



Lake Wapogasset and Bear Trap Lake Comprehensive Lake Management Plan 2027 – 2036 SUMMARY

Introduction

The comprehensive lake management plan (CLMP) guides the activities of the Wapogasset/Bear Trap Lake Improvement Association (Lake Association) and the Lake Wapogasset and Bear Trap Lake Sanitary District (Sanitary District). The plan was originally developed by the Sanitary District and Lake Association and approved by the Wisconsin Department of Natural Resources in 2010. This current, updated plan will be implemented over a ten-year period from 2027 through 2036. The plan was developed with guidance from an advisory committee. A property owner survey also provided input for plan development. A separate Lake Wapogasset and Bear Trap Lake Aquatic Plant Management (APM) Plan guides aquatic plant management and aquatic invasive species prevention and management. The APM plan is slated for update in 2027.

Plan Advisory Committee

Mark Jacobson, Project Coordinator
Cheryl Clemens, Project Consultant
Jim Andersen
Denny Badman
Ryan Caffery
Craig DiLorenzo
Dave Erspamer

Ryan Hanson
George Hauser
Jane Johnson
Ted Loenser
Mike Seidl
Pat Seidl
Mark Tryggestad

PUBLIC COMMENTS ARE WELCOME

We welcome your comments on this Comprehensive Lake Management Plan. The public review period is open through August 1, 2026. A full version of the plan with additional detail and project fact sheets are available on the Lake Association (<https://www.wbtlakes.com/>) and Sanitary District web sites (<https://wapobear.com/>).

Please email your comments to Project Consultant, Cheryl Clemens at harmonyenv@amerytel.net by August 1, 2026.

Photos by: Lee Ann Overman

Lake Fact Sheets

Plan development was informed by a series of fact sheets which summarize information and recommendations important to lake management. Water quality and watershed studies, supported by grants from the Wisconsin Department of Natural Resources as part of this planning project, are summarized in the fact sheets. Fact sheets available on the Lake Association (<https://www.wbtlakes.com/>) and Sanitary District web sites (<https://wapobear.com/>) include:

Water Quality

Watershed

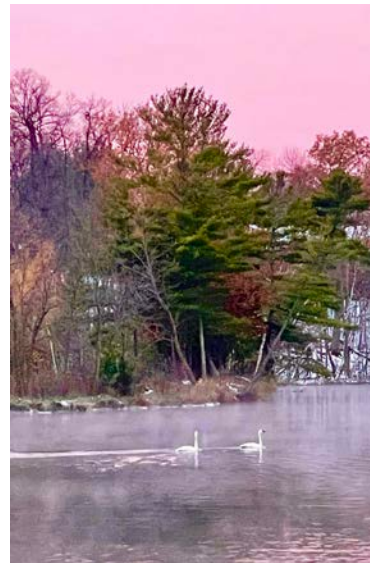
Internal Load and Alum

Lake Management Organizations

Shoreline Erosion

Fisheries and Wildlife

Property Owner Survey 2022



Action Plan

A more detailed action plan will be developed in a spreadsheet format. The action plan will outline how actions from this CLMP will be carried out over the next three-year period. It will identify responsible parties, partners, timeline, priorities, and funding sources including grants. The action plan will be updated annually.

Adaptive Management Approach

This plan will use adaptive management. The Lake Association and Sanitary District will evaluate and incorporate emerging technologies and new information to refine and adjust management approaches.

Plan Vision

Wapogasset and Bear Trap Lakes and shoreland areas will be recognized as highly desired living environments and valued natural assets for water based sports, recreation, appreciation of wildlife and natural beauty, and general human enjoyment. The Sanitary District and Lake Association will work cooperatively to better understand and manage the lakes to mitigate degradation of our water resource. We will:

1. Work together to enhance the overall health and water quality of the lakes given existing constraints of a large watershed, high residential density, potential for extensive watercraft traffic, and significant phosphorus loading from internal and external sources.
2. Conduct lake management activities in a manner that will limit unintended environmental impacts (Do good – Do no harm). We seek to leave our lakes in better condition than before our lake activities.
3. Foster understanding by lake residents and users as to the ever evolving nature of lake management, the complexity of issues, the status of projects and activities, the costs and benefits of remedial actions, and the opportunity and techniques to reduce or prevent any negative consequences of lake use and lakeside living.
4. Seek the support and partnership of lake area residents, visitors to the lakes, the Towns of Lincoln and Garfield, Polk County, Wisconsin Department of Natural Resources, Federal Environmental Protection Agency, Wisconsin Lakes, University of Wisconsin Extension, private foundations, and other potential partners and benefactors.

Plan Structure

Goals are broad statements of desired results.

Objectives are the measurable accomplishments toward achieving a goal.

Evaluation methods measure progress toward plan objectives.

Actions are the steps to accomplish objectives and ultimately goals. Priority actions are presented in this plan summary. Additional actions are included in the full management plan.

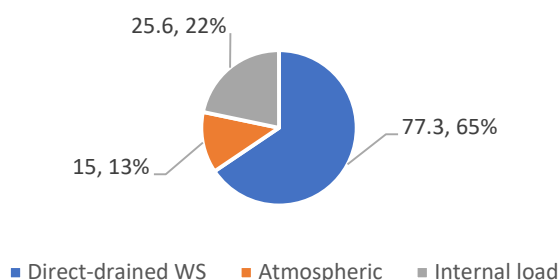
Education Strategies identify audiences, messages, and/or methods for each goal.

Goal 1. Protect and enhance lake water quality through proactive, science-based watershed and in-lake management.

A watershed, tributary, and lake study was completed in preparation for this plan update. Detailed results are available in the fact sheets. Phosphorus controls algae growth in both Lake Wapogasset and Bear Trap Lake, but they are very different lakes. Bear Trap Lake water quality is most influenced by its immediate surrounding watershed – think lakeshore properties, and water stays in the lake for 4 years before it flows out. Lake Wapogasset is most influenced by inflow from Friday Creek and the Balsam Branch and water stays in the lake only 6 months before it flows out. As a result, the strategies to protect water quality for each lake are different. Both focus on reducing phosphorus from the watershed and tributaries which are considered external sources of phosphorus.

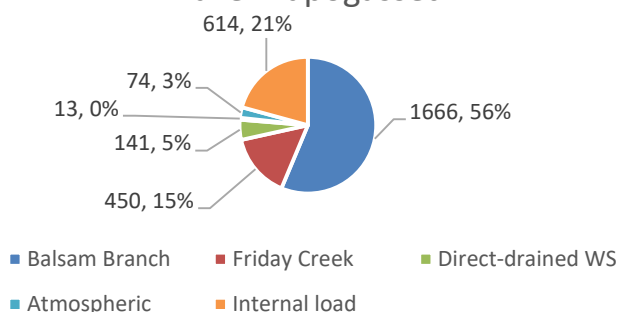
The committee also examined results of internal loading of phosphorus from lake sediments. In the past, an alum treatment was used to address this source. The lake study found that while internal loading of phosphorus is significant in years when the lake stratifies then overturns early, it has less impact when considered over a 10-year period. Furthermore, estimates of cost for an alum treatment for project lakes were considerable: over \$5 million for Lake Wapogasset and over \$600,000 for Bear Trap Lake.

Average Year Phosphorus Load Sources-
Bear Trap Lake



In a typical year, 65% of the phosphorus that enters Bear Trap Lake comes from runoff from around the lake.

Average Year Phosphorus Load Sources-
Lake Wapogasset



In a typical year, 71% of the phosphorus that enters Lake Wapogasset comes from Friday Creek and the Balsam Branch. In very poor water quality years, there is more release of phosphorus from lake sediments.

Water Quality Objectives

In-lake phosphorus concentration and watershed loading reduction goals are established for each lake. Objectives for phosphorus removal from CLP harvesting are also established.

Evaluation

We will track progress by measurements in the lake and through estimated reductions from installation of projects in the watershed, on waterfront lot, and through CLP harvest.

High Priority Actions

Agricultural Land

Install conservation practices on agricultural lands initially targeting the Friday Creek and Direct Drainage subwatersheds.

Waterfront Properties

Install conservation practices on residential lands initially targeting Bear Trap Lake.

Sewer and Wastewater Treatment System

Maintain and upgrade the sewer system and wastewater treatment plant according to WDNR permit requirements.

How you manage your waterfront lot impacts water quality – especially for Bear Trap Lake. Healthy Lake practices are designed to reduce runoff of phosphorus and sediment from waterfront lots. Contact Craig DiLorenzo craigdilorenzo@gmail.com to learn more about these simple projects with potential for grant support. Minimizing areas of lawn and avoiding lawn chemicals (especially fertilizer with phosphorus) also protects the lakes.

Healthy Lakes Projects also are designed to improve habitat around the lake by adding native plants and reducing runoff of sediment. Sediment can smother rocky lake substrates destroying habitat for walleye spawning.



Goal 2. Protect, restore, and enhance in-lake and shoreline habitats to sustain healthy, diverse fish and wildlife populations.

Habitat Objectives

Objectives focus on protecting important habitat elements on the shore and in the water which include:

- Natural vegetation
- Rocky substrates (sensitive habitat areas)
- Standing snags and dead trees
- Woody debris in the water
- Aquatic vegetation, especially emergent and floating
- Wetlands and vernal pools
- Nest boxes

Fish and wildlife are also protected through reduction in the use of lead tackle, insecticides, fertilizers, cleaning supplies, and poisons.

Evaluation

We will track the number of habitat-related Healthy Lakes practices installed. A Shoreland Habitat Assessment may be completed to track progress and DNR gravel bed Sensitive Areas may be reassessed.

Actions

Continue to provide technical and financial assistance through the Healthy Lakes Program. Native plantings and fish stick installations directly support near shore habitat. Practices to reduce runoff improve habitat by reducing sedimentation.

We will target reduction of sediment from shoreline erosion and runoff on shorelands adjacent to gravel bed sensitive areas (fish habitat).

How you manage your property also impacts habitat. The area near the water's edge, both on the land and in the water is critical for fish and wildlife habitat. We will provide information about best practices when developing, remodeling or landscaping. Protecting native shoreland and aquatic vegetation is very important because it provides food and shelter for the wildlife we enjoy on the lakes.

Avoiding disturbance to aquatic plants when managing your property and boating goes along way for fish and wildlife protection. For tips on best practices for living on the lake, try this informative survey: <https://extensionlakes.org/wi/>



White Water Lily
(Faukner, 2009)

Goal 3. Support safe, responsible recreation while balancing recreational uses with the lakes' ecological health.

Recreation Objectives

We seek lake use where lake users navigate safely, with consideration for others and the health of the lake.

Actions

Because safety and responsible use depends upon each of us, our priority is to share information. Wake sports can negatively impact other recreational uses such as motorized and non-motorized boating, fishing, and swimming. Please observe recommended distances and depths when wake boating and surfing on Lake Wapogasset and Bear Trap Lake.

Polk County Boating Viewer

- Boat Landings
- Waterbody information
- Slow No Wake areas
- Water hazards marked by buoys
- Suggested enhanced wake areas
 - Designated by lake organizations



Scan to Access Viewer



Observing slow-no-wake speeds for all watercraft helps ensure safety for everyone around the lake. It is illegal in Wisconsin to:

- *Operate a motorboat within 100 feet of any shoreline, swimmer, dock, raft, pier, or restricted area on any lake at greater than "slow, no wake speed."*
- *Operate a PWC at greater than "slow, no wake speed" within 200 feet of shoreline, and within 100 feet of swimmer, docks, raft, piers or restricted areas.*



Goal 4. Increase public understanding of lake ecology and management through education, outreach, and community engagement.

Objectives

Education and outreach are critically important to the success of the plan because lake owners and users have so much influence on lake water quality, health, and enjoyable recreation. We seek to:

- Engage lake owners in understanding lake concerns and motivate them to use best practices.
- Address the challenges of effectively reaching weekend and part-time lake residents.
- Deliver lake management messages using most effective methods at appropriate times.
- Balance aesthetic preferences with water quality and habitat goals.
- Owners understand the lake management plan and how to become involved in implementation.

Existing Communication Methods

The Sanitary District has a web site (<https://wapobear.com/>) and has regular contact with residents through permitting and billing for the sanitary sewer system.

The Lake Association has a well-established system for communication and a committee that guides it.

Ongoing Lake Association Communication Methods

- Lake Scene Newsletter(summer months)
- Website: <https://www.wbtlakes.com/>
- Annual meeting presentations
- Trustee meeting presentations and information distribution
- Social media: Facebook, Instagram

We will develop a communications plan to optimize use of existing communication methods and explore new ways to reach our audience.

Goal 5. Coordinate implementation of the Comprehensive Lake Management Plan with the Aquatic Plant Management Plan to ensure consistent, effective lake stewardship.

An aquatic plant point intercept survey is underway in 2026.

The Aquatic Plant Management Plan will be updated in 2027.