

The logo for AquaTechnex features the company name in a bold, sans-serif font. 'Aqua' is in blue and 'Technex' is in black. To the right of the text is a stylized orange swoosh that curves upwards and then downwards, resembling a drop or a wave.

**AquaTechnex**

# 2023 Year End Report for the Loon Lake LMD



Prepared for  
Loon Lake Management  
District

**AquaTechnex,  
LLC**

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## Summary of Activities for 2023

AquaTechnex continues to provide aquatic plant management services for the residents and landowners at Loon Lake. The invasive Eurasian Watermilfoil (EWM) and Curly Leaf Pondweed (CLP) remains a threat to the health and recreational uses of the lake. During 2023, AquaTechnex conducted two different surveys to assess the ongoing infestation. The first pre-treatment survey occurred on May 15<sup>th</sup>, 2023. Using the results of this pre-treatment survey and in coordination with the Lake Management District, Aquatechnex conducted two different treatments one week apart. Aquatechnex applied the chemical Aquathol K (Endothall) and Galleon (Penoxsulam) on June 8<sup>th</sup>, 2023, to control CLP plant populations and applied the chemical Florpyrauxifen-benzyl (ProcellaCOR) on June 13<sup>th</sup>, 2023, to control EWM plant populations. A follow up survey was conducted on August 1<sup>st</sup>, 2023, to inspect treatment results and identify any new or missed EWM growth to plan for a phase 2 ProcellaCOR treatment. The phase 2 ProcellaCOR treatment occurred on August 17<sup>th</sup>, 2023.

## Survey Results and 2023 Treatment

Aquatechnex conducted a pre-treatment survey early in the summer which helped us get a quick and early start to treatments in 2023. CLP and EWM were identified and can be viewed in maps 1 and 2 below. After taking the survey data back to our office and mapping out treatment zones, we identified 29.66 acres of CLP and 46.55 acres of EWM. We decided to conduct the CLP treatment one week before treating EWM. The CLP treatment commenced on June 8<sup>th</sup>, 2023, and we selected 18.82 acres to be treated with Galleon herbicide and 10.84 acres to be treated with Aquathol K Herbicide. The Galleon Herbicide was selected for areas with low water mixing to help increase contact exposure time which it requires. In areas that had high water mixing or if the zone was of low acreage Aquathol K was selected to perform better as it has a lower contact exposure time requirement.

Aquatechnex then performed an EWM treatment one week after the CLP treatment occurred. This treatment occurred on June 13<sup>th</sup>, 2023, refer to map #2 for survey results and treatment zones. ProcellaCOR herbicide was selected, and 46.55 acres were treated. ProcellaCOR herbicide has a very short contact exposure time so using it in areas of high-water mixing is not a problem.

Aquatechnex then returned to the lake later in the summer to conduct a follow up/post-treatment survey to inspect results from the first phase of treatment and to identify any new or missed EWM growth. This survey occurred on August 1<sup>st</sup>, 2023. Survey results were mostly positive. We identified most areas of treatment from phase 1 to have highly damaged EWM plants that looked very unhealthy and when a rake was thrown, the plant disintegrated by touch. That being said a few zones still had relatively healthy looking EWM and we decided to add some of these zones back on for a second round of treatment in Phase 2. Also a few other zones were identified to have either new growth or missed growth from our first pre-treatment survey. These were added to our treatment plan in Phase 2. See map #3 for reference on the second survey results and the treatment zones we put on the plan for Phase 2.

Phase 2 EWM treatment with ProcellaCOR occurred on August 17<sup>th</sup>, 2023. The treatment plan consisted of 26.45 acres.

## Recommendations for 2023

For 2023, continued surveying for EWM, CLP and other invasive plants is recommended. This allows for continued assessment of the issue and helps us design treatment plans to be both effective and economical. We recommend conducting two surveys again in 2023. The first survey would occur in May or June depending on the weather and observed growth of plants. We will record EWM/CLP plants using a Trimble GPS Logger unit and will develop a map of the survey results using our mapping program similar to what has occurred in the past. We want to closely monitor the lake to see if any new EWM growth has occurred as well as looking at

previous areas treated in 2023. We will develop a plan to tackle treating EWM and CLP plants using the pre-treatment survey we plan to conduct in 2024.

Something we may want to consider next year is to switch up our herbicide to a different chemical family for a year to prevent any herbicide tolerance build up. We have been hitting Loon Lake especially hard the past 5 years with ProcellaCOR in management of the EWM populations in the lake. On the ProcellaCOR label it states that you shouldn't use the herbicide more than 3-4 years in a row on a waterbody to make sure plants are not gaining a tolerance to the herbicide. Next year we may want to consider switching up our management techniques for a year or two to allow the plants to lose any potential tolerance to ProcellaCOR. This is just a consideration and is something we can think about over the winter. We can discuss this early next year and make a plan going into next summer, there are a few different options we could consider.

To combat CLP, we should continue the use of Aquathol K and maybe a bit of Galleon in areas where it works.

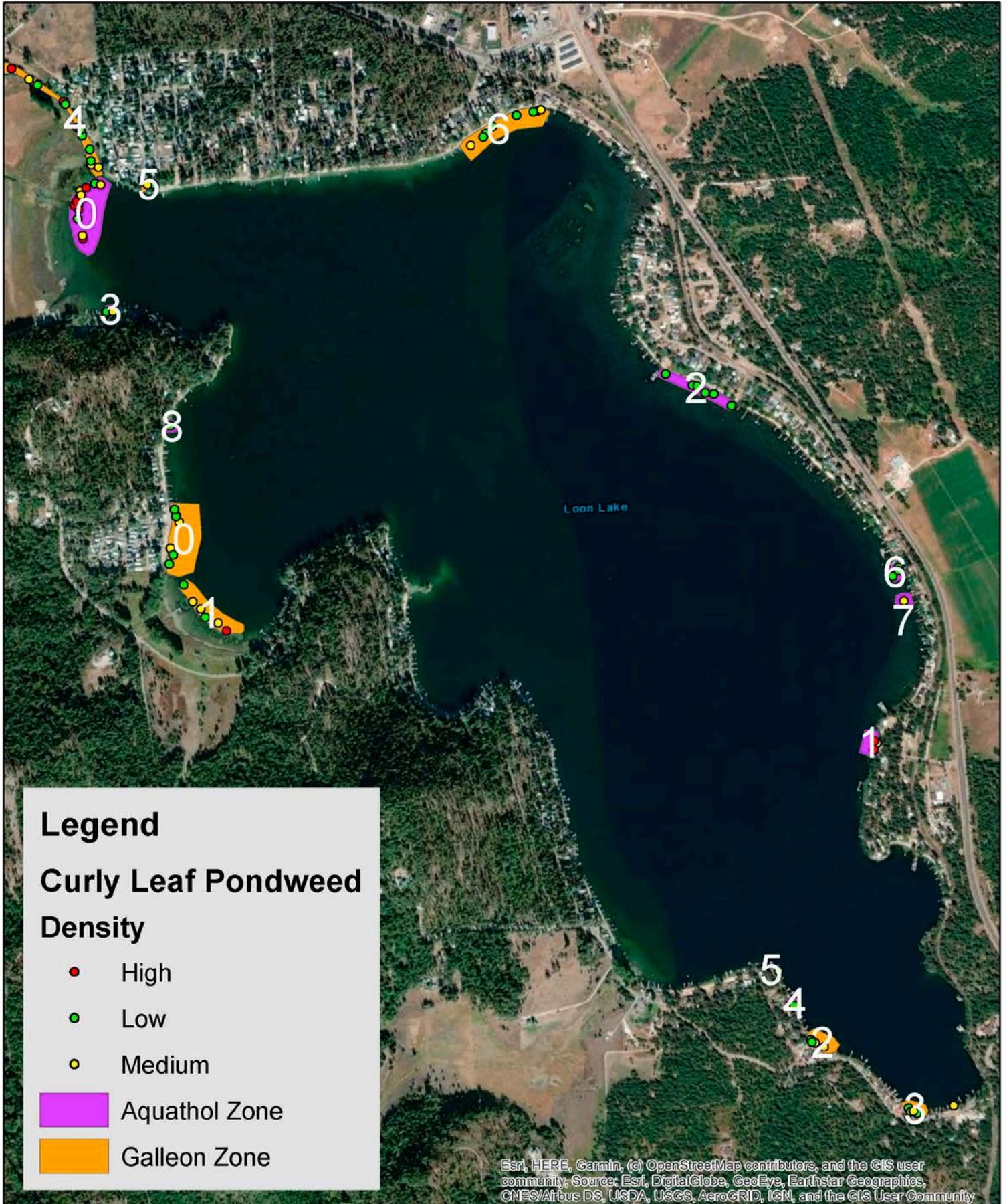
AquaTechnex would like to thank the board for the continued opportunity to work with the Lake Management District in the management of Loon Lake. We look forward to building upon our relationship and continuing to mitigate the threats of invasive species in Loon Lake. If there are any additional questions, feel free to contact your regional aquatic specialist Bradley Roth using the information below.

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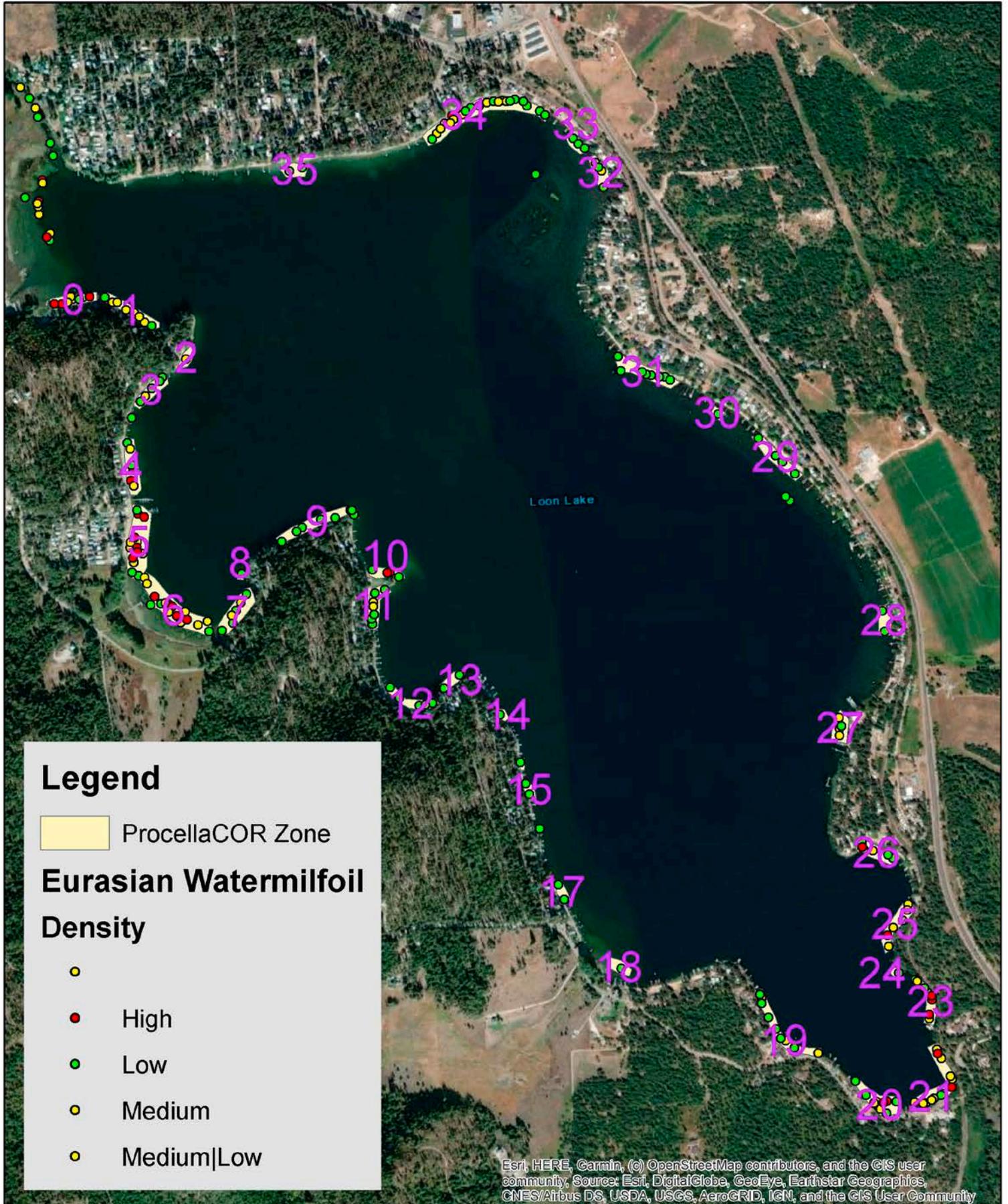
#### Guide to Maps:

- *Loon Lake Curly Leaf Pondweed Treatment Zones 2023 (Map #1)* - This map shows CLP survey results and the corresponding treatment zones that were treated on June 8<sup>th</sup>, 2023. We treated 18.82 acres with Galleon Herbicide and 10.84 acres with Aquathol K herbicide.
- *Loon Lake Milfoil Phase 1 Treatment Zones 2023 (Map #2)* - This map shows EWM survey results and the corresponding treatment zones that were treated on June 13<sup>th</sup>, 2023. We treated 46.55 acres with ProcellaCOR herbicide.
- *Loon Lake Phase 2 Milfoil Treatment Plan 2023 (Map #3)* - This map shows EWM survey results from our follow up survey completed on August 1<sup>st</sup>, 2023 and the corresponding treatment zones that were treated on August 17<sup>th</sup>, 2023. We treated 26.46 acres with ProcellaCOR herbicide.

# Loon Lake Curly Leaf Pondweed Treatment Zones 2023



# Loon Lake Milfoil Phase 1 Treatment Zones 2023



# Loon Lake Phase 2 Milfoil Treatment Plan 2023

