

Appendix A - 2020-24 Echo Lake Aquatic Plant Management Goals, Objectives, and Actions

1. Goal 1: Support and implement EWM management efforts that minimize negative impacts to the native plant communities.
 - a. Objective 1: Maintain EWM coverage in the lake at less than 1 acre annually.
 - i. Action 1: Continue conducting yearly fall EWM bed mapping surveys.
 1. Fall bed mapping surveys will be used to determine potential chemical treatments areas in the following year.
 - ii. Action 2: Continue use of early-season herbicide treatments on “hotspot” or “high density” areas determined by yearly fall EWM bed mapping surveys.
 1. When potential chemical treatments areas are >1 acre a liquid herbicide will be used.
 - a. The concentration of herbicide is applied will depend on the location and depth of the treatment area, and the density of EWM in that area.
 2. When potential chemical treatment areas are <1 acre the use of liquid or granular herbicide will be based on location of the bed in the lake, depth of water, and density of the EWM in the bed.
 - a. Small treatment areas (<0.5 acres) in deep water (>4 feet) may be treated with granular herbicide.
 3. Review and consider any new herbicides that are approved through WEPA and the WDNR.
 - iii. Action 3: Continue annual rake, snorkel, and/or SCUBA diver physical removal of EWM.
 1. Sponsored and completed by ELA volunteers or through hired contractors.
 - b. Objective 2: Maintain or improve measurements of the health of the native aquatic plant community.
 - i. Action 1: Continue regular whole-lake early and summer point-intercept aquatic plant surveys.
 1. Complete at least once every five years.
 2. Consider pre and post-treatment aquatic plant surveys if chemically treating an area >5 acres.
 - ii. Action 2: Compare previous and current aquatic plant community health parameters including the Simpson’s Diversity Index, Floristic Quality Index, number of plant species identified, and frequency of occurrence.
2. Goal 2: Support and implement AIS education and prevention efforts.
 - a. Objective 1: Prevent new AIS from entering and existing AIS from leaving Echo Lake.
 - i. Action 1: Continue implementation of Clean Boat Clean Waters watercraft inspection.
 1. 100-200 hours annually with grant funding.
 2. Volunteer hours only without grant funding.
 - ii. Action 2: Install, maintain, and/or improve AIS signage at the public access
 - b. Objective 2: Maintain the public participation and communication program and implement an AIS education and information program.

- i. Action 1: Continue distribution of annual newsletters updating AIS and other ELA activities.
 - ii. Action 2: Host an annual event to promote public awareness, knowledge, and involvement in lake and AIS education activities.
 - 1. Can be combined with the Annual Meeting or other planned event, or with another entity.
 - iii. Action 3: Create and maintain an Echo Lake Association webpage.
 - c. Objective 3: Implement and maintain AIS monitoring efforts.
 - i. Action 1: Establish and maintain an in-lake and shoreline AIS monitoring program following CLMN guidelines.
 - ii. Action 2: Establish an AIS response plan.
- 3. Goal 3: Promote and support nearshore, riparian, and watershed best management practices that will improve fish and wildlife habitat, reduce runoff, and minimize nutrient loading into Echo Lake.
 - a. Objective 1: Install one or more Healthy Lakes shoreland habitat improvement projects annually.
 - i. Action 1: Officially adopt the Wisconsin Healthy Lakes Initiative during the next annual meeting of the ELA.
 - ii. Action 2: Identify property owners interested in Healthy Lakes shoreland improvement projects.
 - iii. Action 3: Apply for Healthy Lakes grant funding to support projects that improve shoreland habitats and reduce runoff into the lake.
 - iv. Action 4: Work with property owners on the installation of Healthy Lakes Projects.
 - b. Objective 2: Increase the amount of woody habitat in Echo Lake.
 - i. Action 1: Provide educational and informational materials to lake property owners that promote the benefits of CWH in a lake.
 - ii. Action 2: Encourage property owners not to remove woody debris that falls naturally into the lake from their shoreline unless it presents a dangerous and/or undesirable condition.
 - iii. Action 3: Install a demonstration Fishsticks project somewhere on Echo Lake.
- 4. Goal 4: Engage lake residents and visitors in being active lake stewards.
 - a. Objective 1: Encourage behavior changes in residents in the following areas: shoreland development, AIS, water quality, aquatic vegetation, recreational practices, and responsibility for the lake.
 - i. Action 1: Help lake residents to understand AIS concerns, identify and monitor for AIS within the lake, and report and/or remove what they find.
 - ii. Action 2: Encourage boaters to implement appropriate AIS prevention strategies on their watercraft.
 - iii. Action 3: Distribute educational and informational material related to being good lake stewards.
 - 1. Create and distribute welcome packets, newsletters, information/educational displays, Facebook and/or webpage, ELA meetings, and other resources to increase the level of public awareness and interest in the lake.
 - b. Objective 2: Encourage and support constituent participation in annual lake and AIS conferences in WI and MN.

- i. Research and share dates and times for various lake and AIS conferences in MN and WI.
 - c. Objective 3: Continue water quality testing for water clarity, temperature, dissolved oxygen, total phosphorus, and chlorophyll-a at the deep hole through CLMN Expanded Monitoring program.
 - i. Action 1: Provide trained volunteers to complete water quality monitoring following CLMN guidelines.
- 5. Goal 5: Implement the Echo Lake Aquatic Plant Management Plan effectively and efficiently.
 - a. Objective 1: Apply for a multi-year Aquatic Invasive Species Education, Prevention, and Planning grant to support APM Plan implementation.
 - i. Use the grant to support EWM management planning, aquatic plant survey work, AIS education, and summary reporting.
 - b. Objective 2: Complete annual project activity and assessment reports.
 - i. Action 1: Use reports to make recommendation for annual revisions and updates to the APM Plan.
 - c. Objective 3: Complete an End-of-project Summary Report.
 - i. Action 1: Overall review of project successes and failures.
 - ii. Action 2: Review the goals, objectives, and actions in the 2020-2024 APM Plan for successful implementation.
 - iii. Action 3: Revise or rewrite APM Plan on the established 5-year basis.