

# EXECUTIVE SUMMARY: Aquatic Plant Management Plan

Bone Lake, Polk County, Wisconsin

April 2020

The Bone Lake Aquatic Plant Management Plan presents a strategy for managing aquatic plants by protecting native plant populations, alleviating nuisance conditions, and preventing establishment of invasive species. The plan includes data about the plant community, watershed, and water quality of Bone Lake. Based on this data and public input, goals and strategies for the sound management of aquatic plants in the lake are presented. This plan will guide the Bone Lake Management District (the Lake District) and the Wisconsin Department of Natural Resources (WDNR) in aquatic plant management for Bone Lake over the next five years (from 2020 through 2024).

## PLAN MISSION STATEMENT

*Bone Lake is a precious resource and one of the premier recreational lakes in this area. The overall goal of the aquatic plant management plan is to maintain Bone Lake aquatic plants so that they support a healthy lake that offers recreation, sport fishing, clean water, and natural beauty to our children, grandchildren, and others for decades to come.*

## BONE LAKE AQUATIC PLANT MANAGEMENT GOALS

GOAL 1. MAINTAIN RECREATIONAL USES IMPORTANT TO LAKE RESIDENTS AND USERS WHILE PRESERVING IMPORTANT NATIVE AQUATIC PLANT FUNCTIONS AND THEIR VALUES.

GOAL 2. PREVENT INTRODUCTION OF AQUATIC INVASIVE SPECIES.

GOAL 3. MANAGE CURLY LEAF PONDWEED TO MINIMIZE NAVIGATION PROBLEMS AND PROTECT NATIVE PLANT POPULATIONS.

GOAL 4. PROTECT THE NATURAL FUNCTIONS OF DIVERSE NATIVE PLANT COMMUNITIES.

GOAL 5. EDUCATE LAKE RESIDENTS AND VISITORS ABOUT THE GOALS AND OBJECTIVES OF THE AQUATIC PLANT MANAGEMENT PLAN.

## PUBLIC INPUT FOR PLAN DEVELOPMENT

Two advisory committee meetings were held for this plan update. The original plan was developed in 2008, and it was updated in 2013. The advisory committee met to learn about APM planning requirements, the status of various aspects of the plan, and to provide input to guide the plan update. Following advisory committee input, the draft plan update is now available to lake residents and other interested parties at [www.bonelakewi.com](http://www.bonelakewi.com)

Comments were accepted through April 10, 2020. A summary of the comments is included in Appendix D of the Aquatic Plant Management Plan.

The major focus on the 2020 update was to review the curly leaf pondweed control program and aquatic invasive species prevention efforts following increased threats from zebra mussels and other AIS. The APM plan was also updated to incorporate new information resulting from water quality studies including an examination of the role lake sediments have on algae growth in the lake.

#### **GOAL 1. MAINTAIN RECREATIONAL USES IMPORTANT TO LAKE RESIDENTS AND USERS WHILE PRESERVING IMPORTANT NATIVE AQUATIC PLANT FUNCTIONS AND THEIR VALUES.**

The 2008 and 2013 Bone Lake APM plans included procedures for obtaining WDNR permits for control of aquatic plants when there is severe navigation impairment or nuisance conditions. The committee chose to leave these provisions in the plan with the intention of ensuring that navigation in the lake is maintained and residents follow legal and environmentally sound procedures for aquatic plant management.

#### **GOAL 2. PREVENT INTRODUCTION OF AQUATIC INVASIVE SPECIES.**

AIS prevention measures including Clean Boats, Clean Waters and camera monitoring at both public boat landings will be continued. New AIS prevention measures are in place on Bone Lake with the 2016 discovery of zebra mussels in nearby Deer Lake. Zebra mussels are also present on the St. Croix River. Bone Lake and Deer Lake share an annual fishing tournament, and boaters frequently travel from Deer Lake and the St. Croix River and other AIS-infested lakes to Bone Lake. The APM plan is updated to include new education and monitoring efforts that focus on zebra mussel and other AIS prevention measures. Boat decontamination with hot water, high pressure washing is a potential new AIS prevention measure to be considered.

#### **GOAL 3. MANAGE CURLY LEAF PONDWEED TO MINIMIZE NAVIGATION PROBLEMS AND PROTECT NATIVE PLANT POPULATIONS.**

Curly leaf pondweed (CLP), an aquatic invasive species managed on Bone Lake for over a decade, has been successfully controlled each year. However, the overall distribution and amount of growth has changed little. While CLP control does remove some phosphorus (the driver of algae growth in Bone Lake), it is more expensive than other methods used to control phosphorus. As a result, CLP control efforts going forward will focus on annual improvements to navigation and protection of native plant populations. Use of herbicides to control CLP early in the season limits the impacts on native plants. Enhanced monitoring of native plants where treatment occurs near critical lake habitat (sensitive) areas was added with this plan update. While harvesting was not chosen as the preferred method for CLP management, it might be considered if economically feasible in the future.

#### **GOAL 4. PROTECT THE NATURAL FUNCTIONS OF DIVERSE NATIVE PLANT COMMUNITIES.**

Native plants provide important functions in Bone Lake. Naturally occurring native plants provide a diversity of habitat, help maintain water quality, sustain the fishing quality for which Bone Lake is known, and support common lakeshore wildlife from loons to frogs. Measures to protect native plants included in actions to implement Goals 1, 2, and 3 above include procedures to explain and limit permitting for native plant control, prevention of aquatic invasive species establishment, early season CLP treatment, and enhanced monitoring of critical habitat areas where CLP treatment occurs. Education of lake residents will help to explain the importance of native aquatic plants to lake residents and visitors.

#### **GOAL 5. EDUCATE LAKE RESIDENTS AND VISITORS ABOUT THE GOALS AND OBJECTIVES OF THE AQUATIC PLANT MANAGEMENT PLAN.**

The APM plan lists audiences, messages and methods for communicating important information regarding aquatic plant management on Bone Lake.