WISCONSIN DEPARTMENT OF NATURAL RESOURCES GRANT # AEPP-696-23

FINAL REPORT - 2023

Submitted by

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BACKGROUND

Gilmore Lake is a 389-acre groundwater drainage lake in northern Washburn County that receives heavy recreational use. Despite a continuing CBCW inspection program, Eurasian watermilfoil (EWM) was discovered in 2009. Gilmore Lake Association (GLA) immediately began a collaborative program with the WDNR to detect and control EWM as well as educate lake users about it and other AIS.

Our first grant for Early Detection and Rapid Response (AIRR-17-10) extended from September 2009 through 2012. GLA was then awarded an Established Population Control Grant (ACEI-127-13) which covered years 2013 through 2023.

Gilmore Lake has been managing EWM for 14 years with some success, however, an updated five-year Aquatic Plant Management Plan was needed to manage EWM successfully under current conditions. Management of EWM with hand-pulling and herbicides have been successful in eliminating EWM and restoring diverse native species in treated areas, yet a new outbreak of EWM has occurred in the North basin where there formerly had been a significant diversity of aquatic plants, including Wild Rice. As a precursor to updating the APM plan, input was sought from WDNR, Washburn County, and partners including GLIFWC and St. Croix Tribal Natural Resources to address EWM spread in Gilmore Lake while protecting and/or enhancing native species. Input gathered was incorporated into the new APM Plan.

PROJECT GOAL AND OBJECTIVES

This project involves an update of the Aquatic Plant Management Plan for Gilmore Lake (2024-2028) and monitoring and study of appropriate Eurasian Water Milfoil management and treatment. The most recent APM Plan expired in 2023, and Gilmore Lake is facing new challenges related to control which require investigation and public/partner input. Meandering surveys, WDNR/partner meetings, and pre/post-survey with bed mapping work were used to update the APM Plan.

To that end, the project has the following objectives:

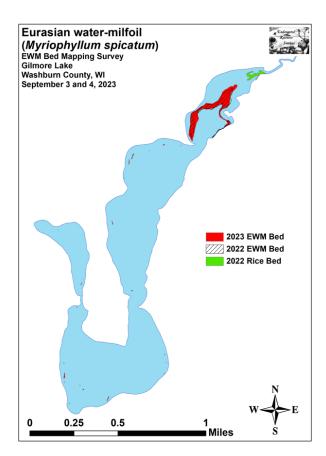
- 1. Utilize multiple surveys of aquatic plants to identify EWM infestation in Gilmore Lake and location of important native aquatic plants.
- 2. Hold meetings and complete site visits with public/partner groups to evaluate status of EWM, native plants and discuss options and develop strategy for EWM management.
- 3. Develop an updated Aquatic Plant Management Plan that enables Gilmore Lake Association to move forward with aquatic plant management actions that will maintain the health and diversity of Gilmore Lake and its aquatic plant community.

SUMMARY OF 2023 ACTIVITIES AND FINDINGS

GLA volunteers monitored the distribution of EWM by visual inspection of potential colonization sites via meandering boat surveys. These meandering surveys were conducted frequently from May through mid-September. They were performed by members of the GLA Milfoil Committee, all of whom were trained in EWM identification. These volunteer survey activities were complemented by a bed mapping survey performed by Endangered Resource Services LLC.

Aquatic Plant Distribution

Based on findings of the 2022 EWM surveys and bed mapping, EWM was present in four beds covering 7.65 Acres, the largest of which (7.30 acres) being located in the north basin. The 2023 survey and bed mapping conducted in early September 2023 identified 24 beds with a total of 10.8 acres, with 10.37 acres in the north basin. This significant growth in size of the large bed in the north basin (+42%) was measured after the beds were treated with DASH over three days. Thus, there is concern about the rapid expansion of EWM in the north basin and its contribution to establishing many more colonies around the littoral zone of Gilmore Lake.



Stakeholder Meetings

GLA arranged to meet with representatives of WDNR, GLIFWC and Gilmore Lake Association leaders in June 2023 to discuss treatment options for the North Basin of the lake. These discussions provided insight for the preparation of the Aquatic Plant Management Plan for years 2024-2028.

APM Plan Development

GLA retained the services of a lake consultant, LEAPS LLC, to review data and information, attend stakeholder meetings, and develop a five-year plan for managing aquatic plants in Gilmore Lake. The plan was developed, reviewed, placed out for public comment and finalized in late 2023.