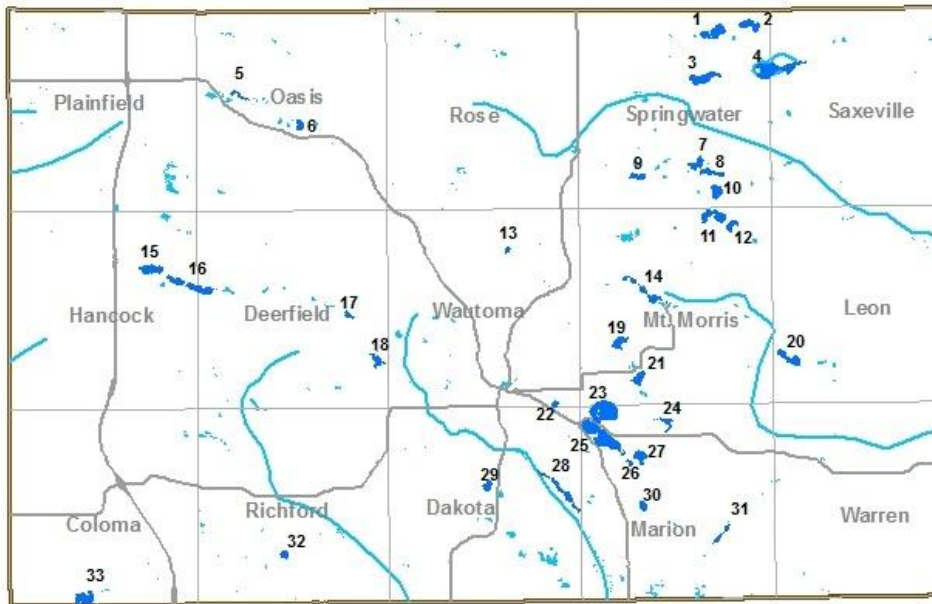
Waushara County lies within a transition zone between ecosystems, wildlife, and landscapes characteristic of both the northern and southern portions of the state. Unique circumstances such as these offer enormous potential for the diversity that is present within the county. This includes six lakes with the endangered Facette's locoweed on the shoreline. Waushara County's 97 lakes occupy 4,445 acres of the county. The lakes are scattered throughout the county's three eco-regions, making for an impressive variety of landscapes. The eastern-most of the three eco-regions present is the Southeast Glacial Plains eco-region, characterized by glacial till plains and moraines left by the Wisconsin Ice Age. Fens, wet prairies, and forests composed of maple-basswood, lowland hardwoods, and oaks are some of the natural ecosystems present in this region. It also boasts the highest aquatic productivity (plants, insects, wildlife) of the three regions. The largest and central eco-region, where most of the lakes exist, is the Central Sand

Hills eco-region. This landscape includes a mix agriculture (33%), grassland (20%), and forests comprised of oak-hickory, pines, maple-basswood, lowland hardwoods, aspen-birch, and spruce fir communities. The Central Sand Plains eco-region, present in the westernmost portion of the county, consists of flat, sandy lake plains. This area has been largely drained of historic wetlands, and mostly supports agriculture, forestry, and recreation.

High quality water within Waushara County is essential to the economy, the natural ecosystem, and the citizens themselves. The lakes contribute to a good quality of life for community members and are an integral part of the county's economy, as they draw visitors and settlers to the area. Quality recreation on healthy lakes is essential to the continuation of many citizens' value of life in Waushara County. Yet precautions must be taken as population growth puts stress on both surface and groundwater. As lake use and development increases challenges to lake health and user conflicts also increases. Ideally, the best way to address these conflicts are to ensure that planning takes place ahead of the conflicts, ensuring the information, policy, and regulation are in place to avert them. In some cases, conflicts and impacts already occur in and around the lakes. These situations would best be addressed through the development of lake/watershed management planning with significant community input rather than a piecemeal approach to management that just targets single issues and is responsive to problems rather than being proactive.

Many of the lakes in Waushara County are developed around their shorelines. Some of these lakes have formal groups that are addressing water quality and aquatic invasive species, but few have taken a holistic and/or proactive view of their lakes and watersheds. Some of the lakes have minimal development but lack plans to minimize impacts should development occur. There is a need for lake planning, management, and protection for all of the lakes. Over the last three years Waushara County and UW-Stevens Point have surveyed shorelands, aquatic plant communities, and measured water quality in 33 of the lakes with public access (Figure 1). To make the best use of this information, the next logical step is to work with the community members to develop lake management plans.

This planning process will include 7 drainage lakes, 22 seepage lakes, and 4 impoundments (Table 1). Location of the lakes and their surface and groundwater watersheds are shown in Figure 1. Seven of the lakes have county parks located on their shores; the parks provide beaches, lake access for fishing and boating, shelter houses, and playgrounds. Most of the other lakes have public access points on municipal properties.



1 Pine (Springwater)	18 W. Branch Mill Pond
2 Twin	19 Porters
3 Gilbert	20 Pearl
4 Long (Saxeville)	21 Johns
5 Long (Oasis)	22 Bughs
6 Huron	23 Irogami
7 Wilson	24 Alpine
8 Kusel	25 Silver (Wautoma)
9 Silver (Springwater)	26 Deer
10 Round	27 Little Hills
11 Big Hills	28 White Riv. Flowage
12 Napowan	29 Witters
13 Beans	30 Lucerne
14 Morris	31 Spring
15 Pine (Hancock)	32 Curtis
16 Fish	33 Pleasant
17 Marl	

Figure 1. Location of the thirty-three lakes with public access included in the Waushara County Lakes Study.

PROBLEMS TO BE ADDRESSED BY PROJECT

A look back through the three Basin Plans that are included in Waushara County make it clear that lake planning, management and protection are of great concern. No significant effort has been made to upgrade lake management plans that reflect the successes or the need for continued efforts. There has been very little effort to develop lake management plans for lakes that have no public access.

Lakes groups in Central Wisconsin are at all levels of activity in their lake management planning. Some groups have yet to become active in developing a plan, while some groups already have a well-organized management plan in action. Most are somewhere in between. Many of the lake management plans that do exist had minimal input from community members and are focused on narrow topics.

Waushara County sees a need for involvement with and guidance to lake management units grappling with plan development and implementation. The need is viewed as a local problem, of course, but also as a region-wide problem and beyond. Waushara County seeks to develop and/or update specific lake management plans for each lake group. In recent years, Waushara County Land Conservation Department and Waushara County UW-Extension professionals have added focus to lake management and supporting the needs of riparian landowners in addition to more traditional support to the agricultural community. In recent years the land conservation department has been more engaged with lake issues and is in partnership with the Waushara County Watershed Lakes Council. The department attends the council's quarterly meetings as well as providing any logistical support (such as providing meeting rooms, projectors, screens etc.) for the council. Waushara County coordinates efforts with other departments such as parks and highway to install best management practices (BMPs) on riparian properties. Developing individual lake

management plans will better serve citizen activities in and around the lake. These plans will assist Waushara County with its long range planning efforts. UW-Extension in Waushara County provides communication amongst lake stewards by housing and managing an email list-serve, assisting with the organization of quarterly meetings of the Waushara County Watershed Lakes Council, and inviting speakers.

Given the conditions outlined above, we would like to advance efforts in three main areas: lake management plan development, knowledge of our lakes, and non-point source pollution control.

PROJECT PHASES, GOALS, AND OBJECTIVES

The ultimate purpose of this study is to provide long term benefits to the community by protecting and improving water quality and habitat in and near Waushara County lakes. Our efforts will lead us to develop a county-wide lake management plan, lake specific planning for 33 lakes, and subsequent implementation. We are now in phase 3 of the project; developing lake management plans. Implementation is on-going but is anticipated to increase during and following phase 3.

Phase 1 – Inventory included 2 primary objectives

- Lake plan appraisals on 97 lakes; 33 w/ public access (completed)
- Shore zone appraisals on 33 public access lakes (completed)

Phase 2 - Lake and watershed condition appraisals on 33 public access lakes (data collection completed, final reports in progress)

Phase 3 – Development of lake management plans

Phase 4 - Implementation of lake management plans

Phase 3 Goals and Objectives:

- 1 Enhance the ability of Waushara County and its citizens to protect and improve the conditions of 33 lakes with public access for natural ecosystem functions and human uses and enjoyment.
 - a Gather and analyze information about perceptions and values from lake property owners, community residents, and lake users by developing, distributing, and evaluating surveys of lake property owners, community residents, and lake users during the respective planning process each lake or group of lakes.
 - b Work with citizens and organizations to identify visions, goals, and actions for their lake(s).
 - c Develop, evaluate, publish, and distribute recommendations and courses of action in lake management plans.
- 2 Ensure good communication and access to lake study results, planning schedules and materials, and implementation opportunities.
 - a Post lake reports, planning schedules, videos of featured presentations, and planning materials (agenda, meeting notes, presentations, etc.) on Waushara County webpage.
 - b Meeting notices and information about the planning process will be submitted to media via press releases.
 - c Riparian landowners will be informed about the planning process through email listservs and direct mailings, and via the Waushara County Watershed Lake Council. Watershed Lake Council members will distribute information about lake planning to their respective lake group members.

- d Public officials will be notified about the planning processes in their district in person and through mailings.
 - e Develop targeted messaging for Waushara County lakefront property owners for use in the planning process and participate with the door-to door targeted shoreland messaging campaign being designed by UW-Stevens Point and Madison.
- 3 Understand the governance related to lake health in Waushara County.
- a Develop an understanding of the existing regulatory framework that guides development and protection decisions in the groundwater and surface watersheds.
 - b Make adjustments to deficiencies that may be identified to be sure that, where appropriate, lake management will be included in County plans and policies.
 - c Identify any deficiencies in zoning and other applicable regulations and work to correct them.
 - d Develop a guide to help the zoning Board of Adjustment and municipal plan commission members effectively use the lake plans when making decisions about variances and conditional uses, and implementing plan objectives with proposal of suitable mitigation measures.
- 4 Create opportunities to learn about Waushara County Lakes and make informed decisions for citizens, municipalities, elected officials, and County departments, and prepare for implementation of the lake plans.
- a Participate in efforts to improve shorelands on Waushara County lakes.
 - b Host a Lake Fair to share information about lake management and the lake planning process.
 - c Develop a common language that representatives from member lakes of the Waushara County Watershed Lakes Council can use to discuss and learn about lake issues and make decisions on projects to jointly work on to improve and maintain county lakes.
 - d Partner with UW-Stevens Point and Madison on a project to develop and utilize targeted messages for riparian landowners in Waushara County.
 - e Work with citizen volunteers, UW-Stevens Point and Madison on a door to door campaign to enhance shoreland restoration around Waushara County Lakes.
- 5 Create a strategy for lake management at the county level.
- a Classify lakes according to their needs (e.g. shoreland restoration versus protection, etc.) to assist with work planning.
 - b Identify mitigation options that would improve habitat and water quality.

METHODS, ACTIVITIES, AND DATA TO BE COLLECTED

LAKE PLAN DEVELOPMENT (UW-STEVENS POINT AND WAUSHARA COUNTY STAFF)

Lake management plans will be developed for 33 lakes in Waushara County. When possible, we will combine multiple lakes into one planning process and plan. In most instances, the proposed groups will have similar municipalities/geography. We assumed that individual planning processes will be needed for developed lakes and/or lakes with significant challenges. Proposed groups are displayed in Table 1. These groups are subject to change (based on changing lake needs); the total budget for this proposal has been created for 16 processes (4 meetings/process plus a public meeting). The planning process will take place over a series of five meetings. Five of the meetings will be informational and the sixth meeting will solicit public input and will inform elected officials in the local municipality. We anticipate completing all lake plans over a 3.5 year period.

The intent of the plan development design used in this project is to provide opportunities for the community to make informed decisions about lake management that is unique and appropriate for each lake. This will not only enable citizens' input and visions to be woven throughout the plans but will result in a contingent of informed citizens, elected officials, and county staff to carry out restoration and protection of the Waushara County lakes long after the planning process has concluded.

Many of the property owners around the Waushara County lakes are not full time residents so we are proposing a unique survey process to enable citizens to garner information and participate as a part of a focus group even if they are unable to attend the planning meetings. Prior to each meeting, topic-specific surveys of lake property owners, community residents, and lake users will be prepared. The first survey will be sent to riparian landowners with an invitation to participate in the development of the lake management plan. The next round of surveys will be sent to all riparian landowners around the lake, and anyone in the watershed that responded to the first survey. The content of each survey will align with the information that will be covered during the next planning meeting. Respondents will access surveys online; however, hard copies of the surveys will be mailed to riparian landowners that have requested this service by returning a postcard from the first mailing. Participation in the online surveys for lake users and other interested individuals will be advertised through a variety of media and listservs. Surveys data will be analyzed for use in the next planning meeting for that lake.

The survey design will be structured to provide background information related to the topic(s) in the survey, followed by questions that obtain respondent's opinions and values for consideration during the plan development. This design is intended to include the landowners that aren't able to participate in the planning process in person and to enhance knowledge about the relevance of a topic to a larger group of citizens. A social scientist from UW-Stevens Point will provide guidance in survey design to ensure that it meets appropriate survey protocols. We are hopeful that this will increase participation and support for implementation.

Table 1. Proposed lake groups for planning.

Proposed Groups of Lakes for Planning	Group	Proposed Grant
Irogami, Pleasant	1	1
Alpine, Little Hills	2	1
Big Silver	3	1
Kusel, Wilson, Round	4	1
Gilbert, Pearl	5	
Pine (Saxeville), Twin	6	
Upper White River, Marl, Witters	7	
Beans, Bugh, Deer	8	
Fish, Pine (Hancock)	9	
Napowan, Morris	10	
Lucerne, Spring, White River Flowage	11	
Curtis, Little Silver	12	
Long (Oasis), Huron	13	
Porters, Johns	14	
Long (Springwater)	15	
Big Hills	16	

A series of four meetings will be used in the planning process for each lake/group of lakes. The planning committees will be comprised of stakeholders that will likely include riparian landowners, non-riparian lake users, representatives from municipalities in the lake’s watershed, County Planning and Zoning, County Land Conservation Department, County Parks Department, Wisconsin Department of Natural Resources professionals, sporting groups, “Friends” and associations, and others who may be interested in the lakes. Anyone not involved on the committee will be able to stay informed of the planning process through media announcements and articles as well as the County website where all information, agendas, and minutes will be posted. We will video tape key presentations to be viewed online. We acknowledge that this process may need to be adjusted for unanticipated situations.

Prior to the first meeting, lake information will be gathered and reviewed from the lake study reports and other sources. Fishery information will be obtained from the local WDNR fishery biologist. An informational presentation will be developed summarizing the pertinent background information and the

planning process. Materials highlighting the background information and specific issues within the lake and its watershed will also be developed.

INTRODUCTION MEETING 1

The first meeting is designed to provide an overview of the planning process, encourage the committee members to begin communicating, and to think about the lake from both scientific and social perspectives. The results from the lakes study will be presented for the lake(s) and a brief introduction to the planning process will be discussed. Participants will begin to work on an overall vision for the lake(s) and discuss logistics such as how they will make decisions if the group had differing perspectives about a topic or an issue, meeting frequency, date, time, etc.

INFORMATION AND PLANNING MEETINGS 2-4

These meetings are designed to address specific topics. Typically more than one topic will be covered during a meeting so when possible, related topics will be covered (e.g. aquatic plants and fisheries, land use and water quality). Specialists will be invited to present information about their area of expertise and participate in discussions about the related goals, objectives, and actions for the plan. Survey results will be included to provide an overview of both the scientific and social aspects that are associated with a given topic. Meeting topics will likely include: land use and shoreland management, water quality, in-lake and critical habitat, aquatic plant communities/invasive species, fisheries, recreation, and communication. Specialized topics may be added as needed. A summary of the lake management plan will be made available to the local municipalities prior to formal adoption to give the local municipality time to review the lake management plan they will be approving.

PUBLIC PRESENTATION MEETING 5

Meeting five will be conducted to present the content of the proposed lake management plan(s), initiate discussion, and receive feedback from municipal representatives and other members of the community. It will also provide an opportunity to share some basic information related to the decisions that municipalities make related to the potential impacts on lakes and other water resources. Our goal is to schedule this meeting in conjunction with the town/village/city board or plan commission meeting. This would enable the board to review the summary of the lake management plan that was provided earlier while the committee members and other citizens are present. During this meeting, the municipal board will be asked to formally adopt the lake management plan.

Following the final meeting, adjustments to the goals and actions will be completed. The plans will be provided to County and WDNR professionals for their approval and adoption. The final plan will be provided to the members of the lakes committees and posted on the County website.

The planning process for the lakes will be conducted by staff from the Center for Watershed Science and Education(N. Turyk and R. Haney) along with help from UWSP students. This general process will be refined as necessary based on the number of participants and other factors. Prior to the planning process,

the technical staff will compile information from the Waushara County lake study and additional applicable information. The primary facilitator for the lake plan development process will organize and facilitate the meetings. Staff from Waushara County UW-Extension office will print and distribute surveys to shoreline landowners of each lake, enter hard copy surveys, maintain mailing lists, inform the media, create videos of some presentations, and participate in the planning process. Waushara County Land Conservation Department staff will participate in the lake planning process, post relevant information on their website, and meet with the elected units of government prior to the local planning process to be sure they are informed and invited to participate in this process.

GOVERNANCE - REVIEW THE EXISTING REGULATORY FRAMEWORK

Regulations for each county, town, city, and village that contain the lake's surface watersheds will be systematically reviewed. In particular, zoning regulations and comprehensive plans will be examined. Information such as, building setbacks, development densities, minimum lot sizes will be documented. If significant differences exist among local governmental units, a matrix will be compiled that illustrates similarities and differences. County plans, ordinances, and policies that may directly or indirectly affect lake health will be reviewed and included in the governance section of the lake management plans. Lake association/district oversight will also be identified and included in the lake management plans.

TARGETED MESSAGING FOR RIPARIAN LANDOWNERS IN WAUSHARA COUNTY

Waushara County staff will work in partnership with UWSP and UW to develop targeted messaging for Waushara County riparian landowners in an effort to increase public participation. The shoreland survey data collected during Phase 1 of the Waushara County lake planning project will be used to identify properties in need of shoreland restoration. A subset of riparian landowners will be surveyed to provide opinions about shorelands. We will investigate the importance of motivation, perception, and decision-making behavior for public communications about natural shorelines and lake management, measured in 1) intentions to take specific actions to improve their shoreline, 2) stated support for natural shorelines, and 3) redemption rates of vouchers for native plants at local stores.

Recent research into behavior change interventions suggests that messages are most effective at influencing behavior when they are a good fit for the recipients' perceptions. People can be classified as "promoters" who primarily focus on positive outcomes, or "preventers" who primarily focus on negative outcomes. A message that is a good regulatory fit for promoters might be "growing a natural shoreline will improve the health of the lake and wildlife abundance," while a message that is a good regulatory fit for preventers might be "growing a natural shoreline will reduce algae blooms and depreciation of property value". This approach has been successful in the public health domain to increase behaviors such as physical exercise, and may also be effective for encouraging property owners to maintain more natural shorelines. A series of surveys will be conducted to develop targeted messages. Once the messages have been identified, informational materials will be developed.

A field campaign using the targeted messages will be conducted in summer 2014. Develop and deploy a real-world test of behavior change theories in an attempt to persuade more landowners to engage in

shoreline restoration. Research has shown that restoring shorelines to a more natural state is a universally preferable strategy for improving lakeshore habitat and water quality. Local and state natural resource managers routinely provide monetary and staff resources, outreach, and other assistance to entice landowners to engage in buffer restoration, but they rarely attain the desired level of participation. Better models are needed for more nuanced and effective ways to communicate with landowners and recruit them as lake resource stewards.

Message tailoring will be facilitated through a database of property characteristics that records a parcel's condition, the condition of neighboring parcels, and the condition of the lake as a whole. The database will also include owner characteristics such as residency (seasonal versus permanent), tenure (number of years since property last sold), and available demographic data about the owner. We will use these variables to tailor our outreach approach to each landowner. Comparing the percent of property owners pledging to shoreline restoration in the different groups sampled for this overall research project will provide insight into the relative value of the tailored field-campaign effort. The results will allow resource managers to better gauge the cost and benefit of using tailored field campaigns to maximize landowner participation. Similar targeted messages will also be used to recruit involvement in the development and implementation of the Waushara County lake management plans.

The findings from the surveys, combined with other methods drawn from community-based social marketing, will provide a basis for a unique outreach campaign based on individually-tailored messaging along with face-to-face contacts, something that current, more general outreach materials do not include as they are written for either a state or county-wide audience. It is predicted that owners will be more inclined to restore shorelines when they have received tailored messaging along with face-to-face contacts.

We will measure and compare the costs associated with a tailored field campaign to achieve shoreland restoration. We will account for the personnel and volunteer time needed to conduct a field campaign and compare results with those obtained through more traditional outreach methods used to entice shoreline restoration. To date, very few groups have sought to motivate landowners towards more environmentally sound shoreline management practices by using the level of personal contact and message tailoring commonly utilized in political campaigns. We lack records showing both how expensive and effective this approach might be, although we know that in the case of electoral campaigns there is considerable marshaling of paid and volunteer time used to ultimately get out the vote. With the known cost of a field campaign, we can compare the cost and benefits to other less intensive and potentially less effective methods.

LAKE FAIR

The summer of 2013 will see the county's first lake fair to be held in Waushara County at Camp Luwisomo on August 10, 2013. The Lake Fair will include booth displays, presentations and hands on activities on or near Round Lake. Attendees will be able to learn about invasive species and the good plants found in lakes, including how to identify plants, chemical treatment and hand-pulling invasive plants, plant harvesting, and programs like Clean Boats Clean Waters. There will be information on lake issues like dealing with problem geese, group septic pumping, boater safety, and boater safety patrol, aeration options, and riparian zoning

laws. The results from the Lakes Classification Study that can be found on the internet at http://www.co.waushara.wi.us/lake_reports.htm will be available for review. The Lake Fair is to celebrate the quality lakes in Waushara County and to highlight those things done well by lake groups to keep the county lakes in good shape. Camp Luwisomo is located at W4521 Aspen Road, west of Wild Rose. The Lake Fair is planned by members of the Waushara County Watershed Lakes Council local lake associations and districts, UW-Extension, and the Land Conservation and Zoning Department. The many strong partnerships that have been formed with many lake groups, the Waushara County Watershed Lakes Council, UW Stevens Point and the Land Conservation & Zoning Department have fostered the idea of sharing success stories on area lakes. The lake fair will highlight what many lakes are currently doing to protect, enhance and educate lake users. The lake fair will give area lakes the opportunity to showcase specific projects or ideas which have proven to be beneficial to water quality or have increased awareness to lake front property owners as well as the general public. Additionally, several agency representatives will be on hand to update current efforts and the status of Phase I & II of the lakes classification project.

PROJECT DELIVERABLES

CITIZEN/USER SURVEYS

Surveys of the lake property owners, community residents, and lake users will be conducted to identify lake uses, perceived issues, and values associated with the lakes. This information will guide portions of the development of the lake plans including visions, management goals, actions, messaging, and implementation strategies. Data will be summarized by lake for inclusion in the lake management plan and compiled for inclusion in the countywide lake plan.

LAKE MANAGEMENT PLANS

Each lake stakeholder group will create a lake management plan that outlines recommendations and courses of action for their lake(s). We anticipate 16 groups in the Waushara County lake management planning process. These groups were identified by proximity to one another and/or similar characteristics. Lakes that are developed or have extensive issues were identified as likely to need an individual process. We anticipate writing 8-10 plans per year.

Copies of plans will be published and distributed to committee members, the municipality in which the lake resides, the lake association/district (if one is present), the County, and the Wisconsin Department of Natural Resources. Plans will also be posted on the Waushara County website so that members of the public have easy access to the lake management plans. Waushara County will be adopting all of the lake management plans and municipalities will be asked to adopt plans for their lakes. A summary of the lake management plans will be compiled in the form of a countywide lake management plan.

Each lake management plan will be based on the following criteria:

- 1 An assessment of the lake's historical water quality, including at least one year of current baseline limnological data.

- 2 An identification of the water quality problems or threats to lake water quality including degradation of fish habitat and wetlands caused by nonpoint sources of pollution in the watershed.
- 3 An assessment of the lake's fishery (provided by the WDNR) and aquatic habitat including the extent of the lake area covered by aquatic plants and a characterization of the shoreline habitat and any known ecological relationships.
- 4 An identification of the need for the protection and enhancement of fish and wildlife habitat, endangered resources, aesthetics or other natural resources.
- 5 An assessment of the lake's watershed including:
 - a A description of land uses listing each land use classification as a percentage of the whole and an estimate of the amount of nonpoint pollution loading produced by each category.
 - b A listing of known point sources of pollution affecting the lake or that have affected the lake.
 - c A characterization of the habitat conditions and any known ecological relationships.
- 6 A description of the institutional framework affecting management of the lake including, local government jurisdictional boundaries, plans, ordinances including an analysis of the need for adoption of local ordinances for lake protection.
- 7 A summary of the historical uses of the lake, including recreational uses up to the time of application, and how these uses may have changed because of water quality or habitat degradation.
- 8 A description of any other problems or issues perceived to need management actions.
- 9 A description of any management actions taken or are in progress.
- 10 Identification of objectives to maintain or improve the lake's water quality, fisheries, aquatic habitat and recreational and other uses.
- 11 Identification of target levels of control and resource protection needed to meet the objectives.
- 12 Identification and discussion of the alternative management actions considered for pollution control, lake restoration or other management including expected results.
- 13 An analysis of the need for and a list of the proposed management actions that will be implemented to achieve the target level of pollution abatement or resource protection.
- 14 A strategy for tracking, evaluating and revising the plan including water quality monitoring.
- 15 A plan for operation and maintenance of any structural management practice. The operation and maintenance period shall be for a minimum of 25 years.

TARGETED MESSAGING FOR RIPARIAN LANDOWNERS IN WAUSHARA COUNTY

In addition to scientific publications, results will be proactively communicated to lake managers around the state. Existing contacts with DNR and UW-Extension will be leveraged for presentations at conferences and workshops, and inclusion in lake-related newsletters. Emphasis will be placed on communicating the results to managers and planners, rather than the general public, as the goal of the research is to provide tools for managers and planners to more effectively communicate with their own constituencies. An interim report

will be presented at the 2014 Wisconsin Lakes Partnership Convention in Stevens Point and a final presentation given at the 2015 convention and at the North American Lake Management Society Conference.

GUIDE FOR BOARD OF ADJUSTMENT AND MUNICIPAL PLAN COMMISSIONS

A guide to help the zoning Board of Adjustment members and municipal plan commissioners effectively use the lake plans when making decisions about variances and conditional uses will be developed. The guide will discuss ways to consider the lake data and lake plans when deciding whether to grant these exceptions to the zoning ordinance. For variance and conditional uses that meet the legal standards, it will provide tips on determining the minimum variance necessary, and outline potential conditions that could be applied to these permits. This deliverable will be developed cooperatively by UW-Extension Center for Land Use Education and Waushara County Land Conservation & Zoning Department.

DESCRIPTION OF EXISTING AND PROPOSED PARTNERSHIPS

Waushara County Lakes and Watersheds will play a primary role in helping to disseminate information about the planning process and most importantly, take a lead on the planning committees. Professionals from UW-Stevens Point's Center for Watershed Science and Education will work on the lake management planning process in partnership with professionals from Waushara County, UW-Extension, and the Wisconsin Department of Natural Resources. Conservation and sporting groups, individual citizens, and municipalities will also participate with this project and the implementation that occurs throughout and following the planning process. The first county wide lake fair is planned in 2013 and will be repeated later in process to provide information about the planning process and next steps for implementation. The lake fair will provide a fun venue to involve more lake residents, sportsmen, and lake users in lake management activities.

OTHER INFORMATION IN SUPPORT OF THIS PROJECT NOT DESCRIBED ABOVE

COUNTY AND LAKE GROUP COMMITMENT TO ITS LAKES

Over the past 5-7 years, many lake groups in Waushara County have taken leadership roles in lake water quality management. While several lake groups have outdated lake and aquatic plant management plans other lake organizations have moved forward with developing similar plans as time and financial resources allow. The Waushara County Watershed Lakes Council was formed in 1998 to jointly discuss lake issues, share information, success stories as well as keeping current on legislative issues. The council has an open membership for all lakes in Waushara County and currently has approximately 25 member lakes. The council is well positioned to disseminate information to lake groups and has supported the efforts of Phase I & II of our lakes classification project. The council represents approximately 75% of the public access lakes in Waushara County. The council meets quarterly to discuss lake related business and takes action on securing grants for the council as needed. Our partnerships with local lake organizations have grown and flourished with information and education efforts that have been conducted concurrently. These partnerships have ignited this county wide effort to manage lakes in Waushara County as a whole rather

than in parts. The result we believe will be a more comprehensive analysis of our lakes while achieving a better understanding of lake water quality.

Additionally, we will identify implementation actions in the lake management plans that describe how best Waushara County can support citizens, sportsmen and lake users with the protection of our lakes. These implementation actions will assist our planning efforts as we begin prioritizing our workload and how best to achieve goals identified.

Currently, Waushara County has adopted standards that address storm water management and construction site erosion control. These standards are applied to every property owner within the county and currently exceed NR 115 standards. These standards address the amount of protection required for all properties including those that apply for variances to the zoning ordinance. Additionally, landowners who choose to mitigate using the shoreland re-vegetation option must meet federal Natural Resource Conservation Service technical standards. These standards exceed NR-115.

Waushara County has approved regulations that increase minimum lot size. Waushara County adopted its comprehensive plan in 2009. This plan has been updated to be NR 115 and Act 170 compliant. Other than the Town of Warren which has not adopted county zoning, all 17 Towns have an approved town comprehensive plan. These plans have sections that identify resource concerns, such as sensitive areas on lakes and include action items to protect or enhance these areas.

PROPOSED TIMETABLE FOR PROJECT IMPLEMENTATION

Activity	Summer 2013	Fall 2013	Winter 2013/14	Spring 2014	Summer 2014	Fall 2014	Winter 2014/15	Spring 2015	Summer 2015	Fall 2015	Winter 2015/16	Spring 2016	Summer 2016	Fall 2016	Winter 2016/17
Prepare materials for planning and surveys															
Conduct citizen surveys and develop lake management plans															
Develop targeted messaging and participate with door-to-door restoration efforts															
Guide for BOA and municipalities							Draft								Final
Lake Fair															
Countywide Summary Report															
Tasks will be conducted during the periods that are shaded.															

PROJECT BUDGET

Waushara Co Lakes Project - Phase 3 - Development of Lake Management Plans										
	Grant Request			Total Grant Request	Match				Total Match	Total Cost
	Waushara Co	UWSP	UWEX		Waushara Co	UWSP	UWEX	Citizens		
Develop Lake Management Plans										
Personnel (salary & fringe)	68000	111,219			8,000		4,600	3,750	195,569	
Web (UWSP prep, Waushara Co post/maintain)					1,000				1,000	
Printing and Supplies		1,120							1,120	
Travel		2,200			1,800		500		4,500	
Equipment for meetings (laptop, projector, etc.)							2,000		2,000	
Targeted messaging and shoreland outreach	1000				1,000	18,000		400	20,400	
Surveys										
Survey design and preparation					100	1,000	150		1,250	
Survey distribution - Personnel					100		8,000		8,100	
Printing and mailing			7,300				800		8,100	
Data entry and summary					100		4,000		4,100	
Survey-monkey software		900							900	
Governance Review										
					3,000		4,000		7,000	
Communication										
Develop and maintain listserv and mailing lists					1,000				1,000	
Lake Fair					500		800	3,000	4,300	
Project administrator/coordinator		8,000							8,000	
Total	69,000	123,439	7,300	199,739	16,600	19,000	24,850	7,150	67,600	267,339

Budget for Phase 3 - GRANT 1									
	Grant Request			Total Grant Request	Match				Total Match
	Waushara Co	UWSP	UWEX		Waushara Co	UWSP	UWEX	Citizens	
Develop Lake Management Plans									
Personnel (salary & fringe)	16,750	27,805			2,000		150	938	
Web (UWSP prep, Waushara Co post/maintain)					250				
Printing and Supplies		280							
Travel		550			450		125		
Equipment for meetings (laptop, projector, etc.)							500		
Targeted messaging and shoreland outreach	1,000				1,000	7,275			
Surveys									
Survey design and preparation					25	250	38		
Survey distribution - Personnel					25		2,000		
Printing and mailing			1,390				200		
Data entry and summary					25		1,000		
Survey-monkey software		225							
Governance Review									
Communication									
Develop and maintain listserv and mailing lists					250				
Lake Fair									
Project administrator/coordinator		2,000							
Total	17,750	30,860	1,390	50,000	4,025	7,525	4,013	938	16,50

Division of Tasks for the Waushara County Lake Management Planning Process

Lake Management Planning					
Task	Waushara Co	Waushara Co UWEX	UWSP	Citizens	
Secure meeting locations	X				
Media information - write			X		
Media information - release	X				
Meet with Village/Town Board	X				X
Design postcard reminders		X			
Print, address and send postcards		X			
Prepare agenda			X		
Invite speakers			X		
Prepare presentations, handouts	X		X		
Prepare info for web (agenda, meeting notes, draft plan, etc)	X		X		
Post meeting info to web	X				
Print and prepare information binders	X		X		
Provide projector and laptop		X	X		
Personal contacts to municipal representatives and fellow citizens	X	X			X
Video of some presentations	X	X			
Development of targeted messaging	X	X	X		
Door-to-door campaign			X		X
Survey					
Design survey (Personnel)			X		
Print and mail survey (Personnel)		X			
Printing and mailing costs		X			
Enter and summarize data		X			
Communication					
Develop and maintain email listserv	X				
Post lake information to web and maintain website	X				
Contact media with updates	X	X			
Governance					
Review governance related to lake water quality and habitat; municipalities, county, state, and lake group	X	X			
Incorporate recommendations into County Comp plan and Land and Water Resource Mgmt Plan	X	X			
Lake Fair	X	X	X		X