



LAKE TOPIC MEETING DATA

Introduction

The Upper Mississippi - Grand Rapids Watershed flows from Laurentian Continental divide to where it empties into the Mississippi River near Palisade. It drains over 1.3 million acres and contains almost 2,000 miles of streams and 625 lakes greater than 10 acres. It includes the cities of Grand Rapids, Nashwauk, Coleraine, Hill City, McGregor, Remer and Cromwell. This watershed has an abundance of beautiful lakes that make it an important recreational destination. It is also home to unique plant and animal species such as wild rice and trout, along with an abundance of healthy forests.

The Upper Mississippi - Grand Rapids One Watershed, One Plan (1W1P) is a planning partnership between Aitkin County, Aitkin SWCD, Carlton County, Carlton SWCD, Cass SWCD, Itasca County, Itasca SWCD, Logan Township, Mille Lacs Band of Ojibwe and Salo Township. The goal of this partnership is to prioritize restoration and protection opportunities and target valuable resources. The result will be the development of a comprehensive watershed management plan with actions that make progress towards measurable goals.

The general 1W1P process is outlined in Figure 1. For the first step, which is to gather and prioritize opportunities/issues in the watershed, a series of five topic meetings will be held. The meeting topics include: 1) lakes, 2) forests, 3) wetlands & ditching 4) rivers & streams 5) stormwater and 5) farms & groundwater.

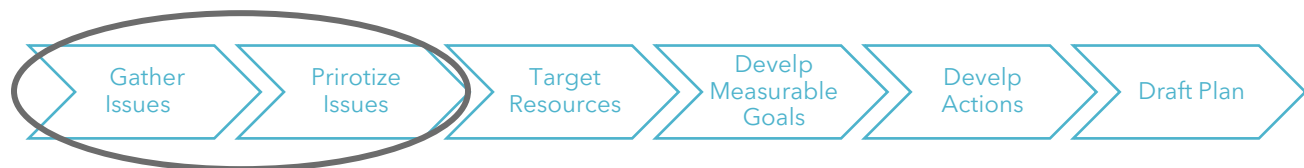


Figure 1. The 1W1P process is divided into six main steps. The topic meetings are the first step in the process (circled).

The 1W1P process is driven by local units of government, guided by an Advisory Committee made up of local stakeholders and state agencies. The decision-making body for the plan is a Policy Committee made up of elected officials from each County, SWCD Tribal Government or Township.

To gather diverse viewpoints, topic experts were invited to attend the lake meeting. In addition to state agencies and local government staff, topic experts included representation from lake associations, lakeshore owners, Natural Resources Conservation Service, Izaak Walton League, Itasca Waters, Mississippi Headwater Board, City of Grand Rapids, and the US Army Corps of Engineers. Attendees are listed later in this report.

Upper Mississippi – Grand Rapids Watershed Lakes

There are 625 lakes larger than 10 acres in the watershed, providing a variety of valuable habitat. Of these lakes, 79 are DNR designated wild rice lakes and 48 are DNR cold-water fisheries lakes that provide habitat to trout and cisco.



Figure 2. Lower Island Lake is an impaired lake for recreation and aquatic life in Carlton County.

Although most of the lakes and rivers in the watershed are very healthy, there are some that could be improved. Too much phosphorous in a lake can lead to algae blooms, making swimming and fishing less enjoyable. There are 11 lakes that are listed as impaired for nutrients and do not support aquatic recreation. These lakes are Big Sandy, Eagle, Horsehoe, King, Little Cowhorn, Lower Island Lake, Minnewawa, Savanna, Split Hand, Tamarack, and Upper Island Lake. In addition, three lakes do not meet standards for wild rice production due to high levels of sulfate. These lakes include Hay, Ox Hide and Southwest Bay of Swan Lake. One lake (Lower Island Lake) is impaired for aquatic life, meaning the expected diversity of fish species were not found during monitoring. There are 16 lakes that are either nearly impaired or barely impaired, meaning that they are closest to the water quality standards. These lakes include Bluebill, Eagle, King, Libby, Lower Island, Marble, Prairie, Rat, Rock, Round, Savanna, Sherry, Twenty-Four, Upper Island, Upper Panasa and Washburn. Finally, 14 lakes are infested with aquatic invasive species. These species include Eurasian watermilfoil, flowering rush, and zebra mussels.

Upper Mississippi Grand Rapids Watershed Lake Issues

To illustrate the diversity of viewpoints, at the beginning of the lake meeting, we asked the experts and Advisory Committee members to tell us what comes to mind when they think about the watershed's lakes. The responses were assembled to create a word cloud.



Figure 3. Word cloud depicting the diversity of responses to the question, "when you think of the Upper Mississippi Grand Rapids Watershed's lakes, what comes to mind?"

To help us understand what issues and opportunities surround lakes in the watershed, issues listed in previous plans, reports, state agency comment letters and public input were gathered and compiled into common themes, becoming the basis of creating the priority lakes issues for the Upper Mississippi Grand Rapids Watershed.

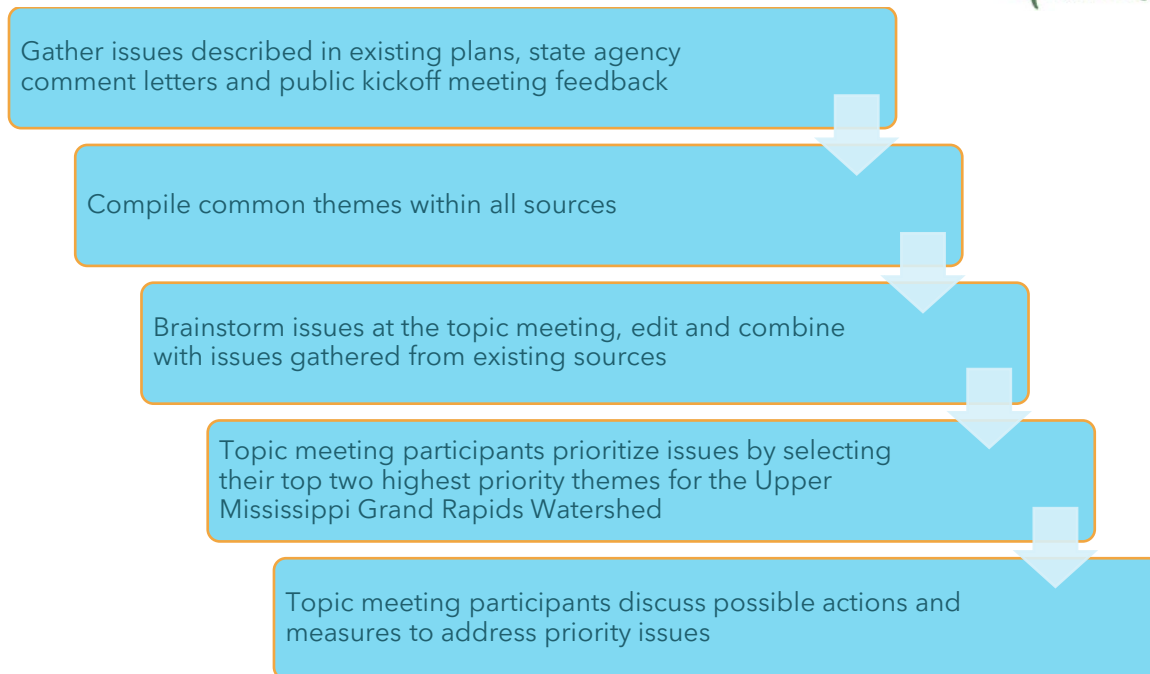


Figure 4. Issue statement development process

A diverse group of lake experts plus the Upper Mississippi Grand Rapids Watershed Advisory Committee gathered to brainstorm issues for lakes in the watershed. The brainstormed list was either grouped with the compiled themes or new themes were created. The group then agreed on a final list of six themes (Table 1). In addition, two issues were tabled until the stream and stormwater meetings (culverts impacting fish passage and salt use on roads).

Table 1. Lake issue statements developed at the Lake Topic Meeting

#	Draft Issue Statement	References
1	Sufficient protection is needed for outstanding resources and sensitive species (i.e., trout, cisco, wild rice) to maintain water quality, native species, wildlife, and plant communities	WRAPS, Carlton & St. Louis County Water Plans, DNR Comment Letter, Topic Meeting
2	Aquatic invasive species impact lake health, water quality and recreation	Aitkin, Carlton, Cass, Itasca, and St. Louis County Water Plans, Public Kickoff Meeting, DNR Comment Letter, Topic Meeting
3	Lakeshore alteration from development, conversion of cabins to year-round homes, removal of native vegetation and wake boats impact water quality and shoreline habitat	Aitkin, Carlton, Cass, Itasca, and St. Louis County Water Plans, Public Kickoff Meeting, DNR Comment Letter, Topic Meeting, WRAPS
4	Fluctuating water levels in lakes can lead to shoreline erosion and flood damage.	Itasca County Water Plan, Public Kickoff Meeting, Topic Meeting

5	Ice Fishing waste , including garbage and human waste, is a concern for water quality.	Aitkin Water Plan
6	Nutrients from lakeshore development, septic systems, internal loading, and land use changes contribute to algal growth along with recreational impairments	Aitkin, Carlton, Cass, Itasca, and St. Louis County Water Plans WRAPS, Public Kickoff Meeting, Topic Meeting

Each participant ranked their top three issues for lakes, and the top three priorities overall were:

- ❖ **Sufficient protection** is needed for outstanding resources and sensitive species (i.e., trout, cisco, wild rice) to maintain water quality, native species, wildlife, and plant communities (29 votes)
- ❖ **Nutrients** from lakeshore development, septic systems, internal loading, and land use changes contribute to algal growth along with recreational impairments (27 votes)
- ❖ **Lakeshore alteration** from development, conversion of cabins to year-round homes, removal of native vegetation and wake boats impact water quality and shoreline habitat (22 votes)

Mining, PFAS and sulfate were discussed during the brainstorming season. While these are all recognized as important local issues for lakes, the solutions are larger in scope and are not under the jurisdiction of local governments. A small summary of these issues will be included in the plan.

The group brainstormed a list of possible actions to address the priority issues along with ways success might be measured.

Lake Actions and Measures

- ❖ Write forest stewardship plans for parcels near lakes.
 - Plans completed / acres planned / feet or miles of shoreline.
- ❖ Easements or acquisitions of shoreline property.
 - Miles of shoreline protected / acres protected
- ❖ Cos share programs for septic system replacements to bring them into compliance
 - Number of systems replaced
- ❖ Education & outreach on lakeshore ownership & best management practices, focusing on lake associations, resorts, absentee landowners, cities, and third-party service providers which could include
 - Videos about best management practices that could be shared with lake associations
 - Outreach on development impacts to people who receive building permits
 - Workshops and outreach to contractors and realtors
 - Leveraging of existing groups and programs
 - Septic maintenance workshops
 - Comparison of native plants versus lawn grass root growth

- Create a website with links to existing lake resources
 - Number of people reached / engagement on social media, workshop attendance
- ❖ Create a Lakeshore Stewardship Plan program
 - Number of plans developed / miles of shoreline managed
- ❖ Develop an wellhead protection plan for lakeshore landowners that also discusses lake health
 - Number of plans developed
- ❖ Promote native vegetation
 - Linear feet planted
- ❖ Promote peer to peer education programs
 - Number of people reached
- ❖ Recognize the shortage of third-party vendors for restoration product and plantings
- ❖ Create lakeshore stewardship signs to help promote lake stewardship. Use/promote MN Lakes and Rivers program.
 - Number of signs distributed
- ❖ Manage stormwater near lakes
 - Regulations
 - Cost share and incentives
 - Mapping of stormwater systems
 - Stormwater planning
 - Distribute Stormwater education booklets
 - Number of regulations updated
 - Number of best management practices installed
 - Number of municipal systems mapped
 - Stormwater plans completed
 - Education booklets distributed
- ❖ Manage stormwater on lakeshore properties
 - Number of rain gardens or rain barrels
- ❖ Compare ordinances between countries
- ❖ Develop rules or guidelines for public access and water front land
 - Number of guidelines developed
- ❖ Measure impervious surface around lakes
 - Number of lakes studied
- ❖ Maintain 75% of forest in the lakeshed
 - Acres of forest protected
- ❖ Plant trees and reforest marginal farmland
 - Acres of trees planted
- ❖ Hold annual meetings with lake associations
 - Number of meetings
- ❖ Use incentive funding to keep shorelines natural
 - Linear feet protected
- ❖ Restore extension and DNR programs for riparian education
 - Programs restored
- ❖ Increase staffing for lakeshore technical assistance and education and outreach

- Number of landowners provided with technical assistance and outreach
- ❖ Continued enforcement of ordinances to protect lakeshores

Meeting Attendees

- ❖ Andy Arens, Itasca SWCD
- ❖ Kyle Asplund, NRCS
- ❖ Richard Beatty, Big Sandy Lake Association
- ❖ Greg Berg, MN DNR
- ❖ Melanie Bomier, Carlton SWCD
- ❖ Mitch Brinks, Technical Service Area 8
- ❖ Perry Bunting, Mille Lacs Band
- ❖ Jon Byrne, Itasca Waters
- ❖ Jeff Cook, US Army Corps of Engineers
- ❖ Barb Dahl, Carlton County SWCD
- ❖ Karola Dalen, Carlton County
- ❖ Dom DeGuisseppi, City of Grand Rapids
- ❖ David Duxbury, Deer Lake Association
- ❖ Tom Fasteland, Aitkin SWCD
- ❖ Bonnie Goshey, MPCA
- ❖ Dana Gutzmann, Cass SWCD
- ❖ Matt Gutzmann, Itasca SWCD
- ❖ Michael Kearney, Aitkin County Commissioner
- ❖ Jeff Hrubes, BWSR
- ❖ Perry Loegering, Isaak Walton League, Itasca Waters
- ❖ Veronica Lundquist, Aitkin SWCD
- ❖ Bob Marcum, Salo Township
- ❖ Darren Mayers, BWSR
- ❖ Lynn Mizner, Logan Township
- ❖ Pat, Murphy, Aitkin County Lakes and Rivers Association
- ❖ Matt Myer, MN DOT
- ❖ Tom Nelson, SWCD
- ❖ Jennifer O'Neill, Cass SWCD
- ❖ Dave Peterson, Cass County
- ❖ Rian Reed, MN DNR
- ❖ Moriya Rufer, HEI (facilitator)
- ❖ Cal Saari, Itasca SWCD
- ❖ Corey Smith, Itasca County
- ❖ Janet Smude, Aitkin SWCD
- ❖ Austin Steere, Itasca SWCD
- ❖ Tim Terrill, Mississippi Headwater Board
- ❖ Chad Weiss
- ❖ Dave Weitzel, MN DNR Fisheries
- ❖ Sharon Zelazny, City of Cromwell

