

2026 Late Season EWM Mapping Survey Results

On September 26, 2026, Sam and Eddie Heath (Onterra) conducted the late season EWM mapping survey on Silver Lake. During this survey, we systematically meandered the entire lake with the purpose of mapping all visible EWM occurrences in the lake. We had sunny skies and good visibility. The wind picked up a little in the afternoon, but we planned accordingly and were on the protected side of the lake by then. We had all the data from previous surveys loaded onto our onboard mobile computers, and APM was gracious enough to get us some preliminary information on their DASH recon dives to assist with our surveys.

The attached 4-page mapbook shows the survey results. The first page shows an overview of the entire lake, with the three subsequent maps showing a zoomed-in perspective. We located EWM between 3 and 10 feet of water, with most occurrences being detected in 4- 5 feet of water. On the zoomed-in maps, you can see that many of the EWM plants are about even or a little lakeward from the pier face (imaginary line that runs through the end of everyone's docks). Many EWM plant were also located within the floating leaf pondweed (*Potamogeton natans*) colonies.

As I know you agree, we like to gauge the success of the management action by the longevity of results. I made a couple of maps to help show the longevity achieved from this treatment versus the previous fluridone treatment. We are currently completing the third summer after treatment, and only a relatively low number of individual EWM plants have been documented. Compared to the 2016 whole-lake fluridone treatment, the third summer after treatment (2018) already had many *small plant colonies* and *clumps* around the lake, with a heavy presence of EWM within foxtail bay. From this inference, the EWM population rebound is slightly behind the last 2016 treatment.

EWM & HWM Genetics in Silver Lake

One of the emerging fields in watermilfoil management relates to genetics and herbicide "resistance." I don't really like that word, because many people think it means resistance, when it actually means less responsive. The idea is that an herbicide treatment will remove all the sensitive strains to that herbicide, leaving behind the more tolerant ones to rebound and repopulate the system. We often call this "tolerance evolution," but that is a mouthful too. Regardless, the data is fairly clear that repeated treatments with the same herbicide produce less successful results each subsequent treatment. We used to think this main difference was EWM vs HWM, but it's become far more complicated. While HWM in general is a little more resilient to herbicides, various strains of EWM and HWM have been identified as to having different levels of sensitivity to different herbicides.

Earlier genetic analysis found both EWM and HWM individuals on Silver Lake. But this was a limited sample size and last tested in 2015. And at that time, there was no distinction of what strain of EWM or HWM was in the lake. With advancements in DNA analysis, we can now get this level of information for roughly \$50 a sample. I think this would be a good time to learn a little bit more about the strain(s) of EWM/HWM in the lake. For example: Is there any EWM left in Silver Lake, or is it all HWM? If we learn the HWM strain is unique to Silver Lake, it potentially was made in the lake (EWM or HWM that crossed with northern watermilfoil). But if it is a common strain found in other lakes, we can infer it likely came into the lake already as HWM made someplace else. If the same strain is on another lake, we can learn if they had positive responses to different

2026 ONTERRA LATE SEASON AND DASH RESULTS

herbicides that may be helpful down the line. More information can be found at: <https://www.montana.edu/thumlab/Genetic-Identifications/>. Make sure you check out the web app (https://thumlab-msu-watermilfoilapp.shinyapps.io/milfoil_app/).

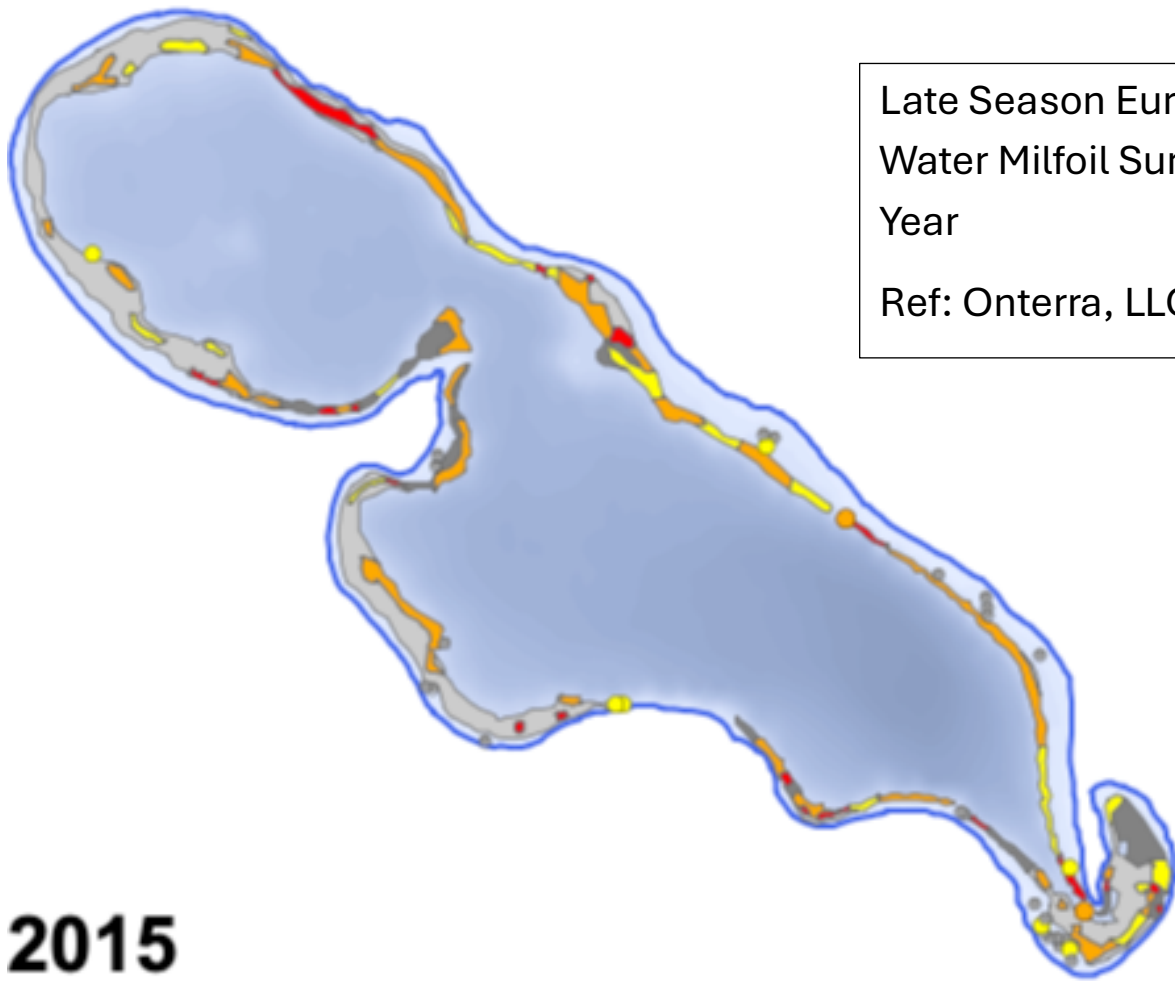
During our last survey of the lake, we collected a single invasive watermilfoil plant from Foxtail Bay and one from the north boat landing (Hwy 21/73). These plants have been processed for potential DNA testing – meristem isolated, cleaned, and in the process of drying. Onterra will send these samples to Montana State University to get a preliminary screening of what strains these individuals are. I would have the lab bill you directly the \$100 (\$50 x 2) and include the shipping costs (prob \$10-20) on one of our invoices. Depending on the results of this preliminary investigation, we could discuss if additional testing should occur next year. Please let me know your thoughts.

Please forward this email and maps on as you feel appropriate. Let me know if you have any questions.

Thanks,
Eddie Heath
Onterra, Inc
Oct 1st, 2026

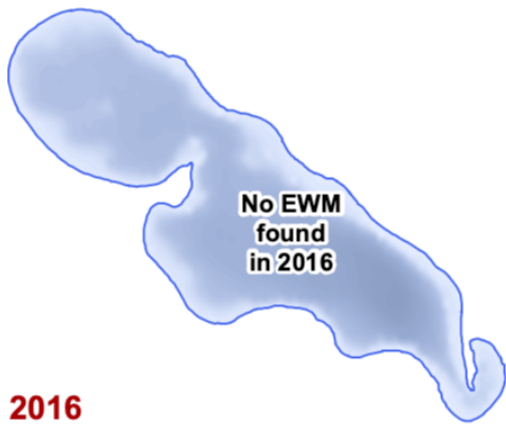
Late Season Eurasian
Water Milfoil Surveys by
Year

Ref: Onterra, LLC 09/26



2015

Year Before Treatment



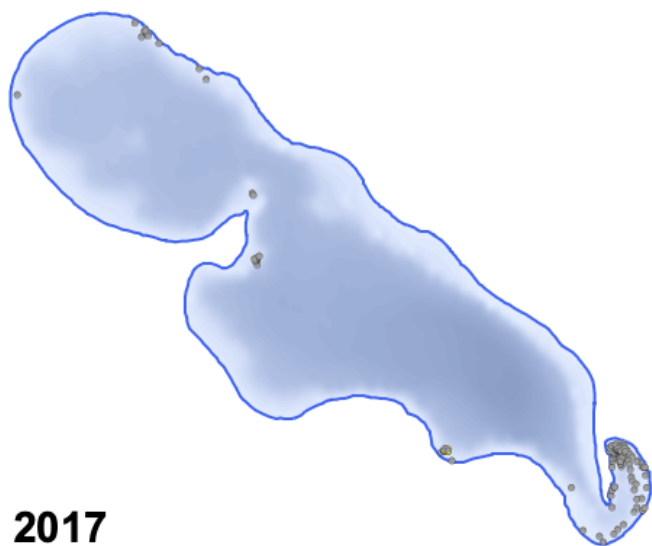
No EWM
found
in 2016

2016

Year of Whole-Lake Fluridone Treatment

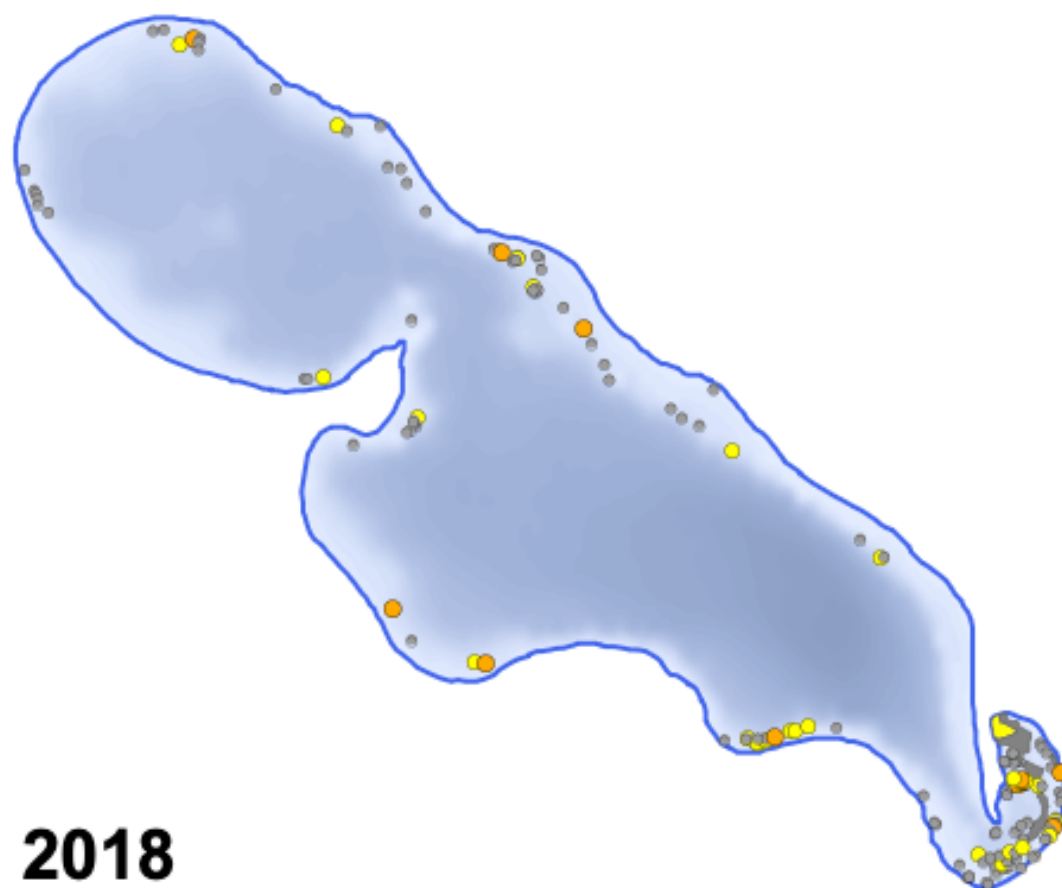
- Highly Scattered
- Scattered
- Dominant
- Highly Dominant
- Surface Matting

- Single or Few Plants
- Clumps of Plants
- Small Plant Colony



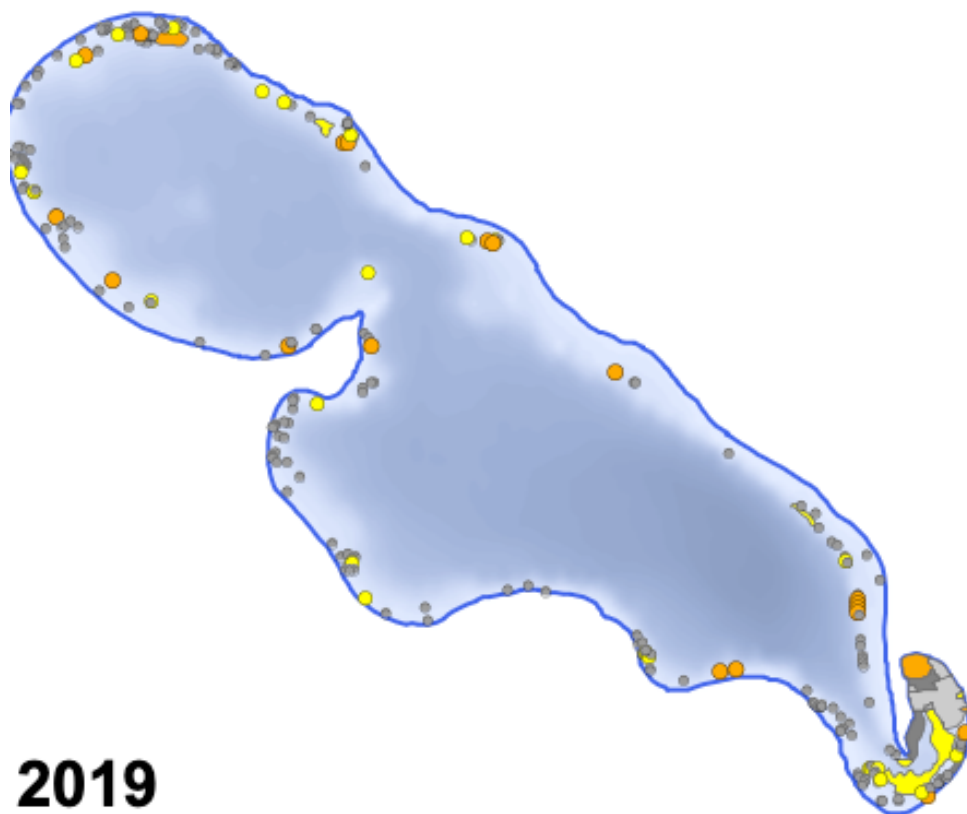
2017

2 Summers Post Treatment



2018

3 Summers Post Treatment



2019

4 Summers Post Treatment

- | | |
|------------------|----------------------|
| Highly Scattered | Single or Few Plants |
| Scattered | Clumps of Plants |
| Dominant | Small Plant Colony |
| Highly Dominant | |
| Surface Matting | |

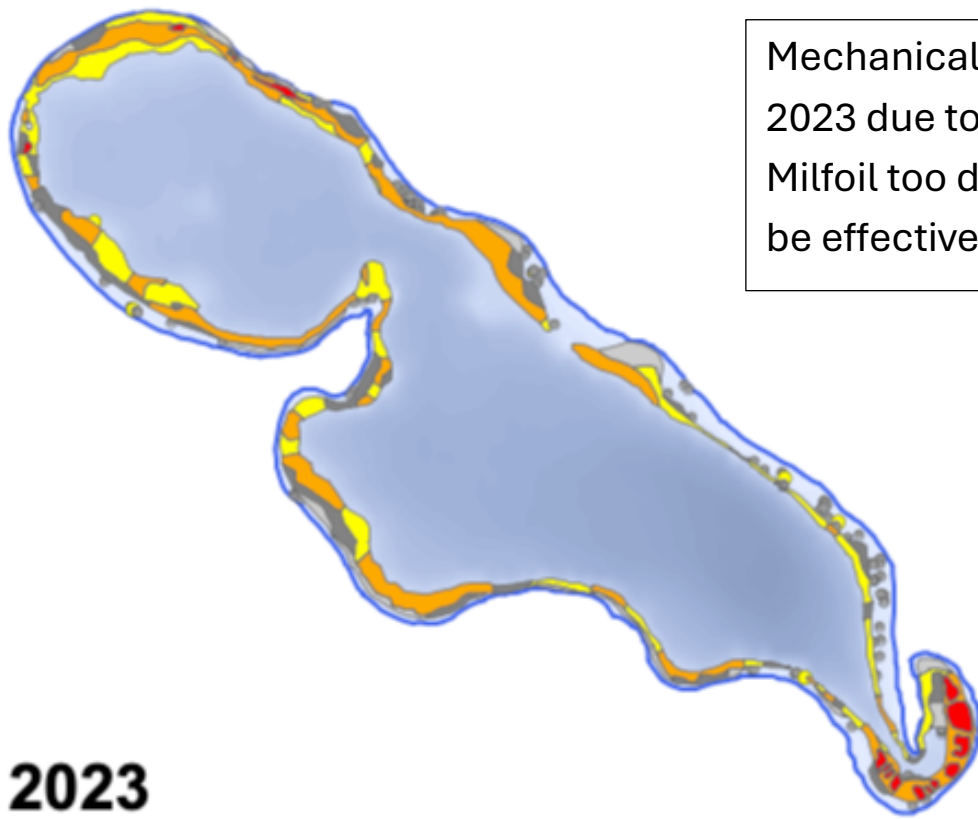


2020

5 Years After Treatment

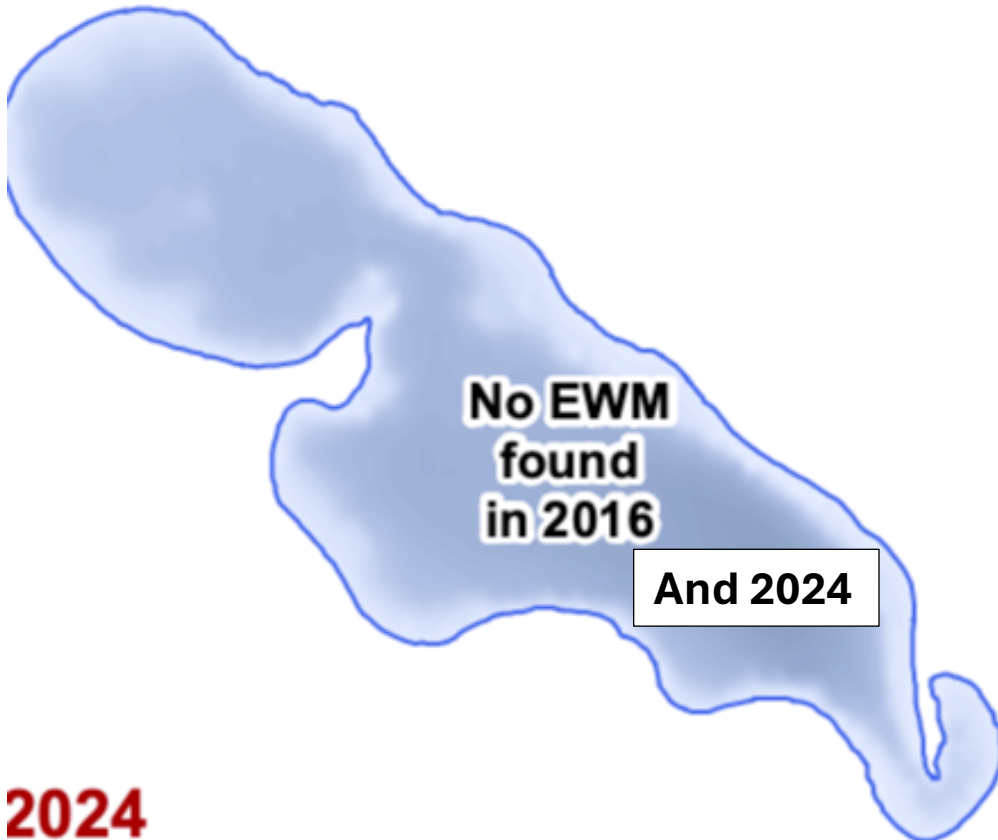
*Foxtail Bay
ProcettaCOR
Treatment*

Mechanical Cutting performed
2023 due to density of EWM.
Milfoil too dense for DASH to
be effective



2023

Year Before Treatment



**No EWM
found
in 2016**

And 2024

2024

Year of Whole-Lake ProcellaCOR Treatment

