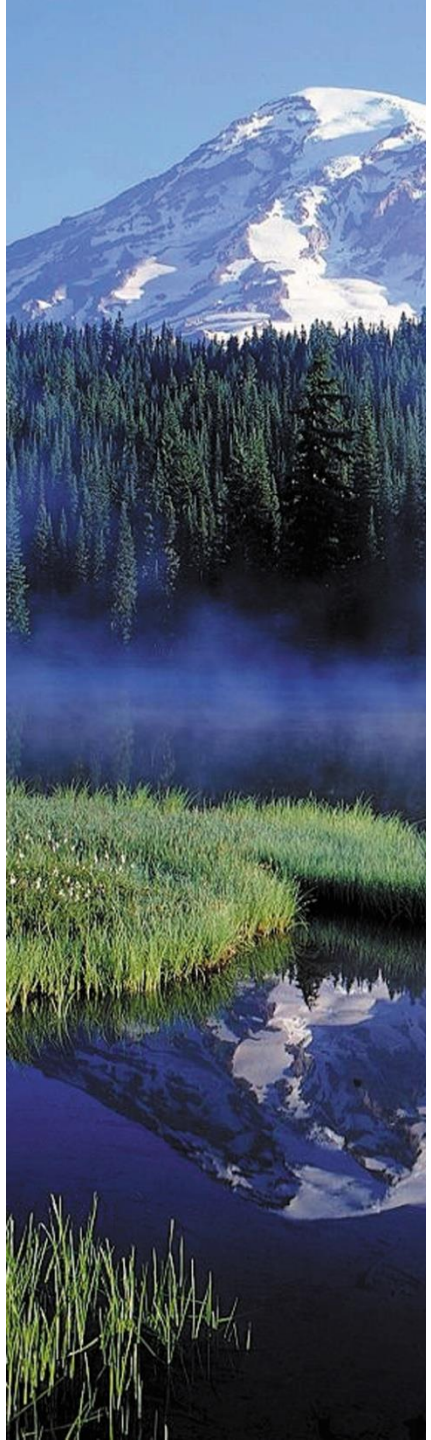
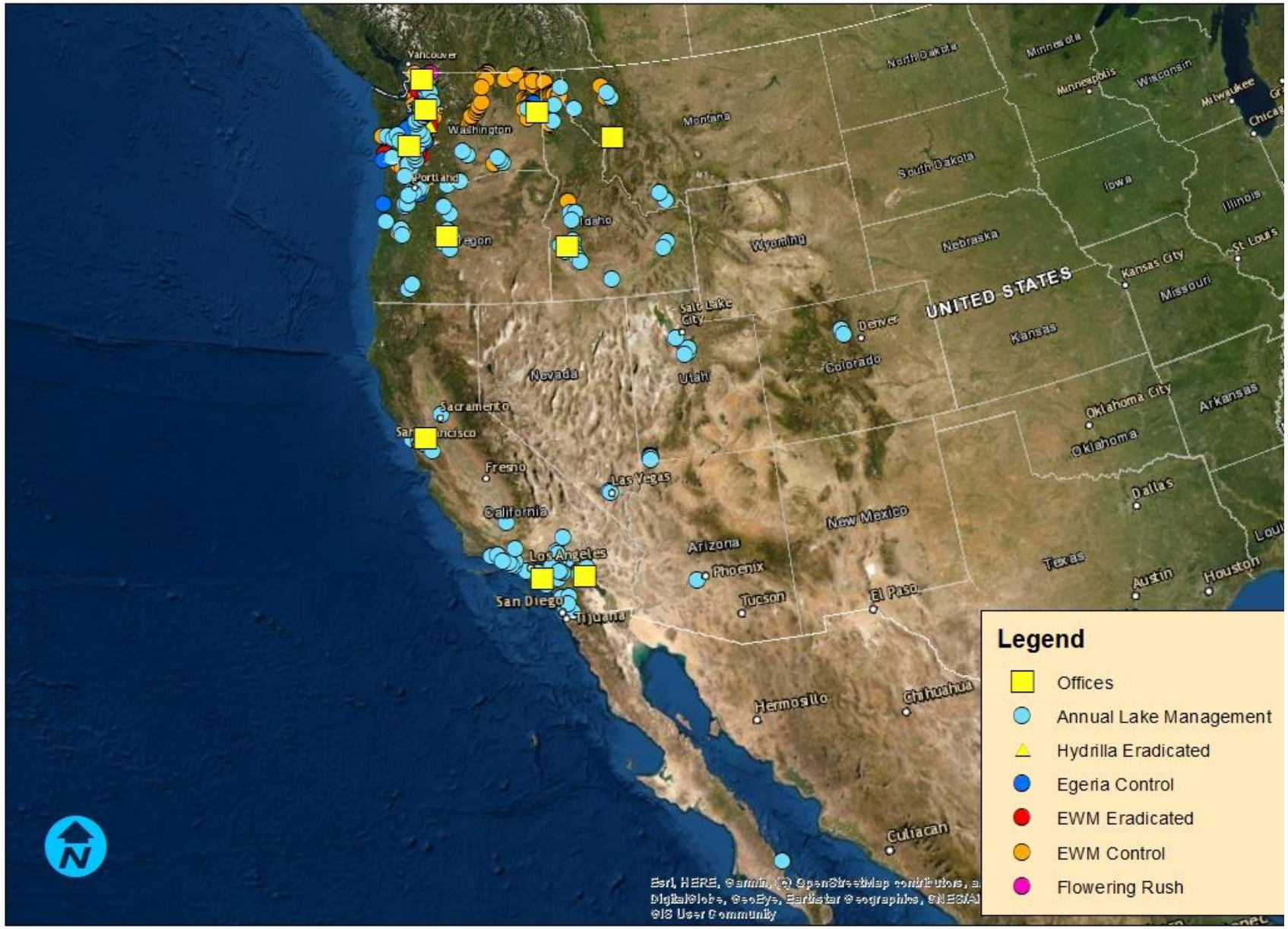


Aquatic Plant Management at Sacheen Lake

Sacheen Lake Annual Meeting June 14th, 2025

Bradley Roth – Aquatic Biologist, Spokane Valley, WA



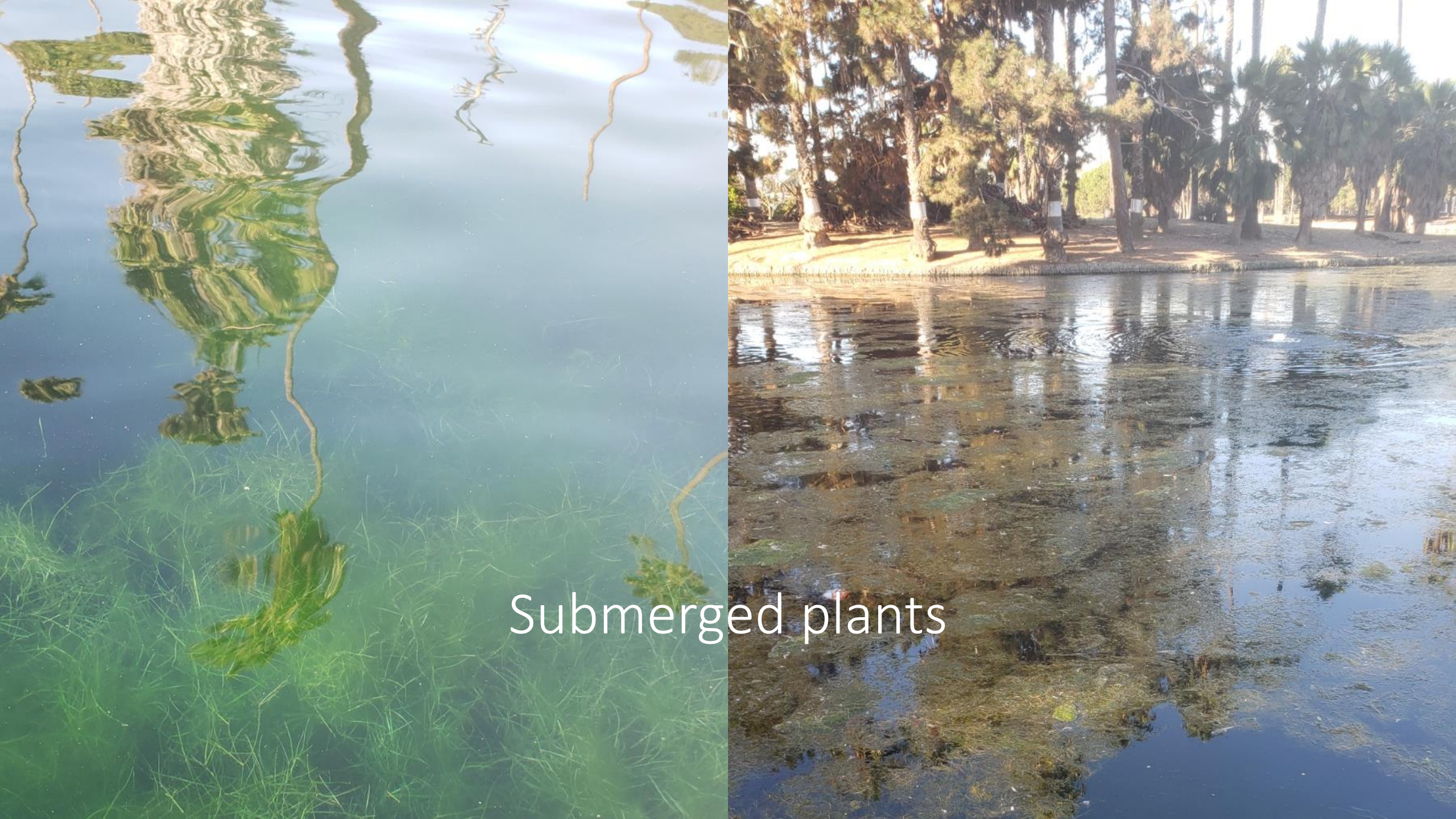
Aquatechnex Major Lake Management and Invasive Aquatic Weed Projects

Company Overview Over Four Decades of Lake Management Experience

Aquatic Plant Identification

Aquatic Plant Classification

- Vascular Plants
  - Submerged
  - Floating Leaf
  - Emergent
- Algae



Submerged plants

Native Submersed Plants

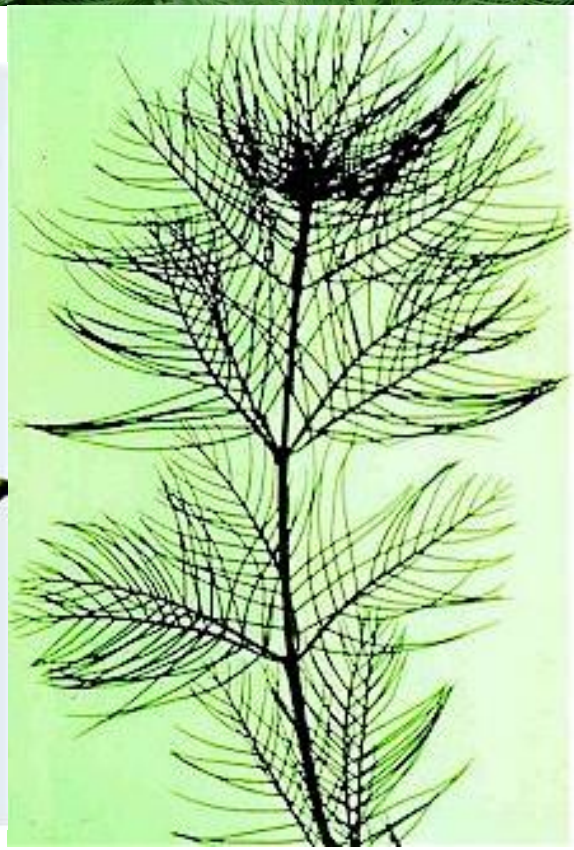
- Common Waterweed, also known as Elodea (*Elodea canadensis)*
- Sago Pondweed (*Stuckenia pectinata*)
- American Pondweed (*Potamogeton nodosus)*
- Large Leaf Pondweed (*Potamogeton amplifolius)*
- White Stem Pondweed (*Potamogeton praelongus*)

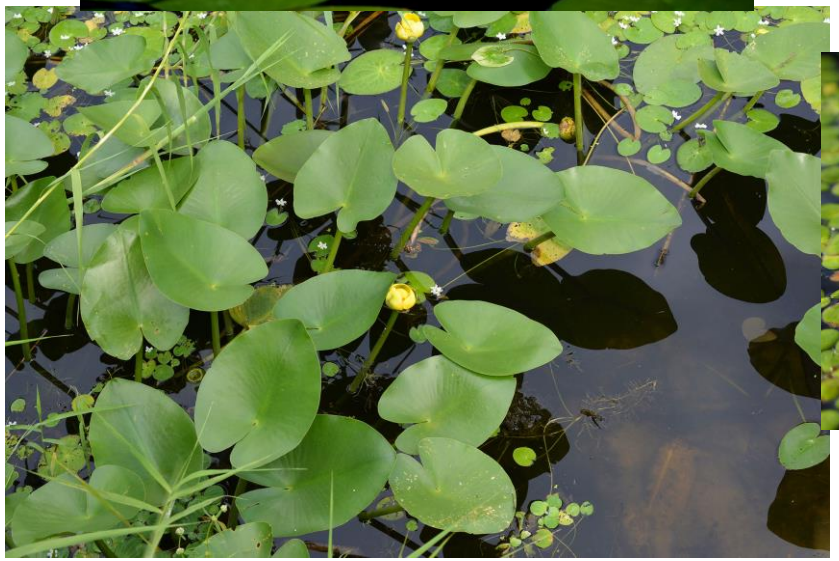
Invasive Submersed Plants

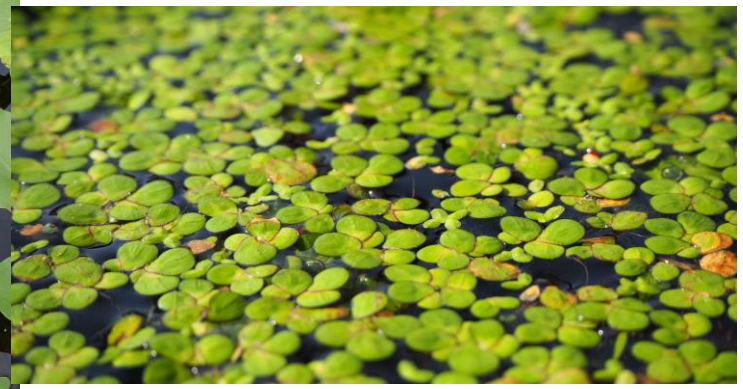
- Generally moved from water body to water body via plant fragments on boat trailers
- Grow rapidly and out compete natives
- Will top out on surface of water, making boat travel nearly impossible
- This causes a major decrease in recreation benefits, decreases in community property vales
- Increased biomass production can in turn cause eutrophication

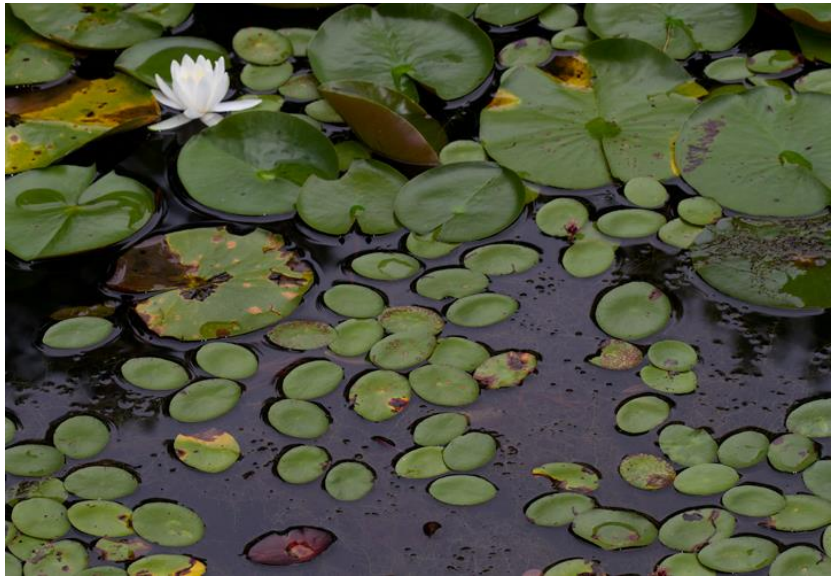
Invasive Submersed Plant Species of Concern

- Eurasian Watermilfoil (*Myriophyllum spicatum)*
  - Propagates via fragmentation
  - Generally can grow to surface from greater depths often up to 25 ft deep
- *Curly Leaf Pondweed (Potamogeton crispus*
  - Propagates via seed (aka turions)
- Hydrilla *(Hydrilla verticillate*)
- Parrot's feather (*Myriophyllum aquaticum*)









Floating Leaf Plants

- Nuphar (*Nuphar lutea*)
- White Water Lily (*Nymphaea odorata*)
- Watershield (*Brasenia schreberi*)
- Yellow Floating Heart (*Nymphoides peltate*)
- Duckweed (*Lemna minor)*


Emergent Vegetation

Cattails and Bullrush

Invasive Emergent Vegetation

- Yellow Flag Iris
- Phragmites
- Purple Loosestrife
- Garden Loosestrife
- Flowering Rush

Herbicide Technologies

Washington State Dept. Of Ecology NPDES Permit

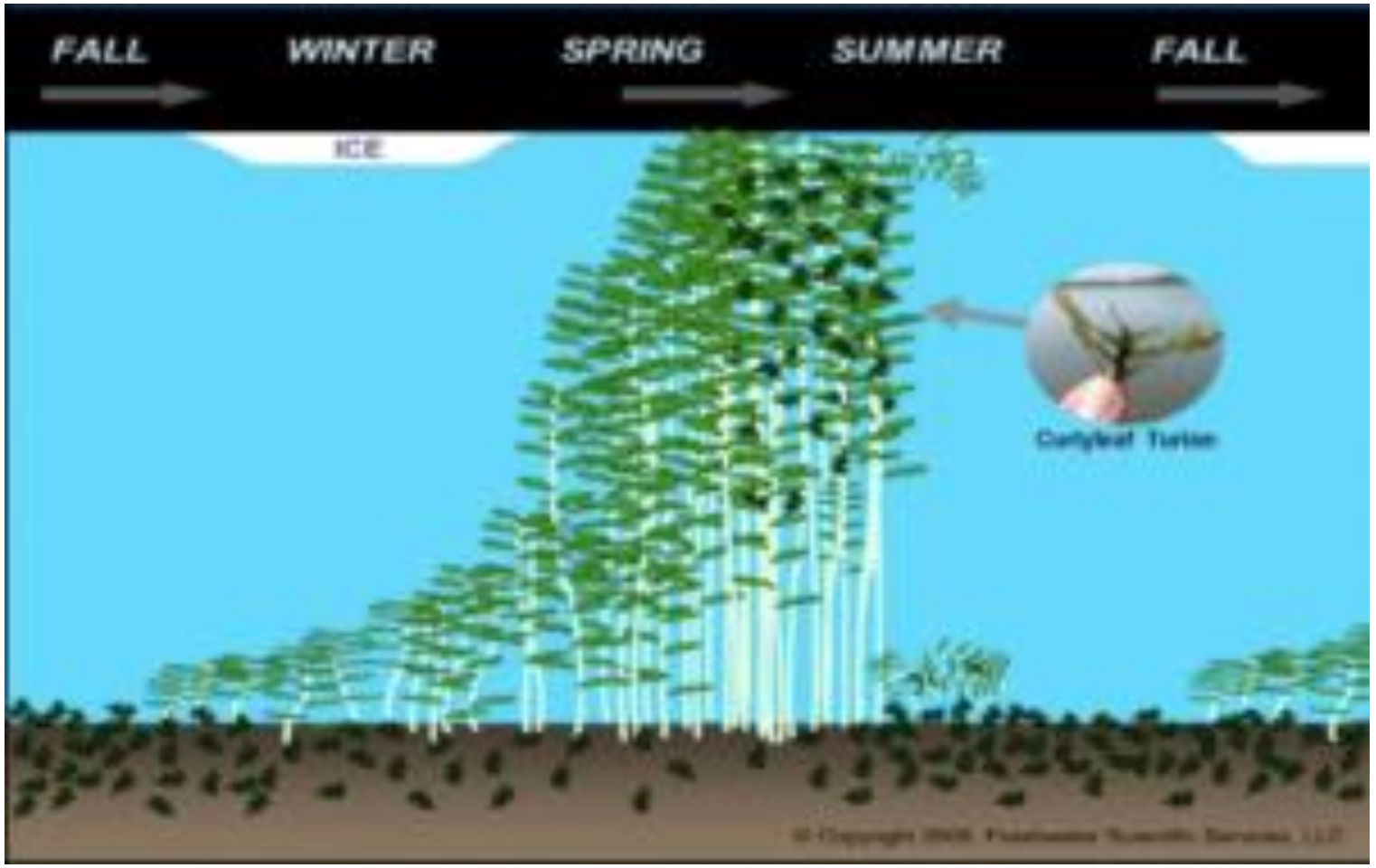
- 10 day mail notices
- Day of Shoreline Sign Posting
- Water Use Restrictions, Timing Windows
- Annual Reporting

Curly Leaf Pondweed

Curly Leaf Pondweed

- Curly Leaf Pondweed in the past decade or two has increased in distribution through out the PNW
- Has unique life cycle unlike any other submersed plant found in the PNW
- Begins to grow under the ice long before other submersed plants begin to emerge
- Hits full bloom in late spring/early summer and begins to die back mid to late summer
- Spreads via seeds known as Turions, which begin to fall off the plants in this mid to late summertime period

Life Cycle

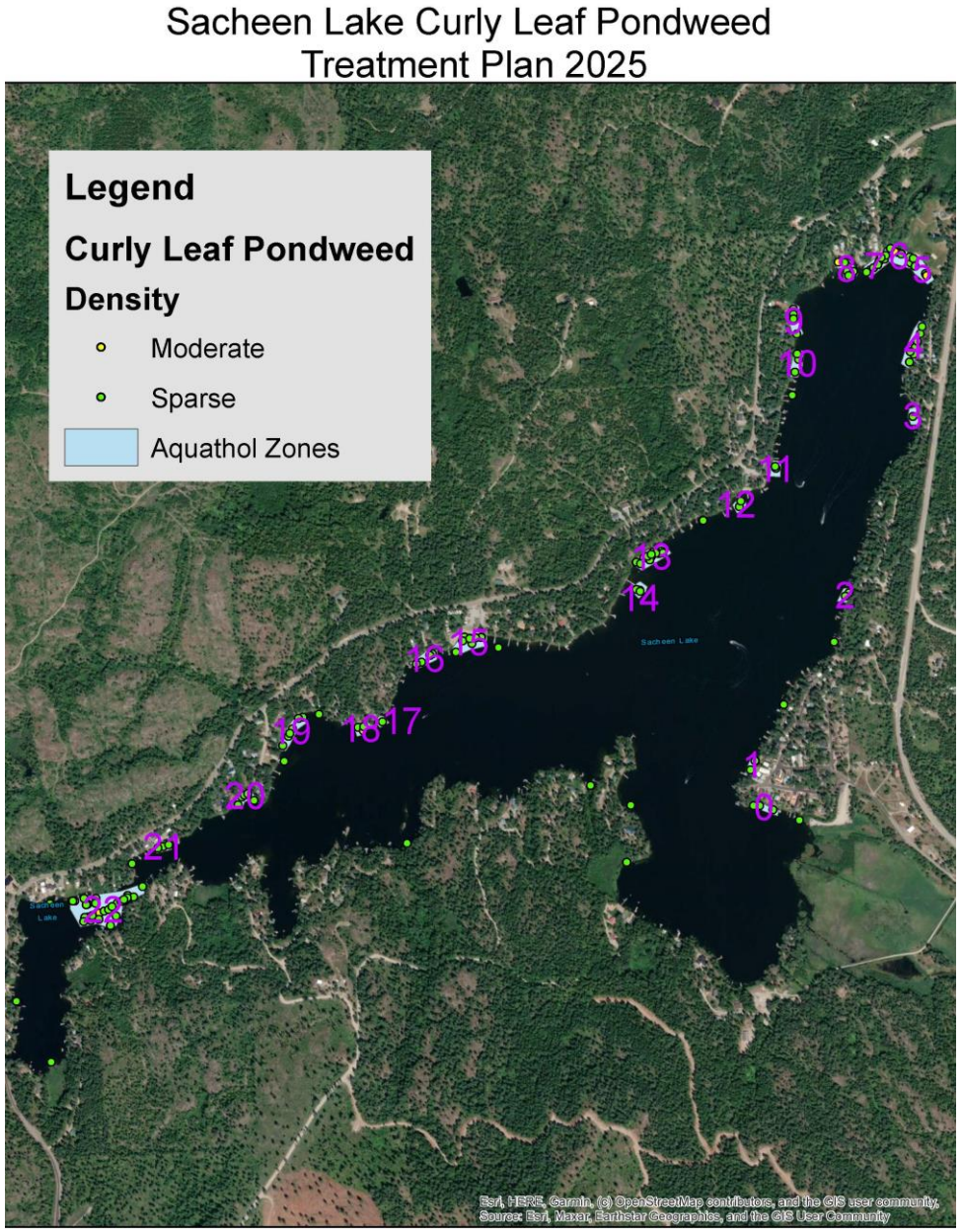


Treatment Options – Curly Leaf Pondweed

- Contact herbicides
  - Diquat
  - Aquathol K
- Systemic Herbicides
  - Sonar, contact time requirement
  - Galleon
    - Treatment costs per acre decrease as you treat a larger number of acres

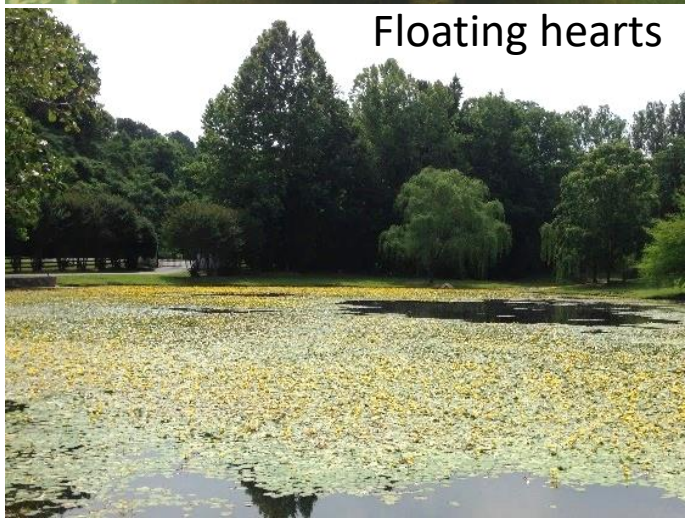
Curly Leaf Pondweed Treatment Zones in 2025

- 13.29 acres targeted for treatment
- Shoreline Sign Posting Occurred on May 28th
- Treatment occurred on May 29th
- Utilized the contact herbicide Aquathol k to quickly knock down the Curly Leaf Pondweed before seeds drop.
- Aquathol K works best for spot treating in areas of high water mixing



ProcellaCOR® a.i., florpyrauxifen-benzyl

- **USEPA approval in late February 2018**
- **The first new herbicide active to have aquatic use with its initial registration in over 30 years.**
- **High selective, short-exposure (hrs to days) systemic activity** on multiple major US weeds
- **EPA Reduced Risk Classification**
  - **100X or greater reduction in use rates** versus older herbicides
  - **Excellent environmental profile**
- **USEPA exemption from tolerances in Sept 2019**

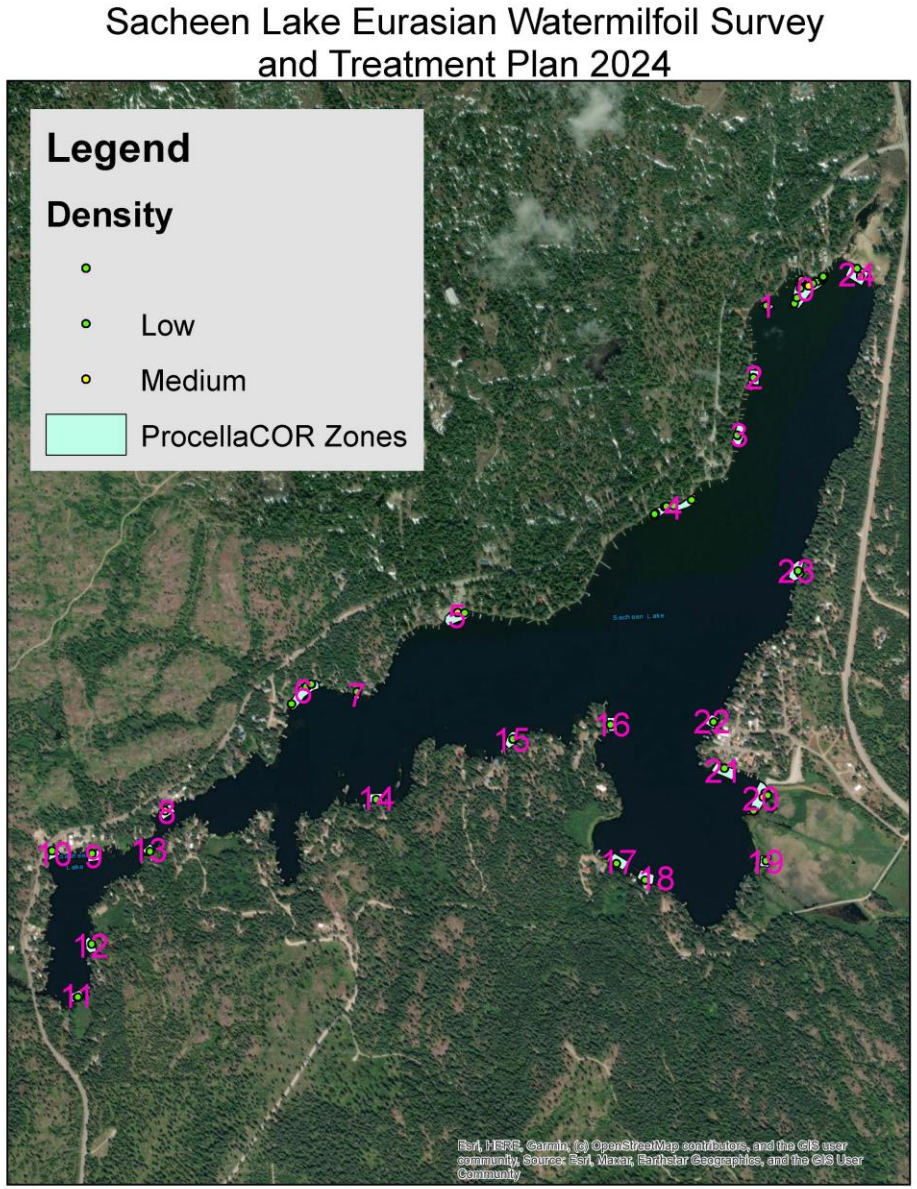


ProcellaCOR Summary

- Excellent tool for selective Eurasian and Hybrid Milfoil Control
- Fast plant accumulation time allows for use in high water exchange environments
- Very good tox profile, no water use restrictions except manageable 24-hour irrigation advisories
- Easy to use, 200 PDU container replaced thousands of pounds of granular

Other Treatment Plans for 2025

- No Eurasian Watermilfoil found yet in 2025
- Second survey will be conducting in July to uncover any additional milfoil growth
- A small ProcellaCOR treatment to manage the milfoil found would be conducted in Late July or Early August
- In 2024 we treated about 10 acres, this is likely similar to what could be found in 2025.
- Additionally, we will conduct Watershield treatments to the entire lake shore.



Questions?

Please contact Bradley Roth if you have any additional questions or inquires:

(509) 939-0631

bradley@aquatechnex.com