LAKE LAWRENCE MANAGEMENT DISTRICT (LLMD) BUDGET & WORK PLAN FOR 2026/27

BUDGET CODE: 1740

General Comments:

On _____ 2025, the Lake Lawrence Management District (LLMD) Steering Committee (SC) unanimously voted to approve this budget and work plan for forwarding to the County.

During their March 2025 LMD meeting, the SC voted not to increase rates for 2026. However, a rate increase will be implemented in 2027. This includes a 10% rate increase for all upland and government-owned properties and 130% increase for all canal and lake (shoreline) properties.

The estimated budget for the 2026/27 planning period is detailed below. The estimated fund balance at the beginning of 2026 is \$380,000.

1. REVENUE FOR 2026 AND 2027

Revenue from Operating Assessments will not increase in 2026 and the increases as mentioned above will take effect in 2027.

2026 Budget\$118,0002027 Budget\$195,200

Washington State Department of Ecology Grant for Cyanobacteria Management Plan (CMP): The Washington State Department of Ecology awarded the LLMD a \$50,000 grant for the CMP. Because the LLMD is unsure of the timing of the grant funding, \$25,000 was included in the 2025 budget and \$25,000 in the 2026 budget.

2026 Budget \$25,000

2. PROFESSIONAL SERVICES (541000):

- A) Weed Program: The goal in aquatic weed management is to:
 - Reduce or eradicate non-native noxious and invasive aquatic vegetation, or at least halt its spread
 - Prevent future introduction of non-native noxious and invasive aquatic vegetation,
 - Maintain native aquatic habitat at a level that allows safe recreational activity and lake access for all.

Eradication of all aquatic vegetation is not a goal. The SC weed committee tours the lake monthly between April and August. The primary goals of these tours are to determine the types, locations, and densities of aquatic, floating, and terrestrial weeds. The LLMD has formalized a process for documenting this information to ensure that corrective action is taken only in areas where the SC and the contractor agree weed density requires intervention. Weed tours in late summer and fall provide data to help predict weed densities and potential treatment areas for the following year and to evaluate the effectiveness of any treatments performed. Many of the targeted weeds are annual. Therefore, a key goal is to disrupt seed production in the spring to reduce plant growth in subsequent years. Early treatment is most effective before weed growth reaches a level 3 density when using Sonar or Galleon SC. This method can reduce the amount and frequency of herbicide use and has proven effective since the first use of chemicals in 2008. The LLMD manages two types of vegetation: Non-Native Invasive & Noxious Weeds (aquatic, floating and terrestrial) and Native Aquatic Vegetation. Both are discussed below:

- i) **Non-Native Invasive & Noxious Weeds** (aquatic, floating and terrestrial): Seven such weeds have been identified in Lake Lawrence: White Fragrant Water Lily, Curly Pondweed, Yellow Flag Iris (YFI), Knotweed, Narrow-Leaf Cattail, Parrot Feather and Purple Loosestrife.
 - (a) White Fragrant Water Lily: This plant, characterized by its white or purple flowers, spreads through roots/tubers and seeds from flowers. The SC has been working on eradicating this non-native invasive floating weed since 1988, when it covered over 88 acres of the 330-acre lake. This has been a lengthy process due to the plant's reproductive methods. Currently, only a few small patches of this plant remain in the lake. YouTube Videos demonstrating how shoreline residents and community managers can hand-pull and remove these plants when found have been produced and posted on the Lake Lawrence YouTube Channel at: https://youtu.be/ms-MfnAhCl8. Weed committee volunteers' hand-pull individual plants during weed surveys. When large patches are identified, treatment is scheduled for mid- to late August. The LLMD routinely budgets annually for treatment but determines treatment only after the July survey.

2026 Budget: \$3,500 2027 Budget: \$3,500

(b) Curly Pondweed: First identified in 2016 at the public boat launch by the county aquatic resource specialist, this plant is a perennial that grows from seed/turion (a wintering bud that detaches and remains dormant at the bottom of the lake). The seeds release in late spring and germinate in the fall. Curly Pondweed also spreads through fragmentation, so mowing these weeds is not recommended as it could spread the weed to non-infested areas of the lake. The most effective source of action to significantly reduce future growth and spread is the early spring application of an approved systemic herbicide (Galleon SC or Sonar) when the plant begins to grow and before turion production. Curly Pondweed was first treated in 2018, 2019, and 2020 with Aquathol. However, Aquathol is a contact herbicide and did not kill the seed (turion) or root system, allowing the plant to return annually. As a result, Curly Pondweed spread around the lake and has infested 50% of the lake's shoreline. In 2023, the County approved the use of Galleon SC. Galleon SC and Sonar are systemic herbicides that will kill the root system and turion seeds. The seed bed for Curly Pondweed persists for several years, so multiple applications over several years will be necessary to fully control this invasive species. Studies in the Midwest have indicated that eradication of Curly Pondweed is not a realistic goal; therefore, the SC has elected to focus on controlling its spread. Galleon SC was used for the first time in 2024. Sonar One was used in 2025 because lake residents reported that Galleon SC did not control other nuisance vegetation, which grew out of control and required \$20,000 in weed harvesting in 2024 and was less effective overall. Funds have been allocated in 2026 and 2027 to manage this invasive species and to control the nuisance weed population.

> 2026 Budget: \$70,000 2027 Budget: \$72,100

(c) Yellow Flag Iris (YFI): First identified in 2004 during the development of the Integrated Aquatic Vegetation Management Plan (IAVMP), this plant spreads by seed and tuber growth. No action was taken until 2013, when County Noxious Weed Staff conducted an assessment and mapped the plant's locations. In 2014, residents and volunteers were asked to clip and remove seed pods. It quickly became apparent that mechanical removal of this Noxious Non-Native plant was not

feasible and posed safety risks. In 2015, this plant was added to the County Noxious Weed list as a Class C Noxious Weed and designated for eradication. It has been on the State Noxious Weed list since 2002. The first chemical treatment was done in 2015, and annual treatment has continued using state grants and some LLMD funding. As of 2022, YFI has been reduced by approximately 75%. Efforts will continue annually until this plant is eradicated. County Noxious Weed will continue to apply for state grants, and the LLMD SC will allocate \$1,500 a year toward this effort. In 2023, the county requested an additional \$1,000, which the SC approved bringing LLMD contributions to \$2,500 for the year. The County will continue to seek grants to fund the majority of YFI work, and the LLMD will provide volunteer support to collect permission letters, include the treatment in an annual Treatment Notification Card sent to all shoreline residents, and assist with picking up notices after treatment to help control program costs. In 2023, the County Aquatic Resource Specialist (ARS) completed a lake survey to determine the density of YFI after nine years of treatment. The ARS found that YFI around residential and community park shorelines had been eradicated to the point where chemical treatment was no longer necessary. Control of YFI in those areas could be managed by shoreline residents and community managers with minimal effort. A six-minute YouTube video demonstrating safe removal methods for residents can be found at https://youtu.be/wk5AVYtrWhA . A second video documenting the life cycle of YFI over a year is available at https://youtu.be/sKAuoXdqXGU. Another video highlights the dangers of YFI at https://youtu.be/spE_BfHvSG4.

2026	Budget	\$1,500
2027	Budget	\$1,500

- (d) **Knotweed**: First identified in 2019, this weed is classified as a Class B Non-Native Invasive species by both the state and county. It was treated by County Noxious Weed from 2019 through 2022. Since 2022, there have been no reported sightings of Knotweed on Lake Lawrence.
- (e) Narrow Leaf Cattail: First identified in 2020 during a lake survey, this non-Native Invasive species is not yet classified by either the county or state because it is considered a rare plant for the area. This patch of Narrow Leaf Cattail was treated in 2020 by the LMD. No additional plants have been identified since. Survey personnel continue to monitor for this plant.
- (f) Parrot Feather: First identified in 2013 by the county ARS on the canal behind "Goat Island", this Class B Non-Native invasive species is designated for control by both the county and state. County Noxious Weed treated this area in 2013, and it has not been seen since. Survey personnel continue to monitor for this plant.
- (g) **Purple Loosestrife:** First identified in 2012 by County Noxious Weed personnel in several locations on the shoreline and off roads around the lake, this Class B Non-Native Invasive species is designated for control by both the county and state. County Noxious Weed treated for this plant from 2012 through 2022. Only three small plants were found in 2023 and manually removed by LMD volunteers. While this weed may have been controlled, lake survey volunteers continue to monitor and report any new plants to County Noxious Weed personnel. A YouTube video demonstrating how residents can identify and remove Purple Loosestrife on their property is available at https://youtu.be/43eu1t8D-qc.
- ii) **Native Aquatic Vegetation**: These plants are typically not aggressive and are beneficial to the lake ecosystem. The LLMD takes action to control this vegetation only when it becomes excessive and

causes safety concerns or impairs lake access. Common examples include large, small and narrow leaf pondweed, Elodea, and Water Nymph. Elodea and Water Nymph typically grow on the bottom one foot of the lake and are usually not problematic in most lakes. However, in Lake Lawrence, with its extremely high nutrient levels, these plants can rapidly and frequently grow out of control, extending to the surface and forming large vegetation mats that prevent boating, swimming, fishing, and other recreational activities. The LLMD committee has purchased weed rakes for residents to remove from around their docks and community swimming areas. A YouTube video demonstrating how to use these rakes and how to make them inexpensively is available at https://youtu.be/681crlKJtlg. The biomass of this vegetation can be substantial, measured in tons. Large and small leaf pondweed is usually controlled during Curly Pondweed treatments. Elodea, Narrow Leaf and Water Nymph can be controlled if Sonar is used. Any remaining funds after treating invasive species like Curly Pondweed can be used to manage nuisance aquatic vegetation which may include aquatic weed harvesting.

2026 Budget \$0 2027 Budget \$0

Ground Water Inputs

- B) Cyanobacteria and Algae Management: Nutrients accumulating in the lake from the watershed and the lake sediment are the primary drivers of increasing algae problems. Phosphorus is a key nutrient influencing this growth. This nutrient originates from various sources. A study completed in December 1991 by Kramer, Chin & Mayo (KCM) Inc., Seattle, WA in association with Hart Crowser, Herrera Environmental Consultants Water Environmental Services, Inc. Aquatic Research, Inc. pages ES-2-ES-3, determined that phosphorus in Lake Lawrence came from the following sources:
 - In-Lake sediments 83%
 - 10% (aquifer/springs in the lake bottom)
 - Overland flow & Precipitation 7% (lawn fertilizers, herbicides, roof downspouts, road runoff, Pet waterfowl waste, etc.) This is the part the LLMD can influence through education.

The SC continues to research and gather information from other lakes regarding methods to reduce or eliminate toxic algae blooms by stabilizing phosphorus in lake sediment and the water column. Several lakes in our area are utilizing different techniques, and some are exploring new ones. Like most lakes in Western Washington, Lake Lawrence has experienced serious toxic algae blooms, with the most severe occurring in 2020 and 2024-2025. In 2022, there was one bloom lasting three weeks, and another in 2023 lasting two weeks. The bloom in 2024-2025 persisted for 16 weeks and resulted in "DANGER Levels" of Microcystin, closing the lake to all recreation for 4 weeks during that period.

Algae will continue to be an ongoing issue due to warmer weather and significant phosphorus inputs from groundwater springs and nearshore water runoff from yards and upland properties during stormwater events. Lake Lawrence does not have any known stormwater outfalls, but several culverts run under Lindsay Road, Topaz Drive, 153rd Ave and Lawrence Lake Road. These culverts allow water to flow underground in some locations, surfacing at the lake shoreline or just before the lake and then running across the ground into the lake. Currently, there are no stormwater catch basins to collect pollutants, except at the new public boat launch, which has a drain system across the bottom that flows into a catch basin before discharging into the lake. Volunteers monitor this catch basin and have reported clogging/overflow to the Department of Fish & Wildlife. Volunteers have also removed debris from the grating to help prevent clogging.

Since 2009 the Thurston County Environmental Health Office has tested water quality in ten lakes throughout the county, including Lake Lawrence, between the months of April and October each year. The data from these tests can be found on the Lake Lawrence Website under the Water Quality & Testing section at: <u>https://www.lakelawrencelakemanagementdistrict.com</u>. This testing and monitoring will continue.

In 2023 the LLMD SC applied for and received a \$50,000 Grant from WA State Department of Ecology to develop a Cyanobacteria Management Plan (CMP). This grant covers approximately half the cost of the study. Herrera Environmental Consultants, Inc., Seattle, WA was awarded the contract for the study, which will run from July 1, 2024, through June 1, 2026. There will be two public meetings and several SC meetings with Herrera consultants during this period. LLMD members will be informed of the dates, times, and locations of these meetings via the LLMD Website. The water quality study portion will be conducted between October 1, 2024, and October 30, 2025. The study results will inform the LLMD about the sources and percentages of nutrients contributing to toxic algae blooms and what the LLMD can reasonably do to reduce the nutrient load to Lake Lawrence and prevent or reduce the occurrence of these blooms. The study will also identify how the LLMD, if funds are available, can reduce the turbidity (greenish/brownish looking water) of the lake. Based on experiences in other lakes, these efforts are expensive, and LLMD's current annual budget of \$120,000 will be insufficient. The SC is researching ways to raise the necessary funds. Grants will be explored but are rare and do not provide the required funding levels. LLMD rate increases over an extended time will be needed to reduce toxic algae blooms and the greenish/brownish color of the waterbody. LLMD members will be briefed on this during regularly scheduled LLMD meetings, the LLMD annual meetings in September of 2025 and 2026 and during HOA meetings each year. Costs for toxic algae/phosphorus mitigation run from \$120,000 to \$200,000 per application and require repeated (annual/bi-annual) applications and continuous monitoring. Without funds to continue monitoring protocols and the ability to apply repeat treatments, initial mitigation costs would be wasteful.

Cyanobacteria Management Plan Study Costs

2026	Budget	\$60,000

Cyanobacteria/Algae Treatment Costs

2026Budget\$220,000 (expect first treatment late summer/early fall 2026)2027Budget\$200,000

- C) **Nutrient Testing Program**: Obtaining more information about the nutrients and toxins entering the lake is important in developing the work plan.
 - i) Thurston County Department of Health: The Department of Health conducts annual testing on ten of the larger lakes in Thurston County, including two locations on Lake Lawrence. They test the two deepest points – one in the main lake (East Basin) and one in the little lake (West Basin) - at both the surface and just off the bottom once a month from April to October. They test for phosphorus, nitrogen, temperature and depth visibility. There is no cost to LLMD for this testing, as it is a countywide initiative. In 2023, the SC produced a YouTube video on how this testing is performed: https://youtu.be/uXQcB2fdt3E.
 - ii) LLMD Nutrient Testing: Long Lake purchased its own testing equipment in 2021 to conduct monthly year-round testing. This equipment allows them to take water samples and send them to a lab for testing and analysis. The lab work alone costs approximately \$540 per test. In April 2024, Lake Lawrence produced a YouTube video of this process <u>https://youtu.be/9htLXBKqmRU</u>. This video also shows the type and cost of equipment needed to conduct the testing. Once the CMP is completed and

the LLMD implements recommendations to mitigate toxic algae/phosphorus in the lake testing will need to be done either by a contractor or the LLMD SC. The expected costs would be:

2026 Budget	\$12,000 (If LLMD SC volunteers test, costs include initial equipment, testing and
	mailing costs)
	\$15,000 (If contractor tests)
2027 Budget	\$5,000 (If 2 nd year of LLMD SC volunteers test, costs include testing and mailing)
	\$15,000 (if contractor tests)

D) Lake Water Level Monitoring: In September 2018, LLMD volunteers collaborated with the University of Washington (UW) and University of North Carolina (UNC) to install two water measuring gauges on Lake Lawrence. This program, Lake Observations by Citizen Scientists & Satellites (LOCSS), is funded by a grant from NASA and managed by Tennessee Tech, UW and UNC. The LLMD SC assisted in locating and installing two gauges, one in each basin (East and West). Volunteers monitor the gauges by reporting readings every two weeks via the LOCSS website. In 2019, recognizing the project's success, the Lake Lawrence LLMD recommended that county staff engage LOCSS to install gauges on other Thurston County lakes. In 2021, LOCSS sent equipment to Kevin Hansen, Water Planning, CPED, and Thurston County for installation of gauges in nine County lakes. The two gauges monitored by SC volunteers have been invaluable in determining the variations in lake levels which informs contractors about current water levels for more accurate treatment calculations. There is no cost for this program except for volunteer time.

2026	Budget	\$0
2027	Budget	\$0

E) **Advertising** (541009): Costs associated with advertising Requests for Proposals (RFPs) and Public Hearings in the newspaper of record.

2026 Budget	\$1,100 (Covers public hearing notices for objections to rates & charges, RFP
	for Cyanobacteria treatment, and RFP for weed treatment)
2027 Budget	\$600

PROFESSIONAL SERVICES (541000) RECAP:

Professional Services		2026		2027	
White Fragrant Water Lily Treatment	\$	3,500	\$	3,500	
Yellow Flag Iris Treatment	\$	1,500	\$	1,500	
Aquatic Weed Treatment	\$	70,000	\$	72,100	
Cyanobacteria Management Plan Study	\$	60,000	\$	-	
Cyanobacteria/Algae Treatment		220,000	\$2	200,000	
Nutrient Testing	\$	15,000	\$	15,000	
Advertising	\$	1,100	\$	600	
Total Professional Services		371,100	\$ 2	292,700	

3. COUNTY ADMINSTRATION RATE (Unknown line item): As of 1 January 2024, LLMD will be charged an administrative rate of approximately 5% of their revenue. This rate will be recalculated annually based on the use of county assets (and reported in the 13th-month budget report). Any interfund and/or Full-Time Equivalent (FTE) costs will be included in the administrative rate calculations.

2026	Budget	~\$5,900 (based on 5% of estimated revenue of \$118,000)
2027	Budget	~\$9,760 (based on 5% of estimated revenue of \$195,200)

4. MISCELLANEOUS (54900):

- a) Education: One of the goals of the SC is to educate the members on lake management programs and related scientific principles. In 2023, the SC began producing YouTube videos to inform and educate members on a variety of subjects. As of July 2025, over sixty videos have been produced, garnering over 30,000 views. The YouTube Channel can be found at: https://www.youtube.com/@lakelawrence. In 2022, the LLMD installed a drop box on a main street in the center of the community for members to submit suggestions, mail ballots, etc. The LLMD schedules and hosts guest speakers at annual meetings to encourage member participation. The SC advocates for its members and informs them of relevant issues throughout the year. Additionally, the SC provides information on shoreline and septic system management, yard and pet management, and other topics impacting safety and water quality.
- b) Annual Member Meeting: The SC holds an annual member meeting traditionally in September, to provide updates on the year's work plan and plans for the coming year. An educational segment presented by a local expert covers various topics, from septic system maintenance to rain gardens, roof and gutter maintenance, and lawn care.

2026 Budget \$500 2027 Budget \$500

c) Website: The SC created a website in 2023 and updates it regularly. Members can subscribe at https://www.lakelawrencelakemanagementdistrict.com to receive automatic updates. The website provides educational materials, historical data, meeting notes, budgets, lake survey data, lake treatment notifications and data, and more. The goal is to include as many studies, data and links to helpful resources as possible to educate and inform members. In December 2023, a three-year contract for the website and domain name were purchased for \$369.70. There will be no budget costs for this until December 2026. Beginning in 2027 there will be a \$15 per month expense for Microsoft Business Standard. This cost has been absorbed by volunteers for the past three years.

2026Budget\$400 (three-year contract 1 January 2027 through 31 December 2029)2027Budget\$180

5. SUPPLIES AND OPERATING EXPENSES (531000):

a) Office Supplies: includes copy paper, copier ink, envelopes, stamps, and miscellaneous office supplies

	2026	Budget	\$125
	2027	Budget	\$950
b)	Lake Survey	Costs	
	2026	Budget	\$ -
	2027	Budget	\$575

c) Tools & Equipment (535000):

2026	Budget	\$300

2027 Budget \$2000

6. **COMMUNICATIONS** (542000):

a) Annual Education/LMD Meeting Postcards (677 postcards)

2026 Budget \$690

2027 Budget \$710

- b) Weed Treatment Notification Cards (174 cards)
 - 2026 Budget \$600

2027 Budget \$600

- c) LLMD Meeting Room Rental (LLCC lower Lodge \$20 per meeting)
 - 2026 Budget \$60
 - 2027 Budget \$60
- 7. **LLMD RENEWAL EXPENSES**: Costs associated with the LLMD Renewal process that are not included in other budget items (e.g., sending out voting documents with resolutions, Public Hearing Notifications)

2026 Budget \$5,000

BUDGET RECAP:

EXPENSES					
Professional Services		2026		2027	
White Fragrant Water Lily Treatment	\$	3,500	\$	3,500	
Yellow Flag Iris Treatment	\$	1,500	\$	1,500	
Aquatic Weed Treatment	\$	70,000	\$	72,100	
Cyanobacteria Management Plan Study	\$	60,000	\$	-	
Cyanobacteria/Algae Treatment	\$	220,000	\$ 2	200,000	
Nutrient Testing	\$	15,000	\$	15,000	
Advertising	\$	1,100	\$	600	
Total Professional Services	\$	371,100	\$ 2	292,700	
County Administrative Rate at 5%		5,900		9,760	
Miscellaneous					
Annual Member Meeting & Picnic	\$	500	\$	500	
Website & technology	\$	400	φ \$	180	
Total Miscellaneous	P	900	φ	680	
Total Miscellaneous		900		000	
Supplies and Operating Expenses					
Office Supplies	\$	125	\$	950	
Tools & Equipment	\$	300	\$	2,000	
Total Supplies & Operating Expenses		425		2,950	
Communication Expense					
Annual Education Postcards	\$	690	\$	710	
Weed Treatment Notifications Cards	\$	600	\$	600	
Meeting Room Rental (LLCC)	\$	60	\$	60	
Total Communication Expense		1,350		1,370	
LMD Renewal Expenses	\$	5,000		-	
TOTAL EXPENSES		384,675		307,460	

Lake Lawrence Lake Management District 2026-2027 Budget & Work Plan was approved by the Steering Committee on ______ 2025.

Barry Halverson Co-Chair Lake Lawrence Lake Management District

Enclosure: Budget Spreadsheet

BUDGET SPREADSHEET

	2026 Proposed Budget	2027 Proposed Budget
REVENUE		
Operating Assessment Charges	\$ 118,000	\$ 195,200
Interfund Costs Reimbursed	-	-
Interfund Costs	-	-
Algae Grant, Dept of Ecology	25,000	-
TOTAL REVENUE	143,000	195,200
EXPENSES		
Professional Services	2.0.	
White Fragrant Water Lily Treatment	3,500	3,500
Yellow Flag Iris Treatment	1,500	1,500
Aquatic Weed Treatment	70,000	72,100
Cyanobacteria Management Plan Study	60,000	-
Cyanobacteria/Algae Treatment	220,000	200,000
Nutrient Testing	15,000	15,000
Advertising	1,100	600
Total Professional Services	371,100	292,700
County Administrative Rate at 5%	5,900	9,760
Miscellaneous		
Annual Member Meeting & Picnic	500	500
Website & technology	400	180
Total Miscellaneous	900	680
Supplies and Operating Expenses		
Office Supplies	125	950
Tools & Equipment	300	2,000
Total Supplies & Operating Expenses	425	2,950
Communication Expense		
Annual Education Postcards	690	710
Weed Treatment Notifications Cards	600	600
Meeting Room Rental (LLCC)	60	60
Total Communication Expense	1,350	1,370
LMD Renewal Expenses	5,000	-
TOTAL EXPENSES	384,675	307,460
IUTAL EXPENSES		
NET (Revenue-Expenses)	\$ (241,675)	\$ (112,260)
	\$ (241,675) 378,140	\$ (112,260) 136,465