

Appendix C - 2021-30 Comprehensive Lake Management Plan Goals, Objectives, and Actions

Granite Lake, Barron County

Goal One Part A: Maintain total phosphorus (TP) concentration at below the WI State Phosphorus Standard for stratified drainage lakes of 30- µg/l.

Goal One Part B: Reduce the mean percent of lake use days (currently at 31.8%) that have moderate algal levels (chlorophyll-a concentration exceeds 20µg/l) by at least 1/3 (to 21.3%) in five years and by 2/3 (to 10.5%) in 10 years.

1. Objective 1: Reduce external loading of TP by 10% (29-kg) in five years and by 20% (58-kg) in ten years
 - a. Nearshore Area
 - i. Complete a boat landing improvement project
 1. Partner with the Town of Lake
 2. Implement temporary projects to direct runoff away from going directly into the lake.
 - a. 2021
 3. Determine an appropriate company to work with to come up with a plan.
 - a. 2021-22
 4. Apply for grant funding via the Surface Water Restoration or Management Plan Implementation funds
 - a. 2021-22
 5. Renovate the Granite Lake public boat landing
 - a. 2022-23
 - ii. Implement Healthy Lakes and Rivers projects
 1. Encourage participation through workshops and mailings
 - a. Strive for at least 3 shoreland and 2 fishsticks projects annually
 2. Apply for Healthy Lakes and Rivers funds
 - iii. Protect undeveloped shoreland through stewardship and easement programs
 1. Identify properties
 2. Apply for Fee Simple Land Easement & Acquisition funds
 - b. Lake
 - i. Educate lake users about the impact of boats and waves in shallow water
 1. Implement an Education and Awareness Campaign to encourage voluntary changes made in the use of large wave generating boats on the lake.
 2. Consider ordinances to minimize boat and large-wave disturbance in shallow water and along the shore
 - ii. Increase the amount of coarse woody habitat
 1. Implement Healthy Lakes Fishsticks projects

- c. Watershed
 - i. Review the implementation of Forestry BMPs in the watershed
 - 1. Barron County, private landowners, forestry consultants and contractors
 - ii. Encourage and support the implementation of Agriculture BMPs in the watershed
 - 1. Barron County, private landowners, Ag businesses
 - 2. Apply for funding from the WDNR Surface Water Restoration program to support agricultural incentives
 - iii. Update land use within and runoff from sub-watersheds within the larger Granite Lake watershed
 - 1. Identify WHD-plus Catchments within the Granite Lake watershed
 - 2. Complete monitoring of non-mainstem tributaries within these catchments as appropriate
 - iv. Evaluate the potential for wetland restoration projects in the watershed
 - 1. Barron County, private landowners, wetland organizations
 - 2. Apply for funding from the WDNR for Wetland Restoration Incentives
- 2. Objective 2: Fill in data gaps that exist that will Improve the adaptability of current and future water quality management planning
 - a. Complete an in-lake phosphorus sediment release study
 - i. University of Wisconsin STOUT - Center for Limnological Research and Rehabilitation - Bill James UW-STOUT
 - b. Complete a local groundwater study
 - i. Wisconsin Groundwater Coordinating Council and University of Wisconsin Water Resources Institute – Jen Hauxwell WDNR

Goal Two: Keep new AIS from entering the lake and existing AIS from increasing their distribution and density.

- 1. Objective 1: Implement actions to prevent new AIS from entering and becoming established in the lake
 - a. AIS prevention and education
 - i. Clean Boats Clean Waters
 - ii. Improved AIS Signage/Decontamination Station
 - iii. Lake User Awareness and Education
 - b. AIS monitoring
 - i. CLMN AIS Monitoring
- 2. Objective 2: Prevent existing AIS in the lake from increasing in distribution and density
 - a. Annual AIS recon and mapping
 - b. Physical removal (CLP and PL)

Goal Three: Manage aquatic plants in a manner that maintains lake use and reduces the impacts of non-native, invasive species

1. Objective 1: Implement native aquatic plant and filamentous algae management
 - a. Rake removal
 - b. Surface water skimming
2. Objective 2: Implement curly-leaf pondweed (CLP) management appropriate for the scale of infestation
 - a. Physical removal
 - i. Rake/snorkel/scuba
 1. <50 Individual plants scattered around the lake
 - ii. DASH
 1. >50 individual plants in a single acre, but not enough to be classified as a high-density area
 - b. Alternative management actions
 - i. Herbicide application
 1. CLP in a high-density area or bed exceeding 1.0 acres
 - a. A high-density area has a recognizable boundary and 25% of the plants present are CLP
 - b. A bed has a recognizable boundary and 50% of the plants present are CLP
 - ii. Contracted harvesting
 1. CLP in a bed that is >2 acres
 - a. A bed has a recognizable boundary and 50% of the plants present are CLP
3. Objective 3: Be prepared to deal with any new AIS that may get introduced into the lake
 - a. Develop an AIS Rapid Response Plan for AIS not currently present in the lake.
 - i. Using examples from other lake groups, the GLA will develop their own Response Plan
 - ii. OR, the GLA will contract with a consultant to create a Response Plan

Goal Four: Implement monitoring and evaluation that supports adaptive management

1. Objective 1: Document trends in water quality
 - a. Water quality monitoring
 - i. Continue CLMN expanded water quality testing
 - ii. Add fall sampling of total phosphorus and chlorophyll-a
 1. September and October
 - iii. Increase temperature and dissolved oxygen profiling to at least once a week during the open water season
 1. From early June through mid-October
 - iv. Add total and dissolved phosphorus sampling of the water column if part of a new study to better determine internal loading.
2. Objective 2: Document changes in the aquatic plant community
 - i. Complete a PI survey at the half-way point in this project, and again at the end

Goal Five: Implement the Granite Lake Comprehensive Lake Management Plan effectively and efficiently with a focus on community and constituent education, information, and involvement.

1. Objective 1: Complete annual project activity and assessment reports
 - a. Use what is learned from the reports to improve management planning
2. Objective 2: Complete end-of-project summary reporting
 - a. Review overall project successes and failures
 - b. Revise or rewrite the Comprehensive Plan as needed
3. Objective 3: Develop and maintain partnerships to support management actions
 - a. Communicate with local, county, and state entities; local businesses, schools, clubs and community organizations, etc. to generate support for management actions
 - b. Share project results at least annually