

# **Eurasian watermilfoil (*Myriophyllum spicatum*)**

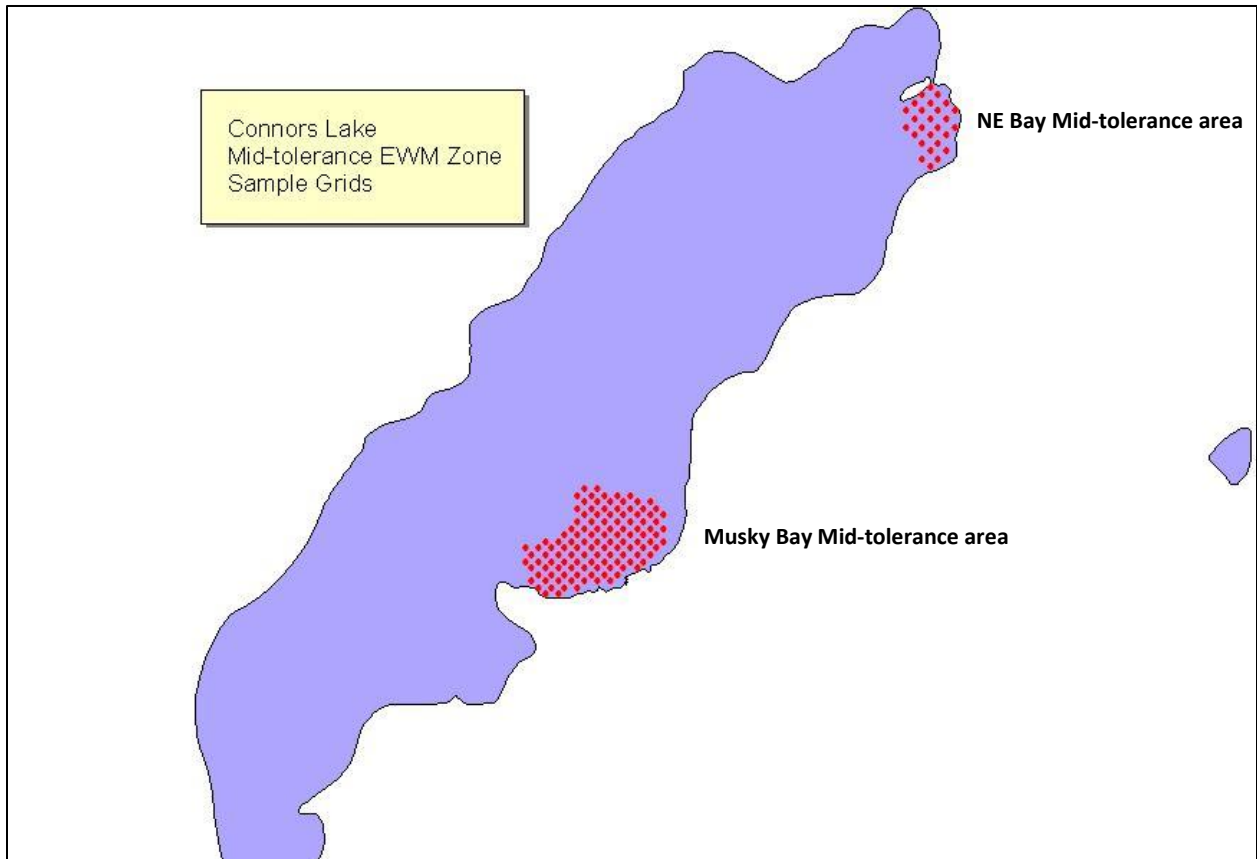
## **Survey**

***Connors Lake, Sawyer County WI***

***August 2018***

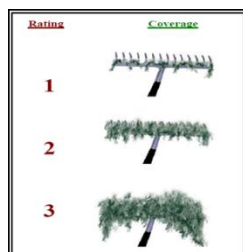
## Methods

On August 14, 2017 the entire littoral zone of Connors Lake was surveyed for EWM . This survey involved a meandering of all areas with plants and viewing with a surface viewing scope and verified with rake samples as needed. All locations with EWM were recorded with GPS and given a rake density rating. In addition, two areas designated as mid-tolerant EWM areas were surveyed using a pre-established sample point grid. Those grids are shown below.



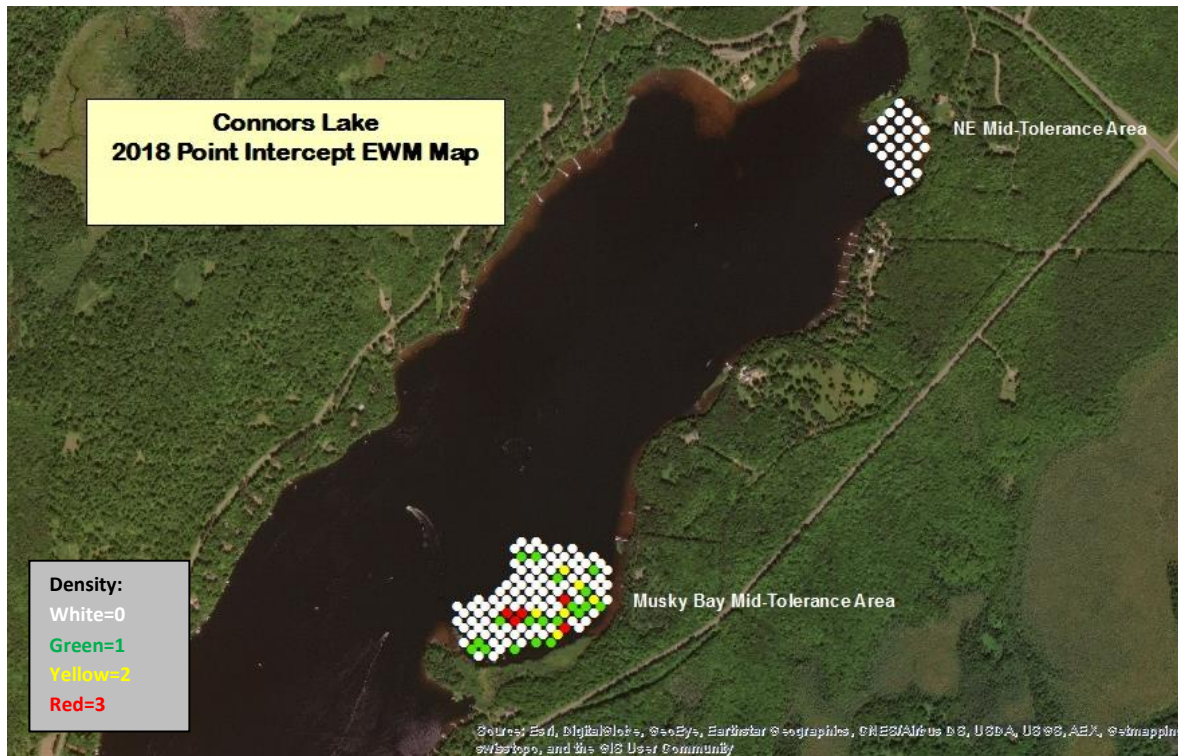
Each sample point in the grid was sampled for EWM using a rake and given a rake density rating. The 2017 Connors Lake EWM Distribution Map shows the distribution of the EWM within the grid, as well as the density sampled.

The rake density rating is as follows:

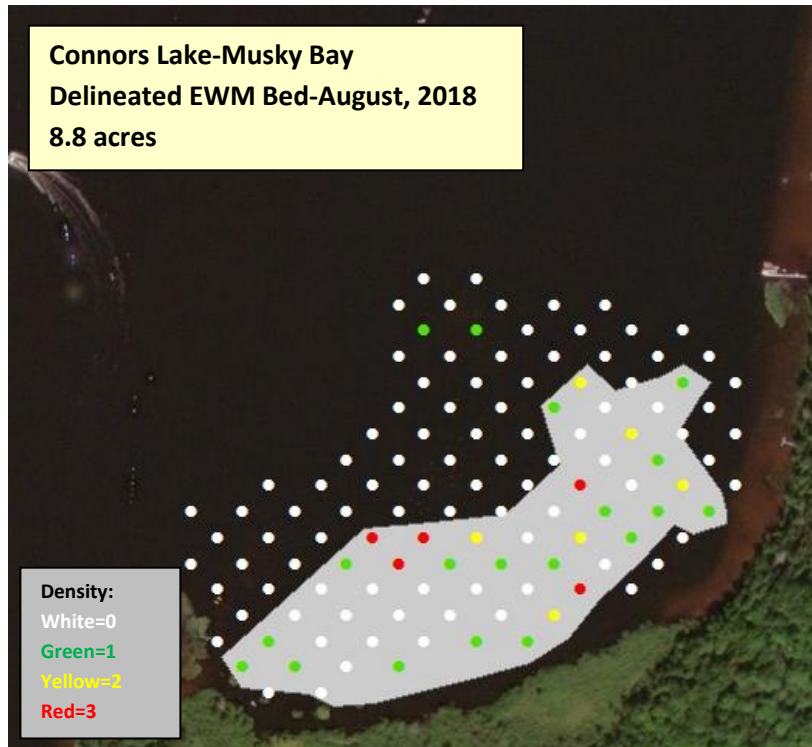


## Results

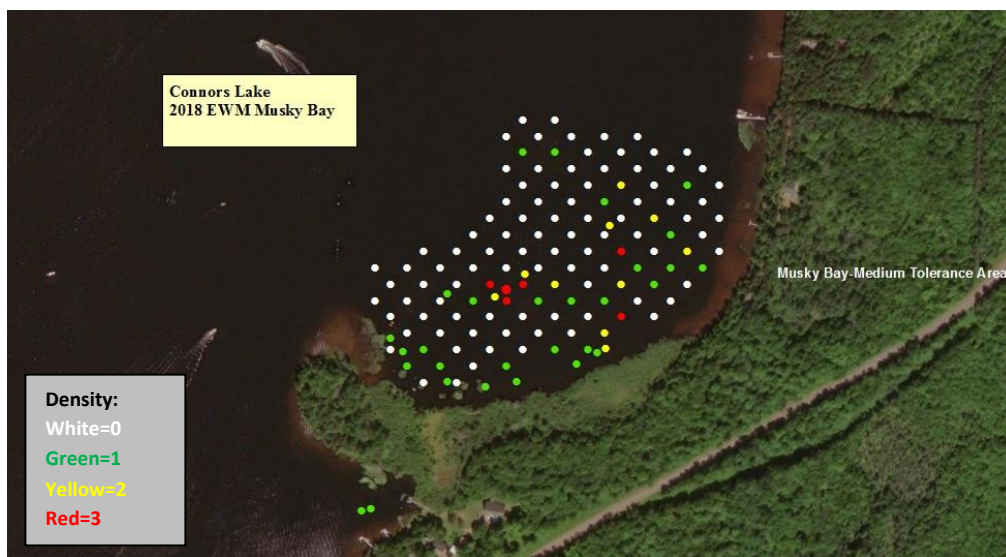
The survey in the mid-tolerance area of the NE bay had no EWM sampled or observed. Musky Bay, which is where most EWM has been present historically, had an EWM frequency of occurrence of 26% and a mean density of 0.4 (based on entire bay area). A bed of EWM was delineated within Musky Bay, and that bed had a frequency of occurrence of 54.9% and mean density of 0.9.



| EWM area                       | Frequency of occurrence | Mean density |
|--------------------------------|-------------------------|--------------|
| NE Bay-Mid Tolerance Area      | 0%                      | 0.0          |
| Musky Bay-Mid Tolerance Area   | 27%                     | 0.4          |
| Delineated EWM Bed (8.8 acres) | 54.9%                   | 0.9          |



EWM observed between sample points in the Musky Bay point intercept survey were recorded to allow for any potential bed delineation. These EWM points were basically contained within the same areas EWM was sampled in the point intercept survey, just between.



A meander survey was conducted elsewhere in the lake. There were only to (close proximity to one another) locations with single plants located in the small bay just south of Musky Bay.

The Aquatic Plant Management Plan for Connors Lake has a treatment threshold for herbicide use is a frequency of occurrence of 50% and a mean density of 1.5+ within the mid-tolerance area. When the Musky Bay point intercept survey is considered, it does not meet this threshold.

A delineated bed surrounding all EWM sample points within Musky Bay resulted in an 8.8 acre bed. This bed has a frequency of occurrence of 54.9% and a mean density of 0.9. The APMP calls for treating all of Musky Bay, however this bed was delineated to allow for determination of the size of EWM coverage as of August 2018. It also may provide an option for potential herbicide use, although the mean density is below the threshold in the plan.

### **Management considerations**

The APMP suggests waiting until Musky Bay reaches a threshold of frequency and density before using herbicide. This would be an option. The delineated bed is large enough to allow coverage of herbicide and reaches the frequency threshold, but not the density threshold.

Another option is to use DASH. This utilizes divers with a suction device that physically removes the plants. This could be used to specifically target areas in Musky Bay to remove EWM. It is possible enough may be removed to avoid herbicide use in the near future.