

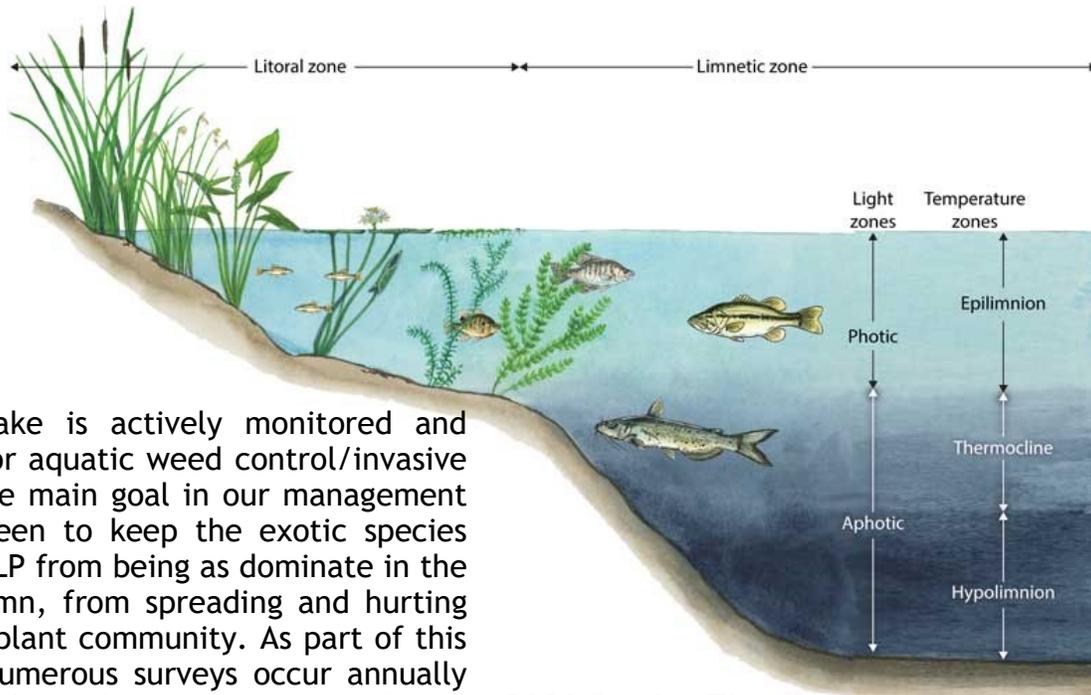


## Lake Evaluation Record

**Lake Name:** Fremont Lake    **County:** Newaygo

**Evaluated by:** Casey Shoaff    **Reviewed by:** Bre Grabill    **Date:** September 15, 2020

**Purpose of evaluation:** End of Season Survey



Fremont Lake is actively monitored and managed for aquatic weed control/invasive species. The main goal in our management plan has been to keep the exotic species EWM and CLP from being as dominant in the water column, from spreading and hurting the native plant community. As part of this program, numerous surveys occur annually on Fremont Lake, including the end of year AVAS Survey. Throughout the summer, recommendations for management are provided to the committee for spot treatment of EWM, CLP and if needed Algae and/or nuisance native plants. Nuisance native plants have not been treated per the treatment authority. Native plants lake wide have been promoted to improve plant diversity; which has historically been quite low. Water Quality monitoring is recommended for monitoring in addition to the vegetation surveys.

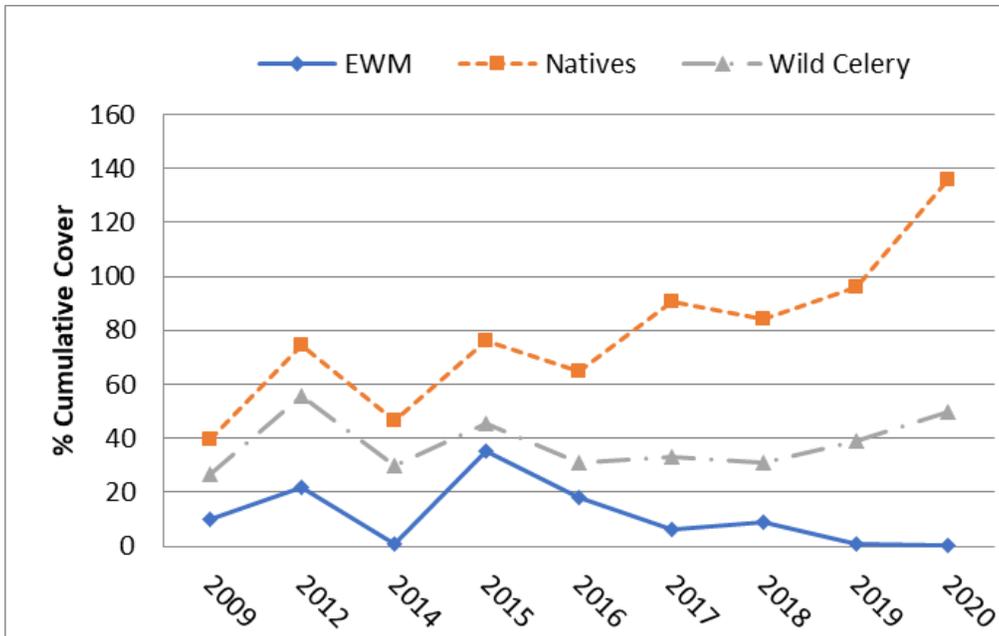
### 2020 Service Timeline:

<u>Service</u>	<u>Date</u>
Survey	5/25
Algae Treatment	5/29
EWM/CLP Treatment	6/9
Survey	7/13
EWM/CLP Treatment	7/20
Survey	8/17
AVAS Survey	9/21

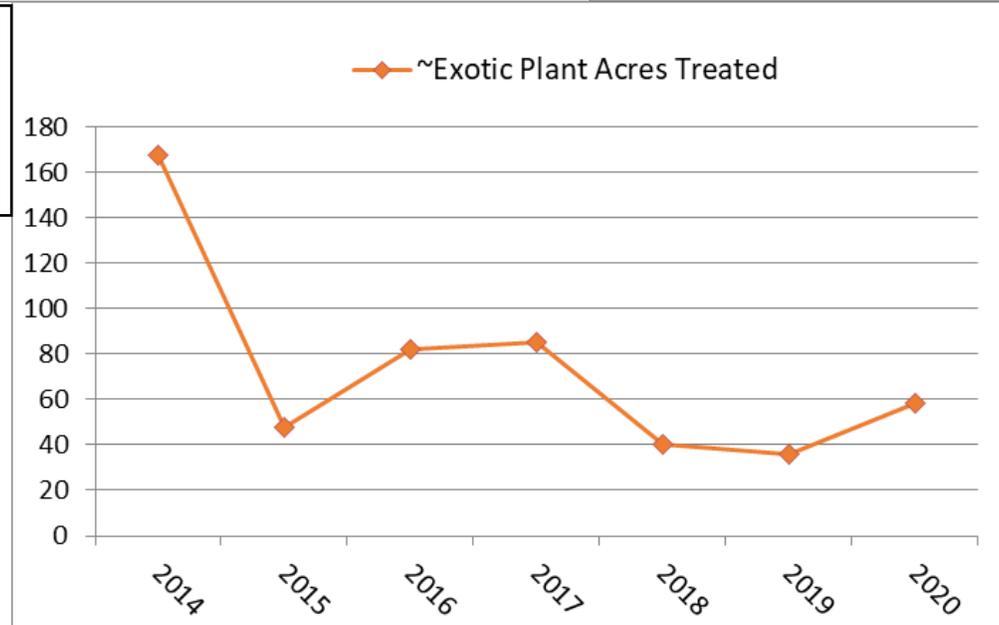
PLM is on your waterbody at a minimum of once a month. It is our philosophy that you cannot effectively manage a lake if you are not on it regularly. We perform routine surveys both pre and post treatment as well as an end of year survey, that is more in depth, referred to as an AVAS survey. Results can be seen below in Graph 1. AVAS surveys take into account the whole littoral zone of a lake. We break down the perimeter into 300' sections and classify all species found within each section by density (A-D, D being most dense). These surveys are ideal for identifying the amount of exotics within the lake as well as the cover and diversity of native species. These surveys also help to quickly identify new exotic species introductions to our lakes which is vital for early detection and rapid response.

Graph 1 shows the cumulative coverage of EWM, Native plants and Wild Celery. Over the last few years, native plant populations have increased, as well as the density of Wild celery. EWM populations have stayed quite low over the few years, a positive sign of the management efforts in place.

Graph 2 shows the number of non native (exotic) acres treated annually. Overall acreage has decreased significantly in recent years.



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## Final Recommendations

- A spring vegetation survey (to evaluate conditions in the lake and direct management efforts)
- Herbicide treatments for exotic /nonnative plants
- Algaecide treatments, if approved
- Mid summer surveys for monitoring
- Water Quality monitoring
- End of summer AVAS Survey