Budget and Capital Improvements Plan

2023-2024

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Executive Summary

The LOTT Clean Water Alliance provides wastewater treatment and reclaimed water production services for the urban areas of Lacey, Olympia, and Tumwater in north Thurston County. LOTT's complex system of treatment and conveyance facilities represents one of our communities' largest regional investments, worth an estimated $1 billion.

LOTT operates its treatment facilities continuously to ensure that wastewater is properly treated and cleaned before it is released into the environment.

To sustain the communities' investment in the existing system and accommodate future service needs, LOTT operates under a continual cycle of planning, designing, and completing numerous capital projects.

Many of these projects are large-scale, span multiple years, and require substantial investment. At the same time, LOTT must operate its treatment facilities 24 hours a day, 7 days a week, 365 days a year, to ensure that wastewater is properly treated and cleaned before it is released into the environment. To support all this, LOTT must carefully manage financial resources, planning ahead with a long-term view that provides flexibility to adjust to changing conditions, while minimizing impacts to ratepayers.

LOTT uses a six-year financial planning period, and 2023 and 2024 represent the last biennium of the current planning cycle.

This document outlines LOTT's two budgets for the 2023-2024 biennium – a Capital Budget and an Operating Budget. The Capital Budget includes costs to replace, upgrade, or rehabilitate existing facilities and to build new system capacity. These projects are described in the Capital Improvements Plan, also included in this document. The Operating Budget contains all the costs necessary to operate LOTT's facilities and provide related services. The following table shows a combined summary of both operating and capital revenues and expenses for 2023-2024.

Overall Budget Summary 2023-2024

REVENUE	2023-2024 Budget	2021-2022 Budget	Annual % Change
Wastewater Service Charge	$72,555,094	$64,268,294	6.4%
Capacity Development Charge	$16,010,795	$13,027,740	11.4%
Miscellaneous Revenue	$1,850,169	$1,344,218	18.8%
Net Revenue from Rates and Charges	**$90,416,058**	**$78,640,252**	**7.5%**
Debt Funding	$10,000,000	$21,500,000	(26.7%)
Use/(Saving) of Cash on Hand	$21,260,611	$11,760,156	40.4%
Total Resources	**$121,676,669**	**$111,900,408**	**4.4%**
EXPENSES	**2023-2024 Budget**	**2021-2022 Budget**	**Annual % Change**
Net Operating Expense	$32,423,273	$29,201,668	5.5%
Debt Service	$15,845,499	$18,596,994	(7.4%)
Capital Expense	$73,407,897	$64,101,746	7.3%
Total Expenses	**$121,676,669**	**$111,900,408**	**4.4%**

Capital Budget

Capital costs are based on LOTT's Capital Improvements Plan (CIP), which is reviewed and updated each biennium. The projects identified in the CIP are necessary to ensure LOTT sustains the existing wastewater treatment system and provides needed new system capacity. The CIP includes a detailed six-year plan through 2028 and a summary long-range plan for 2029 through 2035 and beyond. The Capital Budget includes costs for projects on the short-term CIP that LOTT expects to spend within the calendar years 2023 and 2024. It is up about 7.3% per year over the 2021-2022 Capital Budget due to inflation and several large-scale projects needed to upgrade portions of the Budd Inlet Treatment Plant.

Operating Budget

The Operating Budget includes three categories of expense – personnel, direct operating expense, and general expense. Overall operating expenses for 2023-2024 have increased approximately 5.5% per year over the previous Operating Budget.

Rates

LOTT has two primary rates – a monthly rate for LOTT sewer service and a one-time connection fee. The monthly rate is called the Wastewater Service Charge (WSC). Revenue from the WSC is used to pay for costs of sustaining and operating the existing wastewater treatment system. The connection fee is referred to as the Capacity Development Charge (CDC). Revenue from the CDC pays for costs associated with building new system capacity to serve new customers.

- Wastewater Service Charge – The monthly rate in 2023 will be $44.80, increasing by $1.31 from the 2022 rate due to a 3% inflationary adjustment. The monthly rate in 2024 will be $46.14.
- Capacity Development Charge – The fee for new connections in 2023 will be $6,841.49, increasing from $6,610.13 in 2022 due to a 3% inflationary increase and a two-year 0.5% adjustment to account for costs associated with a pilot affordable housing support program. The charge in 2024 will be $7,080.94.
- Service Charges – LOTT also receives revenues such as disposal fees from waste haulers. Rates for disposal of septage, vactor, and similar non-septage wastes are automatically adjusted in conjunction with the Wastewater Service Charge.

Revenues

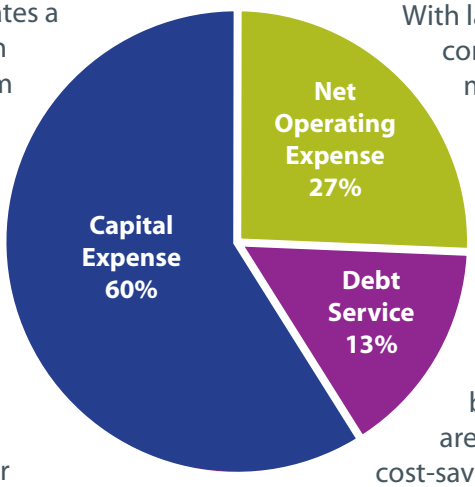
Throughout the past several budget cycles, monthly Wastewater Service Charge (WSC) revenues have seen stable growth as new customers are added to the system. Early in the COVID-19 pandemic, WSC revenue temporarily stalled, then returned to pre-pandemic levels by 2021. Growth in the number of Capacity Development Charge (CDC) connection fees has been higher than expected during the pandemic. Based on these factors, growth estimates have been readjusted to pre-pandemic levels.

The Operating Budget includes three categories of expense – personnel, direct operating expense, and general expense.

Financial Planning

Overview

The LOTT Clean Water Alliance operates a complex system of facilities worth an estimated $1 billion. The LOTT system includes the Budd Inlet Treatment Plant, Budd Inlet Reclaimed Water Plant, Martin Way Reclaimed Water Plant, Hawks Prairie Reclaimed Water Ponds and Recharge Basins, a reclaimed water storage tank, three major pump stations, 22 miles of sewer interceptor lines, and 11 miles of reclaimed water pipelines. Portions of the Budd Inlet Treatment Plant are over 60 years old, and major upgrades to the plant have been ongoing for the past several years.



To sustain the Budd Inlet Treatment Plant and other facilities, LOTT operates under a continual cycle of planning, designing, and completing numerous capital projects. Many of these projects are large-scale, span multiple years, and require substantial investment. LOTT revenue needs are driven primarily by the cost of this capital construction. Of the three cost centers shown in the chart, two – debt service and capital expense – exist to fund the total cost of capital construction. For 2023-2024, LOTT's combined infrastructure investment (debt service plus capital costs) represents 60% of total expense, with operating costs representing 27%.

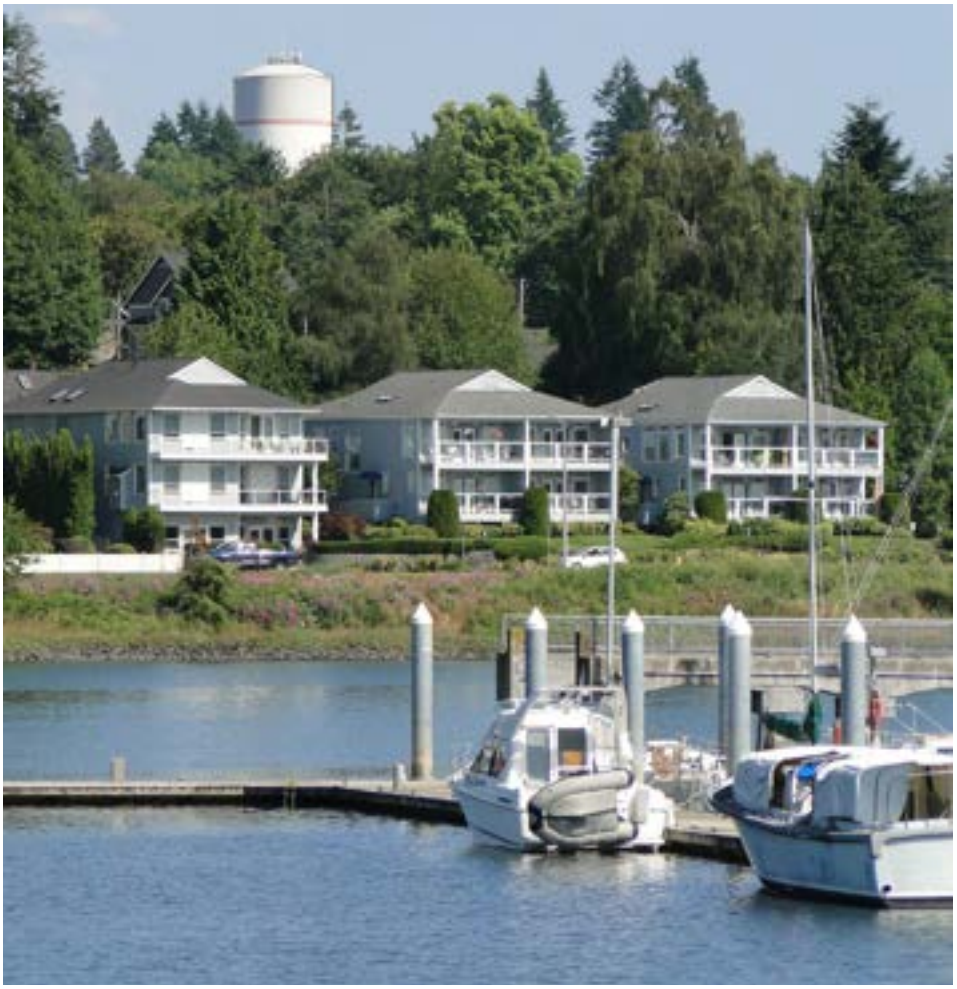
With large-scale capital project commitments, the Board of Directors must consider budget decisions based on long-term financial planning. LOTT uses a customized finance planning tool to track anticipated expenses into the future, develop a capital finance plan that provides sufficient funds for capital projects, and balance the source of funds between rate income and borrowed dollars. Continual efforts are made to identify and implement cost-saving measures and minimize LOTT's debt, reducing costs to ratepayers from interest and other expenses associated with borrowing money. The results of this approach have been excellent. LOTT's service charge remains below the average for the region, and the percentage increase in rates is consistently below regional and national averages.

The Projected Budget Summary table on the following page shows anticipated expenses for each biennium in the current six-year planning period.

To sustain the Budd Inlet Treatment Plant and other facilities, LOTT operates under a continual cycle of planning, designing, and completing numerous capital projects.

Projected Budget Summary 2023-2028

REVENUE	2023-2024 Budget	2025-2026 Budget	2027-2028 Budget
Wastewater Service Charge	$72,555,094	$79,238,730	$86,509,519
Capacity Development Charge	$16,010,795	$14,450,401	$15,777,207
Miscellaneous Revenue	$1,850,169	$768,685	$623,826
Net Revenue from Rates and Charges	**$90,416,058**	**$94,457,815**	**$102,910,553**
Debt Funding	$10,000,000	$0	$0
Use/(Saving) of Cash on Hand	$21,260,611	$11,779,237	($2,397,279)
Total Resources	**$121,676,669**	**$106,237,053**	**$100,513,274**
EXPENSES	**2023-2024 Budget**	**2025-2026 Budget**	**2027-2028 Budget**
Net Operating Expense	$32,423,273	$37,046,237	$42,099,918
Debt Service	$15,845,499	$16,848,912	$13,878,928
	$73,407,897	$52,341,903	$44,534,427
Total Expenses	**$121,676,669**	**$106,237,053**	**$100,513,274**



LOTT's service charge remains below the average for the region, and the percentage increase in rates is consistently below regional and national averages.

Revenue, Rates, and Fee Summary

LOTT's primary sources of revenue are the monthly Wastewater Service Charge, and the Capacity Development Charge for new connections. LOTT also receives miscellaneous revenues from other sources.

Wastewater Service Charge

The Wastewater Service Charge (WSC) is used to pay most of the cost for repairs or upgrades to the existing wastewater treatment system, loan payments for system-related capital costs, and operating costs. The WSC is assessed based on the equivalent residential units (ERUs). The LOTT charge is included on the customers' utility bills, which are sent out by LOTT's partner cities. Each city also assesses a separate charge on utility bills for costs associated with maintaining their city-owned sewer collection systems.

Because 60% of LOTT's expenses are related to the capital budget, a 3% inflationary adjustment based on construction industry data is planned for the WSC and the CDC rates each year 2019-2024. The adjustment was established by the LOTT Board of Directors in 2012 as part of a comprehensive capital finance plan to ensure the utility keeps pace with escalating construction costs over time and is able to adequately fund LOTT's Capital Improvements Plan.

The adjustment was reviewed by the Board during the 2019-2024 strategic planning process, and again during the 2023-2024 budgeting process. The planned rate adjustment is necessary to keep up with inflation and rising construction costs. Large-scale capital improvements projects must be completed within the next few years to replace critical, aging infrastructure and ensure LOTT's continued ability to meet its mission. The original finance plan was designed specifically to keep rate adjustments modest and predictable, and avoid the need for dramatic, unforeseen rate increases. Inflation is currently higher than the 3% adjustment; however, LOTT's finance plan and steady approach to rate adjustments has allowed LOTT to weather the impact without the need to deviate from the planned adjustment. The Board will further evaluate the effects of inflation when setting rates for the 2025-2026 biennium.

WSC Adjustment – For 2023, the monthly charge will be $44.80, increasing by $1.31 from the 2022 rate. For 2024, the monthly charge will be $46.14.

Capacity Development Charge

The Capacity Development Charge (CDC), also described as a connection fee or hook-up fee, is used to build projects that add new capacity, such as satellite reclaimed water plants, larger sewer lines, and other projects that increase LOTT's ability to serve new customers. The CDC is assessed based on equivalent residential units.

CDC Adjustment – The fee for new connections in 2023 will be $6,841.49, and in 2024, will be $7,080.94. For each year, this reflects a 3.0% increase for inflation and a 0.5% adjustment to account for costs associated with a pilot affordable housing support program.

Miscellaneous Revenue

LOTT also earns interest on cash deposits and receives revenues from miscellaneous other sources such as disposal fees from waste haulers. Rates for disposal of septage, vactor, and similar non-septage wastes are automatically adjusted in conjunction with the Wastewater Service Charge.

Service Charge Adjustments – The adjusted rate for septage disposal will change to $18.48 per 100 gallons in 2023. The rate for vactor and similar non-septage disposal will change to $4.79 per 100 gallons. In 2024, the septage disposal rate is $19.03 per 100 gallons. The rate for 2024 vactor and similar non-septage disposal is $4.93 per 100 gallons.

Revenue Projections and Analysis

Throughout the past several budget cycles, monthly Wastewater Service Charge (WSC) revenues have seen stable growth as new customers are added to the system. Early in the COVID-19 pandemic, WSC revenue temporarily stalled, then returned to pre-pandemic levels by 2021. Growth in the number of Capacity Development Charge (CDC) connection fees has been higher than expected during the pandemic. Based on these factors, growth estimates have been readjusted to pre-pandemic levels.

Wastewater Rate Comparisons

The LOTT Clean Water Alliance is frequently asked about monthly service rates. Concern about the cost of wastewater services is often expressed by residents who are comparing the cost of wastewater and drinking water services, which can appear on the same utility bill, or by new residents to the community who have moved here from areas of the country with lower utility costs.

Wastewater treatment is, in general, an expensive business. LOTT treats an average of 12 million gallons of wastewater each day. The water must be treated to high standards to meet state permit requirements and be safely released into the environment. This requires a complex system of infrastructure – pipelines, pump stations, treatment plants, and related equipment – that must be up and running 24 hours a day, 7 days a week.

LOTT treats an average of 12 million gallons of wastewater each day.

By contrast, drinking water services are considerably less expensive. This is due to the fact that our region enjoys a stable supply of high quality groundwater to meet drinking water needs. This water generally requires only minimal treatment. Rates for drinking water and for wastewater services can seem disproportionate, but are mainly due to the vast differences in the amount and complexity of treatment involved in each.

Part of the cost of wastewater treatment comes from our communities' location along Puget Sound. The U.S. Environmental Protection Agency (EPA) requires states to comply with the federal Clean Water Act by identifying water bodies that do not meet water quality standards and developing action plans to bring those waters into compliance. Puget Sound, and more specifically Budd Inlet, are water quality impaired. The Washington State Department of Ecology has placed stringent requirements on LOTT to reduce the amount of nitrogen and biochemical oxygen demand discharged into Budd Inlet. LOTT was the first, and until recently, the only plant along Puget Sound that was required to treat wastewater to advanced secondary standards to remove nitrogen from the water. This high level of treatment adds technological complexity and cost to the operation of LOTT's main treatment facility.

LOTT is a recognized leader in wastewater treatment in the state. The Budd Inlet Treatment Plant remains one of the only treatment plants employing biological nutrient removal on Puget Sound. This advanced nitrogen removal technology is likely to be required of most major plants along Puget Sound in the future, potentially resulting in major rate increases for those communities. LOTT also operates an advanced membrane biological reactor system at the Martin Way Reclaimed Water Plant, which was one of the first membrane plants in the state producing Class A Reclaimed Water. This same technology is now being developed by several communities in our region to meet ever more stringent treatment requirements, and may require significant increases to their rates.

LOTT conducts an informal survey every two years to see how its residential rates compare with other communities. Some utilities, like LOTT, use a flat rate structure and others use a volume-based structure. To even out the different structures, all of the surveyed rates were compared assuming 700 cubic feet (or 5,236 gallons) per month for an equivalent residential unit. The current survey, conducted in 2022, shows that our monthly charges are lower than the average. Given LOTT's lower than average rates, and the advanced treatment already provided, LOTT ratepayers are receiving a high value for the investments they are making. LOTT strives to ensure its service charges are reasonable and affordable, and the rate survey indicates it is meeting that objective when compared to other utilities in the region.

Wastewater Rate Comparisons

	2022 Rate	2021 Rate	Percent Change	Flat or Volume	2022 Rank	2021 Rank
Thurston County (Tamoshan)	$144.86	$140.64	3.0%	F	1	1
City of Bonney Lake	$129.01	$121.11	6.5%	V	2	3
City of Tenino	$125.66	$125.66	0.0%	F	3	2
City of Shelton	$125.00	$120.20	4.0%	V	4	4
City of Seattle	$119.07	$116.69	2.0%	V	5	5
Thurston County (Boston Harbor)	$112.87	$109.58	3.0%	F	6	6
Thurston County (Olympic View)	$108.70	$105.53	3.0%	F	7	7
City of Chehalis (in city limits)	$98.50	$98.50	0.0%	V	8	8
City of Bellevue	$96.05	$81.88	17.3%	V	9	11
Thurston County (Grand Mound)	$94.91	$92.15	3.0%	F	10	9
City of Centralia (in city limits)	$87.33	$87.33	0.0%	V	11	10
City of Everett	$83.22	$80.90	2.9%	F	12	12
City of Yelm	$82.35	$78.28	5.2%	F	13	15
Average	**$81.47**	**$78.44**	**3.9%**			
City of Renton	$80.74	$78.49	2.9%	F	14	14
City of Snoqualmie	$80.57	$78.99	2.0%	F	15	13
City of Sumner	$76.26	$74.05	3.0%	V	16	16
City of Auburn	$75.26	$73.09	3.0%	F	17	17
City of Longview (in city limits)	$73.83	$73.07	1.0%	V	18	18
City of Bremerton (in city limits)	$72.23	$72.23	0.0%	V	19	19
City of Lacey	**$68.72**	**$65.27**	**5.3%**	**F**	**20**	**21**
City of Tacoma	$68.68	$68.27	0.6%	V	21	20
City of Olympia	**$66.97**	**$63.75**	**5.1%**	**F**	**22**	**23**
City of Kelso	$66.37	$64.44	3.0%	F	23	22
City of Puyallup	$65.43	$61.81	5.9%	V	24	25
City of Tumwater	**$64.13**	**$61.92**	**3.6%**	**F**	**25**	**24**
City of Orting	$60.63	$56.66	7.0%	F	26	26
City of Aberdeen	$60.00	$53.00	13.2%	F	27	28
Pierce County Sewer	$57.34	$53.89	6.4%	F	28	27
City of Mount Vernon	$54.71	$52.35	4.5%	V	29	29
City of Edmonds	$50.53	$48.12	5.0%	F	30	30
City of Bellingham (in city limits)	$49.10	$46.68	5.2%	F	31	31
Lakehaven Sewer District	$46.46	$42.01	10.6%	V	32	32
City of Vancouver	$43.12	$41.86	3.0%	V	33	33

Cost Allocation

Operating costs are paid out of Wastewater Service Charge (WSC) revenue; capital projects and debt service are paid from both WSC and Capacity Development Charge (CDC) revenues. The allocation between these funds depends on the type of project involved, as specified by the Interlocal Cooperation Act Agreement for Wastewater Management.

The primary purpose of the CDC is to pay for new capacity in the system and to ensure that growth pays for growth. This was one of the guiding principles in the development of the interlocal agreement. The LOTT Board determined that the costs assigned to the CDC should reflect the full spectrum of construction, interest on debt, costs for staff, and related ancillary costs to support new capacity development. Because LOTT strategically develops new capacity as it is needed, the utility invests significant staff time and other resources in ongoing activities, such as planning, engineering, land acquisition, permit acquisition, public involvement, and other project-related activities.

It is important to recognize that the CDC is adjusted over the life of the Capital Improvements Plan (CIP) and is not used for short-term revenue adjustments. When conditions require short-term revenue adjustments for capital projects, the WSC must be raised to meet costs as required by the interlocal agreement. Over time, the two funds are reviewed to ensure that system costs and new capacity costs are applied to the appropriate projects. The estimated costs and revenues are balanced over the life of the CIP, and the Board of Directors reviews these costs each biennium to determine if adjustments are needed.

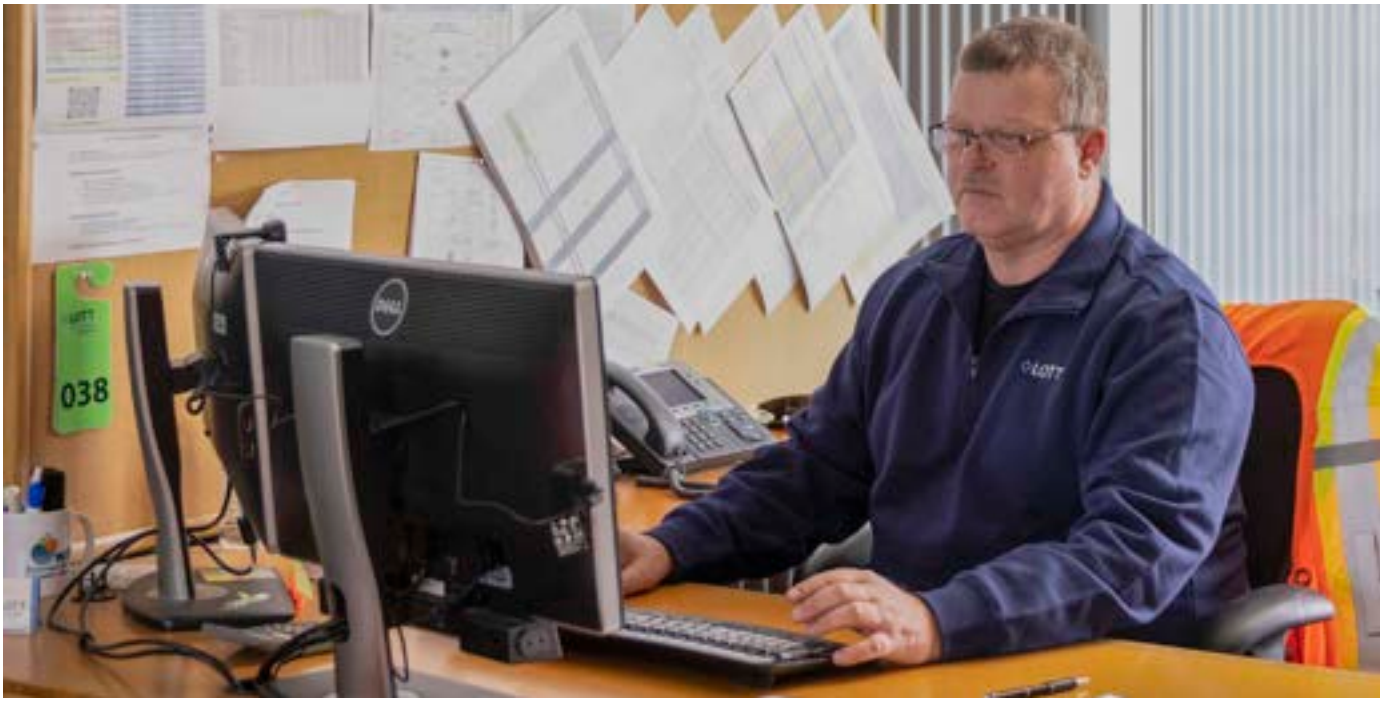
LOTT is currently conducting a cost of service analysis to update the basic unit of measurement (the equivalent residential unit or ERU), and to review the cost centers and cost allocations employed in LOTT's accounting practices. LOTT's partner communities are using more reclaimed water than ever before, and have high interest in using more water than LOTT currently produces. As a result, future Capital Improvements Plans may include projects that are demand-driven, rather than strictly capacity-driven, and adjustments in LOTT's cost allocations may be needed to accommodate this "new" type of project. Results of the cost of service analysis will be integrated into future budgets and CIPs.

Emergency Reserves

One of LOTT's Board-directed goals is to maintain six months of operating expenses and additional reserves for emergency capital expenditure. These amounts are separate from, and in addition to, reserves required by debt covenants. For 2023 and 2024 emergency reserves will include:

- $3 million for emergency capital expenditures
- $9.5 million (approximately) in emergency operating reserves

The primary purpose of the CDC is to pay for new capacity in the system and to ensure that growth pays for growth.



LOTT actively manages projects and programs to identify efficiencies and cost-savings, minimize expenses, and limit the need to increase rates.

Cost Control

LOTT operates under a set of core values that includes managing financial resources in a responsible, sound, economical, and equitable manner. Toward that goal, LOTT actively manages projects and programs to identify efficiencies and cost-savings, minimize expenses, and limit the need to increase rates. Cost control takes vigilance and effort, and is an integral aspect of how LOTT does business. LOTT cannot prevent the rising cost of supplies and labor, but makes every effort to minimize capital and operational costs through a variety of efforts, including:

- Asset Management – The Asset Management Program inventories LOTT's equipment, processes, and systems to proactively identify and schedule needed repairs and replacements. This program protects LOTT's assets and extends their useful life.
- Debt Management – In 2021, revenue bonds originally issued in 2011, along with three State Revolving Fund loans, were refinanced. This action is expected to result in approximately $3.5 million in savings and has effectively brought interest rates on remaining debt to less than 2%.
- Business Case Evaluation – Value engineering by a team of technical staff ensures that each project is designed and built efficiently and effectively. Projects are scheduled over time, and rearranged on the CIP, so as not to exceed available financial and staffing resources.
- Energy Reduction Efforts – LOTT completes a comprehensive greenhouse gas emissions (GHG) inventory each year to track energy reduction progress over time. This work will also help Thurston Regional Planning Council and Thurston Climate Action Team track progress toward community-wide GHG reduction goals. Upcoming, large-scale capital projects, such as the Biological Process Improvements and Digester System Improvements, are designed for energy efficiency, and are anticipated to reduce overall energy use at the Budd Inlet Treatment Plant by over 20% once completed. LOTT also completes smaller-scale energy-efficiency projects, many of which are identified by staff through LOTT's employee incentive program to generate energy-saving ideas.
- Human Resource Management – LOTT strives to make the most of staffing levels, realigning workloads and resources to create efficiencies. Investment in a proactive knowledge management program is helping create training tools and succession plans to effectively prepare future employees with the specialized technical knowledge needed in this industry.

Capital Improvements Planning

LOTT operates under a National Pollution Discharge Elimination System (NPDES) permit that is issued by the Washington State Department of Ecology for the U.S. Environmental Protection Agency (EPA). LOTT must meet all permit requirements, as well as expectations of federal and state agencies regarding responsible utility management. The EPA has developed the Capacity, Management, Operation, and Maintenance Performance Program Plan, requiring wastewater utilities to demonstrate that they have a comprehensive, long-term plan for maintaining existing utility infrastructure and meeting future system needs. LOTT meets that expectation through development of an organizational Strategic Plan every six years, and through continual review and adjustment of the Capital Improvements Plan (CIP). The CIP, prepared each biennium, is submitted to the Department of Ecology, along with a three-part Capacity Report, as part of permit requirements.

Continuous planning is key to this process and allows LOTT to sustain existing infrastructure and build new infrastructure to meet projected future capacity needs. One of the first steps in planning capital improvements is gathering information about the condition of existing infrastructure, repair and replacement needs, current system capacity, and needs for additional capacity in the future. Data gathered includes:

- Asset management data, such as system condition, criticality, and useful life
- Population forecasts from the Thurston Regional Planning Council
- Recently added sewer pipelines
- Anticipated septic tank conversions to the sewer system
- Flow monitoring results
- Planned development

The asset management data is used to identify and prioritize projects necessary to sustain existing treatment, conveyance, and discharge equipment and facilities. Portions of LOTT's main treatment facility, the Budd Inlet Treatment Plant, are over 60 years old. The plant involves a complex maze of piping and thousands of assets that must be maintained properly to keep the plant running. Asset management is a proactive approach to sustaining the plant and LOTT's other infrastructure, allowing the utility to keep ahead of needed maintenance and avoid unexpected, and potentially catastrophic, system failures.

Capacity-related data is modeled in a geographic information system (GIS) to develop population growth forecasts and predict associated wastewater flows and loadings spatially throughout the system. This information is used to develop a three-part Capacity Report, which helps identify and prioritize capital projects for inclusion in the CIP. Based on this report, LOTT identifies needs within the system and develops projects to meet those needs.

All this information funnels into the CIP, which lists projects anticipated over the short- and long-term.

Capacity Report

LOTT's Capacity Report is updated annually, and is available on LOTT's website at www.lottcleanwater.org. The report contains three sections:

Flows and Loadings Report analyzes residential and employment population projections within the urban growth area, and estimates the impact on wastewater flows and loadings in the LOTT wastewater system.

Inflow & Infiltration and Flow Monitoring Report uses dry and wet weather sewer flow monitoring results to quantify the amount of unwanted surface stormwater (inflow) and subsurface groundwater (infiltration) entering the sewer system, and prioritizes sewer line rehabilitation projects.

Capacity Assessment Report analyzes system components to determine when limitations will occur and provides a timeline for new and upgraded system components.

Capital Project Categories

LOTT's Capital Improvements Plan is built around four major project categories. Understanding these categories, and the types of projects within them, provides a general understanding as to how they are funded. Each individual project is assessed regarding the proportion of existing system/new capacity benefits, and is funded through a combination of WSC/CDC funds that reflects that proportion.

System Upgrades

System Upgrade projects include improvements to existing facilities. Upgrades are necessary to replace outdated equipment, improve efficiency, and in some cases, to meet higher water quality standards. One of the public values guiding LOTT's operations is to maximize use of existing facilities before building new ones. These projects are funded primarily from monthly rates.

New Capacity

New Capacity projects are those that provide new facilities to serve added wastewater flows. Under the Wastewater Resource Management Plan, also known as the Highly Managed Plan, LOTT is continuously planning for new system capacity, to be built "just in time" to ensure that future demands are met. For this purpose, LOTT considers three types of capacity when describing its overall operational capacity – treatment capacity, discharge and use capacity, and conveyance capacity. New capacity projects are funded primarily from new connection fees.

Asset Management (Repair, Rehabilitation, and Replacement)

When systems or equipment reach the point where repairs are no longer cost-effective, they can be rehabilitated (overhauled) to a usable condition or they can be replaced. These projects are funded primarily from monthly rates.

Support Services and Projects

Support Services and Projects provide planning information and services that support projects in all categories. They include the ongoing flow monitoring and flow reduction programs, property acquisition, and special studies and projects that support LOTT's long-range Wastewater Resource Management Plan. Engineering and staff costs allied with the Capital Improvements Plan are also included in this category. These projects are funded primarily from monthly rates.

CIP Overview and Organization

The Capital Improvements Plan (CIP) represents all major capital projects in the foreseeable future. It is revised each biennium based on updated capacity reports, asset management evaluations, and other changing conditions.

The CIP is divided into two sections – short-term and long-term. Each section is summarized in a table.

- 2023-2028 CIP – This six-year CIP groups projects by category. It includes a Capital Budget column showing anticipated spending for 2023 and 2024 for each project. Following the table, a project summary page is provided for each project in the short-term plan.
- 2029-2035 and beyond – The longer-range table divides projects by operational systems, based on asset management life-cycle investments needed to meet the expected build-out condition of the entire Lacey-Olympia-Tumwater service area.

Capital Budget and Short-Term CIP Summary

	2023-2024 Budget	2023-2028 CIP
System Upgrades	$43,854,111	$79,265,161
New Capacity	$5,554,643	$15,431,414
Asset Management	$4,126,131	$22,651,451
Support Services and Projects	$19,873,012	$53,668,539
Total	**$73,407,897**	**$171,016,566**

Capital Budget and Capital Improvements Plan

2023-2024 Capital Budget / 2023-2028 Capital Improvements Plan

Summary Page		Year Start	Year Complete	2023-2024 Expenditure	2023-2028 CIP
	System Upgrade Projects			**$43,854,111**	**$79,265,161**
	Budd Inlet Treatment Plant			**$39,305,456**	**$64,631,407**
16	Biological Process Improvements	2021	2023	$2,795,050	$2,795,050
17	Sludge Thickening System Improvements	2022	2024	$6,994,658	$6,994,658
18	Digester System Improvements II	2023	2025	$20,810,971	$35,946,223
19	Odor Control Upgrades	2026	2028	$0	$2,279,898
20	Centrate Building Rehabilitation	2023	2025	$8,491,754	$9,514,857
21	Biogas Utilization Upgrades	2025	2027	$213,022	$7,100,720
	Conveyance				
22	Martin Way Pump Station Improvements	2026	2028	$0	$895,771
23	Martin Way Pump Station Emergency Power Upgrades	2027	2028	$0	$1,198,911
24	Collection System Management Program	2008	Ongoing	$410,873	$1,446,820
25	Collection System Piping Rehabilitation II	2023	2023	$1,388,582	$1,388,582
26	Force Main Air Valve Replacement	2023	2023	$1,523,818	$1,523,818
	Martin Way Reclaimed Water Plant				
27	Reclaimed Water Plant Improvements	2023	2026	$141,928	$7,096,398
28	Membrane Filter Replacement	2023	2023	$1,083,454	$1,083,454
	New Capacity Projects			**$5,554,643**	**$15,431,414**
29	Reclaimed Water Capacity Development	2004	Ongoing	$150,000	$808,026
30	Influent Pump Station Capacity Expansion	2023	2024	$5,009,749	$5,009,749
31	North Outfall Upgrade	2024	2026	$394,894	$6,581,565
32	Centrate Treatment	2026	2027	$0	$3,032,074
	Asset Management Projects			**$4,126,131**	**$22,651,451**
33	General Equipment Repair and Replacement (LERF)	2009	Ongoing	$1,465,464	$4,397,267
34	Instrumentation and Controls Replacement	2012	Ongoing	$657,077	$1,605,256
35	Intermediate Pump Station Improvements	2027	2028	$0	$6,092,743
36	Substation and Switchgear A/B Replacement	2023	2024	$943,017	$943,017
37	Treatment Plant Emergency Power Improvements	2025	2026	$0	$6,974,882
38	Building 8 Electrical Upgrades	2026	2027	$0	$1,105,092
39	Capitol Lake Pump Station Improvements	2023	2024	$389,623	$389,623
40	Facility Roof Repair and Replacement	2016	Ongoing	$670,950	$1,143,572

2023-2024 Capital Budget / 2023-2028 Capital Improvements Plan *(continued)*

Summary Page		Year Start	Year Complete	2023-2024 Expenditure	2023-2028 CIP
	Support Services and Projects			**$19,873,012**	**$53,668,539**
41	Annual Miscellaneous Professional Services	2006	Ongoing	$1,440,966	$4,591,507
42	Engineering Project Support	2006	Ongoing	$4,319,467	$13,617,120
43	Facilities Project Support	2006	Ongoing	$2,550,862	$8,041,594
44	Administrative Project Support	2006	Ongoing	$3,175,651	$10,011,239
45	Flow Monitoring Program	2006	Ongoing	$364,131	$1,160,270
46	Flow Reduction Programs	1997	2024	$260,000	$260,000
47	WET Center Exhibit Updates	2011	Ongoing	$60,000	$485,400
48	Miscellaneous Small Projects	2006	Ongoing	$1,936,442	$5,237,109
49	Occupied Space and Facilities Improvements	2019	Ongoing	$230,000	$531,640
50	Information Technology Upgrades	2014	Ongoing	$1,029,500	$2,150,596
51	Water Quality and Habitat Improvement	2006	2024	$350,000	$1,082,338
52	Septic Conversion Incentive Program	2017	2024	$480,000	$960,000
53	Energy Efficiency and Consumption Reduction Program	2014	Ongoing	$425,994	$1,357,390
54	Public Health Emergency Support Program	2018	2024	$150,000	$150,000
55	Affordable Housing Support Pilot Program	2023	2024	$1,000,000	$1,000,000
56	Sea Level Rise Response	2017	Ongoing	$100,000	$300,000
57	Property Acquisition	2001	Ongoing	$2,000,000	$2,000,000
	Total			**$73,407,897**	**$171,016,566**

The Digester System Improvements project includes refurbishment of aging components associated with the sludge digestion system.

Biological Process Improvements

Project Type	System Upgrade
Location	Budd Inlet Treatment Plant
Description	This project involves optimizing the current biological treatment process by reconfiguring the first aeration basins, and reducing the energy required for biological nutrient removal. The improvements include replacing oversized blowers and minimizing recycle pumping. The project also includes optimizing methanol addition to the secondary process.
Background	The first aeration basins were installed in 1994 and were originally sized to meet the anticipated demands of the former brewery in Tumwater. Much of the equipment is reaching the end of its useful life.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2021	2023	$2,795,050	$2,795,050

Sludge Thickening System Improvements

Project Type	System Upgrade
Location	Budd Inlet Treatment Plant
Description	This is phase two of the effort to upgrade the dissolved air flotation thickener (DAFT) system. This project includes installation of new bottom sludge collectors, aspirating pumps, thickened sludge pumps, and process piping.
Background	The DAFT system is used to thicken primary and waste sludge before it is pumped into the digesters. The DAFTs were constructed in the early 1980s and much of the associated equipment is approaching the end of its useful life.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2022	2024	$6,994,658	$6,994,658

Digester System Improvements II

Project Type	System Upgrade
Location	Budd Inlet Treatment Plant
Description	The project includes refurbishment of aging components associated with the sludge digestion system. Improvements include replacement of the digesters' floating covers with fixed covers, upgrades to the sludge mixing system, replacement and relocation of the emergency waste gas burner, and replacement of aging mechanical equipment and the carbon addition system for the biological process.
Background	The digesters were constructed in 1982 and much of the associated equipment is reaching the end of its useful life. There are four digesters, with three in-service and one off-line at any one time. This project will follow a rotational schedule to complete upgrades to one digester at a time.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2023	2025	$20,810,971	$35,946,223

Odor Control Upgrades

Project Type	System Upgrade
Location	Budd Inlet Treatment Plant
Description	This project includes improvements to the headworks, solids, and maintenance building air handling systems as well as modifications to consolidate foul air flows to the south odor scrubber.
Background	The north odor scrubber equipment was originally installed in the early 1980s as part of the construction for the Budd Inlet Treatment Plant secondary upgrade, and is reaching the end of its useful life.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2026	2028	$0	$2,279,898

Centrate Building Rehabilitation

Project Type	System Upgrade
Location	Budd Inlet Treatment Plant
Description	Phase two of the centrate management system upgrade includes replacement of the roof, refurbishment of the interior steel beams and columns, seismic retrofits, odor control system replacement, and electrical upgrades.
Background	Centrate is the liquid removed during the solids dewatering process. With the addition of new primary sedimentation basins in 2017, use of the original basins was converted to storage and management of centrate, which is high in ammonia. This is the second phase of work to repurpose the basins and better manage centrate loading to the secondary treatment process.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2023	2025	$8,491,754	$9,514,857

Biogas Utilization Upgrades

Project Type	System Upgrade
Location	Budd Inlet Treatment Plant
Description	This project will evaluate biogas utilization options, which could include replacement of the existing engine generator or an alternative system to optimize the use of biogas as a resource. The evaluation will incorporate operational data following the digester system improvements, which are anticipated to increase gas production.
Background	The Jenbacher engine generator was originally installed in 2010 as part of a Puget Sound Energy grant. The engine was overhauled in 2018 and has a normal service life of seven years at which time it must be overhauled.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2025	2027	$213,022	$7,100,720

Martin Way Pump Station Improvements

Project Type	System Upgrade – Conveyance
Location	Martin Way Pump Station
Description	The Martin Way Pump Station is projected to reach 85% of its capacity by the year 2050. This project replaces aging equipment and increases pumping capacity to meet projected flows.
Background	The Martin Way Pump Station conveys flows from Lacey to the Budd Inlet Treatment Plant. It also sends raw wastewater to the Martin Way Reclaimed Water Plant. The pump station was originally constructed in 1991. Some of the equipment is reaching the end of its useful life and needs to be replaced.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2026	2028	$0	$895,771

Martin Way Pump Station Emergency Power Upgrades

Project Type	System Upgrade – Conveyance
Location	Systemwide
Description	This project replaces the standby emergency generator at the Martin Way Pump Station. This critical piece of equipment keeps pumps running during interruptions to electrical service to prevent overflow of raw wastewater into surrounding areas, including nearby wetlands.
Background	The standby emergency generator at the Martin Way Pump Station was originally installed in 1991 and is reaching the end of its serviceable life.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2027	2028	$0	$1,198,911

Collection System Management Program

Project Type	System Upgrade – Conveyance
Location	Systemwide
Description	This includes the ongoing monitoring and rehabilitation of sewer lines and manholes within the LOTT collection system. It ensures federal compliance with capacity management, operations, and maintenance standards and is an integral part of LOTT's Asset Management Program. Annual activities include closed circuit televised inspection and condition assessment, which is used to develop plans for needed repairs and replacements.
Background	LOTT currently owns and maintains approximately 22 miles of gravity sewer lines, 8 miles of force mains, and 325 manholes. The collection system management program provides an efficient and systematic approach to inspection, maintenance, repair, and replacement of LOTT's collection system assets.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2008	Ongoing	$410,873	$1,446,820

Collection System Piping Rehabilitation II

Project Type	System Upgrade – Conveyance
Location	Collection System
Description	This is the second of two collection system rehabilitation projects, which includes interceptor pipeline segments along Cooper Point Road North, Mottman Road, Henderson Boulevard, Plum Street, and Eastside Street.
Background	In 2017, LOTT completed a comprehensive condition assessment of the collection system including manholes and sewer interceptors. This project was identified as part of a prioritized investment plan to ensure reliability of the collection system.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2023	2023	$1,388,582	$1,388,582

Force Main Air Valve Replacement

Project Type	System Upgrade – Conveyance
Location	Collection System
Description	The project replaces approximately 50 force main valves that are in poor condition, and includes repairs and modification to some of the vaults to prevent flooding.
Background	Air vacuum release and inlet valves are necessary to protect pressurized pipe systems. As a result of LOTT's recent comprehensive condition assessment effort, a number of needed improvements were identified.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2023	2023	$1,523,818	$1,523,818

Reclaimed Water Plant Improvements

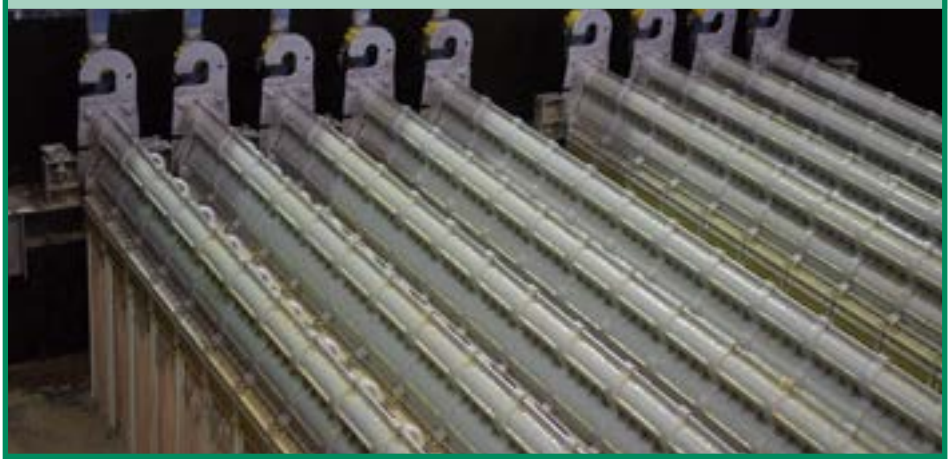
Project Type	System Upgrade
Location	Martin Way Reclaimed Water Plant
Description	This project involves a number of improvements to the treatment plant to replace aging infrastructure and improve operational reliability. Improvements include valve replacement, additional blower capacity, improvements to automation, and upgrades to the electrical and control systems.
Background	Since the Martin Way Reclaimed Water Plant first came on-line in 2006, a number of operational challenges have been identified. Also, reclaimed water demand in the system has increased significantly, making continuous and reliable operation increasingly important. This project will address some of the operational limitations of this facility.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2023	2026	$141,928	$7,096,398

Membrane Filter Replacement

Project Type	System Upgrade
Location	Martin Way Reclaimed Water Plant
Description	This project involves the scheduled periodic replacement of the membrane filters at the Martin Way Reclaimed Water Plant.
Background	The Martin Way Reclaimed Water Plant uses membrane bioreactor technology to produce Class A Reclaimed Water. The membrane filters were last replaced in 2013. Based on the manufacturer's recommendation, the estimated useful life of the membranes is 7 to 10 years.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2023	2023	$1,083,454	$1,083,454



Reclaimed Water Capacity Development

Project Type	New Capacity
Location	Systemwide
Description	This effort includes site assessment and planning associated with expansion of LOTT's reclaimed water system. This could include evaluations of treatment technologies, conveyance routes, reuse opportunities, and site assessments for potential groundwater recharge sites. It also includes design and construction of a reclaimed water pipeline from LOTT's reclaimed water storage tank in Tumwater to Pioneer Park, as a route to reach future recharge or use sites.
Background	LOTT has purchased a number of properties as potential sites for future recharge of reclaimed water produced at the Budd Inlet Treatment Plant. As LOTT adjusts long-range management plans, assessment of alternative sites and reuse opportunities may be needed.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2004	Ongoing	$150,000	$808,026

Influent Pump Station Capacity Expansion

Project Type	New Capacity
Location	Budd Inlet Treatment Plant
Description	All the flow entering the Budd Inlet Treatment Plant must be lifted and pumped to the primary sedimentation basins. The influent pump station consists of four 200 horsepower pumps, each capable of pumping 18 million gallons per day. This project replaces the pumps with new pumps, increasing reliability, redundancy, and hydraulic capacity.
Background	Replacement of the influent pumps, originally installed in 1994, will improve pumping capacity to better manage high flow events associated with more frequent and intense rain events.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2023	2024	$5,009,749	$5,009,749

North Outfall Upgrade

Project Type	New Capacity
Location	Budd Inlet Treatment Plant
Description	This project upgrades a 1,250-foot section of north outfall pipeline from 30-inch to 48-inch diameter pipe to increase hydraulic pumping capacity. The pipeline runs north from the treatment plant, through the Port of Olympia log yard and Cascade Pole site, to the northernmost point of the Port peninsula.
Background	The original 30-inch diameter north outfall pipeline was constructed in 1952. In 1992 the outfall was replaced with a 48-inch pipeline, with the exception of a section running through the contaminated soils of the Cascade Pole site. That section is a hydraulic bottleneck, limiting outfall capacity. This project will resolve the bottleneck and improve LOTT's ability to manage high flow events.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2024	2026	$394,894	$6,581,565

Centrate Treatment

Project Type	New Capacity
Location	Budd Inlet Treatment Plant
Description	This project adds a dedicated centrate sidestream treatment system to reduce nitrogen loading to the main treatment system. The centrate treatment system will utilize existing tanks freed up by the Biological Process Improvements project.
Background	Centrate, the byproduct of the sludge dewatering process, has a high concentration of ammonia and represents approximately 20% of the nitrogen load to the treatment process. The addition of this sidestream treatment system will increase capacity and potentially delay the need for further nutrient removal upgrades.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2026	2027	$0	$3,032,074

General Equipment Repair and Replacement

Project Type	Asset Management
Location	Systemwide
Description	This provides funding for miscellaneous small repair and replacement projects.
Background	In 1987 LOTT established the LOTT Equipment Replacement Fund (LERF) to set aside funds for equipment replacement. These funds pay for small projects identified through LOTT's Asset Management Program.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2009	Ongoing	$1,465,464	$4,397,267

Instrumentation and Controls Replacement

Project Type	Asset Management
Location	Systemwide
Description	This line item provides funding for instrumentation and controls replacements and upgrades.
Background	The control system receives input from a number of controls and instuments, many of which are reaching the end of their useful lives and need to be replaced.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2012	Ongoing	$657,077	$1,605,256

Intermediate Pump Station Improvements

Project Type	Asset Management
Location	Budd Inlet Treatment Plant
Description	The intermediate pump station is responsible for recirculating flow to support the biological nutrient treatment process. This project includes replacing aging and inefficient equipment in the intermediate pump station and second anoxic basins.
Background	Completion of the Biological Process Improvements project will significantly reduce the need for recirculation pumping, resulting in substantial energy savings. Because of reduced pumping requirements, pump station equipment no longer matches pumping capacity needs.

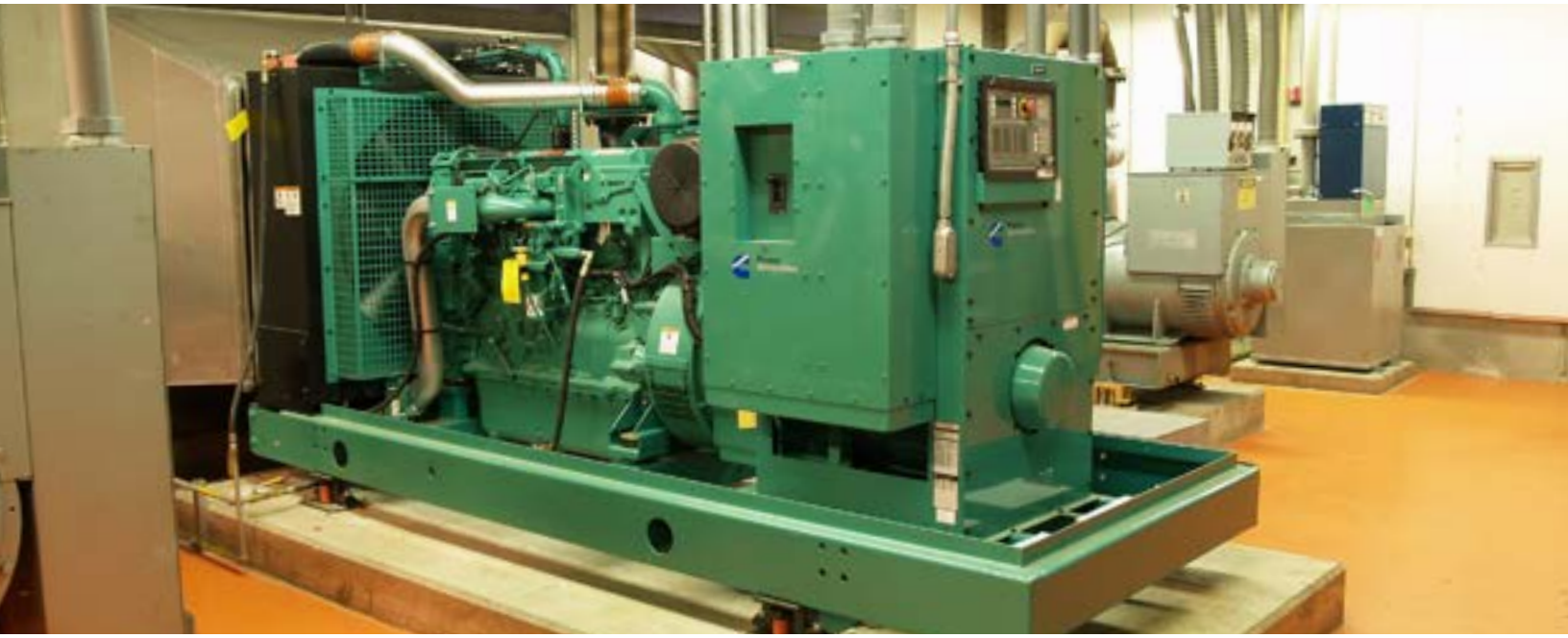
Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2027	2028	$0	$6,092,743

Substation and Switchgear A/B Replacement

Project Type	Asset Management
Location	Budd Inlet Treatment Plant
Description	This project will replace substation and switchgear A/B. This equipment provides critical utility power to headworks, influent pumping, and the Budd Inlet Reclaimed Water Plant. Temporary power will be required to maintain service during construction, supplied through a combination of portable and plant generators.
Background	The substation and switchgear A/B was installed in 1980 and is reaching the end of its useful life.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2023	2024	$943,017	$943,017

Treatment Plant Emergency Power Improvements



Project Type	Asset Management
Location	Budd Inlet Treatment Plant
Description	Emergency standby generators currently serve only select equipment when utility power is interrupted, including the combined sewer overflow pumps, ultraviolet disinfection system, and some electrical controls. Replacement of this aging equipment provides an opportunity to expand back-up power to additional treatment processes and improve redundancy.
Background	The existing standby generators were installed in 1982 and are in need of replacement.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2025	2026	$0	$6,974,882

Building 8 Electrical Upgrades

Project Type	Asset Management
Location	Budd Inlet Treatment Plant
Description	This project replaces aging motor control centers located in Building 8 that provide power to equipment in the anoxic basins, portions of the secondary clarifiers, and other aspects of the treatment process.
Background	The motor control centers were originally installed in the early 1980s and are reaching the end of their useful life.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2026	2027	$0	$1,105,092

Capitol Lake Pump Station Improvements

Project Type	Asset Management
Location	Capitol Lake Pump Station
Description	Coatings of wet wells protect the concrete from degradation caused by the presence of hydrogen sulfide. This project involves replacing the coatings in the Capitol Lake Pump Station wet wells, which have begun to fail, creating the risk of wet well deterioration and pump blockages.
Background	Wet well coatings were installed at the Capitol Lake Pump Station in 1999, however, moisture from groundwater intrusion prevented proper adhesion. New wet well coatings will increase the lifespan of the concrete and reduce the risk of system failure during high flow situations.

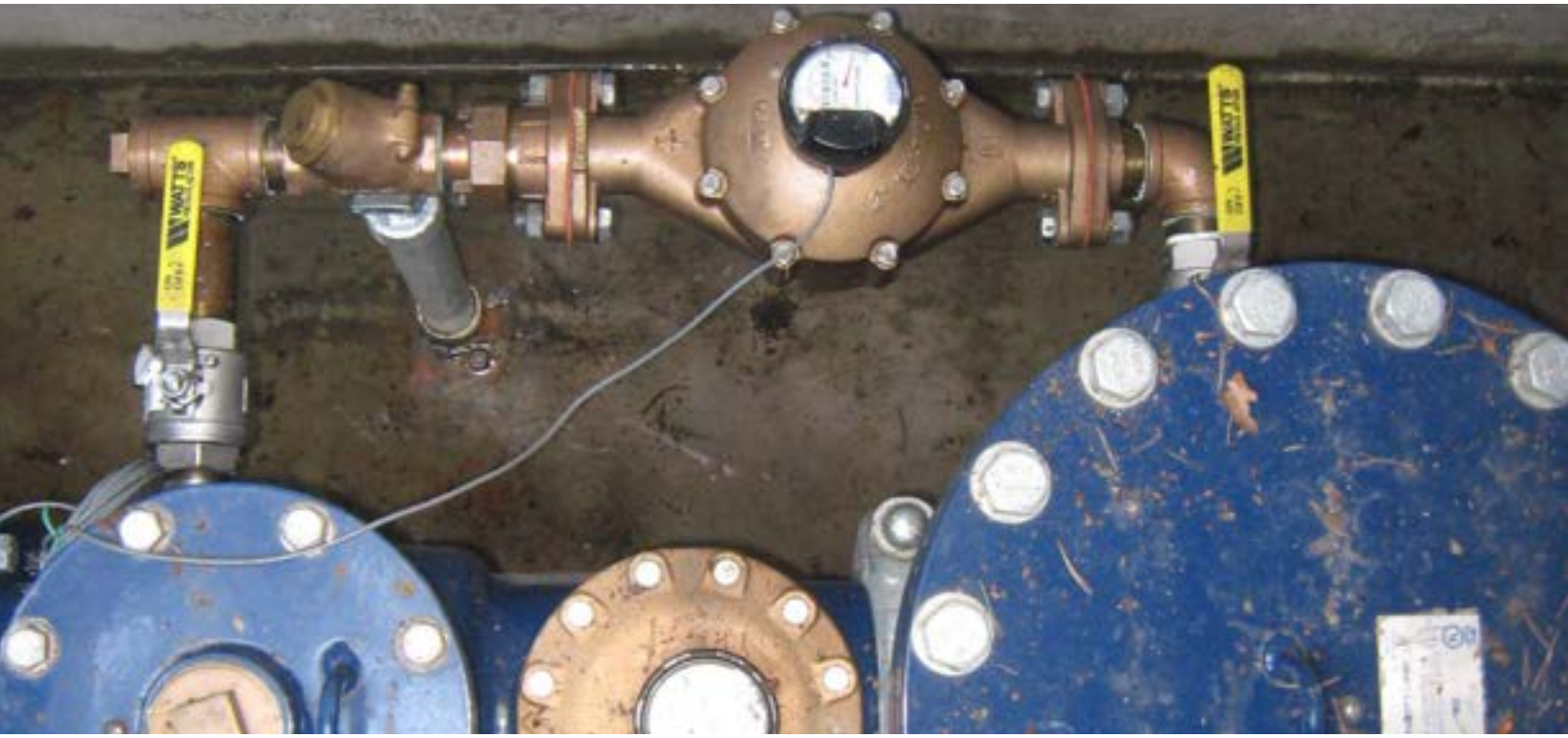
Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2023	2024	$389,623	$389,623

Facility Roof Repair and Replacement

Project Type	Asset Management
Location	Systemwide
Description	This includes repair and replacement of facility roofs at the Budd Inlet Treatment Plant and offsite facilities.
Background	As part of LOTT's Asset Management Program, a maintenance and monitoring program was established to maximize the life of the existing roofs and ultimately plan for their replacement. A number of roofing systems at the plant and pump stations are reaching the end of their useful lives and need to be replaced in the coming years.

Start	Complete	2023-2025 Expenditure	2023-2028 CIP
2016	Ongoing	$670,950	$1,143,572

Annual Miscellaneous Professional Services



Project Type	Support Services and Projects
Location	Systemwide
Description	This provides funding for various engineering and professional consulting services associated with unexpected small projects identified during the biennium, including projects associated with emergency situations.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2006	Ongoing	$1,440,966	$4,591,507

Engineering Project Support

Project Type	Support Services and Projects
Location	Systemwide
Description	Engineering staff provide support for current and future projects. Services include facility planning, permitting, engineering design, construction management, and documentation.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2006	Ongoing	$4,319,467	$13,617,120

Facilities Project Support

Project Type	Support Services and Projects
Location	Systemwide
Description	Staff from Operations, Maintenance, Control Systems, and Environmental Compliance Divisions provide support for capital projects. Services include participation on project teams, design review, construction support, equipment and process commissioning, and integration into LOTT's asset management system.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2006	Ongoing	$2,550,862	$8,041,594

Administrative Project Support

Project Type	Support Services and Projects
Location	Systemwide
Description	Staff from the Finance and Environmental Planning & Communication Divisions provide a variety of support for capital projects. Services include environmental evaluations, public notification, participation on project teams, contracting and bid support, accounting, and financing. This line item also includes a portion of LOTT's general expenses related to capital projects.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2006	Ongoing	$3,175,651	$10,011,239

Flow Monitoring Program

Project Type	Support Services and Projects
Location	Systemwide
Description	This provides funding for the collection and analysis of flow monitoring data to support the development of the annual three-part Capacity Report (Flows and Loadings, Inflow & Infiltration and Flow Monitoring, and Capacity Assessment). Annual costs include the monthly data collection fees, and annual calibration, relocation, and maintenance of flow meters.
Background	As part of LOTT's National Pollutant Discharge Elimination System (NPDES) permit, LOTT is required to monitor its sewer collection basins so that each is assessed within a seven-year period.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2006	Ongoing	$364,131	$1,160,270

Flow Reduction Programs

Project Type	Support Services and Projects
Location	Regional
Description	This line item funds efforts related to the regional Water Conservation Program, implemented in collaboration with LOTT's partner water utilities.
Background	To help maximize capacity at the Budd Inlet Treatment Plant, LOTT encourages and facilitates water conservation. Through this program LOTT provides incentives for residential and commercial projects that cost-effectively reduce water use and wastewater flows.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
1997	2024	$260,000	$260,000

WET Center Exhibit Updates

Project Type	Support Services and Projects
Location	Regional Services Center
Description	The WET Science Center serves as the heart of LOTT's education and outreach program. Exhibits and other features of the WET Science Center are updated occasionally to ensure they reflect relevant, up-to-date information and hold community interest.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2011	Ongoing	$60,000	$485,400

Miscellaneous Small Projects

Project Type	Support Services and Projects
Location	Systemwide
Description	This line item provides funding for unidentified small projects that arise during the biennium.
Background	Small-scale projects that fall into this category include collection and conveyance system improvements, small construction projects, and engineering analysis and design. This also includes funding for projects authorized through LOTT's Public Art Policy, which was approved by the Board of Directors in July 2008 to incorporate public art in large-scale, publicly accessible capital projects.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2006	Ongoing	$1,936,442	$5,237,109

Occupied Space and Facilities Improvements

Project Type	Support Services and Projects
Location	Systemwide
Description	This provides funding for the continued maintenance, refurbishment, and expansion of LOTT-owned occupied spaces such as offices and workrooms. It also includes funding for security improvements for LOTT facilities.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2019	Ongoing	$230,000	$531,640

Information Technology Upgrades

Project Type	Support Services and Projects
Location	Systemwide
Description	This funds information system upgrades to include network servers, routers, switches, desktop computers, security, fire protection, and video surveillance systems. It also supports the continued development of LOTT's electronic operation and maintenance (O&M) manual system, which is a permit requirement.
Background	As technology continues to advance, LOTT must keep pace and continue to upgrade and maintain its information technology infrastructure.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2014	Ongoing	$1,029,500	$2,150,596

Water Quality and Habitat Improvement

Project Type	Support Services and Projects
Location	Regional
Description	LOTT funds ongoing efforts to identify and support water quality and habitat improvement projects. Some of these projects result from collaborative efforts with the Squaxin Island Tribe and other local organizations.
Background	Projects that protect or enhance the water quality or habitat of local surface waters or groundwater have benefit in terms of improving these vital shared resources. They also help protect the receiving waters where LOTT discharges water treated at the Budd Inlet Treatment Plant or infiltrates reclaimed water to groundwater.

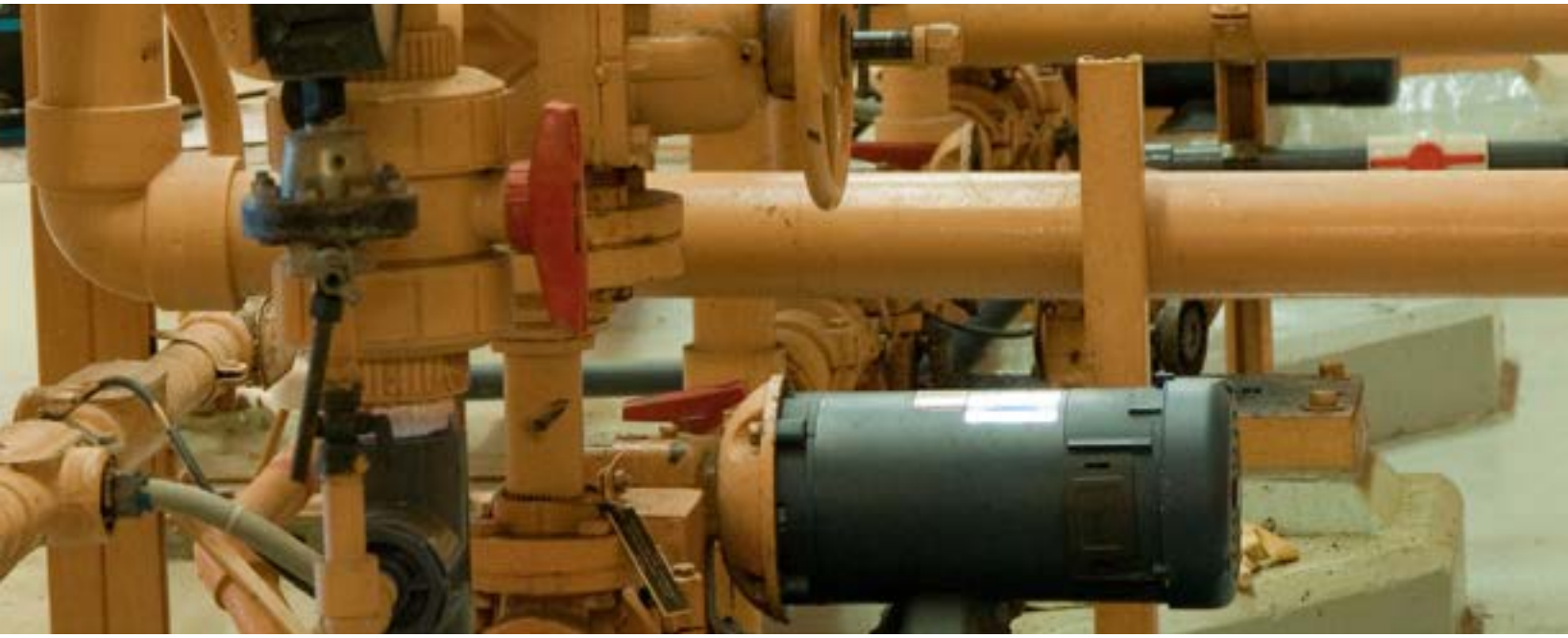
Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2006	2024	$350,000	$1,082,338

Septic Conversion Incentive Program

Project Type	Support Services and Projects
Location	Regional
Description	This program incentivizes conversion from urban septic systems to sewer service through rebates for a portion of LOTT's connection fees.
Background	Connecting properties served by onsite septic systems to the public sewer system helps protect LOTT's receiving waters by ensuring a higher level of treatment than can be provided by septic systems.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2017	2024	$480,000	$960,000

Energy Efficiency and Consumption Reduction Program



Project Type	Support Services and Projects
Location	Systemwide
Description	This line item provides funding for energy conservation efforts. A team of LOTT staff nominate, evaluate, and prioritize projects for implementation. Anticipated projects include replacing old and inefficient motors throughout LOTT facilities.
Background	Through the Energy Efficiency and Consumption Reduction Program, funds previously used to purchase green power from Puget Sound Energy are being used for internal energy conservation projects.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2014	Ongoing	$425,994	$1,357,390

Public Health Emergency Support Program

Project Type	Support Services and Projects
Location	Regional
Description	This program provides grants to LOTT's partner jurisdictions for efforts to improve management of human waste associated with homelessness. An example of an eligible project is the purchase of equipment, such as portable toilet and shower trailers, for use in managed camping areas.
Background	The homeless crisis has resulted in a significant increase in human waste along streets, sidewalks, and other outdoor areas. This poses a risk to public health and the environment, as runoff can carry bacteria and nutrients into storm drains and nearby surface waters. Projects that protect or enhance the quality of local surface waters help protect LOTT's receiving waters – Budd Inlet.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2018	2024	$150,000	$150,000

Affordable Housing Support Pilot Program

Project Type	Support Services and Projects
Location	Regional
Description	This pilot program is designed to encourage development of affordable housing within LOTT's service area through a partial rebate of LOTT's connection fee.
Background	An increased supply of affordable housing is a regional goal shared by the LOTT partner justifications. This is a two-year pilot program to measure the efficacy of reducing costs to foster development of low income housing and to assess potential impacts to utility revenue.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2023	2024	$1,000,000	$1,000,000

Sea Level Rise Response

Project Type	Support Services and Projects
Location	Budd Inlet Treatment Plant
Description	This line item provides funding for continued sea level rise response efforts, including joint projects with the City of Olympia and Port of Olympia. Near-term joint actions identified in the Sea Level Rise Response Plan include data gathering efforts such as installation of a tide gauge, monitoring of subsidence, and study of groundwater intrusion.
Background	LOTT, the City of Olympia, and the Port of Olympia completed a joint planning effort in 2019 to create the Olympia Sea Level Rise Response Plan. The plan provides a comprehensive list of short-term, mid-term, and long-term strategies for minimizing and preventing flooding to downtown Olympia and protecting LOTT's Budd Inlet Treatment Plant from rising sea levels.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2017	Ongoing	$100,000	$300,000

Property Acquisition

Project Type	Support Services and Projects
Location	Systemwide
Description	This line item provides funding for purchase of property to meet future infrastructure and system needs, including property adjacent to the Budd Inlet Treatment Plant along Washington Street.
Background	As capacity needs and regulatory requirements change over time, additional properties may be needed to expand existing facilities and to build new treatment, conveyance, and discharge facilities.

Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2001	Ongoing	$2,000,000	$2,000,000

Long-Range Planning

The long-range Capital Improvements Plan (CIP) represents major capital projects projected to occur within the 2029-2035 timeframe and those that are anticipated beyond that period. This table is based on LOTT's current understanding of system needs well into the future. However, the plan is refined each biennium based on new information, including updated capacity reports, asset management evaluations, and other data. Revisions also occur due to changing conditions that result from recently completed planning efforts such as LOTT's Reclaimed Water Infiltration Study and the state-level Budd Inlet Total Maximum Daily Load (TMDL) Study, and regional plans related to climate change and urban septic system conversion. This long-range CIP has been revised based on the first phase of a master planning effort to consider system upgrades that will be necessary at the Budd Inlet Treatment Plant over the next 30 years. Additional revisions are expected following completion of the second phase of master planning and public engagement in late 2022. The long-range plan is continually adjusted, shifting projects in time, based on the most current information.

Long-Range Capital Improvements Plan

System Life-Cycle Investments	2029-2035	Beyond 2035	Project Cost
Headworks			
Headworks Solids Handling Improvements		✓	$16,232,200
Wet Weather Flow Capacity Expansion		✓	$54,261,214
Primary Sedimentation			
Chemically Enhanced Primary Treatment	✓		$911,641
Primary Sedimentation Basins Phase 2		✓	$49,681,830
Secondary Clarifiers			
Secondary Clarifier Refurbishment	✓		$1,459,360
Secondary Clarifier Expansion		✓	$32,348,869
Tertiary Treatment Facility Phase 1	✓		$7,144,067
UV Disinfection			
UV Disinfection System Replacement		✓	$12,195,479
Budd Inlet Reclaimed Water Plant			
Budd Inlet Reclaimed Water Plant Expansion		✓	$9,525,358
Sludge Thickening			
Sludge Thickening System Upgrade	✓		$4,323,423

Long-Range Capital Improvements Plan *(continued)*

System Life-Cycle Investments	2029-2035	Beyond 2035	Project Cost
Sludge Digestion			
Digestion Capacity Expansion		✓	$7,163,317
Sludge Dewatering and Disposal			
Sludge Dewatering System Upgrade		✓	$17,264,576
Struvite Precipitation	✓		$9,167,310
Odor Control			
South Odor Scrubber Upgrade	✓		$2,094,200
Electrical and Controls			
Substation and Switchgear E/F Replacement	✓		$3,437,048
Substation and Switchgear C/D Replacement	✓		$3,608,088
BITP Control System Upgrades		✓	$903,056
Collection			
Percival Creek/Mottman Road Interceptor		✓	$6,871,100
Martin Way Parallel Force Main	✓		$3,033,176
Henderson/Indian Creek Improvements		✓	$3,462,328
East Corridor Upgrade (Marvin to Carpenter)		✓	$9,913,687
Indian Creek Interceptor Improvements		✓	$14,280,415
Martin Way Reclaimed Water Plant			
Membrane Replacement	✓		$2,371,796
Martin Way Reclaimed Water Plant 3rd mgd	✓		$30,730,745
Martin Way Reclaimed Water Plant 4th and 5th mgd		✓	$46,725,632
Hawks Prairie Ponds			
Martin Way to Hawks Prairie Pipeline Expansion		✓	$15,207,016
Reclaimed Water Capacity Expansion (Based on second phase of master planning effort)			
Treatment/Production Facilities Expansion			TBD
Conveyance System			TBD
Infiltration/Recharge/Augmentation Projects			TBD

Operating Budget

2023-2024 Operating Budget

The Operating Budget for 2023-2024 was the subject of multiple work sessions with the Board of Directors during 2022. It includes three categories of expense – personnel, direct operating expense, and general expense. Budgeted amounts for each category are shown in the table. The overall 2023-2024 Operating Budget has increased approximately 5.5% per year over the previous budget.

Operating Expense Summary 2023-2024

	2022-2023 Budget	2021-2022 Budget	Annual % Change	Biennial $ Change
Personnel	$20,441,036	$18,176,021	6.2%	$2,265,014
Direct Operating Expense	$9,919,674	$9,280,930	3.4%	$638,744
General Expense	$2,062,563	$1,744,717	9.1%	$317,847
Total Operations Expense	**$32,423,273**	**$29,201,668**	**5.5%**	**$3,221,605**

Personnel

This category includes all staffing and related benefit costs. LOTT's staffing level for 2023-2024 includes a total of 87.75 full-time equivalent (FTE) positions. Two new FTEs and conversion of one temporary position to FTE status are included in the total. Increases in healthcare and scheduled cost of living adjustments contribute the majority of the increase in this biennium's personnel budget.

Direct Operating Expense

This accounts for all the non-personnel costs associated with the wastewater treatment process and production of reclaimed water. It includes items such as operating supplies, utilities, chemicals, and tools. This category increased by 3.4% per year, largely due to an increase in property insurance and chemical costs.

General Expense

General Expense, the smallest of the three categories, includes all other necessary expenses that are not directly related to operations. This includes items such as training, professional services, and other overhead costs. Total expenses in this category have increased 9.1% per year in comparison to the 2021-2022 budget due to increased costs for security services. Additional contract security services are being employed in response to an uptick in security incidents over the last few years.

Direct Operating Expense accounts for all the non-personnel costs associated with the wastewater treatment process, such as operating supplies, utilities, chemicals, and tools.

Our Commitment

The LOTT Clean Water Alliance is committed to meeting our communities' needs for wastewater treatment and reclaimed water production services, and doing so in a fiscally responsible, sound, and equitable manner. Protecting our communities' investment in LOTT's regional infrastructure and meeting future needs for new treatment capacity requires effective operations, continuous planning, and completion of large-scale capital projects. While the cost of these needs is substantial, LOTT has managed to minimize impacts to ratepayers, while keeping the utility financially sound.

The LOTT Clean Water Alliance is committed to meeting our communities' needs for wastewater treatment and reclaimed water production services, and doing so in a fiscally responsible, sound, and equitable manner.

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