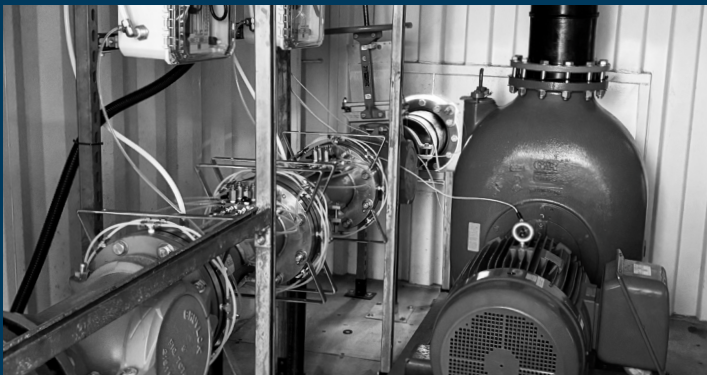


# LOTT CLEAN WATER ALLIANCE



## Budget & Capital Improvements Plan 2027-2028 *Proposed*

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# Reader's Guide

*To provide excellent wastewater and reclaimed water services to the community, LOTT operates a complex system of facilities. We provide a summary of our organization and our treatment system to help provide context for our financial planning and upcoming expenses.*

## About LOTT

To provide excellent wastewater and reclaimed water services to the community, LOTT operates a complex system of facilities. To help understand our financial planning and upcoming expenses, we provide a summary of our organization and our treatment system.

## Revenues, Rates, and Fees

There are two main sources of revenue for LOTT: the Wastewater Service Charge (WSC), also known as the monthly utility bill; and the Capacity Development Charge (CDC), also known as the new connection fee. Combined with miscellaneous revenue, these charges are anticipated to total \$112,404,798 during the 2027–2028 biennium. This revenue funds operations, infrastructure, and expanding capacity in the system.

## Wastewater Rate Comparison

We pride ourselves on providing a high level of wastewater treatment to meet our regulatory requirements. We are often asked if this high level of treatment means our rates are higher. We are fortunate that due to our detailed long-term planning and community support, we consistently keep our rates below the average in the Puget Sound region.

## Cost Efficiency

Maintaining and growing an effective, efficient utility is expensive. With projects running in the millions of dollars, LOTT makes every effort to minimize costs through a variety of efforts, including: asset management, debt financing, business case evaluations, energy reduction and recovery, and workforce development.



*LOTT has consistently kept rates below average in the Puget Sound region.*

## Capital Budget & Capital Improvements Plan

LOTT's capital budget accounts for approximately 70% of our overall budget. Having a Capital Improvements Plan helps us ensure success for decades into the future. We divide this budget and associated projects into four main categories: system upgrades, new capacity, asset replacement, and support services and projects. Our capital budget, to construct necessary infrastructure projects is \$87,083,250 for the 2027–2028 biennium.

## Operating Budget

LOTT's operating budget covers personnel, direct operating expenses, and general expenses. This includes everything from chemicals and tools to utility bills, staff training, and IT services. The operating budget is \$45,084,022 for the 2027–2028 biennium.

| Overall Budget Summary 2027–2028          |                      |                      |                 |
|-------------------------------------------|----------------------|----------------------|-----------------|
| Revenue                                   | 2027–2028 Budget     | 2025–2026 Budget     | Annual % Change |
| Wastewater Service Charge                 | \$89,002,479         | \$80,508,448         | 5.3%            |
| Capacity Development Charge               | \$17,139,266         | \$16,003,817         | 3.5%            |
| Miscellaneous Revenue                     | \$6,263,053          | \$8,633,119          | (13.7%)         |
| <b>Net Revenue from Rates and Charges</b> | <b>\$112,404,798</b> | <b>\$105,145,384</b> | <b>3.5%</b>     |
| Cash on Hand Used/(Saved)                 | \$33,735,859         | \$15,484,027         | -               |
| Debt Funding                              | \$0                  | \$10,000,000         | -               |
| <b>Total Resources</b>                    | <b>\$146,140,657</b> | <b>\$130,629,411</b> | <b>6.0%</b>     |
| Expenses                                  | 2027–2028 Budget     | 2025–2026 Budget     | Annual % Change |
| Net Operating Expense                     | \$45,084,022         | \$38,435,562         | 8.6%            |
| Debt Service                              | \$13,973,385         | \$16,308,150         | (7.2%)          |
| Capital Expense                           | \$87,083,250         | \$75,885,699         | 7.4%            |
| <b>Total Expenses</b>                     | <b>\$146,140,657</b> | <b>\$130,629,411</b> | <b>6.0%</b>     |



# About LOTT

*The LOTT Clean Water Alliance is a regional wastewater treatment utility serving Lacey, Olympia, and Tumwater sewer customers in Thurston County, Washington. Established in 1976, LOTT is governed by a four-member Board of Directors. Each of the four LOTT partners (Lacey, Olympia, Tumwater, and Thurston County) appoints one member of their governing body to represent them on the LOTT Board.*



Carolyn Cox  
City of Lacey



Dani Madrone  
City of Olympia



Kelly Von Holtz  
City of Tumwater



Tye Menser  
Thurston County

LOTT operates a complex system of facilities worth an estimated \$1 billion. The system includes:

- Budd Inlet Treatment Plant
- Budd Inlet Reclaimed Water Plant
- Martin Way Reclaimed Water Plant
- Hawks Prairie Reclaimed Water Ponds and Recharge Basins
- A one-million gallon reclaimed water storage tank
- Three major pump stations
- 22 miles of sewer interceptor lines
- 11 miles of reclaimed water pipelines

Protecting our community's 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.

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's revenue needs are driven primarily by the cost of capital construction. For 2027–2028, LOTT's combined infrastructure investment (debt service plus capital costs) represents approximately 69% of total expense, with operating costs representing approximately 31%.

With large-scale capital project commitments, LOTT must consider budget implications in long-term financial planning. LOTT uses a customized finance planning tool to plan and track expenses through 2050 and balance funding sources between rates and loans. This information is used to develop a six-year capital finance plan that provides sufficient funds for capital projects. Continuous efforts are made to identify and implement cost-saving measures and minimize LOTT's debt, thereby reducing costs to ratepayers from loan interest and related expenses. This approach is working well, as LOTT's rates remain below the average for the region.

# Financial Planning

## Revenue, Rates, and Fees

*LOTT's primary sources of revenue are the monthly Wastewater Service Charge and the Capacity Development Charge for new connections.*

| Charge                      | Purpose                                                                                                   | Frequency                | 2027       | 2028       |
|-----------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------|------------|------------|
| Wastewater Service Charge   | Usage fee primarily used to pay for the operation and upgrade of the existing wastewater treatment system | Monthly                  | \$50.42    | \$51.93    |
| Capacity Development Charge | Connection fee used primarily to increase capacity in the system                                          | One-time upon connection | \$8,040.94 | \$8,282.17 |

LOTT anticipates revenue of approximately \$112,404,798 for the 2027–2028 biennium.

As part of the Strategic Plan 2025–2030, the LOTT Board approved a six-year finance plan to ensure adequate funding for capital projects and operating expenses. To ensure revenues can meet future expenses, the Finance Plan assumes a 3% per year inflationary adjustment to rates. This long-term

approach has allowed LOTT to weather the impacts of recent higher than expected inflation. Prior to each biennial budget cycle, the Board evaluates this inflationary adjustment and sets rates for the upcoming biennium.

Homes and businesses with a sewer connection in the LOTT service area pay a Wastewater Service charge (WSC). This includes apartments, condos, and mixed-use buildings. Each city also assesses their own separate charge on utility bills for costs associated with maintaining their city-owned sewer collection systems that convey sewage to LOTT treatment facilities.

### How does LOTT bill for these charges?

LOTT doesn't bill customers directly. We provide wholesale treatment service to the cities, which in turn bill their ratepayers and include the LOTT Wastewater Service Charge on utility bills.



*The WSC is used to pay for cost of repairs and upgrades to the existing wastewater treatment system, loan payments for system-related capital costs, and operating costs.*

The Capacity Development Charge (CDC) is a one-time charge typically paid by whomever built your home, typically a developer. If you previously relied on a septic tank and changed to connect to sewer service, you would have paid the Capacity Development Charge. Each city also assesses their own separate charge at that time for building capacity in their city-owned sewer collection system. The primary purpose of the CDC is to pay for new capacity in the system and to ensure that growth pays for growth.

## Miscellaneous Revenue

LOTT also receives revenue from other sources, such as interest on cash deposits. During the 2027–2028 biennium, we are also expecting to receive grant funds supporting our Class A+ Reclaimed Water Project.

### What are ERUs?

An equivalent residential unit (ERU) is one single family residence for residential customers, or 900 cubic feet of wastewater for non-residential customers. Utilities use ERUs to have a standardized comparison between different customers, such as homes and businesses.

for new ERUs in the 2027–2028 biennium is 1,050 each year. This should result in an overall increase of approximately 3% per year in CDC revenue.

## Revenue Projections and Analysis

Both the WSC and the CDC are measured in terms of ERUs. Throughout the past several budget cycles, ERUs have seen consistent growth. For the 2027–2028 biennium, growth in ERUs is estimated at 1.5% per year.

For the CDC, growth in the number of new ERUs has historically averaged approximately 1,050 per year. The estimate

## Emergency Reserves

LOTT maintains six months of operating expenses (approximately \$15 million) and \$3 million for emergency capital expenses. These amounts are separate from, and in addition to, reserves required by debt agreements and require Board approval for use.

## Debt

When used effectively, issuing debt (such as taking out loans) can be a valuable tool to help to keep rates stable. Under the Board’s direction, LOTT follows several principles when taking on debt:

- a) Prefer lower-cost options, such as those available from the Public Works Board or State Revolving Fund over market-rate debt such as issuing a bond
- b) Minimize ongoing disclosure requirements and administrative burdens
- c) Minimize cash restrictions
- d) Keep payment amounts stable and avoid balloon payments

During the 2027–2028 biennium, LOTT will make approximately \$14 million in payments on loans.

While no debt is planned for this biennium, LOTT anticipates issuing approximately \$40 million in debt for several large projects in the 6-year Capital Improvements Plan (2027-2032). Which projects will be funded with this debt and the exact amounts are still in the planning stage.

| Project                                      | Estimated Year | Estimated Amount |
|----------------------------------------------|----------------|------------------|
| Pumping and Emergency Power Improvements     | 2029–2030      | \$26 million     |
| Biogas Improvements                          | 2029           | \$10 million     |
| Martin Way Pump Station Interim Improvements | 2029           | \$4 million      |



## Cost Efficiency

LOTT is committed to practicing effective utility management in a responsible, responsive, cost-effective, and resilient manner. Toward that goal, LOTT actively manages projects and programs to identify efficiencies and cost-savings, minimize expenses, and limit rate increases. Cost control takes care and effort and is an integral aspect of how LOTT does business. We make 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 Financing** – LOTT strives to obtain low-cost debt financing when appropriate to help keep rates as stable as possible. As an example, the interest rate on existing debt is 2% or less.

**Business Case Evaluation** – Value engineering by a team of technical staff ensures that each project is designed and built efficiently and effectively. Projects are proactively scheduled over given periods of time and re-prioritized as needed on the Capital Improvement Plan, so as not to exceed available financial and staffing resources.

**Energy Reduction Efforts** – LOTT has been a leader in energy conservation for many years. Through energy audits and staff efforts, we incorporate energy-saving practices and purchase energy-saving equipment when possible. Saving energy also helps lower wastewater treatment costs and keep rates low. The Biological Process Improvements project, completed in 2023, resulted in significant energy savings at the Budd Inlet Treatment Plant, and a solar array was installed as part of the Centrate Building Rehabilitation to further energy gains.

**Workforce Development** – LOTT makes a concerted effort to be an employer of choice, offering competitive pay and benefits and developing successful employee incentive programs, all of which contribute to a low voluntary turnover. Retaining a talented workforce also reduces expenses related to recruiting, onboarding, and training. LOTT strives to make the most of staffing levels, realigning workloads and resources to create efficiencies. Investment in training and succession planning helps to effectively prepare future employees with the specialized technical knowledge needed in this industry.



*A solar array was installed as part of the Centrate Building Rehabilitation to further energy gains.*



## Wastewater Rate Comparisons

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 that must be up and running 24 hours a day, 7 days a week.

By contrast, local drinking water services are considerably less expensive. Our region enjoys a stable supply of high-quality groundwater to meet drinking water needs. This water generally requires only minimal treatment. There are vast differences in the amount and complexity of treatment involved in the treatment of our area's drinking water and wastewater.

Part of the cost of wastewater treatment comes from our community's 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 make those waters healthier. Puget Sound, and more

specifically Budd Inlet, are considered impaired waters. The Washington State Department of Ecology (Ecology) has placed stringent requirements on LOTT for the cleaned water discharged into Budd Inlet, including nitrogen. This high level of treatment adds technological complexity and cost to the operation of LOTT's main treatment facility.

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 a conservative value of water use per month for an equivalent residential unit. The most recent survey, conducted in 2026, shows that our monthly charges, including the portion for each city, are lower than the average.



*Part of the cost of wastewater treatment comes from our community's location along Puget Sound. This high level of treatment adds technological complexity and cost to the operation of LOTT's main treatment facility.*

## Wastewater Rate Comparisons

|                              | 2026<br>Rate | 2025<br>Rate | % Rate<br>Change | Flat or<br>Volume |
|------------------------------|--------------|--------------|------------------|-------------------|
| City of Shelton              | 148.37       | 142.00       | 4.5%             | V                 |
| City of Seattle              | 141.26       | 134.47       | 5.0%             | V                 |
| Tamoshan                     | 137.09       | 142.36       | -3.7%            | F                 |
| City of Tenino               | 125.66       | 125.66       | 0.0%             | F                 |
| City of Bellevue             | 123.39       | 119.32       | 3.4%             | V                 |
| Boston Harbor                | 122.01       | 120.54       | 1.2%             | F                 |
| Olympic View                 | 120.89       | 114.14       | 5.9%             | F                 |
| City of Bonney Lake          | 120.23       | 117.09       | 2.7%             | V                 |
| City of Everett              | 118.49       | 104.04       | 13.9%            | F                 |
| Grand Mound                  | 112.69       | 106.54       | 5.8%             | F                 |
| City of Chehalis (in city)   | 104.48       | 98.50        | 6.1%             | V                 |
| City of Yelm                 | 101.27       | 98.51        | 2.8%             | F                 |
| City of Renton               | 97.00        | 91.95        | 5.5%             | F                 |
| City of Centralia (in city)  | 96.86        | 94.33        | 2.7%             | V                 |
| <b>Average</b>               | <b>96.25</b> | <b>91.15</b> | <b>5.6%</b>      |                   |
| City of Auburn               | 95.60        | 91.57        | 4.4%             | F                 |
| City of Snoqualmie           | 94.74        | 85.37        | 11.0%            | F                 |
| City of Sumner               | 93.55        | 88.26        | 6.0%             | V                 |
| City of Longview (in city)   | 89.05        | 79.67        | 11.8%            | V                 |
| City of Puyallup             | 87.11        | 81.86        | 6.4%             | V                 |
| <b>City of Lacey</b>         | <b>85.22</b> | <b>80.64</b> | <b>5.7%</b>      | <b>F</b>          |
| City of Tacoma               | 84.42        | 74.85        | 12.8%            | V                 |
| City of Bremerton (in city)  | 82.73        | 80.30        | 3.0%             | V                 |
| City of Orting               | 79.47        | 74.27        | 7.0%             | F                 |
| Lakehaven Sewer District     | 78.67        | 70.27        | 12.0%            | V                 |
| <b>City of Olympia</b>       | <b>78.03</b> | <b>75.75</b> | <b>3.0%</b>      | <b>F</b>          |
| City of Aberdeen             | 77.12        | 72.00        | 7.1%             | F                 |
| City of Kelso                | 76.90        | 70.42        | 9.2%             | F                 |
| <b>City of Tumwater</b>      | <b>75.29</b> | <b>72.25</b> | <b>4.2%</b>      | <b>F</b>          |
| City of Edmonds              | 71.26        | 64.78        | 10.0%            | F                 |
| City of Bellingham (in city) | 69.23        | 58.18        | 19.0%            | F                 |
| City of Mount Vernon         | 67.16        | 65.39        | 2.7%             | V                 |
| Pierce County Sewer          | 66.72        | 64.09        | 4.1%             | F                 |
| City of Vancouver            | 54.46        | 48.44        | 12.4%            | V                 |

\* Variable rates calculated using 700 cubic square feet per month

# Capital Budget & Capital Improvements Plan

*Continuous planning is key for LOTT to sustain existing infrastructure and build new to meet projected future capacity needs.*

LOTT operates under a National Pollution Discharge Elimination System (NPDES) permit issued by Ecology. LOTT must meet all permit requirements, as well as expectations of federal and state agencies regarding responsible utility management. The EPA's Capacity, Management, Operation, and Maintenance Program requires that wastewater utilities demonstrate they have a comprehensive, long-term plan for maintaining existing utility infrastructure and meeting future system needs. LOTT meets that requirement with a 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 Ecology, along with a three-part Capacity Report, as part of permit requirements.

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, useful life, and replacement cost
- 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

Asset management data is used to identify and prioritize projects necessary to sustain existing treatment, conveyance, and discharge equipment and facilities. Portions of the Budd Inlet Treatment Plant are over 50 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 helps LOTT identify 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. LOTT's CIP is built around four major project categories:

## System Upgrades

System Upgrade projects include improvements to existing facilities. Upgrades are necessary to replace outdated equipment, improve efficiency, and meet permit requirements. One of the 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 provide new facilities to serve added wastewater flows. LOTT is continuously planning for new system capacity, to be built "just in time" to ensure future demands are met. This approach allows LOTT to adapt to changing conditions and take advantage of the most up-to-date treatment technologies. New capacity projects are funded primarily from new connection fees.



## Asset Replacement

Asset Replacement projects are for the systems or equipment that reach the point where repairs are no longer cost-effective. At this point, 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 the CIP. Engineering and staff costs allied with the CIP are also included in this category. These projects are funded primarily from monthly rates.

## Long-Term Capital Improvements Plan

LOTT’s 2050 System Plan addresses the direction for future upgrades and new capacity in the system. Most projects to address these goals are in their very early planning stages. As such, the projected future costs shown below represent high-level planning estimates that will be further refined as the projects move forward. Additionally, new projects may be identified and added as our long-term planning efforts continue.

| Long-Term Capital Improvements Plan |               |               |
|-------------------------------------|---------------|---------------|
| System                              | 2033–2038     | 2039–2050     |
| Budd Inlet Treatment Plant          | \$123 million | \$260 million |
| Martin Way Reclaimed Water Plant    | \$13 million  | \$51 million  |
| Conveyance                          | \$55 million  | \$32 million  |
| Support Services & Projects         | \$69 million  | \$175 million |



LOTT is continuously planning for new system capacity, to be built “just in time” to ensure future demands are met and to use the newest technology available.

## Capital Budget 2027–2028

| Summary<br>Page                |                                              | 2027–2028<br>Expenditure | 2027–2032<br>CIP     |
|--------------------------------|----------------------------------------------|--------------------------|----------------------|
| <b>System Upgrade Projects</b> |                                              |                          |                      |
| 12                             | Supplemental Carbon System Upgrade           | \$830,380                | \$830,380            |
| 12                             | Mixed Liquor Channel Refurbishment           | \$2,367,883              | \$2,367,883          |
| 13                             | Substation and Switchgear A/B Replacement    | \$2,038,792              | \$2,038,792          |
| 13                             | Digester System Improvements Phase 2         | \$17,733,075             | \$17,733,075         |
| 14                             | Biogas Utilization Upgrades                  | \$5,324,959              | \$17,093,941         |
| 14                             | Final Effluent Pumping Improvements          | \$348,229                | \$11,689,776         |
| 15                             | BITP Control System Upgrades                 | \$0                      | \$1,365,909          |
| 15                             | Substation and Switchgear E/F Replacement    | \$0                      | \$1,753,347          |
| 16                             | Substation and Switchgear C/D Replacement    | \$2,371,664              | \$6,132,020          |
| 16                             | South Odor Scrubber Upgrade                  | \$0                      | \$2,039,962          |
| 17                             | Intermediate Pump Station Improvements       | \$0                      | \$8,992,956          |
| 17                             | Secondary Clarifier Refurbishment            | \$0                      | \$1,228,427          |
| 18                             | Kaiser Road Pump Station Improvements        | \$0                      | \$139,113            |
| 18                             | Martin Way Parallel Forcemain                | \$7,538,576              | \$22,141,072         |
| 19                             | Martin Way Pump Station Interim Improvements | \$2,577,704              | \$4,595,057          |
| 19                             | Forcemain Air Valve Replacement              | \$1,448,210              | \$1,448,210          |
| 20                             | Martin Way Reclaimed Water Plant Upgrades    | \$1,015,000              | \$3,234,205          |
| <b>New Capacity Projects</b>   |                                              |                          |                      |
| 20                             | Reclaimed Water Capacity Development         | \$100,000                | \$100,000            |
| 21                             | Class A+ Purified Water Demonstration        | \$1,755,664              | \$1,755,664          |
| 21                             | Pumping and Emergency Power Improvements     | \$3,290,666              | \$35,354,141         |
| 22                             | North Pipeline Replacement                   | \$0                      | \$7,812,546          |
| 22                             | Centrate Treatment                           | \$0                      | \$737,972            |
| <b>Asset Replacement</b>       |                                              |                          |                      |
| 23                             | General Equipment Repair and Replacement     | \$5,138,709              | \$14,281,834         |
| 23                             | Collection System Management Program         | \$1,308,050              | \$3,253,391          |
| 24                             | Instrumentation and Controls Replacement     | \$518,681                | \$1,652,730          |
| 24                             | Facility Roof Repair and Replacement         | \$1,835,128              | \$2,814,832          |
| <b>Support Services</b>        |                                              |                          |                      |
| 25                             | Projects and Planning                        | \$22,642,057             | \$59,050,724         |
| 25                             | Water Quality Support                        | \$1,707,708              | \$4,102,849          |
| 25                             | Supporting Programs                          | \$5,192,116              | \$20,968,435         |
| <b>Total</b>                   |                                              | <b>\$87,083,250</b>      | <b>\$256,709,241</b> |



# Supplemental Carbon System Upgrade

## Project Type

System Upgrade

## Location

Budd Inlet Treatment Plant

## Description

The biological nutrient removal process requires periodic supplemental carbon to meet LOTT's permit requirements. The new system, tested and verified by LOTT's Future Technologies Pilot Team, uses a safer and more environmentally friendly carbon product. The completed project will improve safety for staff and the public, support more efficient treatment, and lower LOTT's carbon footprint.



| Start | Complete | 2027-2028 Expenditure | 2027-2032 CIP |
|-------|----------|-----------------------|---------------|
| 2024  | 2027     | \$830,380             | \$830,380     |

# Mixed Liquor Channel Refurbishment

## Project Type

System Upgrade

## Location

Budd Inlet Treatment Plant

## Description

After many years of use, the mixed liquor channel's mechanical control gates and associated frames have significant corrosion. These gates are critical for controlling and splitting flows to the secondary clarification process. This project will replace these components and rehabilitate the surrounding concrete channel.



| Start | Complete | 2027-2028 Expenditure | 2027-2032 CIP |
|-------|----------|-----------------------|---------------|
| 2026  | 2027     | \$2,367,883           | \$2,367,883   |



# Substation and Switchgear A/B Replacement

## Project Type

System Upgrade

## Location

Budd Inlet Treatment Plant

## Description

LOTT has five substations that transform high voltage power for distribution to various plant components. This project replaces key equipment within Substation A/B that has reached the end of its useful life. This substation provides critical power to the Headworks area and the Budd Inlet Reclaimed Water Plant.



| Start | Complete | 2027-2028 Expenditure | 2027-2032 CIP |
|-------|----------|-----------------------|---------------|
| 2023  | 2027     | \$2,038,792           | \$2,038,792   |

# Digester System Improvements Phase 2

## Project Type

System Upgrade

## Location

Budd Inlet Treatment Plant

## Description

The digester system stabilizes waste sludge removed from the treatment process, resulting in biosolids that can be beneficially used for land application. The system was constructed in 1982 and has reached the end of its useful life. Improvements include replacement of the digesters' floating covers with fixed covers, upgrades to the sludge mixing system, replacement and relocation of the emergency gas burner, and replacement of aging mechanical equipment.



| Start | Complete | 2027-2028 Expenditure | 2027-2032 CIP |
|-------|----------|-----------------------|---------------|
| 2025  | 2028     | \$17,733,075          | \$17,733,075  |



# Biogas Utilization Upgrades

## Project Type

System Upgrade

## Location

Budd Inlet Treatment Plant

## Description

The biogas facility is a cogeneration facility that provides both electricity and heat for use at the Budd Inlet Treatment Plant. The current facility generates approximately 10% of the plant's electrical needs and enough heat energy for occupied spaces at the plant and the Hands-On Children's Museum. This project will replace the aging equipment and upgrade gas treatment to maximize the available biogas resource.



| Start | Complete | 2027-2028 Expenditure | 2027-2032 CIP |
|-------|----------|-----------------------|---------------|
| 2023  | 2030     | \$5,324,959           | \$17,093,941  |

# Final Effluent Pumping Improvements

## Project Type

System Upgrade

## Location

Budd Inlet Treatment Plant

## Description

Installed in 1993, the Final Effluent Pump Station conveys the cleaned water (final effluent) from the Budd Inlet Treatment Plant to Budd Inlet. This project replaces aging equipment including pumps, variable frequency drives, motors, valves, and other mechanical and electrical components.



| Start | Complete | 2027-2028 Expenditure | 2027-2032 CIP |
|-------|----------|-----------------------|---------------|
| 2029  | 2033     | \$348,229             | \$11,689,776  |



# BITP Control System Upgrades

## Project Type

System Upgrade

## Location

Budd Inlet Treatment Plant

## Description

The current distributed control system (DCS) used to control process areas within the Budd Inlet Treatment Plant is near its end-of-life. Transitioning to an updated manufacturer platform will ensure ongoing support, availability of spare parts, and specialized assistance services. The new hardware and software will deliver increased cybersecurity defenses, strengthen facility resilience, and mitigate the long-term operational risk of unscheduled outages.



| Start | Complete | 2027-2028 Expenditure | 2027-2032 CIP |
|-------|----------|-----------------------|---------------|
| 2030  | 2030     | \$0                   | \$1,365,909   |

# Substation and Switchgear E/F Replacement

## Project Type

System Upgrade

## Location

Budd Inlet Treatment Plant

## Description

This project will replace Substation E/F and its switchgear. This substation provides critical power to the biological treatment process, secondary clarifiers, ultraviolet disinfection, and effluent and reclaimed water pumping at the Budd Inlet Treatment Plant. Replacing this substation will ensure equipment within these process areas have a reliable power source.



| Start | Complete | 2027-2028 Expenditure | 2027-2032 CIP |
|-------|----------|-----------------------|---------------|
| 2030  | 2033     | \$0                   | \$1,753,347   |



# Substation and Switchgear C/D Replacement

## Project Type

System Upgrade

## Location

Budd Inlet Treatment Plant

## Description

This project will replace Electrical Substation C/D and its switchgear. This substation provides critical power to many parts of the Budd Inlet Treatment Plant, including digesters, solids handling facilities, and the biogas facility. Replacement of this substation will ensure process equipment has a reliable and redundant power source.



| Start | Complete | 2027-2028 Expenditure | 2027-2032 CIP |
|-------|----------|-----------------------|---------------|
| 2028  | 2030     | \$2,371,664           | \$6,132,020   |

# South Odor Scrubber Upgrade

## Project Type

System Upgrade

## Location

Budd Inlet Treatment Plant

## Description

The South Odor Scrubber primarily treats hydrogen sulfide and other foul air from Headworks and Equalization Basins at the Budd Inlet Treatment Plant. Hydrogen sulfide and other odorous gases are byproducts of raw sewage. The system needs to be rehabilitated to continue to provide effective treatment and allow LOTT to remain a good neighbor.



| Start | Complete | 2027-2028 Expenditure | 2027-2032 CIP |
|-------|----------|-----------------------|---------------|
| 2031  | 2032     | \$0                   | \$2,039,962   |



# Intermediate Pump Station Improvements

## Project Type

System Upgrade

## Location

Budd Inlet Treatment Plant

## Description

The Budd Inlet Treatment Plant's Intermediate Pump Station is required to maintain the hydraulic flow through the treatment process. The pumps within the station were installed more than 30 years ago and are nearing the end of their useful life. Further, changes to the treatment process in the last upgrade reduced the flows this pump station is required to handle. This project will install more efficient pumps to match the new flows and upgrade the mixers in the nearby Second Anoxic Basins.



| Start | Complete | 2027-2028 Expenditure | 2027-2032 CIP |
|-------|----------|-----------------------|---------------|
| 2031  | 2033     | \$0                   | \$8,992,956   |

# Secondary Clarifier Refurbishment

## Project Type

System Upgrade

## Location

Budd Inlet Treatment Plant

## Description

The Secondary Clarifiers settle out activated sludge after the nutrient removal process and prior to UV disinfection. They were constructed in the 1980s and last upgraded in 2007. This refurbishment project was identified through a combination of asset management practices and plant planning processes. The exact refurbishment needs will be determined in the specific planning phase of the project.



| Start | Complete | 2027-2028 Expenditure | 2027-2032 CIP |
|-------|----------|-----------------------|---------------|
| 2031  | 2033     | \$0                   | \$1,228,427   |



# Kaiser Road Pump Station Improvements

## Project Type

System Upgrade

## Location

Conveyance

## Description

The Kaiser Road Pump Station assists with the pressurized wastewater conveyance from areas around the Evergreen State College to the Budd Inlet Treatment Plant. Based on design life expectancies, LOTT will need to replace equipment at the station to ensure effective performance and reliability. Details will be determined in the planning phase of this project.



A photograph of the Kaiser Road Pump Station building, which is a small, single-story structure with a blue metal roof and blue doors. It is surrounded by a chain-link fence and sits on a grassy area. A person is visible near the entrance.

| Start | Complete | 2027-2028 Expenditure | 2027-2032 CIP |
|-------|----------|-----------------------|---------------|
| 2032  | 2033     | \$0                   | \$139,113     |

# Martin Way Parallel Forcemain

## Project Type

System Upgrade

## Location

Conveyance

## Description

The Martin Way forcemain is a pipe that conveys wastewater under pressure from the Martin Way Pump Station to a gravity sewer line further west toward the Budd Inlet Treatment Plant. The existing forcemain is at capacity during high flow events. This new forcemain will provide additional capacity to meet the anticipated needs of the Martin Way Pump Station sewershed area.



A photograph showing a large stack of white, corrugated metal pipes, likely for the Martin Way Parallel Forcemain project. Two workers in safety gear are visible in the background near the pipes. In the distance, there is a building with a sign that says 'ARCO' and another sign that says 'RESTAURANT'.

| Start | Complete | 2027-2028 Expenditure | 2027-2032 CIP |
|-------|----------|-----------------------|---------------|
| 2026  | 2030     | \$7,538,576           | \$22,141,072  |



# Martin Way Pump Station Interim Improvements

## Project Type

System Upgrade

## Location

Conveyance

## Description

The Martin Way Pump Station collects wastewater from most of the City of Lacey and pumps it over the higher elevation point to allow gravity flow to the Budd Inlet Treatment Plant. The pump station was last renovated in 2004, and some equipment is from the original construction in 1990. This project will replace the pumps, generator, and other related equipment to improve the reliability of the station.



| Start | Complete | 2027-2028 Expenditure | 2027-2032 CIP |
|-------|----------|-----------------------|---------------|
| 2026  | 2029     | \$2,577,704           | \$4,595,057   |

# Forcemain Air Valve Replacement

## Project Type

System Upgrade

## Location

Conveyance

## Description

LOTT operates several forcemains to separately convey both raw wastewater and treated reclaimed water. These pipes are equipped with air and vacuum release valves to relieve high and low pressures that are common in pressurized pipes. This project will replace an estimated 40 valves along four different forcemains due to their age and criticality.



| Start | Complete | 2027-2028 Expenditure | 2027-2032 CIP |
|-------|----------|-----------------------|---------------|
| 2023  | 2028     | \$1,448,210           | \$1,448,210   |



# Martin Way Reclaimed Water Plant Upgrades

## Project Type

System Upgrade

## Location

Martin Way Reclaimed Water Plant

## Description

The Martin Way Reclaimed Water Plant was constructed in 2006 to provide satellite treatment and produce reclaimed water. This project will maintain reliability of the facility through proactive replacement of aging equipment and technology upgrades, including the primary control infrastructure.



| Start | Complete | 2027-2028 Expenditure | 2027-2032 CIP |
|-------|----------|-----------------------|---------------|
| 2025  | 2036     | \$1,015,000           | \$3,234,205   |

# Reclaimed Water Capacity Development

## Project Type

New Capacity

## Location

System Wide

## Description

This effort includes planning associated with possible expansion of LOTT's reclaimed water system. It may include evaluations of treatment technologies, conveyance routes, reuse opportunities, and capacity to serve future potential users within LOTT's partner jurisdictions. The Budd Inlet Reclaimed Water Plant serves Olympia and Tumwater and has limited additional capacity to provide more reclaimed water during peak irrigation season. This project supports feasibility studies and analysis of potential future reclaimed water projects.



| Start | Complete | 2027-2028 Expenditure | 2027-2032 CIP |
|-------|----------|-----------------------|---------------|
| 2027  | 2028     | \$100,000             | \$100,000     |



## Class A+ Purified Water Demonstration

### Project Type

New Capacity

### Location

Budd Inlet Treatment Plant

### Description

LOTT is underway with a demonstration project to produce Class A+ reclaimed water by using proven advanced water purification technologies. In early 2027, two parallel pilot-scale treatment systems will be installed temporarily at the Budd Inlet Treatment Plant: reverse-osmosis and activated carbon-based technologies. The project includes permitting, extensive monitoring, and comparisons of efficiency, energy use, and waste products of the two systems.



| Start | Complete | 2027-2028 Expenditure | 2027-2032 CIP |
|-------|----------|-----------------------|---------------|
| 2024  | 2027     | \$1,755,664           | \$1,755,664   |

## Pumping and Emergency Power Improvements

### Project Type

New Capacity

### Location

Budd Inlet Treatment Plant

### Description

To meet our service area's growing population and regulatory requirements, LOTT is improving the Influent Pump Station and emergency power at the Budd Inlet Treatment Plant. This project will upgrade the influent pumps and the generators, providing an increase in pumping capacity and emergency power availability. It will also upgrade the existing heating and ventilation systems in Headworks to address deficiencies.



| Start | Complete | 2027-2028 Expenditure | 2027-2032 CIP |
|-------|----------|-----------------------|---------------|
| 2027  | 2031     | \$3,290,666           | \$35,354,141  |



# North Pipeline Replacement

## Project Type

New Capacity

## Location

Budd Inlet Treatment Plant

## Description

This project will replace the approximately 1,300-foot section of 30-inch diameter cleaned water pipeline that crosses the Port of Olympia waterfront working areas and the Cascade Pole Hazardous Waste site. A new 48-inch diameter pipe is planned to run along Marine Drive.



| Start | Complete | 2027-2028 Expenditure | 2027-2032 CIP |
|-------|----------|-----------------------|---------------|
| 2031  | 2033     | \$0                   | \$7,812,546   |

# Centrate Treatment

## Project Type

New Capacity

## Location

Budd Inlet Treatment Plant

## Description

Centrate is the byproduct of the biosolids dewatering process and is metered back into the treatment system at Budd Inlet Treatment Plant. It is very high in ammonia and accounts for about 20% of the overall ammonia loading to the treatment process. This project will allow LOTT to treat the ammonia prior to entering the secondary treatment process, reducing the overall ammonia loading to the system.



| Start | Complete | 2027-2028 Expenditure | 2027-2032 CIP |
|-------|----------|-----------------------|---------------|
| 2032  | 2034     | \$0                   | \$737,972     |



# General Equipment Repair and Replacement

## Project Type

Asset Replacement

## Location

Systemwide

## Description

This general line item provides funding for asset repair and replacement for all of LOTT's wastewater treatment infrastructure. LOTT relies on best practices in asset management to ensure efficient repair and replacement.



| Start | Complete | 2027-2028 Expenditure | 2027-2032 CIP |
|-------|----------|-----------------------|---------------|
| 2009  | 2050     | \$5,138,709           | \$14,281,834  |

# Collection System Management Program

## Project Type

Asset Replacement

## Location

Systemwide

## Description

This effort includes the ongoing monitoring and rehabilitation of sewer lines and maintenance holes within the LOTT collection system. It ensures federal compliance with capacity management, operations, and maintenance (CMOM) standards and is an integral part of LOTT's Asset Management Program. Activities include closed circuit televised inspection and condition assessment, which are used to identify needed repairs and replacements.



| Start | Complete | 2027-2028 Expenditure | 2027-2032 CIP |
|-------|----------|-----------------------|---------------|
| 2008  | 2050     | \$1,308,050           | \$3,253,391   |



## Instrumentation and Controls Replacement

### Project Type

Asset Replacement

### Location

Systemwide

### Description

This general line item provides funding for asset repair and replacement for the various control systems LOTT relies on for wastewater treatment and reclaimed water production.



| Start | Complete | 2027-2028 Expenditure | 2027-2032 CIP |
|-------|----------|-----------------------|---------------|
| 2012  | 2050     | \$518,681             | \$1,652,730   |

## Facility Roof Repair and Replacement

### Project Type

Asset Replacement

### Location

Systemwide

### Description

Most of LOTT's treatment process components and occupied spaces require building structures. A roof repair and replacement plan allows LOTT to schedule replacements as the roofs on LOTT's facilities reach their end of life or require repairs.



| Start | Complete | 2027-2028 Expenditure | 2027-2032 CIP |
|-------|----------|-----------------------|---------------|
| 2016  | 2050     | \$1,835,128           | \$2,814,832   |



## Projects and Planning

### Project Type

Support Services

### Location

Regional

### Description

This general line item accounts for expenditures needed to implement the Capital Improvement Plan, along with funding for smaller projects that arise during the biennium.

### Projects

- Miscellaneous Professional Services
- Miscellaneous Small Projects
- Flow Monitoring Program
- Engineering Project Support
- Facilities Project Support
- Administrative Project Support
- Future Technologies Pilot
- Property Acquisition



| 2027-2028    | 2027-2032    |
|--------------|--------------|
| \$22,642,057 | \$59,050,724 |

## Water Quality Support

### Project Type

Support Services

### Location

Systemwide

### Description

LOTT funds 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.

### Projects

- Water Conservation and Protection
- Deschutes Estuary Maintenance
- Water Quality and Habitat
- Septic Conversion Incentive
- Affordable Housing Support Pilot



| 2027-2028   | 2027-2032   |
|-------------|-------------|
| \$1,707,708 | \$4,102,849 |

## Supporting Programs

### Project Type

Support Services

### Location

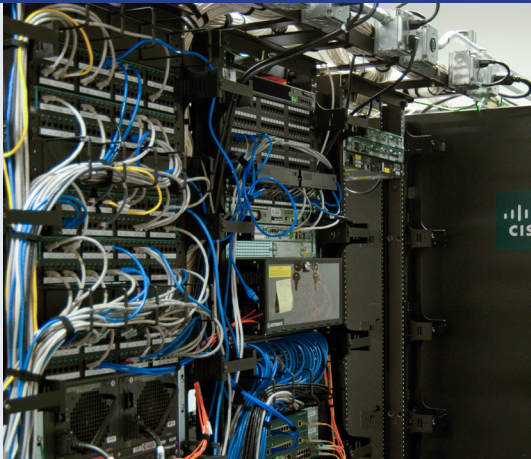
Systemwide

### Description

This section provides funding for miscellaneous programs and projects designed to improve LOTT administrative and support facilities as well as climate resiliency.

### Projects

- Information Technology Upgrades
- Energy and Carbon Reduction
- Sea Level Rise Response
- Occupied Space and Security
- Administration and Education



| 2027-2028   | 2027-2032    |
|-------------|--------------|
| \$5,192,116 | \$20,968,435 |



# Operating Budget

*The Operating Budget for 2027–2028 includes three categories of expense – personnel, direct operating expense, and general expense. Budgeted amounts for each category are shown in the table.*

## Personnel

This includes all staffing and related benefits costs. LOTT’s staffing level for 2027–2028 includes a total of 95.25 full-time equivalent (FTE) positions. Three new positions are included in the total. This budget also reflects healthcare costs, scheduled cost of living adjustments, and changes in retirement contributions.

## General Expense

The smallest of the three categories, General Expense, includes all other necessary expenses that are not directly related to operations. This includes items such as training, professional services, and other overhead costs; however, no single category has a significant impact on the overall 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. The largest cost in this category is electricity, which is responsible for most of the increase in this category.

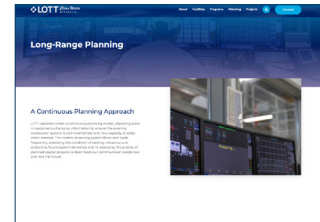
| Operating Expense Summary 2027–2028 |                     |                     |                    |                       |
|-------------------------------------|---------------------|---------------------|--------------------|-----------------------|
|                                     | 2027–2028<br>Budget | 2025–2026<br>Budget | Annual<br>% Change | Biennial<br>\$ Change |
| Personnel                           | \$25,320,346        | \$23,000,973        | 5.0%               | \$2,319,373           |
| Direct Operating Expense            | \$17,379,175        | \$13,012,033        | 16.8%              | \$4,367,142           |
| General Expense                     | \$2,384,501         | \$2,422,556         | (0.8%)             | (\$38,055)            |
| <b>Total Operations Expense</b>     | <b>\$45,084,022</b> | <b>\$38,435,562</b> | <b>8.6%</b>        | <b>\$6,648,460</b>    |

# Additional Resources

## Learn about LOTT on our website

### Long-Range Planning

[www.lottcleanwater.org/long-range-planning](http://www.lottcleanwater.org/long-range-planning)



### System Plan 2050

[www.lottcleanwater.org/system-plan](http://www.lottcleanwater.org/system-plan)

### Strategic Plan 2025–2030

[www.lottcleanwater.org/strategic-plan](http://www.lottcleanwater.org/strategic-plan)

### Capacity Reports

[www.lottcleanwater.org/capacity-reports](http://www.lottcleanwater.org/capacity-reports)







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