

OSPREY LAKE SAWYER COUNTY

2021 MANAGEMENT SUMMARY REPORT WBIC: 2098800 & 2098200

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INTRODUCTION

This report discusses lake management activities completed by the Osprey Lake Property Owners Association (OLPOA) and Lake Education and Planning Services (LEAPS) throughout 2021. The following actions were completed by LEAPS to assist the OLPOA in aquatic plant management and lake stewardship education.

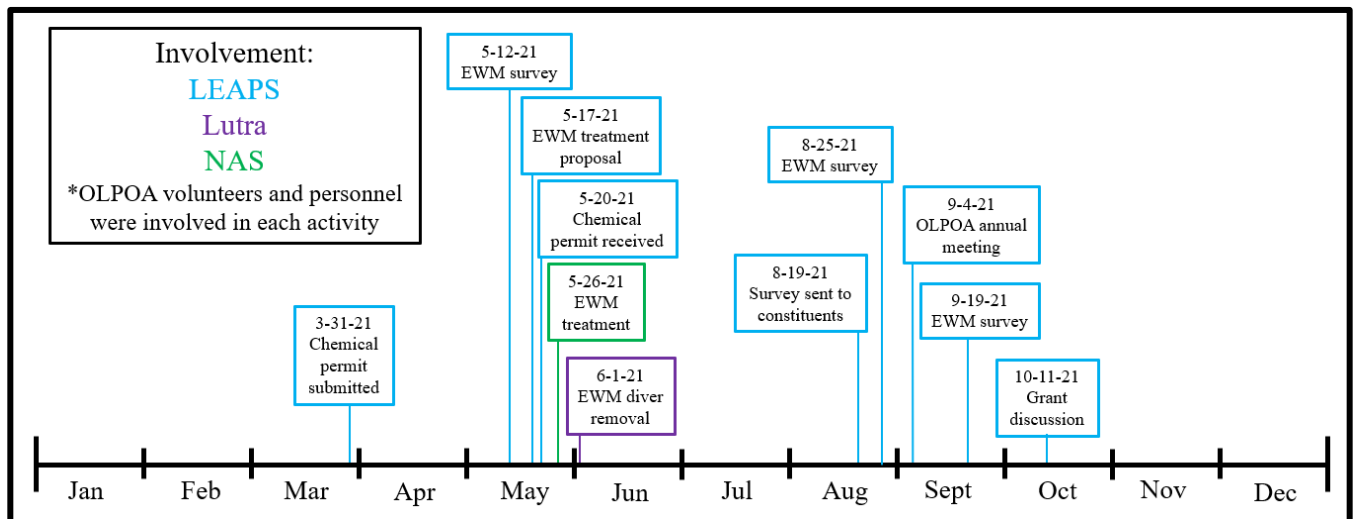


Figure 1. Timeline of 2021 management events involving LEAPS and other hired contractors in Osprey Lake

2021 EWM MANAGEMENT

The OLPOA participated in integrated pest management of EWM in 2021 as approved by the Wisconsin Department of Natural Resources. The proposed areas for chemical treatment were delineated from Endangered Resource Services, LLC (ERS) 2020 late summer bed mapping survey (Figure 2). LEAPS and the OLPOA determined that an area of 3.5 acres should be treated in spring of 2021. After submitting a preliminary treatment plan and receiving a chemical permit early in 2021, the OLPOA was approved to chemically treat the northeast bay (Figure 2).

On 5/12/2021, LEAPS performed a pretreatment survey of the proposed treatment areas and found EWM present in the area (Figure 2). On 5/26/2021, Dale Dressel of Northern Aquatic Services (NAS) applied 42.05 gallons of 2,4-D (Amine 4) at 2.5 parts per million. Dressel reported that the water temperature was 71°F and that there was a 4-7mph wind from the west at the time of the application.

On 6/1/2021, Lutra LLC – assisted by volunteers and LEAPS – performed a diver removal of EWM in the bed in the middle of the channel from the boat landing to the main part of the lake. This area was of great concern due to its central location where boat traffic would inevitably fragment the plants and increase their spread. Lutra successfully removed a large amount of EWM from the bed. When LEAPS returned to Osprey Lake on 8/25/2021 to perform a meandering littoral survey for EWM, the area was drastically reduced in size (Figure 3).

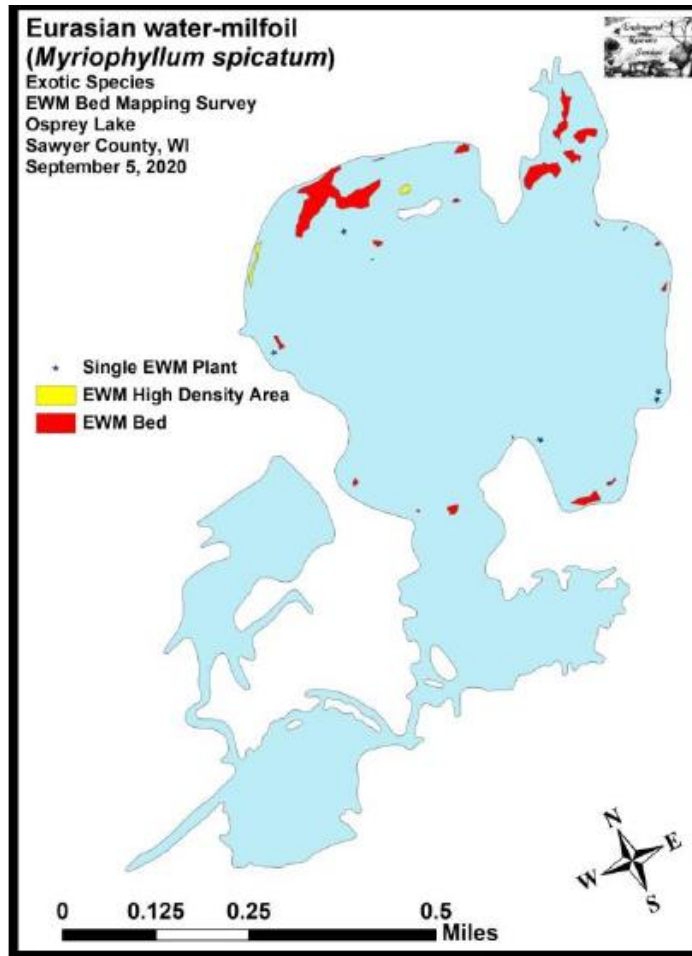


Figure 2. 2020 EWM areas found by ERS

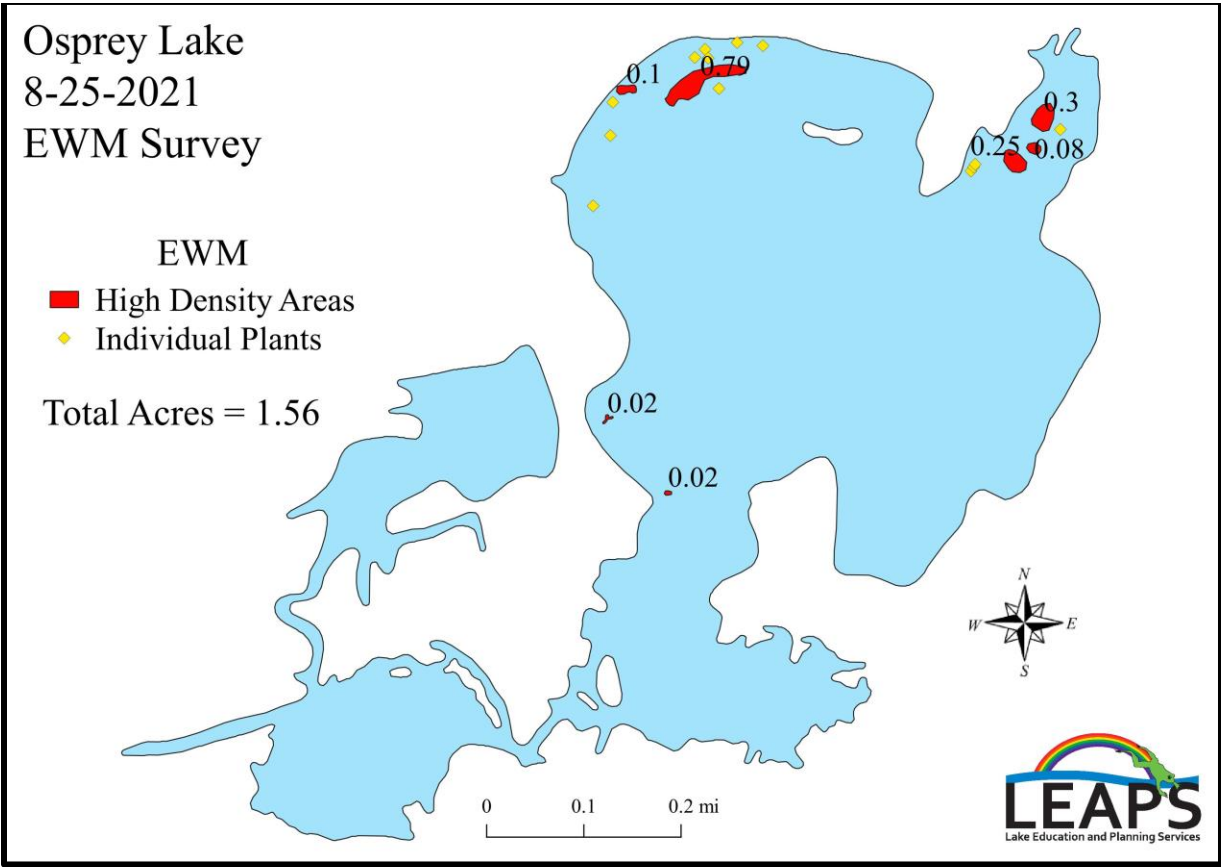


Figure 3. 2021 Osprey Lake EWM late summer survey

2021 CITIZEN LAKE MONITORING

Water quality data was collected by volunteers in 2021 from the deep hole site on Osprey Lake (Station ID: 10039031). Total phosphorus (TP) samples were collected on three dates in Osprey Lake and averaged 11.8 ug/L (Table 1). Chlorophyll samples were also collected three times in Osprey Lake, averaging 2.5 ug/L (Table 1). Secchi disk readings were taken twice in Osprey Lake and averaged 16.5 feet (Table 1). These results gave Osprey an average Trophic Status Index (TSI) score of 41.9, classifying the lake as oligotrophic (Table 1). Oligotrophic lakes are characterized by high water clarity with occasional oxygen depletion in the bottom waters. These conditions accurately describe Osprey Lake in 2021.

LEAPS supports the collection of these data and uses it to inform management decisions and educate OLPOA members and lake users about the lake.

Table 1. 2021 Osprey Lake water quality data

Sample Date	TP (ug/L)	Chl- <i>a</i> (ug/L)	Secchi (ft)	
07/27/21	10.1	2.0	-	
08/12/21	10.6	2.2	17.5	
09/16/21	14.7	3.2	15.5	
Average	11.8	2.5	16.5	
Average TSI	47.0	41.7	37.0	= 41.9

2021 AQUATIC PLANT MANAGEMENT PLAN

LEAPS updated the Aquatic Plant Management Plan (APMP) for Osprey Lake. Unfortunate circumstances delayed the completion of the plan by the end of 2021 as originally intended. Thus, LEAPS assisted the OLPOA in asking for an extension on the grant. The extension was approved, allowing the OLPOA and LEAPS to finalize the plan in 2022. The plan emphasizes continuing the integrated pest management approach that combines chemical treatments, diver and hand removal, and education to maintain the current low levels of EWM.

SURFACE WATER LAKE MANAGEMENT PLANNING GRANT APPLICATION

Because the new Osprey Lake Aquatic Plant Management Plan was very near completion by the fall of 2021, LEAPS worked with the OLPOA to prepare an AIS population control grant originally intended to support management implementation in 2022. However, because the final review process for the APM Plan took longer than expected, the population control grant was not accepted by the WDNR. Instead, it was suggested they apply for a Surface Water grant to support further AIS management planning and support in 2022.

This was done, and a final grant application was submitted on November 1, 2021. That grant was awarded and will be used to support EWM management planning and aquatic plant survey work in 2022. Unfortunately, it can not be used to support the actual implementation of management actions in 2022. Chemical treatment and diver removal in 2022 will again covered by the OLPOA.

2021 PUBLIC INPUT SURVEY

As part of updating the APMP for Osprey Lake, the OLPOA requested that LEAPS put together a public survey of shoreline land owners and their opinions on management. The survey was mailed to land owners by OLPOA leaders in August, and then LEAPS analyzed the returned surveys. Aspects of the survey were used to update the APMP and will be used to inform LEAPS management recommendations and future OLPOA management actions. The results of the survey can be viewed upon request by contacting LEAPS Dave Blumer at dblumerleaps@gmail.com.

2021 AIS MONITORING AND EDUCATION

EWM was first discovered in the lake in 2005. Since then, volunteers have performed aquatic invasive species (AIS) monitoring on a regular basis. Purple loosestrife is the only other AIS verified to be present in the lake, although Japanese knotweed and several other species are known to be in the immediate area. To stay ahead of the current infestations, as well as any other future AIS concerns, monitoring and education will continue in the future to prevent new introductions and limit their spread should they occur. LEAPS promotes and provides AIS education through events geared towards education and by attending OLPOA meetings.

In 2021, LEAPS assisted with AIS education through several events. Personnel attended OLPOA meetings and presented information on AIS. Constituents were engaged and interested in the information and reported that they felt like they knew more about the lake and AIS and that they would be more likely to be able to identify AIS in the future.

2022 EWM PRELIMINARY MANAGEMENT PLANNING

Eurasian water-milfoil currently occupies a small percentage of Osprey's surface area, but it is well established, making eradication an unrealistic expectation. Although the species grows well in the system, active management has dramatically reduced the levels of EWM. Reducing Eurasian water-milfoil in Osprey Lake has come at a high economic cost, and, as herbicides are non-selective, has also likely had significant impacts on the aquatic plant community. In the future, maintaining EWM at its current low levels using targeted management will likely continue to produce satisfactory control while simultaneously minimizing financial and ecological costs. Ultimately, the amount of EWM growth the OLPOA is comfortable with will determine how much, if any, management occurs in the lakes in 2022.

Preliminary EWM management planning for Osprey Lake in 2022 has already been completed and is currently being reviewed by the OLPOA and the WDNR. The preliminary plan follows guidelines in the existing draft of the APM Plan which is also still under review by the WDNR. It includes three small treatment areas totaling 1.12 acres. Two of these areas are within the area that was chemically treated in 2021 using liquid 2,4-D. The chemical treatment proposed for 2022 uses ProcellaCOR. With the proposed treatment, it is expected that the NE bay will not need to be chemically treated again until 2024 at the earliest.

Other areas with EWM will either be removed by divers or hand-removed by property owners on the lake. Additional grant funding will be applied for in 2022 to support management efforts in 2023 and 2024.