

Skagit County Public Works Lake Management District #4

CLEAR LAKE 2024 ANNUAL REPORT



NORTHWEST AQUATIC
MANAGEMENT

KYLE STEELHAMMER

Northwest Aquatic Management, LLC

9727 Hwy 12 SW #369 Rochester, WA 98579

Office: (360) 890-2854 • Cell: (360) 870-4362

2024 YEAR IN REVIEW



SURVEYS & TREATMENTS

May 22, 2024

- Pre-Treatment Survey

July 15, 2024

- Submerged Vegetation Treatment
- Milfoil, Fragrant Waterlilies, and Nuisance Submerged Vegetation
- 18 Acres Treated

August 1, 2024

- Post-Treatment Survey

2024 YEAR IN REVIEW



SUBMERGED VEGETATION TREATMENT

Treatment Date: Monday, July 15, 2024

Pictured below: You can see that the outside edge of Lillie's swath had been sprayed to include immediately around most docks. It's possible that caution was used near address in question (13403 Beaver Lake Road). We will annotate this address for next treatment. We anticipate being able to create better access to resident's shoreline by spraying an access swath perpendicular to the shoreline.

Typically, with Lillie's, it's a multi-year process to reduce overall patch growth without causing adverse vegetation mat buildup. A large amount of Lillie's had been treated close to their property and an applicator will use caution to prevent mat buildup by only treating a certain percentage of total surface or submerged vegetation. Please let us know of any additional feedback you get or if you receive photos taken by residents.

Overall, this year was a success and will continue to be progressive in managing the aquatic overgrowth while maintaining a positive ecosystem in Clear Lake.

***Pictures near
13403 Beaver
Lake Road**



2024 YEAR IN REVIEW



NORTHWEST AQUATIC
MANAGEMENT

AQUATIC HERBICIDES OVERVIEW

DIQUAT DIBROMIDE

- ❑ Rapid dissipation; loses activity on contact with sediment
- ❑ Does not leach into groundwater due to high soil affinity
- ❑ No significant short- or long-term impacts on fish or aquatic organisms
- ❑ Low bioconcentration in fish tissues

TRICLOPYR

- ❑ Systemic herbicide for broadleaf and woody plants
- ❑ Breaks down rapidly; minimal groundwater risk
- ❑ Safe for fish and invertebrates at recommended rates

AQUATHOL (ENDOTHALL)

- ❑ Contact herbicide for submerged plants
- ❑ Rapid degradation; safe for fish when dosed properly
- ❑ Minimal accumulation in sediments or organisms

FLUMIGARD (FLUMIOXAZIN)

- ❑ Fast-acting on submerged, emergent, and floating plants
- ❑ Degrades quickly in sunlight/alkaline water
- ❑ Low toxicity to fish and invertebrates

2,4-D

- ❑ Systemic herbicide for broadleaf plants
- ❑ Rapid degradation; safe for fish when dosed properly

2024 YEAR IN REVIEW



**NORTHWEST AQUATIC
MANAGEMENT**

HERBICIDE RESTRICTIONS

Example of Posted Shoreline Notifications

CAUTION

Diquat, Endothall and/or Flumioxazin

Application Date: July 15, 2024

	DO NOT USE LAKE WATER FOR IRRIGATION *7-10 Days May resume use on: JULY 25, 2024		DO NOT DRINK LAKE WATER 3 Days May resume use on: JULY 18, 2024
---	---	---	--

**Established Turf and Ornaments: WATERING RESTRICTION IS 3-4 DAYS
Domestic Animal Watering Restrictions: 7 Days*

THESE SIGNS ARE POSTED IN AND WITHIN 400' OF THE TREATMENT ZONE.
ANY RESIDENT THAT RECEIVES A NOTIFICATION IS ADVISED TO FOLLOW RESTRICTIONS AND/OR ANY MODIFICATIONS IN LAKE ACTIVITY.

**Swimming, Fishing, and Other
Recreational Activity Restrictions: NONE**

PROJECT PROPONENTS:
Applicator Contact: Northwest Aquatic MANAGEMENT: 360-890-2854
Property Manager: Skagit County Noxious Weed Coordinator: Madelyn Loy

Aquatic Treatment Regulated Under Permit No. WAG994126


Issued By:  DEPARTMENT OF ECOLOGY
State of Washington

While Ecology issues the permit to protect all water uses, even if uses are temporarily diminished, the project proponents selected the management method.
Permit Information: ecology.wa.gov/AquaticPlants or 360-407-6600

CAUTION

Diquat, Endothall and/or Flumioxazin


Application Date:
JULY 15, 2024

	DO NOT DRINK LAKE WATER 3 Days May resume use on: JULY 18, 2024
---	--

*Domestic Animal Watering
Restrictions: 7 Days*

PROJECT PROPONENTS:
Applicator Contact:
 Northwest Aquatic MANAGEMENT
 (360) 890-2854

Property Manager:
 Skagit County Noxious Weed
 Coordinator, Madelyn Loy

	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">7-10 Days for Newly Seeded Turf and Ornamental Plants*</td> </tr> <tr> <td style="text-align: center;">May resume on JULY 25, 2024</td> </tr> </table>	7-10 Days for Newly Seeded Turf and Ornamental Plants*	May resume on JULY 25, 2024
7-10 Days for Newly Seeded Turf and Ornamental Plants*			
May resume on JULY 25, 2024			

**Established Turf and Ornaments:
WATERING RESTRICTION IS 3-4 DAYS*

**SWIMMING, FISHING, AND
OTHER RECREATIONAL
ACTIVITY RESTRICTIONS:
NONE**

*Ecology **RECOMMENDS** no swimming in the sign-posted area for 24 hours after treatment due to **POSSIBLE** eye irritation.*

Aquatic Treatment Regulated Under Permit No. WAG994126

Issued By:  DEPARTMENT OF ECOLOGY
State of Washington

While Ecology issues the permit to protect all water uses, even if uses are temporarily diminished, the project proponents selected the management method.

Permit Information:
ecology.wa.gov/AquaticPlants or (360) 407-6600

2024 YEAR IN REVIEW



**NORTHWEST AQUATIC
MANAGEMENT**

CLEAR LAKE TREATMENT MAP



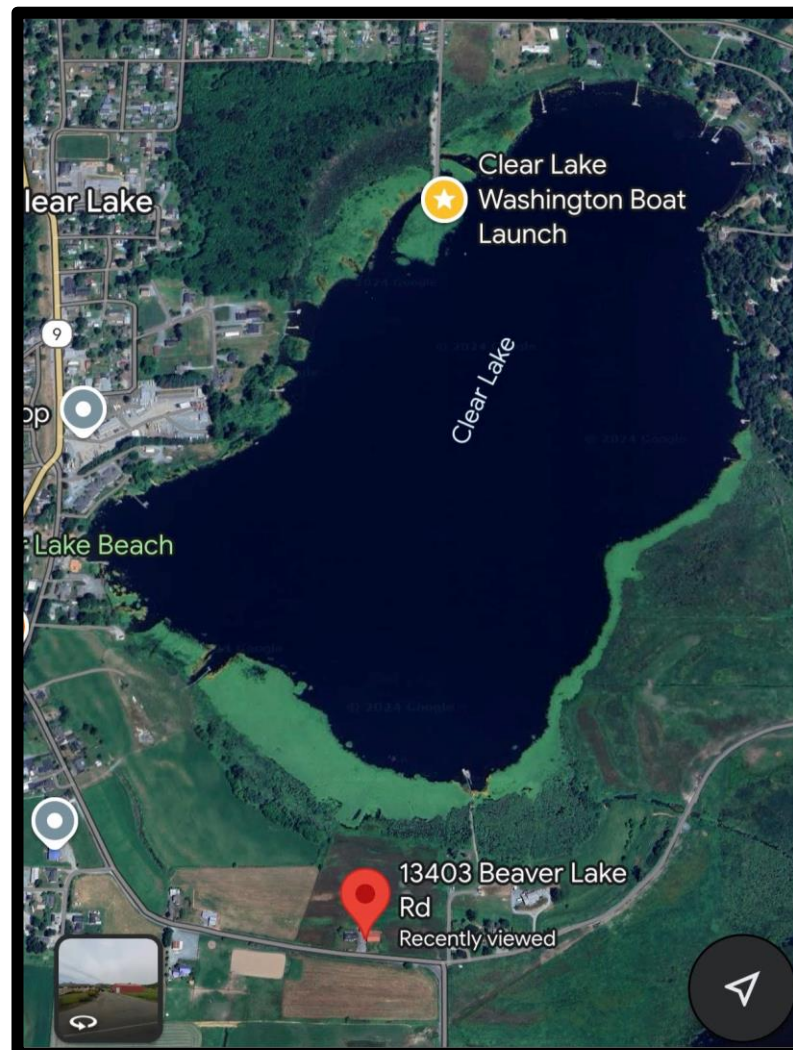
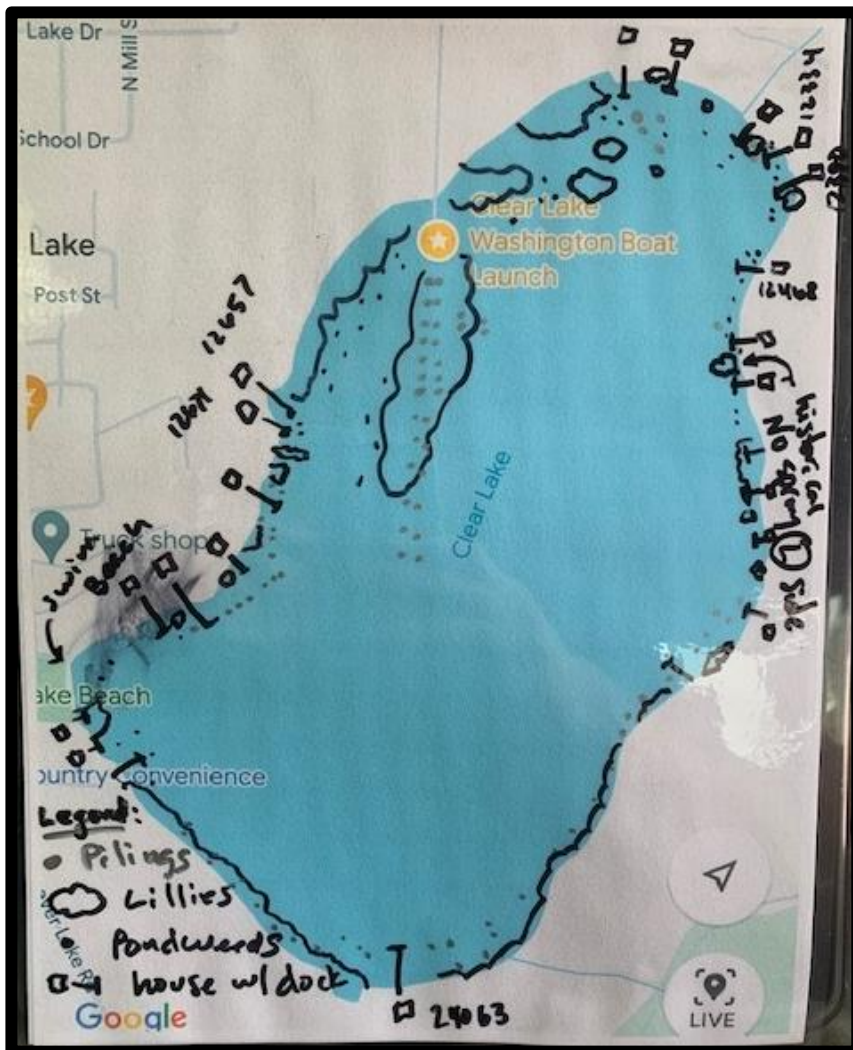
2024 YEAR IN REVIEW



**NORTHWEST AQUATIC
MANAGEMENT**

SURVEY MAP

13403 BEAVER LAKE ROAD



2024 YEAR IN REVIEW



**NORTHWEST AQUATIC
MANAGEMENT**

NO TREATMENT PARCELS

P30126 and P30128



2024 YEAR IN REVIEW



SUMMARY OF POST-AQUATIC SURVEY

Survey Date: August 1, 2024

WEED TREATMENT EFFECTIVENESS

Following the aquatic treatment conducted on July 15, 2024, a post-treatment survey was performed on August 1, 2024, to assess its effectiveness.

Submerged Vegetation:

- Broadleaf pondweed showed significant reductions in overall health, with plants in stages of decay and breakdown. Woody stems and leaves were present but not actively growing.

Floating Vegetation:

- Water lilies were present in most areas, with treated zones showing a reduction of at least 75%. Some younger plants had emerged since the treatment. Large swaths, particularly around docks and the C Street launch, were brought back to acceptable levels.

Future Treatment Considerations:

- Maintain similar treatment strategies for 2025, with a focus on spraying ample swaths around docks to ensure residents retain full waterway access year-round.
- Continue monitoring areas with no-spray restrictions.
- In areas with excessive growth of lily pads along the shoreline, it is recommended to treat up to 25 feet back from the shoreline to maintain acceptable vegetation levels.

2024 YEAR IN REVIEW



SUMMARY OF POST-AQUATIC SURVEY

Survey Date: August 1, 2024

Water Clarity and Algal Presence:

- Secchi readings showed high water clarity, averaging 2 meters across most parts of the lake.
- Algal presence was minimal, confined to areas around fallen trees where water movement was limited.

CONCLUSION:

While the treatment methods applied this season demonstrated promising results, additional strategies, such as harvesting, should be considered to better manage aggressive plant growth and enhance treatment efficiency.

2024 YEAR IN REVIEW



MOVING FORWARD:

Sustaining Treatment Effectiveness:

- Build on the successes of 2024 by continuing effective treatment protocols for submerged and floating vegetation.
- Focus on maintaining reductions in invasive species such as Milfoil and Fragrant Waterlilies, particularly in high-density areas near docks and recreational zones.

Expanding Resident Access:

- Plan targeted treatments to create and maintain access swaths around docks and along frequently used shorelines.
- Prioritize a balance between ecosystem health and improving usability for lake residents.

Enhanced Monitoring and Adaptation:

- Expand pre- and post-treatment surveys to refine treatment areas and assess long-term effectiveness.
- Incorporate sonar-based and visual data to better address problem areas and evaluate emerging challenges.

2024 YEAR IN REVIEW



MOVING FORWARD:

Future Considerations:

- Evaluate the feasibility of integrating harvesting with herbicide treatments to further manage aggressive plant growth.
- Continue compliance with no-treatment zones and explore opportunities to mitigate excessive shoreline vegetation growth while adhering to restrictions.

Water Quality Preservation:

- Maintain focus on improving water clarity and minimizing algal presence.
- Utilize water clarity measurements, such as Secchi readings, to monitor and document lake conditions year over year.

CONCLUSION:

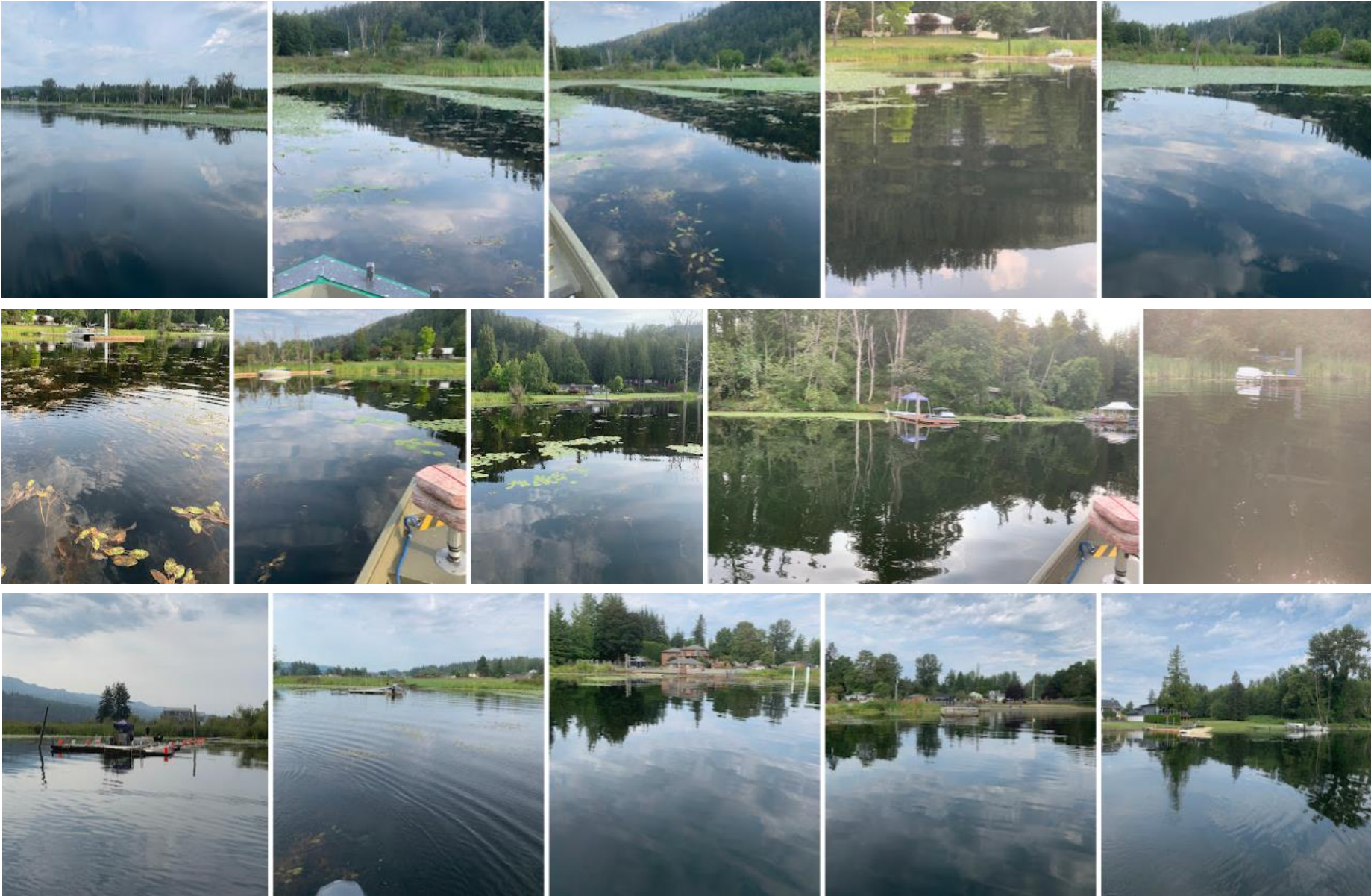
The efforts in 2024 demonstrated substantial progress in vegetation management and water clarity improvements. Moving forward, Clear Lake's management will continue to balance effective treatment strategies with maintaining a healthy and accessible ecosystem for residents and wildlife.

2024 YEAR IN REVIEW



**NORTHWEST AQUATIC
MANAGEMENT**

PHOTOS



2024 YEAR IN REVIEW



**NORTHWEST AQUATIC
MANAGEMENT**

PHOTOS



Thank you!

We look forward to working with
Skagit County in 2025.



NORTHWEST AQUATIC
MANAGEMENT

KYLE STEELHAMMER

Northwest Aquatic Management, LLC

9727 Hwy 12 SW #369 Rochester, WA 98579

Office: (360) 890-2854 • Cell: (360) 870-4362