

State of Lawrence Lake

Report for the period 1 October 2022 through 30 September 2023

This report was prepared by the constituents of the Lawrence Lake, Lake Management District (LMD). It reflects the status of past and current lake stewardship initiatives from the stakeholder's perspective.

This report also serves as required input to the Noxious Weed Integrated Pest Management (IPM) Program report and to meet requirements for Storm Water fee reduction.

Vegetation Surveillance

Lawrence Lake is divided into 12 treatment zones along the shoreline. Weeds are assessed visually at the surface of the water, and by throwing a rake to sample submerged vegetation. The survey team uses a numerical scale to record the density of vegetation growth in accordance with Washington State Department of Ecology standards and guidelines. Data are collected in each zone to assess herbicide treatment needs, and to track species shifts. Documented results of each survey are sent to lake residents and the County Aquatic Resource Specialist (ARS) following each survey.

Vegetation monitoring surveys were conducted monthly from March through August 2023 on Lawrence Lake. Six surveys were scheduled, a total of 8 were conducted (1 Dock and 7 Boat).

Vegetation Control

Yellow Flag Iris (YFI). We are making great strides eliminating YFI from our shorelines. During 2015 we treated with 8.58 gallons of Imazapyr; 4.47 gallons in 2017; 3.5 gallons in 2020; 2.6 gallons in 2021; 2.47 gallons in 2022; and 1.28 gallons in 2023. The reduction of quantity of gallons used is reflective of effective YFI control. Treatment is conducted by boat and backpack using a directional applicator to minimize overspray.

Treatment in 2023 was not done until 15 June. Much later than normal. Vegetation growth around the shoreline concealed much of the Yellow Flag Iris and the flowers from the plant had dropped and seed pods had formed making it more difficult to find the Yellow Flag Iris plants. Volunteers surveying the community and public shorelines in July clipped all seed pods they found. Post-treatment surveys revealed favorable results in the treated areas however, problem areas persist: the agricultural land adjacent to the south end of the large basin, Goat Island and one cove on the south end of the west basin.

Due to the success of this program since it was started in 2015 future chemical treatment of Yellow Flag Iris utilizing State Grant and Lake Management District Funds not to exceed \$1,500 a year will be limited to specific high Yellow Flag Iris density areas as identified by the County ARS. Primarily the areas identified in the paragraph above with a few isolated residential properties with difficult shoreline access.

Yellow Flag Iris along residential shorelines and Community HOA parks will be mechanically removed by individual residents and community maintenance/volunteer personnel as outlined in Revised Code of Washington (RCW 17.10) which requires public and private landowners to control designated noxious weeds on their property. Additional information can be found at: [Noxious Weeds | Thurston County \(thurstoncountywa.gov\)](https://www.thurstoncountywa.gov/NoxiousWeeds). To assist with this a YouTube Video was produced to show residents how to safely and effectively remove Yellow Flag Iris

<https://youtu.be/wk5AVYtrWhA> . Information on control and removal of other noxious and invasive weed species can also be found on the Lake Lawrence YouTube Channel at: <https://www.youtube.com/@lakelawrence> .

Nuisance and Invasive Aquatic Weeds. Following 2021's submerged weed (Elodea) treatment failure, plans were amended for 2022 to detect weed growth early and to proactively implement a tailored treatment regimen. Surveys revealed an absence of Elodea compared to 2021 but a notable increase in Narrow Leaf and Curly Pondweed. Accordingly, the Steering Committee and County staff proscribed a treatment regimen of Aquathol, targeting approximately 33 acres of the littoral lake. Approximately nine acres displayed Curly Pondweed, an invasive plant non-native to Lake Lawrence. Both species of pondweed were effectively controlled with Aquathol, as documented by subsequent lake surveys.

Lake Surveys for 2023 began 4 March and no weeds were identified. Aquatic vegetation growth through the early spring was slow possibly because of cooler, wetter conditions. Only trace quantities of weeds were identified through 2 June. A survey conducted on 13 June showed some density level 1 areas for Water Nymph (NAIADS) Narrow Leaf and Curly Pondweed, however the treatment prescription written in 2018 required density levels of 3 for Narrow Leaf Pondweed and 2 for Elodea and Curly Pondweed. These density levels were not reached for either pondweed until the 23 June lake survey. Attempts to get the contractor to treat shortly after that met with no success. By the time the contractor was available weed density for Narrow Leaf and Curly Pondweed had exceeded density levels 3 and 4 and our contractor acknowledged that utilizing Sonar to treat for Narrow Leaf Pondweed would most likely not be effective. Much like what happened in 2021. They recommended using Diquat, which is not an herbicide we are authorized by the County Prescription to use. The decision was made to not treat and waste our precious financial resources. Recommendations to resolve this problem moving forward were made by the Steering Committee to the ARS and County Water Resource Manager at our 26 July LMD meeting. Those recommendations included:

1. Conduct August weed survey with ARS to assess weed species and dominance levels. We have done this every year. **Not new.**
2. Based on this survey establish protocols to conduct surveys early Spring of 2024 to verify growth of these weed species. We have done this every year. **Not new.**
3. Initiate action to use Sonar, if weed species support this decision (in other words weeds other than Curly and Big Leaf Pondweed) beginning at level 1 dominance. Knowing these weeds quickly reach the action level of 3. Due to the 2018 prescription this has not been done since 2018. ARS and WR Manager consulted and agreed this was not possible give the current prescription. Their recommended action was to redo the prescription. Our ARS informed us on 22 August that he was working on a new prescription that would include a new herbicide that had been approved by the County Department of Health "Galleon SC" that is effective against both Narrow Leaf and Water Nymph (NAIADS) and Curly Pondweed. Expected completion by end of 2023. **This is new.** Sonar is an emergent herbicide and is most effective when applied when weeds are just emerging from the lake floor. Allowing the weeds to reach density levels 3 and 4 make the treatment less desirable and less effective, if at all, as in 2021.

4. If weed species are such that Sonar cannot control them Aquathol should be used when species reach a dominance of 2 as stated in the prescription (Curly and Big Leaf Pondweed). This has been done in the past for these two types of aquatic vegetation as Aquathol is a contact herbicide and should be applied when weeds are fully growing. **Not new.**
5. If the prescription is changed and Galleon SC is added it would provide another tool to treat both NAIADS and Curly/Big Leaf Pondweed at the same time as it is effective against both types of aquatic vegetation.

Fragrant Water Lily. Lily control was last conducted on 3 August 2022 for ~1 acre of Fragrant Water Lily and ~.5 acres of Spatterdock using 75 oz of Roundup Custom.

Treatment in 2022 was successful and survey results in 2023 showed insufficient quantities of lilies to initiate chemical treatment. Funding has been set aside in future years to address treatment of lilies in areas where large masses of Fragrant Water Lily is identified. A YouTube Video was produced to show shoreline residents and Community HOA maintenance personnel/volunteers how to successfully remove lilies mechanically <https://youtu.be/ms-MfnAhCl8>.

Water Quality. Thurston Regional Planning Council Water Quality Report shows that since 2020 Lake Lawrence water quality as “Poor”. Prior to 2019 it was rated as “Fair”. [Freshwater Quality | Thurston Regional Planning Council, WA \(trpc.org\)](#)

Volunteer Activities

Assistance to Thurston County Undeveloped Park. Activities included weekly trash pickup, reporting of an abandoned boat, reporting of vandalism and illegal campfires, installation and suggested improvements to signage along the park. It is estimated that volunteers contributed ~100 hours to these activities during 2023.

Assistance to Thurston County Health & Social Services. LMD volunteers coordinated with County officials to report algae outbreaks and perform sign placement and removal tasks. Informational and warning signs were posted at the Public Boat Launch, Lake Lawrence Community Club (LLCC), Wildaire, and Scenic Shores HOA parks. Volunteers contributed approximately 10 hours to these tasks.

Assistance to Thurston County Noxious Weeds Department:

- **YFI Treatment.** LMD volunteers coordinated the dissemination and collection of YFI Permission Letters, posting and retrieval of required treatment signage. Assistance for these efforts is estimated to be ~100 hours.
- **YFI Floating Island Relocation.** LMD volunteers researched, organized, and distributed procedures for reporting and relocation of YFI floating islands. These break-away floating masses can be a hazard to boats, including the sanctioned annual Boat Race event. On 21 July 2022 the LMD Steering Committee sent a letter to the County WR Manager formally reporting the floating island and requesting coordination with WDNR and WDFW for removal of the island. 24 March 2023 a letter was sent to the Director, Public Works. In August 2023 a letter was sent to the Department of Natural Resources

(cc'd: County Staff, County Commissioners, State Senator & Representatives).

Approximately 20 volunteer hours were expended in 2023 on this effort.

- **Restoration of "Goat Island"**. Numerous LMD members participated in work parties to restore Goat Island to its natural state. Activities included removal of nuisance and invasive terrestrial plants. Approximately 100 volunteer hours were expended in 2023 with much work remaining to complete the restoration.
- **Replacement of timbers in Outflow Creek Weir**. The boards in the weir have rotted and needed replaced. Kathy Boyajian, LMD member donated the funds to replace the boards and 4 LMD members volunteered approximately 20 hours to make the repairs.

Education and Outreach. Led by the Steering Committee, Lawrence Lake conducted four general membership meetings and an Annual Meeting/BBQ on 30 September from 11 a.m. to 2 p.m. 79 members participated. Expenses for BBQ ~ \$300. Guest speaker was:

- Derek Day, Washington Department of Ecology, formerly with the Washington Department of Fish and Wildlife. He gave a presentation on how to maintain or improve shoreline property to benefit fish and wildlife.

In addition to guest speaker engagements, the following educational material was distributed to all LMD members over the course of the year:

- Thurston County Fact Sheet titled: *Blueprint for a Lake Friendly Landscape* describing residential practices to reduce toxins and undesirable nutrients from entering our lake.
- Thurston County Public Health & Social Services Fact Sheet addressing *Toxic Algae*.
- Thurston County Environmental Health report (2019) on *Lake Lawrence Water Quality*.
- Center for Disease Control (CDC) Fact Sheet describing *Swimmer's Itch*.
- A Lake Lawrence YouTube Channel was developed. It currently provides over 32 educational and informational videos to reduce the use of chemicals and fertilizers around the lake and to encourage the safe and effective removal of invasive and noxious weed species from in and around the lake
<https://www.youtube.com/@lakelawrence> . Since June 2023 when it was placed on line it has received over 4,000 views. Over 400 hours of volunteer effort has been expended toward this effort so far in 2023.

In support of a NASA-sponsored global lake monitoring program, lake levels are measured and reported from two sites located on our lake. A third gauge is located at the public boat launch for observation by the general public. Appendix A is historical data reported since our involvement began. Approximately six volunteer hours are expended on this effort annually.

LMD Administration

LMDs are administered by Thurston County Public Works Department. An Aquatic Resource Specialist is assigned to coordinate and direct boots-on-the-ground operations at our lake. Citizen-volunteers comprise our Steering Committee, coordinating stewardship plans, budget, periodic meetings, and volunteer activities with County staff. Our current LMD expires 31 December 2026.

Administrative Procedures. On 15 September 2023 the Steering Committee was informed of an initiative to move the county lake management districts from Public Works to Thurston County

Department of Health and Human Service, Environmental Services with a designated Point of Contact (POC) that would work with the LMDs to secure a contractor that would be responsible for LMD administration. This could result in the Administrative Rules being rewritten to conform to this new initiative or the Administrative Rules changed to Operating Procedures/Instructions as we have recommended. This initiative is being led by the Deputy County Manager, Mr. Rob Gelder that briefed the commissioners on this initiative on 25 September 2023. At that meeting the commissioners gave Mr. Gelder authority to explore the course of action to move LMDs from Public Works to Environmental Services and work through the concept of having a County POC with fully contracted administration of the LMDs. It is too early to know where this will lead.

Budget. Each year the Annual Budget and concomitant Work Plans are developed by the LMD Steering Committee and County staff as required by County process. The 2023 annual budget for the Lawrence Lake LMD was approximately \$112K. The primary source of these funds is voter-approved fees collected from each parcel owner. The intended use of these funds is lake stewardship, as commissioned by RCW 36.61. During 2021 the LMD members passed a motion to increase our LMD Assessment Fees by 5% for 2023 to cover inflation costs. Members also voted to increase assessment fees by 3% in 2024 and 2025.

During 2021/2022, the LMD Leadership Teams from both Lawrence Lake and Long Lake appealed to the Board of County Commissioners (BoCC) regarding County expenditures to administer the LMD. Resolution of these budget issues remains a contentious topic as we attempt to protect our funds for lake stewardship activities, in a manner consistent with other LMDs throughout Washington State. A few notable successes were achieved during the 2021-2022 period.

- On 13 May 2021 the BoCC voted 2 to 1 to reimburse all 2021 Interfund Costs. Result: \$10,000 was returned to LMD account.
- On 28 October 2021 the BoCC voted to reimburse all LMD Interfund Costs for 2022 and 2023; \$7,000 each year.
- Reimbursement of LMD Interfund Costs for 2024 and 2025 have not yet been decided by the BoCC.

Legislative Initiative. Your Steering Committee has been working for the past year on a bill SB5638 to RCW 36.61 Lake and Beach Management Districts that would make 9 substantial changes to the RCW that would benefit our LMDs. We have secured sponsors for the bill in both the state senate and house of representatives. Our commissioners have been briefed on the bill and generally support the changes, but have pointed out a problem with one change that they are working with us on. All LMDs in the state have been involved in this process and provided their recommended changes. We have also reached out to other stakeholders to include the Department of Fish and Wildlife and Washington State Lakes Protective Association (WALPA). We are looking forward to getting this bill submitted in December 2023 for consideration in the next legislative session starting in January 2024. This legislation has been discussed at our regular LMD meetings for the past year and updates will be provided at each meeting.

YOUR LAKE LAWRENCE LAKE MANAGEMENT DISTRICT LEADERSHIP TEAM,

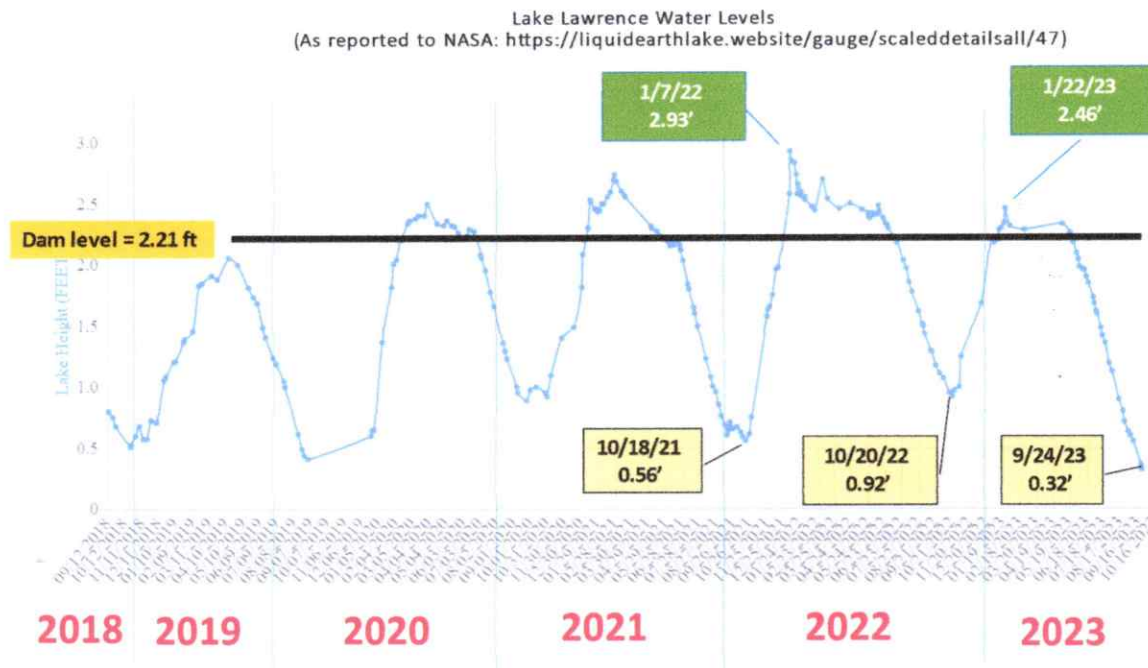
Barry Halverson, Frank Hudik, Kim Nelson & Jim Biehl

Copy to:

State Senator John Bruan; State Representatives Peter Abbarno, Ed Orcutt; BoCC; Thurston County Public Works Staff, LMD Leadership for Long, Pattison, and Offut Lakes. *County Commissioners*

Mr. Dwight Malhiot, Race Director, Seattle Outboard Assoc. 279 Gold Creek Rd NW, Bremerton, WA 98312

Appendix A Lake Level and Temperature Data



Lawrence Lake LAW2 Surface Water Temperatures

