

Cape Meares Lake
Before and After
ProcellaCOR Herbicide Treatment

Cape Meares Lake – Before - August 7, 2024

Observations and Lake photos by Wendy Burroughs October 2024

Eurasian Watermilfoil was introduced to Cape Meares Lake and has spread rapidly over the past 3-4 years.

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2018



2022



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Cape Meares Lake
Eurasian Watermilfoil Treatment

- Slides from ODFW Presentation May 2023

Reasons For Treatment

- Improve angler access and opportunity.
 - ODFW stocks 13,000 rainbow trout annually.
 - Warm water fisheries for Largemouth bass and panfish.
- Improve boater access and safety.
 - OSMB boater survey 2017
 - 800 days of boating
 - 50% split between motorized and nonmotorized boats
 - Angling, flatwater paddling, waterfowl hunting
- Improve lake health and protect native plant species.
- Improved maintenance

Treatment Challenges and Plan

- Eurasian Watermilfoil spreads by fragmentation, making mechanical removal impossible.
- Grass Carp are neither legal nor feasible for use in Cape Meares Lake.
- Aquatic herbicide is the only effective option
- ProcellaCOR_EC is a specialized family-specific aquatic herbicide that targets Eurasian Watermilfoil and will not affect native aquatic plants.
- Has a DEQ reduced risk designation.
- Will not kill native plants, fish, and no isolation/quarantine period is required.
- Application will be conducted by certified, product qualified, applicator. – Aquatechnex LLC
- Two treatments of the lake are planned for July 2023

Slides from ODFW Presentation May 2023

Post Treatment Goals and Plans

- Eradication of Eurasian Watermilfoil; may require follow up.
- ODFW will conduct post treatment monitoring
- Spot treatment may be necessary
- Outreach and education to reduce the risk of reintroduction

On July 13, 2023, OFW Assistant District Fish Biologist Mike Sinnott and the contractor were prepared to treat Cape Meares Lake and were surprised to find "the Eurasian watermilfoil seems to be all but absent... It is very strange being as the lake has been infested with this plant for the past 4 years (including in March 2023 when we had the survey done) that it is now suddenly absent; neither OFW nor the contractor has seen anything like this before." OFW postponed the treatment, as there were not enough milfoil plants to make it effective at this time."

Cape Meares Lake
Eurasian Watermilfoil Treatment

An aerial photograph of Cape Meares Lake, showing a large expanse of water with scattered, sparse clumps of Eurasian watermilfoil. The plants appear as small, yellowish-green patches against the dark blue water. The overall scene suggests a significant reduction in the density of the watermilfoil compared to previous years.

August 5, 2024, CMCA was notified that the herbicide treatment would be conducted throughout the entire lake on August 7, 2024.





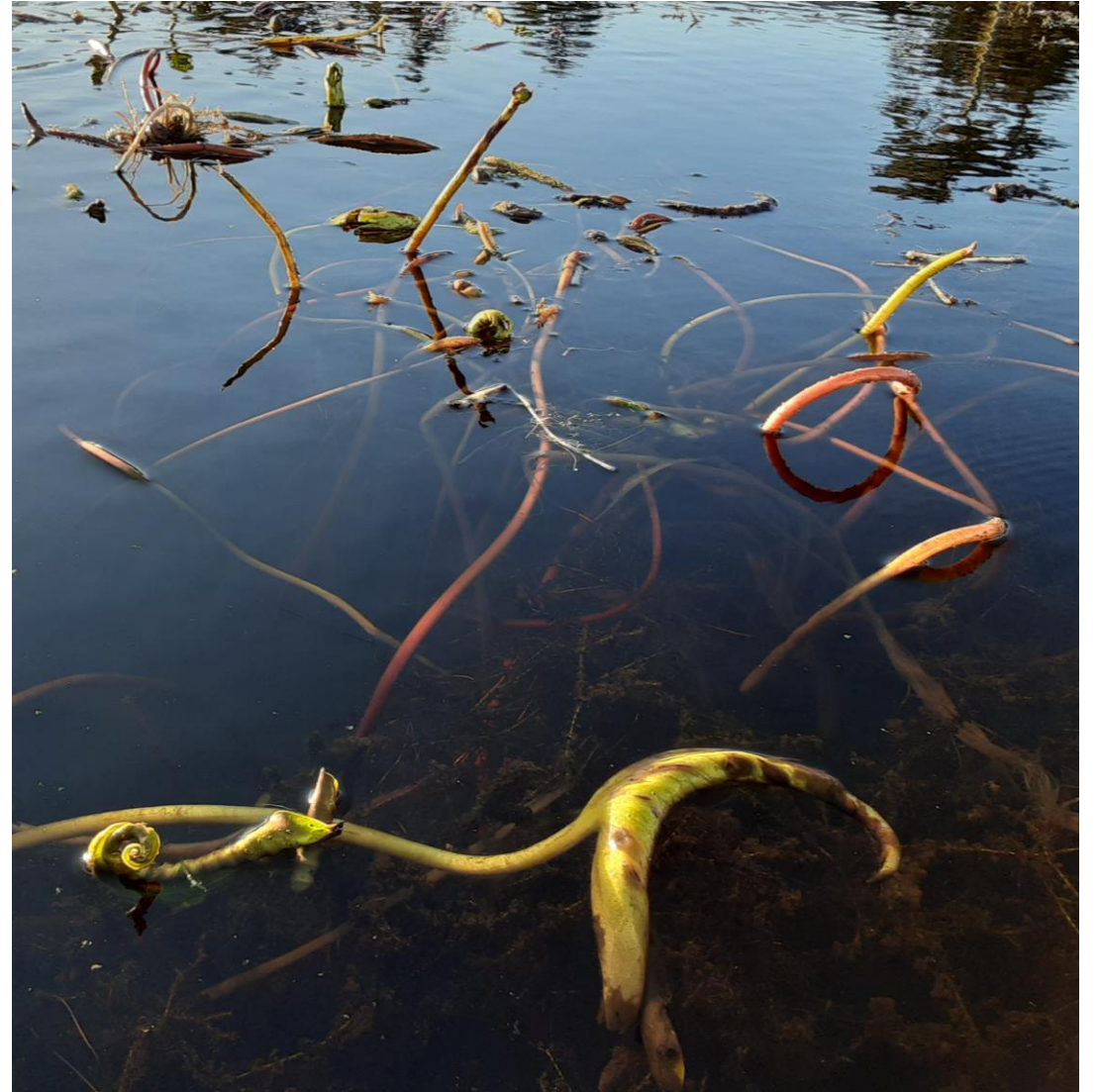
Eurasian Watermilfoil
PRESENT Before
Treatment August 2024
ABSENT September 2024



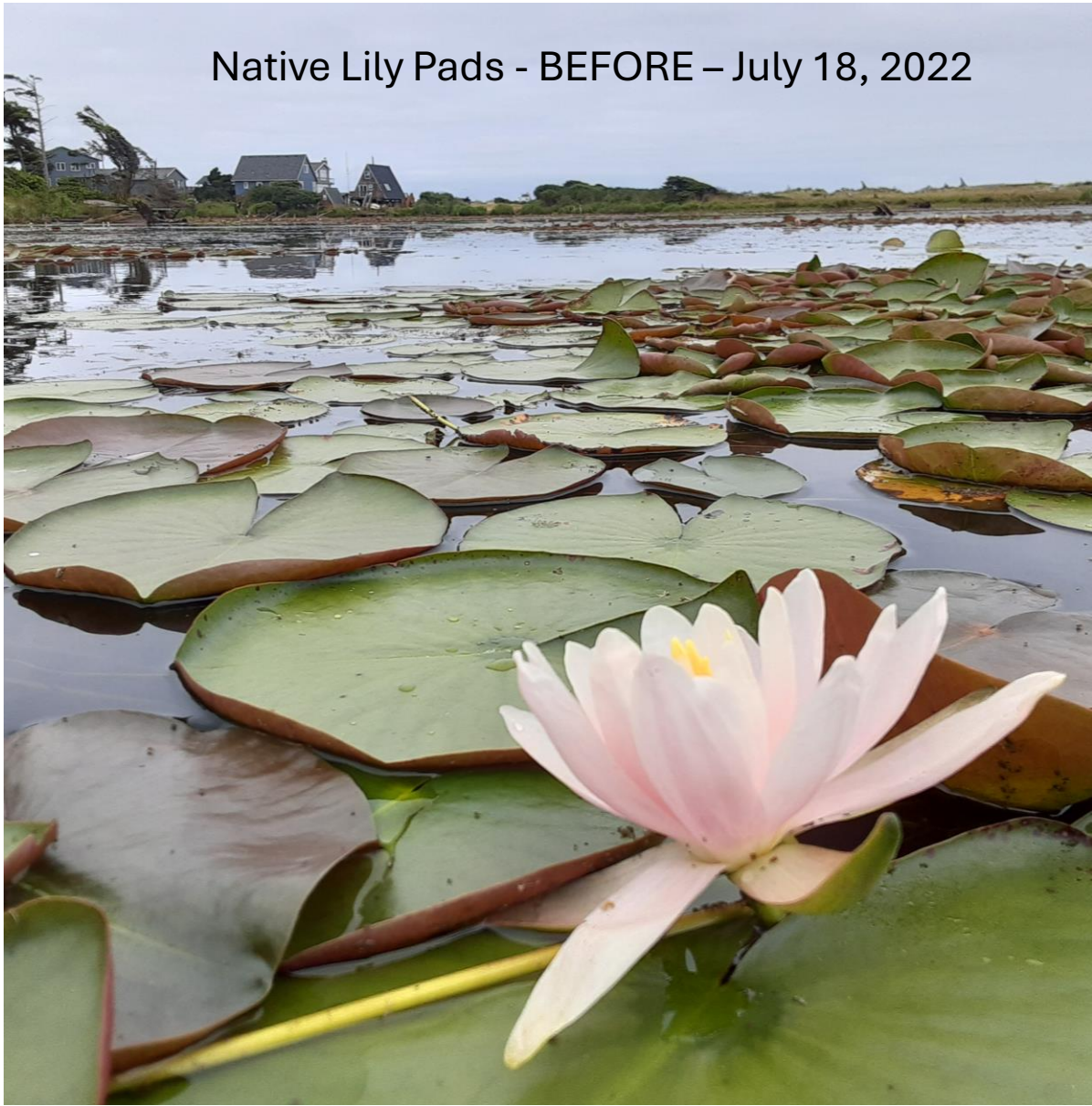
BEFORE – Non-native Lily Pad – June 29, 2022



AFTER – Same cluster of Lily Pads – September 21, 2024



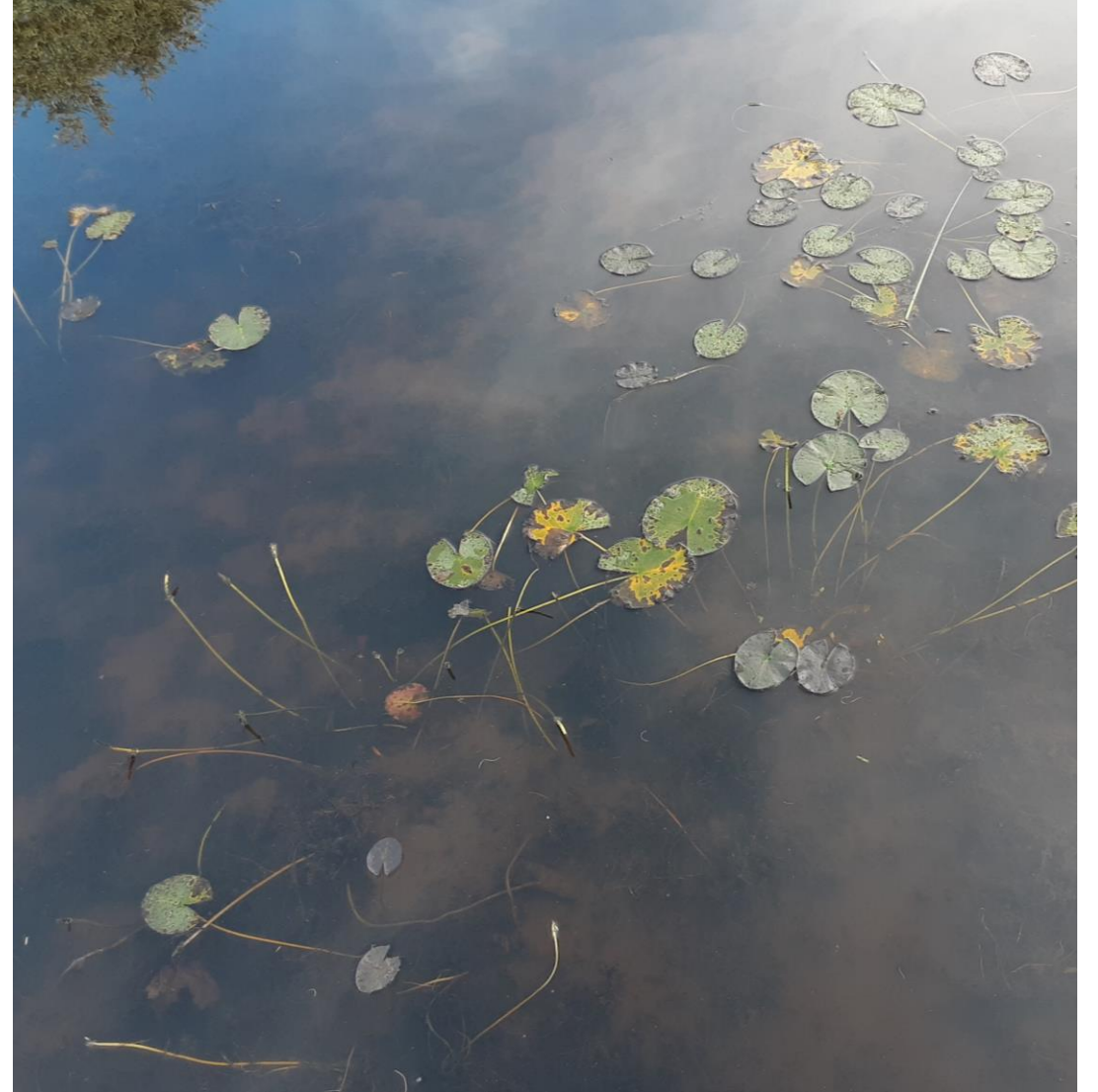
Native Lily Pads - BEFORE – July 18, 2022

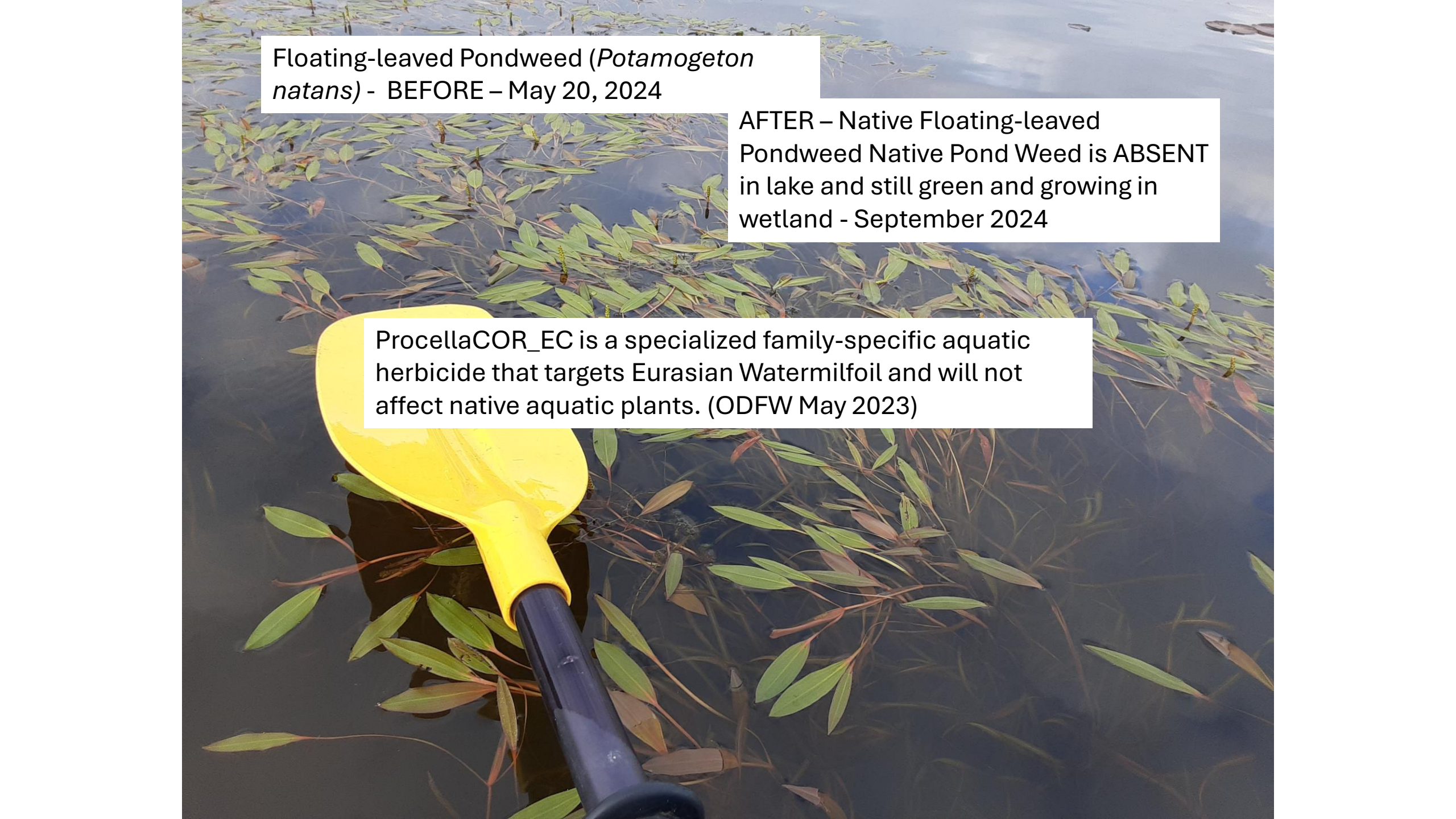


Same Location – AFTER- September 13, 2024



Native Lily Pads – AFTER - September 17, 2024





Floating-leaved Pondweed (*Potamogeton natans*) - BEFORE – May 20, 2024

AFTER – Native Floating-leaved Pondweed Native Pond Weed is ABSENT in lake and still green and growing in wetland - September 2024

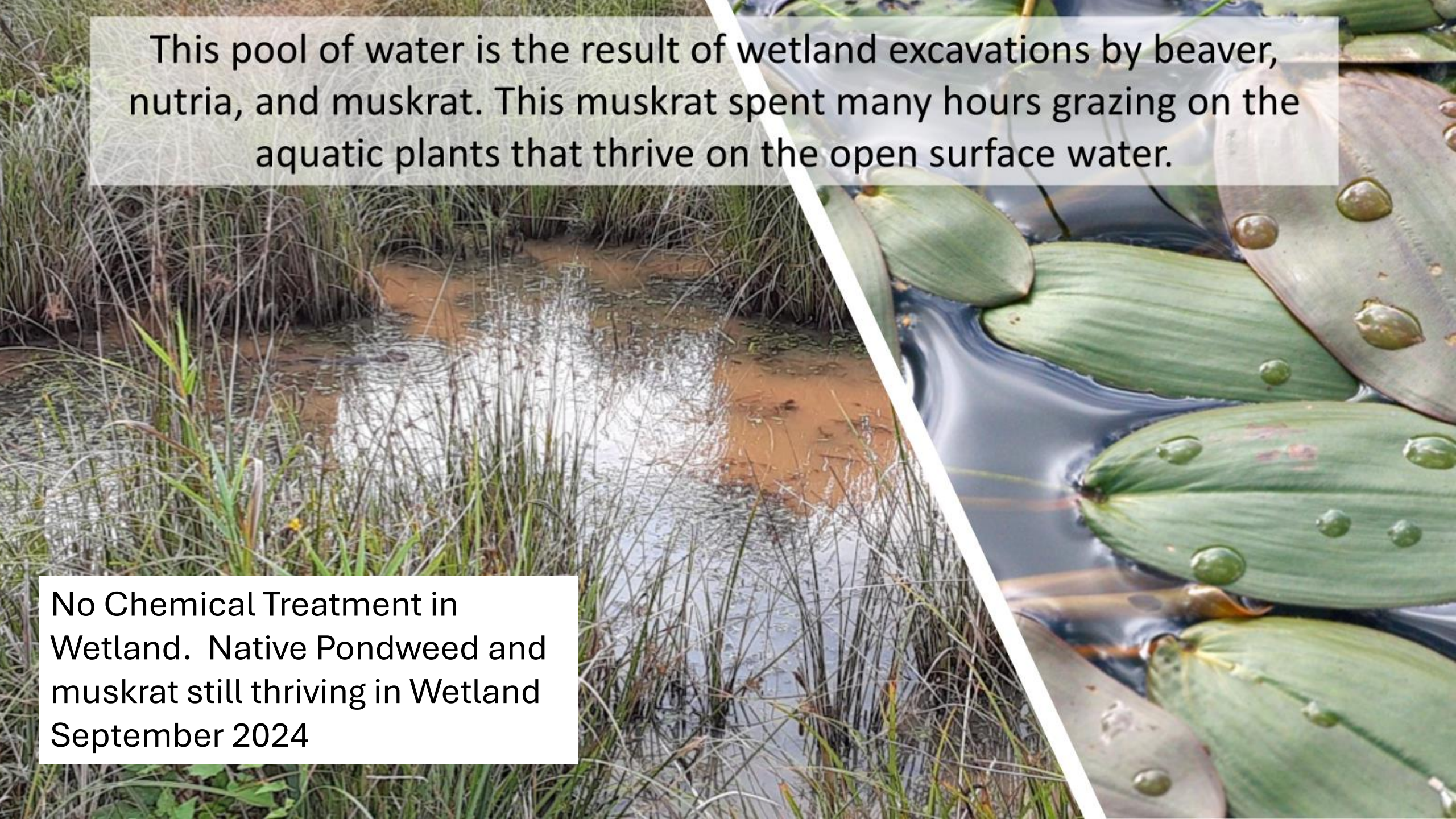
ProcellaCOR_EC is a specialized family-specific aquatic herbicide that targets Eurasian Watermilfoil and will not affect native aquatic plants. (ODFW May 2023)



Native Pondweed
PRESENT BEFORE



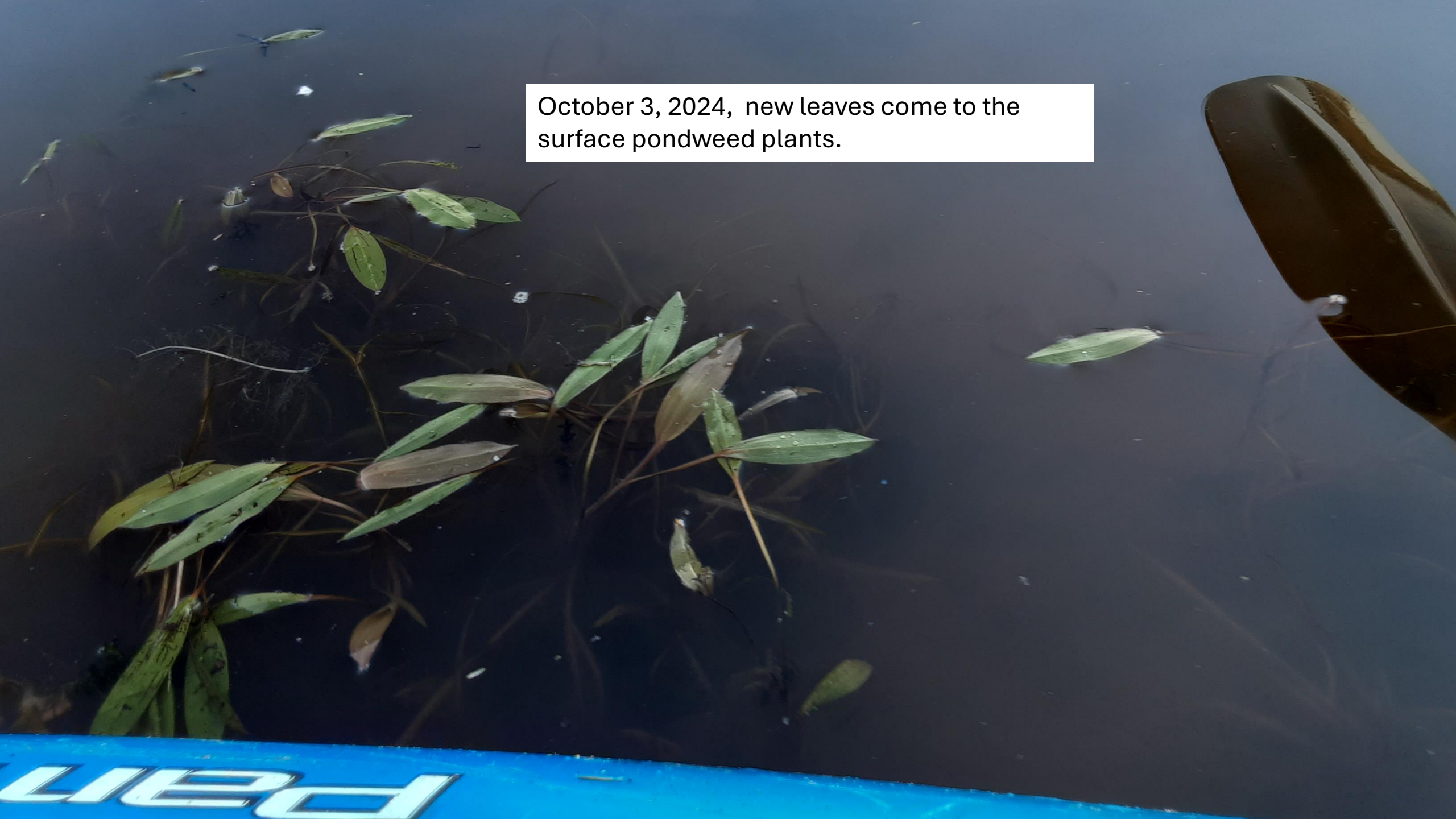
Native Pondweed ABSENT
AFTER September 21, 2024

The image is a composite of two photographs. The left side shows a narrow, shallow stream flowing through a wetland. The water is a muddy brown color, and the banks are lined with tall, thin reeds and grasses. The right side is a close-up of large, green, oval-shaped pondweed leaves floating on the water's surface. Several clear water droplets are visible on the leaves. A white diagonal line separates the two images.

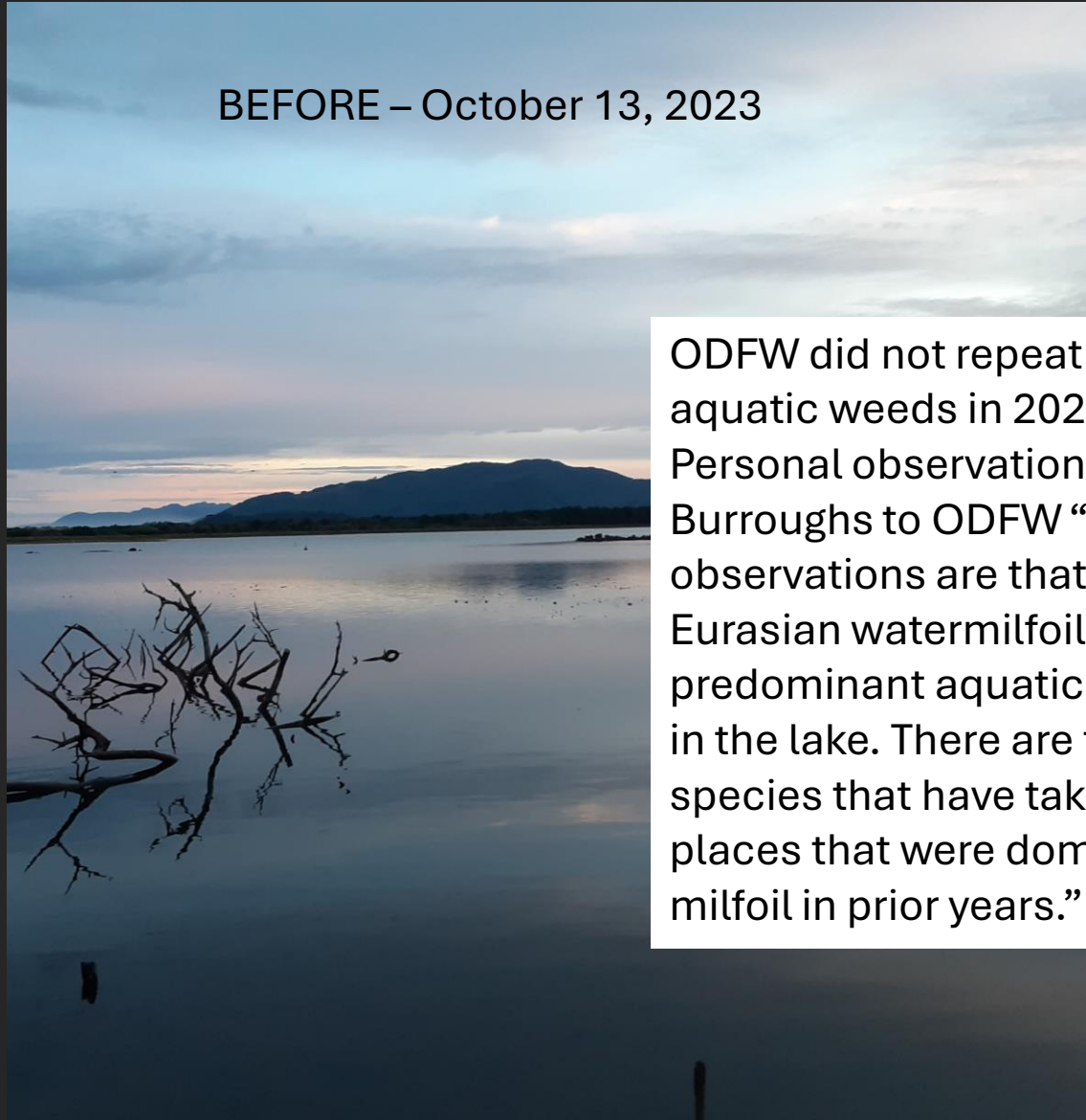
This pool of water is the result of wetland excavations by beaver, nutria, and muskrat. This muskrat spent many hours grazing on the aquatic plants that thrive on the open surface water.

No Chemical Treatment in Wetland. Native Pondweed and muskrat still thriving in Wetland September 2024

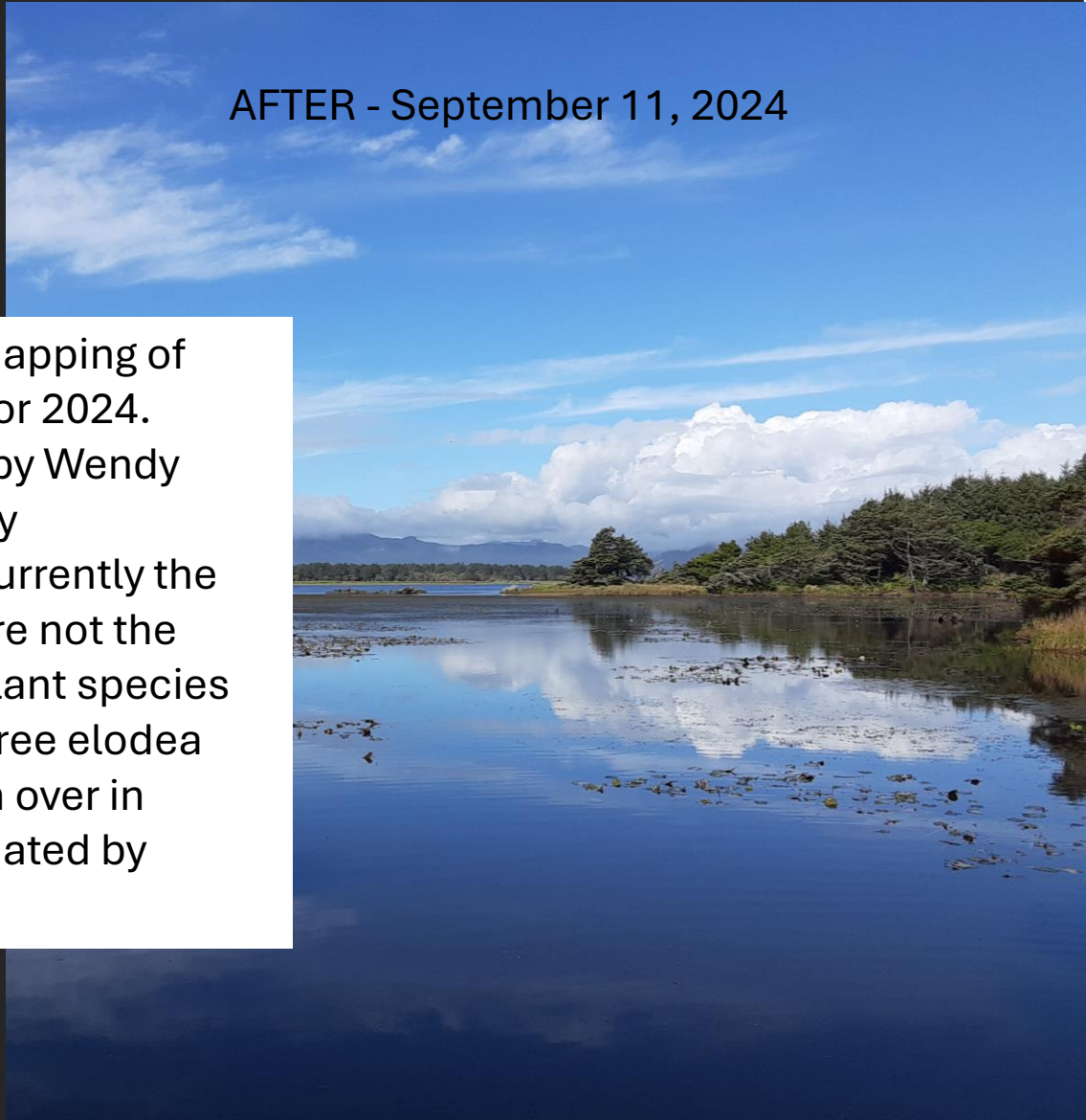
October 3, 2024, new leaves come to the surface pondweed plants.



BEFORE – October 13, 2023



AFTER - September 11, 2024



ODFW did not repeat mapping of aquatic weeds in 2023 or 2024. Personal observations by Wendy Burroughs to ODFW “My observations are that currently the Eurasian watermilfoil are not the predominant aquatic plant species in the lake. There are three elodea species that have taken over in places that were dominated by milfoil in prior years.”

Large mats of floating Elodea plants are prominent BEFORE and AFTER treatment. This is photo is AFTER treatment September 17, 2024. Top layer is dead material with green tendrils underneath. This was the predominant plant in the lake in Spring/Summer 2024.



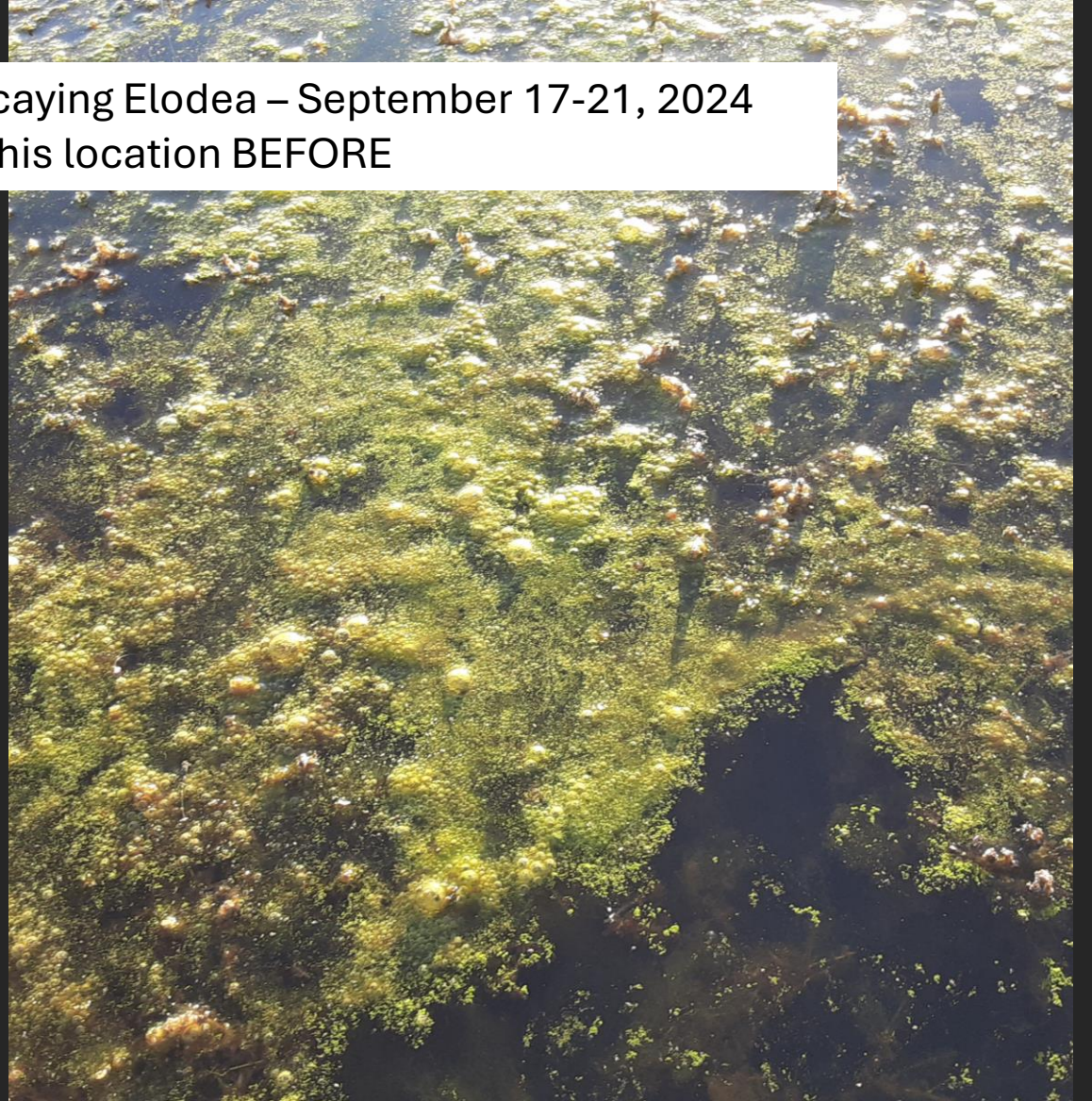
Another Elodea Species- AFTER – September 17, 2024

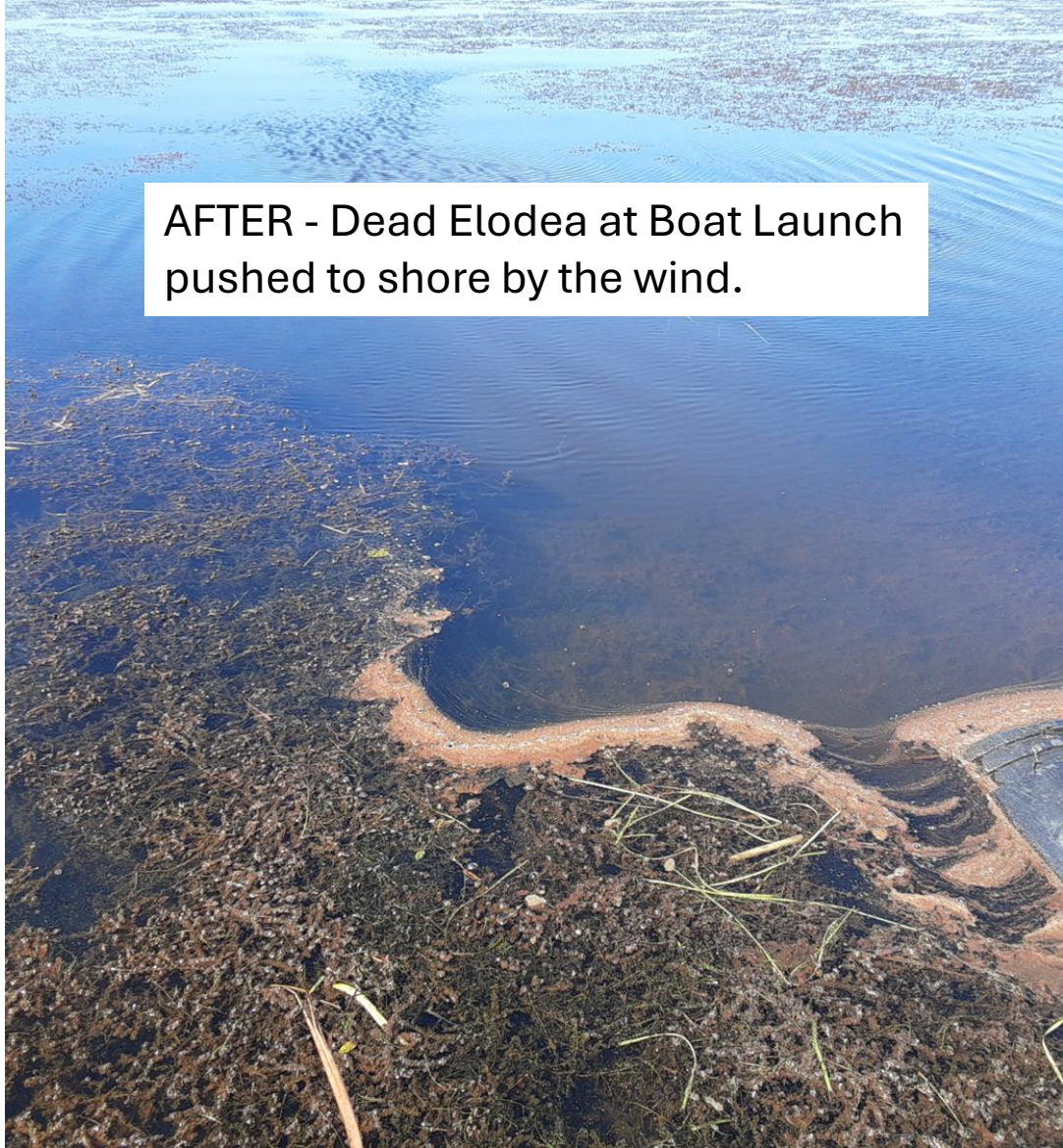


Elodea species remain AFTER treatment September 2024



AFTER-Green Algae growing on decaying Elodea – September 17-21, 2024
Not present at this location BEFORE





AFTER - Dead Elodea at Boat Launch pushed to shore by the wind.



AFTER – Dead fish by boat launch –
September 17, 2024



Reason For Treatment

1) Improve angler access and opportunity

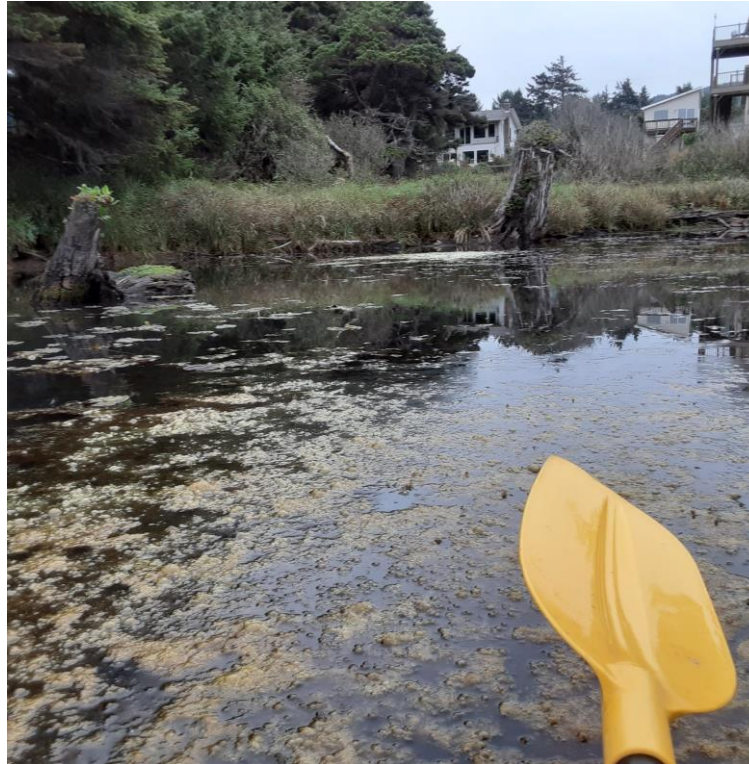
The absence of Eurasian watermilfoil has not resulted in improved angler access at Bayocean Road. Fishing line and boat motor-tangling aquatic plants are still present in September 2024

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Reason for Treatment

2) Improve boater access and safety

September 2024 large areas of the lake still have floating and rooted plants that impede boat access. The treatment fails to address other existing entanglement hazards such as submerged logs and branches.



Reason for Treatment

3) Improve lake health and protect native plant species

ODFW intends to return in the spring of 2025 to conduct post treatment monitoring. The presence/absence and distribution of Eurasian Watermilfoil is not an adequate assessment of lake health. ODFW has made no commitment to monitoring lake water quality or other elements of lake health.



If there is to be real assessment and monitoring of “lake health” the Cape Meares Community will need to take the lead to establish assessment and monitoring parameters, partners, and funding.

A photograph showing a metal grate structure, likely a trash rack or debris screen, installed at the edge of a lake. The structure is made of corrugated metal and is partially submerged in the water. It is surrounded by lush green grass and some rocks. The water is dark and reflects the sky. The structure appears to be in need of maintenance, as some of the grates are tilted or missing.

Reason for Treatment
4) Improved Maintenance

ODFW is responsible for maintaining the outflow structure from Cape Meares Lake to Tillamook Bay.

Post Treatment Goals and Plans

- Eradication of Eurasian Watermilfoil; may require follow up.
- ODFW will conduct post treatment monitoring
- Spot treatment may be necessary
- Outreach and education to reduce the risk of reintroduction



October 2024 ODFW Installed educational signage at boat launch and dock as part of the planned outreach education.



STOP OREGON'S INVADERS!

Protect Oregon's Waterways

STATE LAW prohibits launching a boat with ANY aquatic species on the hull, motor, trailer or any other exterior surface. Drain plugs must be removed from all water holding compartments prior to overland transport.

STATE LAW requires all motorboats not registered in Oregon to possess an Aquatic Invasive Species Permit. Oregon motorboats pay AIS fees during the registration process.

Always Inspect and Clean these Areas

CLEAN all aquatic plants, animals and mud from your vehicle, boat, motor or trailer and discard in the trash. Rinse, scrub or pressure wash, as appropriate away from storm drains, ditches or waterways.

DRAIN livewell, bilge and all internal compartments.

DRY your boat between uses if possible. Leave compartments open and sponge out standing water.

Clean Boats Protect Clean Waterways

To report invasive species call 1-866-INVADER (468-2337)
 Or report at www.oregoninvasiveshotline.org
 For more information visit www.boatoregon.com

INVASIVE SPECIES IN OREGON

EURASIAN WATERMILFOIL
(*Myriophyllum spicatum*)

NEW ZEALAND MUDSNAILS
(*Potamopyrgus antipodorum*)

INVASIVE SPECIES NEAR OUR BORDERS

HYDRILLA
(*Hydrilla verticillata*)

ZEBRA / QUAGGA MUSSELS
(*Dreissena* spp.)

Good News! If you get out on the lake you will see wildlife and signs of wildlife. A keen observer may get a glimpse of the beaver at the lodge.





Ciel Downing

Cape Meares lake and wetlands resources support keystone and umbrella species, apex predators, mega-herbivores, and seasonal migrants.



CL Downing

Ebird lists 202 bird species at Cape Meares Lake



Ciel Downing: belted kingfisher, great-blue heron, bald eagle, great egret, and brown pelican

INaturalist has record of 106 animal and plant species in and around Cape Meares Lake



in Miriam Fultz

Dan Kearnl



© Alan Barron

Cape Meares is home to common, ubiquitous, and rare plants and animals



October 14, 2024 – The CMCA Lake Study Project was approved by the CMCA Board of Directors.

Phase One: Describe how the Lake functions and gain understanding of stakeholder perspectives.

