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EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
	WA0037061	Budd Inlet Treatment Plant	

Form 2A NPDES | EPA

U.S. Environmental Protection Agency
Application for NPDES Permit to Discharge Wastewater
NEW AND EXISTING PUBLICLY OWNED TREATMENT WORKS

SECTION 1. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS (40 CFR 122.21(j)(1) and (9))

Facility Information

1.1 Facility name
LOTT Clean Water Alliance Budd Inlet Treatment Plant

Mailing address (street or P.O. box)
500 Adams Street NE

City or town	State	ZIP code
Olympia	WA	98501-6911

Contact name (first and last)	Title	Phone number	Email address
Terri Prather	Operations & Facilities Directc	(360) 528-5724	terriprather@lottcleanwater.c

Location address (street, route number, or other specific identifier) ☑ Same as mailing address

City or town	State	ZIP code

1.2 Is this application for a facility that has yet to commence discharge?

☐ Yes ➔ See instructions on data submission requirements for new dischargers. ☑ No

Applicant Information

1.3 Is applicant different from entity listed under Item 1.1 above?

☐ Yes ☑ No ➔ SKIP to Item 1.4.

Applicant name

Applicant address (street or P.O. box)

City or town	State	ZIP code

Contact name (first and last)	Title	Phone number	Email address

1.4 Is the applicant the facility's owner, operator, or both? (Check only one response.)

☐ Owner ☐ Operator ☑ Both

1.5 To which entity should the NPDES permitting authority send correspondence? (Check only one response.)

☑ Facility ☐ Applicant ☐ Facility and applicant (they are one and the same)

Existing Environmental Permits

1.6 Indicate below any existing environmental permits. (Check all that apply and print or type the corresponding permit number for each.)

Existing Environmental Permits		
☑ NPDES (discharges to surface water) WA0037061	☐ RCRA (hazardous waste)	☐ UIC (underground injection control)
☐ PSD (air emissions)	☐ Nonattainment program (CAA)	☐ NESHAPs (CAA)
☐ Ocean dumping (MPRSA)	☐ Dredge or fill (CWA Section 404)	☑ Other (specify) ST 6206, BA 0037061

Collection System and Population Served

1.7 Provide the collection system information requested below for the treatment works.

Municipality Served	Population Served	Collection System Type (indicate percentage)	Ownership Status
City of Lacey	49,248	100 % separate sanitary sewer	☑ Own ☑ Maintain
		____ % combined storm and sanitary sewer	☐ Own ☐ Maintain
		☐ Unknown	☐ Own ☐ Maintain
City of Olympia	51,534	90 % separate sanitary sewer	☑ Own ☑ Maintain
		10 % combined storm and sanitary sewer	☑ Own ☑ Maintain
		☐ Unknown	☐ Own ☐ Maintain
City of Tumwater	22,974	100 % separate sanitary sewer	☑ Own ☑ Maintain
		____ % combined storm and sanitary sewer	☐ Own ☐ Maintain
		☐ Unknown	☐ Own ☐ Maintain
		____ % separate sanitary sewer	☐ Own ☐ Maintain
		____ % combined storm and sanitary sewer	☐ Own ☐ Maintain
		☐ Unknown	☐ Own ☐ Maintain
Total Population Served	123,756		

	Separate Sanitary Sewer System	Combined Storm and Sanitary Sewer
Total percentage of each type of sewer line (in miles)	95 %	5 %

Indian Country

1.8 Is the treatment works located in Indian Country?

☐ Yes ☑ No

1.9 Does the facility discharge to a receiving water that flows through Indian Country?

☐ Yes ☑ No

Design and Actual Flow Rates

1.10 Provide design *and* actual flow rates in the designated spaces.

Design Flow Rate
28 mgd

Annual Average Flow Rates (Actual)		
Two Years Ago	**Last Year**	**This Year**
10.28 mgd	11.16 mgd	14.18 mgd

Maximum Daily Flow Rates (Actual)		
Two Years Ago	**Last Year**	**This Year**
29 mgd	40.96 mgd	46.68 mgd

Discharge Points by Type

1.11 Provide the total number of effluent discharge points to waters of the United States by type.

Total Number of Effluent Discharge Points by Type				
Treated Effluent	**Untreated Effluent**	**Combined Sewer Overflows**	**Bypasses**	**Constructed Emergency Overflows**
1	1	1	0	0

Outfalls and Other Discharge or Disposal Methods

Outfalls Other Than to Waters of the United States

1.12 Does the POTW discharge wastewater to basins, ponds, or other surface impoundments that do not have outlets for discharge to waters of the United States?

☐ Yes ☑ No ➔ SKIP to Item 1.14.

1.13 Provide the location of each surface impoundment and associated discharge information in the table below.

Surface Impoundment Location and Discharge Data

Location	Average Daily Volume Discharged to Surface Impoundment	Continuous or Intermittent (check one)
	gpd	☐ Continuous ☐ Intermittent
	gpd	☐ Continuous ☐ Intermittent
	gpd	☐ Continuous ☐ Intermittent

1.14 Is wastewater applied to land?

☐ Yes ☑ No ➔ SKIP to Item 1.16.

1.15 Provide the land application site and discharge data requested below.

Land Application Site and Discharge Data

Location	Size	Average Daily Volume Applied	Continuous or Intermittent (check one)
	acres	gpd	☐ Continuous ☐ Intermittent
	acres	gpd	☐ Continuous ☐ Intermittent
	acres	gpd	☐ Continuous ☐ Intermittent

1.16 Is effluent transported to another facility for treatment prior to discharge?

☐ Yes ☑ No ➔ SKIP to Item 1.21.

1.17 Describe the means by which the effluent is transported (e.g., tank truck, pipe).

1.18 Is the effluent transported by a party other than the applicant?

☐ Yes ☐ No ➔ SKIP to Item 1.20.

1.19 Provide information on the transporter below.

Transporter Data

Entity name	Mailing address (street or P.O. box)	
City or town	State	ZIP code
Contact name (first and last)	Title	
Phone number	Email address	

Outfalls and Other Discharge or Disposal Methods Continued

1.20 In the table below, indicate the name, address, contact information, NPDES number, and average daily flow rate of the receiving facility.

Receiving Facility Data		
Facility name	Mailing address (street or P.O. box)	
City or town	State	ZIP code
Contact name (first and last)	Title	
Phone number	Email address	
NPDES number of receiving facility (if any) ☐ None	Average daily flow rate mgd	

1.21 Is the wastewater disposed of in a manner other than those already mentioned in Items 1.14 through 1.21 that do not have outlets to waters of the United States (e.g., underground percolation, underground injection)?

☐ Yes ☑ No ➔ SKIP to Item 1.23.

1.22 Provide information in the table below on these other disposal methods.

Information on Other Disposal Methods				
Disposal Method Description	**Location of Disposal Site**	**Size of Disposal Site**	**Annual Average Daily Discharge Volume**	**Continuous or Intermittent** (check one)
		acres	gpd	☐ Continuous ☐ Intermittent
		acres	gpd	☐ Continuous ☐ Intermittent
		acres	gpd	☐ Continuous ☐ Intermittent

Variance Requests

1.23 Do you intend to request or renew one or more of the variances authorized at 40 CFR 122.21(n)? (Check all that apply. Consult with your NPDES permitting authority to determine what information needs to be submitted and when.)

☐ Discharges into marine waters (CWA Section 301(h))

☐ Water quality related effluent limitation (CWA Section 302(b)(2))

☑ Not applicable

Contractor Information

1.24 Are any operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a contractor?

☐ Yes ☑ No ➔ SKIP to Section 2.

1.25 Provide location and contact information for each contractor in addition to a description of the contractor's operational and maintenance responsibilities.

Contractor Information			
	Contractor 1	**Contractor 2**	**Contractor 3**
Contractor name (company name)			
Mailing address (street or P.O. box)			
City, state, and ZIP code			
Contact name (first and last)			
Phone number			
Email address			
Operational and maintenance responsibilities of contractor			

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SECTION 2. ADDITIONAL INFORMATION (40 CFR 122.21(j)(1) and (2))

Design Flow

Outfalls to Waters of the United States

2.1 Does the treatment works have a design flow greater than or equal to 0.1 mgd?

☑ Yes ☐ No ➔ SKIP to Section 3.

Inflow and Infiltration

2.2 Provide the treatment works' current average daily volume of inflow and infiltration.

Average Daily Volume of Inflow and Infiltration
3,300,000 gpd

Indicate the steps the facility is taking to minimize inflow and infiltration.

The LOTT Clean Water Alliance has an ongoing flow monitoring program that assesses the inflow and infiltration occurring in the different drainage basins.

Topographic Map

2.3 Have you attached a topographic map to this application that contains all the required information? (See instructions for specific requirements.)

☑ Yes ☐ No

Flow Diagram

2.4 Have you attached a process flow diagram or schematic to this application that contains all the required information? (See instructions for specific requirements.)

☑ Yes ☐ No

Scheduled Improvements and Schedules of Implementation

2.5 Are improvements to the facility scheduled?

☑ Yes ☐ No ➔ SKIP to Section 3.

Briefly list and describe the scheduled improvements.

1. Biological Process Improvements, should be completed in April 2023 - this is an upgrade to our BNR processes - combining our 1st Anoxic Basins with our Aeration Basins - construction started in January 2021
2. Digester Improvements - construction to start in 2023 - replacing floating covers with fixed, removing gas mixers - repl
3. See planning document starting at page 63
4.

2.6 Provide scheduled or actual dates of completion for improvements.

Scheduled or Actual Dates of Completion for Improvements

Scheduled Improvement (from above)	Affected Outfalls (list outfall number)	Begin Construction (MM/DD/YYYY)	End Construction (MM/DD/YYYY)	Begin Discharge (MM/DD/YYYY)	Attainment of Operational Level (MM/DD/YYYY)
1.	001	01/06/2021	04/01/2023	02/01/2022	02/01/2022
2.	NA	05/31/2024	06/01/2025		
3.					
4.					

2.7 Have appropriate permits/clearances concerning other federal/state requirements been obtained? Briefly explain your response.

☑ Yes ☐ No ☐ None required or applicable

Explanation:

The City of Olympia provided building, electrical, mechanical and all associated permits. The final design documents were submitted to Dept of Ecology on 5/1/2020.

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SECTION 3. INFORMATION ON EFFLUENT DISCHARGES (40 CFR 122.21(j)(3) to (5))

Description of Outfalls

3.1 Provide the following information for each outfall. (Attach additional sheets if you have more than three outfalls.)

	Outfall Number 001	Outfall Number ____	Outfall Number ____
State	WA		
County	Thurston		
City or town	Olympia		
Distance from shore	950 ft.	ft.	ft.
Depth below surface	13 ft.	ft.	ft.
Average daily flow rate	14.18 mgd	mgd	mgd
Latitude	47° 05′ 94.4″ N	° ′ ″	° ′ ″
Longitude	122° 90′ 3.89″ W	° ′ ″	° ′ ″

Seasonal or Periodic Discharge Data

3.2 Do any of the outfalls described under Item 3.1 have seasonal or periodic discharges?

☐ Yes ☑ No ➔ SKIP to Item 3.4.

3.3 If so, provide the following information for each applicable outfall.

	Outfall Number ____	Outfall Number ____	Outfall Number ____
Number of times per year discharge occurs			
Average duration of each discharge (specify units)			
Average flow of each discharge	mgd	mgd	mgd
Months in which discharge occurs			

Diffuser Type

3.4 Are any of the outfalls listed under Item 3.1 equipped with a diffuser?

☑ Yes ☐ No ➔ SKIP to Item 3.6.

3.5 Briefly describe the diffuser type at each applicable outfall.

	Outfall Number 001	Outfall Number ____	Outfall Number ____
	10" Flange Diffuser plates w/4.625 bore		

Waters of the U.S.

3.6 Does the treatment works discharge or plan to discharge wastewater to waters of the United States from one or more discharge points?

☑ Yes ☐ No ➔ SKIP to Section 6.

Receiving Water Description

3.7 Provide the receiving water and related information (if known) for each outfall.

	Outfall Number 001	Outfall Number _____	Outfall Number _____
Receiving water name	Budd Inlet, South Puget Sound		
Name of watershed, river, or stream system	Inlet-Deschutes River WA-13-		
U.S. Soil Conservation Service 14-digit watershed code			
Name of state management/river basin	WRIA 13		
U.S. Geological Survey 8-digit hydrologic cataloging unit code			
Critical low flow (acute)	cfs	cfs	cfs
Critical low flow (chronic)	cfs	cfs	cfs
Total hardness at critical low flow	mg/L of $CaCO_3$	mg/L of $CaCO_3$	mg/L of $CaCO_3$

Treatment Description

3.8 Provide the following information describing the treatment provided for discharges from each outfall.

	Outfall Number 001	Outfall Number _____	Outfall Number _____
Highest Level of Treatment (check all that apply per outfall)	☑ Primary ☑ Equivalent to secondary ☑ Secondary ☑ Advanced ☑ Other (specify) Coagulation & Sand Fi	☐ Primary ☐ Equivalent to secondary ☐ Secondary ☐ Advanced ☐ Other (specify) _____	☐ Primary ☐ Equivalent to secondary ☐ Secondary ☐ Advanced ☐ Other (specify) _____
Design Removal Rates by Outfall			
BOD_5 or $CBOD_5$	95 %	%	%
TSS	95 %	%	%
Phosphorus	☑ Not applicable %	☐ Not applicable %	☐ Not applicable %
Nitrogen	☐ Not applicable 90 %	☐ Not applicable %	☐ Not applicable %
Other (specify) N/A	☐ Not applicable %	☐ Not applicable %	☐ Not applicable %

Treatment Description Continued

3.9 Describe the type of disinfection used for the effluent from each outfall in the table below. If disinfection varies by season, describe below.

	Outfall Number 001	Outfall Number ____	Outfall Number ____
Disinfection type	Ultraviolet Radiation		
Seasons used	All		
Dechlorination used?	☑ Not applicable ☐ Yes ☐ No	☐ Not applicable ☐ Yes ☐ No	☐ Not applicable ☐ Yes ☐ No

Effluent Testing Data

3.10 Have you completed monitoring for all Table A parameters and attached the results to the application package?

☑ Yes ☐ No

3.11 Have you conducted any WET tests during the 4.5 years prior to the date of the application on any of the facility's discharges or on any receiving water near the discharge points?

☑ Yes ☐ No ➔ SKIP to Item 3.13.

3.12 Indicate the number of acute and chronic WET tests conducted since the last permit reissuance of the facility's discharges by outfall number or of the receiving water near the discharge points.

	Outfall Number 001		Outfall Number ____		Outfall Number ____	
	Acute	Chronic	Acute	Chronic	Acute	Chronic
Number of tests of discharge water		8				
Number of tests of receiving water						

3.13 Does the treatment works have a design flow greater than or equal to 0.1 mgd?

☑ Yes ☐ No ➔ SKIP to Item 3.16.

3.14 Does the POTW use chlorine for disinfection, use chlorine elsewhere in the treatment process, or otherwise have reasonable potential to discharge chlorine in its effluent?

☐ Yes ➔ Complete Table B, including chlorine. ☑ No ➔ Complete Table B, omitting chlorine.

3.15 Have you completed monitoring for all applicable Table B pollutants and attached the results to this application package?

☑ Yes ☐ No

3.16 Does one or more of the following conditions apply?

- The facility has a design flow greater than or equal to 1 mgd.
- The POTW has an approved pretreatment program or is required to develop such a program.
- The NPDES permitting authority has informed the POTW that it must sample for the parameters in Table C, must sample other additional parameters (Table D), or submit the results of WET tests for acute or chronic toxicity for each of its discharge outfalls (Table E).

☑ Yes ➔ Complete Tables C, D, and E as applicable. ☐ No ➔ SKIP to Section 4.

3.17 Have you completed monitoring for all applicable Table C pollutants and attached the results to this application package?

☑ Yes ☐ No

3.18 Have you completed monitoring for all applicable Table D pollutants required by your NPDES permitting authority and attached the results to this application package?

☑ Yes ☐ No additional sampling required by NPDES permitting authority.

Effluent Testing Data Continued

3.19 Has the POTW conducted either (1) minimum of four quarterly WET tests for one year preceding this permit application or (2) at least four annual WET tests in the past 4.5 years?

☑ Yes ☐ No ➔ Complete tests and Table E and SKIP to Item 3.26.

3.20 Have you previously submitted the results of the above tests to your NPDES permitting authority?

☑ Yes ☐ No ➔ Provide results in Table E and SKIP to Item 3.26.

3.21 Indicate the dates the data were submitted to your NPDES permitting authority and provide a summary of the results.

Date(s) Submitted (MM/DD/YYYY)	Summary of Results
	12/3/18-No toxicity detected, NOEC 100% in all analyses 4/11/19-No toxicity detected, NOEC 100% in topsmelt analyses. NOEC 100% and 30% in mysid analyses 6/26/20 -No toxicity detected, NOEC 100% in all analyses 7/23/21-No toxicity detected, NOEC 100% in all analyses

3.22 Regardless of how you provided your WET testing data to the NPDES permitting authority, did any of the tests result in toxicity?

☐ Yes ☑ No ➔ SKIP to Item 3.26.

3.23 Describe the cause(s) of the toxicity:

3.24 Has the treatment works conducted a toxicity reduction evaluation?

☐ Yes ☐ No ➔ SKIP to Item 3.26.

3.25 Provide details of any toxicity reduction evaluations conducted.

3.26 Have you completed Table E for all applicable outfalls and attached the results to the application package?

☑ Yes ☐ Not applicable because previously submitted information to the NPDES permitting authority.

SECTION 4. INDUSTRIAL DISCHARGES AND HAZARDOUS WASTES (40 CFR 122.21(j)(6) and (7))

Industrial Discharges and Hazardous Wastes

4.1 Does the POTW receive discharges from SIUs or NSCIUs?

☑ Yes ☐ No ➔ SKIP to Item 4.7.

4.2 Indicate the number of SIUs and NSCIUs that discharge to the POTW.

Number of SIUs	Number of NSCIUs
6	5

4.3 Does the POTW have an approved pretreatment program?

☑ Yes ☐ No

4.4 Have you submitted either of the following to the NPDES permitting authority that contains information substantially identical to that required in Table F: (1) a pretreatment program annual report submitted within one year of the application or (2) a pretreatment program?

☑ Yes ☐ No ➔ SKIP to Item 4.6.

4.5 Identify the title and date of the annual report or pretreatment program referenced in Item 4.4. SKIP to Item 4.7.

LOTT Clean Water Alliance Annual Pretreatment Report February 23, 2022

4.6 Have you completed and attached Table F to this application package?

☑ Yes ☐ No

Industrial Discharges and Hazardous Wastes Continued

4.7 Does the POTW receive, or has it been notified that it will receive, by truck, rail, or dedicated pipe, any wastes that are regulated as RCRA hazardous wastes pursuant to 40 CFR 261?

☐ Yes ☑ No ➔ SKIP to Item 4.9.

4.8 If yes, provide the following information:

Hazardous Waste Number	Waste Transport Method (check all that apply)	Annual Amount of Waste Received	Units
	☐ Truck ☐ Rail ☐ Dedicated pipe ☐ Other (specify) _____		
	☐ Truck ☐ Rail ☐ Dedicated pipe ☐ Other (specify) _____		
	☐ Truck ☐ Rail ☐ Dedicated pipe ☐ Other (specify) _____		

4.9 Does the POTW receive, or has it been notified that it will receive, wastewaters that originate from remedial activities, including those undertaken pursuant to CERCLA and Sections 3004(7) or 3008(h) of RCRA?

☐ Yes ☑ No ➔ SKIP to Section 5.

4.10 Does the POTW receive (or expect to receive) less than 15 kilograms per month of non-acute hazardous wastes as specified in 40 CFR 261.30(d) and 261.33(e)?

☐ Yes ➔ SKIP to Section 5. ☐ No

4.11 Have you reported the following information in an attachment to this application: identification and description of the site(s) or facility(ies) at which the wastewater originates; the identities of the wastewater's hazardous constituents; and the extent of treatment, if any, the wastewater receives or will receive before entering the POTW?

☐ Yes ☐ No

SECTION 5. COMBINED SEWER OVERFLOWS (40 CFR 122.21(j)(8))

CSO Map and Diagram

5.1 Does the treatment works have a combined sewer system?

☑ Yes ☐ No ➔ SKIP to Section 6.

5.2 Have you attached a CSO system map to this application? (See instructions for map requirements.)

☑ Yes ☐ No

5.3 Have you attached a CSO system diagram to this application? (See instructions for diagram requirements.)

☑ Yes ☐ No

CSO Outfall Description

5.4 For each CSO outfall, provide the following information. (Attach additional sheets as necessary.)

	CSO Outfall Number 002	CSO Outfall Number ____	CSO Outfall Number ____
City or town	Olympia		
State and ZIP code	WA 98501		
County	Thurston		
Latitude	47° 05′ 11.1″ N	° ′ ″	° ′ ″
Longitude	122° 90′ 38.9″ W	° ′ ″	° ′ ″
Distance from shore	150 ft.	ft.	ft.
Depth below surface	16 ft.	ft.	ft.

CSO Monitoring

5.5 Did the POTW monitor any of the following items in the past year for its CSO outfalls?

	CSO Outfall Number 002	CSO Outfall Number ____	CSO Outfall Number ____
Rainfall	☐ Yes ☑ No	☐ Yes ☐ No	☐ Yes ☐ No
CSO flow volume	☐ Yes ☑ No	☐ Yes ☐ No	☐ Yes ☐ No
CSO pollutant concentrations	☐ Yes ☑ No	☐ Yes ☐ No	☐ Yes ☐ No
Receiving water quality	☐ Yes ☑ No	☐ Yes ☐ No	☐ Yes ☐ No
CSO frequency	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Number of storm events	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

CSO Events in Past Year

5.6 Provide the following information for each of your CSO outfalls.

	CSO Outfall Number 002	CSO Outfall Number ____	CSO Outfall Number ____
Number of CSO events in the past year	0 events	0 events	events
Average duration per event	hours ☐ Actual or ☐ Estimated	hours ☐ Actual or ☐ Estimated	hours ☐ Actual or ☐ Estimated
Average volume per event	million gallons ☐ Actual or ☐ Estimated	million gallons ☐ Actual or ☐ Estimated	million gallons ☐ Actual or ☐ Estimated
Minimum rainfall causing a CSO event in last year	inches of rainfall ☐ Actual or ☐ Estimated	inches of rainfall ☐ Actual or ☐ Estimated	inches of rainfall ☐ Actual or ☐ Estimated

CSO Receiving Waters

5.7 Provide the information in the table below for each of your CSO outfalls.

	CSO Outfall Number 002	CSO Outfall Number ____	CSO Outfall Number ____
Receiving water name	Budd Inlet, Puget Sound		
Name of watershed/ stream system	Inlet-Deschutes River WA-13-		
U.S. Soil Conservation Service 14-digit watershed code (if known)	☑ Unknown	☐ Unknown	☐ Unknown
Name of state management/river basin	WRIA 13		
U.S. Geological Survey 8-Digit Hydrologic Unit Code (if known)	☑ Unknown	☐ Unknown	☐ Unknown
Description of known water quality impacts on receiving stream by CSO (see instructions for examples)	None - last bypass event for CSO was 2009		

SECTION 6. CHECKLIST AND CERTIFICATION STATEMENT (40 CFR 122.22(a) and (d))

Checklist and Certification Statement

6.1 In Column 1 below, mark the sections of Form 2A that you have completed and are submitting with your application. For each section, specify in Column 2 any attachments that you are enclosing to alert the permitting authority. Note that not all applicants are required to provide attachments.

Column 1	Column 2	
☑ Section 1: Basic Application Information for All Applicants	☐ w/ variance request(s)	☐ w/ additional attachments
☑ Section 2: Additional Information	☑ w/ topographic map ☐ w/ additional attachments	☑ w/ process flow diagram
☑ Section 3: Information on Effluent Discharges	☑ w/ Table A ☑ w/ Table B ☑ w/ Table C	☑ w/ Table D ☑ w/ Table E ☐ w/ additional attachments
☑ Section 4: Industrial Discharges and Hazardous Wastes	☑ w/ SIU and NSCIU attachments ☐ w/ additional attachments	☑ w/ Table F
☑ Section 5: Combined Sewer Overflows	☑ w/ CSO map ☑ w/ CSO system diagram	☐ w/ additional attachments
☑ Section 6: Checklist and Certification Statement	☑ w/ attachments	

6.2 **Certification Statement**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name (print or type first and last name)	Official title
Michael D. Strub, P.E.	Executive Director
Signature 	Date signed AUG. 11, 2022

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TABLE A. EFFLUENT PARAMETERS FOR ALL POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method[1]	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Biochemical oxygen demand ☑ BOD_5 or ☐ $CBOD_5$ (report one)	14.6	mg/L	3.82	mg/L	216	SM5210 B	2.0 ☐ ML ☑ MDL
Fecal coliform	80	#/100mL	4.9	#/100mL	365	SM9222 D	1 ☐ ML ☑ MDL
Design flow rate	46.68	MGD	11.24	MGD	365		
pH (minimum)	6.21	s.u.					
pH (maximum)	7.29	s.u.					
Temperature (winter)	18.2	°C	14.6	°C	120		
Temperature (summer)	22.5	°C	21.1	°C	122		
Total suspended solids (TSS)	47.3	mg/L	7.06	mg/L	365	SM2540 D	2 ☐ ML ☑ MDL

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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TABLE B. EFFLUENT PARAMETERS FOR ALL POTWS WITH A FLOW EQUAL TO OR GREATER THAN 0.1 MGD

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method[1]	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Ammonia (as N)	1.67	mg/L	0.120	mg/L	154	EPA 350.1-2	0.01 mg/L ☐ ML ☑ MDL
Chlorine (total residual, TRC)[2]							☐ ML ☐ MDL
Dissolved oxygen	9.94	mg/L	7.63	mg/L	365	SM4500-O G.	1.0 mg/L ☐ ML ☑ MDL
Nitrate/nitrite	5.97	mg/L	2.29	mg/L	154	SM4500-NO3 F.	.004 mg/L ☐ ML ☑ MDL
Kjeldahl nitrogen	3.58	mg/L	1.68	mg/L	150	EPA 351.2-2	0.22 mg/L ☐ ML ☑ MDL
Oil and grease	4.7	mg/L	2.6	mg/L	18	1664A	0.8 mg/L ☐ ML ☑ MDL
Phosphorus	5.34	mg/L	3.62	mg/L	12	365.3	0.10 mg/L ☐ ML ☑ MDL
Total dissolved solids	314	mg/L	274	mg/L	3	SM2540 C	5 mg/L ☑ ML ☐ MDL

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

[2] Facilities that do not use chlorine for disinfection, do not use chlorine elsewhere in the treatment process, and have no reasonable potential to discharge chlorine in their effluent are not required to report data for chlorine.

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EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA0037061	Budd Inlet Treatment Plant	

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TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method[1]	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Metals, Cyanide, and Total Phenols							
Hardness (as $CaCO_3$)	94.8	mg/L	80.9	mg/L	3	SM2340 C	0.8 mg/L ☐ ML ☑ MDL
Antimony, total recoverable	0.556	µg/L	0.343	µg/L	12	200.8	0.020µg/L ☐ ML ☑ MDL
Arsenic, total recoverable	1.52	µg/L	1.25	µg/L	12	200.8	0.09 µg/L ☐ ML ☑ MDL
Beryllium, total recoverable	<0.030	µg/L	<0.007	µg/L	12	200.8	0.005µg/L ☐ ML ☑ MDL
Cadmium, total recoverable	0.138	µg/L	0.035	µg/L	12	200.8	0.008µg/L ☐ ML ☑ MDL
Chromium, total recoverable	1.35	µg/L	0.48	µg/L	12	200.8	0.03 µg/L ☐ ML ☑ MDL
Copper, total recoverable	56.8	µg/L	10.8	µg/L	12	200.8	0.05 µg/l ☐ ML ☑ MDL
Lead, total recoverable	2.23	µg/L	0.463	µg/L	12	200.8	0.006µ/L ☐ ML ☑ MDL
Mercury, total recoverable	3.09	ng/L	1.75	ng/L	12	1631 E	0.06 ng/L ☐ ML ☑ MDL
Nickel, total recoverable	2.62	µg/L	1.48	µg/L	12	200.8	0.04 µg/L ☐ ML ☑ MDL
Selenium, total recoverable	<1.0	µg/L	<0.3	µg/L	12	200.8	0.2 µg/L ☐ ML ☑ MDL
Silver, total recoverable	0.182	µg/L	<0.03	µg/L	12	200.8	0.009µg/L ☐ ML ☑ MDL
Thallium, total recoverable	0.120	µg/L	<0.02	µg/L	12	200.8	0.009µg/L ☐ ML ☑ MDL
Zinc, total recoverable	131	µg/L	64.3	µg/L	12	200.8	0.5 µg/L ☐ ML ☑ MDL
Cyanide	0.002	mg/L	<0.0009	mg/L	18	SM4500-CN E.	.0005mg/L ☐ ML ☑ MDL
Total phenolic compounds	0.038	mg/L	<0.008	mg/L	18	420.1	).004mg/L ☐ ML ☑ MDL
Volatile Organic Compounds							
Acrolein	<2	µg/L	<1.3	µg/L	4	624.1	2 µg/L ☐ ML ☑ MDL
Acrylonitrile	<0.2	µg/L	<0.14	µg/L	4	624.1	0.2 µg/L ☐ ML ☑ MDL
Benzene	<0.060	µg/L	<0.038	µg/L	4	624.1	0.06 µg/L ☐ ML ☑ MDL
Bromoform	<0.40	µg/L	<0.23	µg/L	4	624.1	0.4 µg/L ☐ ML ☑ MDL

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
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TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method[1]	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Carbon tetrachloride	<0.2	µg/L	<0.095	µg/L	4	624.1	0.2 µg/L ☐ ML ☑ MDL
Chlorobenzene	<0.050	µg/L	<0.036	µg/L	4	624.1	0.05 µg/L ☐ ML ☑ MDL
Chlorodibromomethane	J0.37	µg/L	<0.185	µg/L	4	624.1	0.2 µg/L ☐ ML ☑ MDL
Chloroethane	<0.1	µg/L	<0.066	µg/L	4	624.1	0.1 µg/L ☐ ML ☑ MDL
2-chloroethylvinyl ether	<0.2	µg/L	<0.14	µg/L	4	624.1	0.2 µg/L ☐ ML ☑ MDL
Chloroform	4.8	µg/L	1.5	µg/L	4	624.1	0.07 µg/L ☐ ML ☑ MDL
Dichlorobromomethane	J1.8	µg/L	0.62	µg/L	4	624.1	0.2 µg/L ☐ ML ☑ MDL
1,1-dichloroethane	<0.07	µg/L	<0.036	µg/L	4	624.1	0.07 µg/L ☐ ML ☑ MDL
1,2-dichloroethane	<0.06	µg/L	<0.042	µg/L	4	624.1	0.06 µg/L ☐ ML ☑ MDL
trans-1,2-dichloroethylene	<0.07	µg/L	<0.042	µg/L	4	624.1	0.07 µg/L ☐ ML ☑ MDL
1,1-dichloroethylene	<0.08	µg/L	<0.047	µg/L	4	624.1	0.08 µg/L ☐ ML ☑ MDL
1,2-dichloropropane	<0.07	µg/L	<0.051	µg/L	4	624.1	0.07 µg/L ☐ ML ☑ MDL
1,3-dichloropropylene	<0.09	µg/L	<0.051	µg/L	4	624.1	0.09 µg/L ☐ ML ☑ MDL
Ethylbenzene	<0.03	µg/L	<0.03	µg/L	4	624.1	0.03 µg/L ☐ ML ☑ MDL
Methyl bromide	J0.42	µg/L	<0.056	µg/L	4	624.1	0.09 µg/L ☐ ML ☑ MDL
Methyl chloride	J1.4	µg/L	0.48	µg/L	4	624.1	0.06 µg/L ☐ ML ☑ MDL
Methylene chloride	<0.3	µg/L	<0.195	µg/L	4	624.1	0.3 µg/L ☐ ML ☑ MDL
1,1,2,2-tetrachloroethane	<0.08	µg/L	<0.067	µg/L	4	624.1	0.08 µg/L ☐ ML ☑ MDL
Tetrachloroethylene	<0.05	µg/L	<0.037	µg/L	4	624.1	0.05 µg/L ☐ ML ☑ MDL
Toluene	J0.19	µg/L	<0.093	µg/L	4	624.1	0.07 µg/L ☐ ML ☑ MDL
1,1,1-trichloroethane	<0.07	µg/L	<0.051	µg/L	4	624.1	0.07 µg/L ☐ ML ☑ MDL
1,1,2-trichloroethane	<0.06	µg/L	<0.049	µg/L	4	624.1	0.06 µg/L ☐ ML ☑ MDL

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
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TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method[1]	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Trichloroethylene	<0.08	µg/L	<0.053	µg/L	4	624.1	0.08 µg/L ☐ ML ☑ MDL
Vinyl chloride	<0.09	µg/L	<0.046	µg/L	4	624.1	0.09 µg/L ☐ ML ☑ MDL
Acid-Extractable Compounds							
p-chloro-m-cresol	<0.18	µg/L	<0.073	µg/L	4	625.1	0.18 µg/L ☐ ML ☑ MDL
2-chlorophenol	<0.057	µg/L	<0.055	µg/L	4	625.1	0.057 µg/L ☐ ML ☑ MDL
2,4-dichlorophenol	<0.11	µg/L	<0.063	µg/L	4	625.1	0.11 µg/L ☐ ML ☑ MDL
2,4-dimethylphenol	<2.2	µg/L	<1.7	µg/L	4	625.1	0.2 µg/L ☐ ML ☑ MDL
4,6-dinitro-o-cresol	<1.7	µg/L	<0.44	µg/L	4	625.1	1.7 µg/L ☐ ML ☐ MDL
2,4-dinitrophenol	<1.8	µg/L	<0.58	µg/L	4	625.1	1.8 µg/L ☐ ML ☑ MDL
2-nitrophenol	<0.086	µg/L	<0.069	µg/L	4	625.1	0.086 µg/L ☐ ML ☑ MDL
4-nitrophenol	<1.8	µg/L	<0.66	µg/L	4	625.1	1.8 µg/L ☐ ML ☑ MDL
Pentachlorophenol	J0.67	µg/L	<0.46	µg/L	4	625.1	0.49 µg/L ☐ ML ☑ MDL
Phenol	0.59	µg/L	<0.185	µg/L	4	625.1	0.022 µg/L ☐ ML ☑ MDL
2,4,6-trichlorophenol	<0.3	µg/L	<0.144	µg/L	4	625.1	0.3 µg/L ☐ ML ☑ MDL
Base-Neutral Compounds							
Acenaphthene	<0.038	µg/L	<0.029	µg/L	4	625.1	0.038 µg/L ☐ ML ☑ MDL
Acenaphthylene	<0.052	µg/L	<0.024	µg/L	4	625.1	0.52 µg/L ☐ ML ☑ MDL
Anthracene	<0.12	µg/L	<0.048	µg/L	4	625.1	0.12 µg/L ☐ ML ☑ MDL
Benzidine	<29	µg/L	<15.5	µg/L	4	625.1	1.9 µg/L ☐ ML ☑ MDL
Benzo(a)anthracene	<0.06	µg/L	<0.029	µg/L	4	625.1	0.06 µg/L ☐ ML ☑ MDL
Benzo(a)pyrene	<0.064	µg/L	<0.039	µg/L	4	625.1	0.064 µg/L ☐ ML ☑ MDL
3,4-benzofluoranthene	<0.055	µg/L	<0.027	µg/L	4	625.1	0.055 µg/L ☐ ML ☑ MDL

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
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TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method[1]	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
Benzo(ghi)perylene	<0.14	µg/L	<0.049	µg/L	4	625.1	0.14 µg/L ☐ ML ☑ MDL
Benzo(k)fluoranthene	<0.055	µg/L	<0.032	µg/L	4	625.1	0.055 µg/L ☐ ML ☑ MDL
Bis (2-chloroethoxy) methane	<0.056	µg/L	<0.032	µg/L	4	625.1	0.056 µg/L ☐ ML ☑ MDL
Bis (2-chloroethyl) ether	<0.066	µg/L	<0.043	µg/L	4	625.1	0.066 µg/L ☐ ML ☑ MDL
Bis (2-chloroisopropyl) ether	<0.046	µg/L	<0.033	µg/L	4	625.1	0.046 µg/L ☐ ML ☑ MDL
Bis (2-ethylhexyl) phthalate	J1.1	µg/L	<0.53	µg/L	4	625.1	0.58 µg/L ☐ ML ☑ MDL
4-bromophenyl phenyl ether	<0.056	µg/L	<0.034	µg/L	4	625.1	0.056 µg/L ☐ ML ☑ MDL
Butyl benzyl phthalate	<0.78	µg/L	<0.28	µg/L	4	625.1	0.78 µg/L ☐ ML ☐ MDL
2-chloronaphthalene	<0.041	µg/L	<0.040	µg/L	4	625.1	0.038 µg/L ☐ ML ☑ MDL
4-chlorophenyl phenyl ether	<0.051	µg/L	<0.033	µg/L	4	625.1	0.051 µg/L ☐ ML ☑ MDL
Chrysene	<0.079	µg/L	<0.041	µg/L	4	625.1	0.079 µg/L ☐ ML ☑ MDL
di-n-butyl phthalate	<0.73	µg/L	<0.25	µg/L	4	625.1	0.73 µg/L ☐ ML ☑ MDL
di-n-octyl phthalate	0.23	µg/L	<0.105	µg/L	4	625.1	0.14 µg/L ☐ ML ☑ MDL
Dibenzo(a,h)anthracene	<0.15	µg/L	<0.05	µg/L	4	625.1	0.15 µg/L ☐ ML ☑ MDL
1,2-dichlorobenzene	<0.086	µg/L	<0.08	µg/L	4	625.1	0.06 µg/L ☐ ML ☑ MDL
1,3-dichlorobenzene	<0.086	µg/L	<0.072	µg/L	4	625.1	0.06 µg/L ☐ ML ☑ MDL
1,4-dichlorobenzene	J0.15	µg/L	<0.121	µg/L	4	625.1	0.09 µg/L ☐ ML ☑ MDL
3,3-dichlorobenzidine	<0.43	µg/L	<0.35	µg/L	4	625.1	0.089 µg/L ☐ ML ☐ MDL
Diethyl phthalate	J0.88	µg/L	<0.056	µg/L	4	625.1	0.065 µg/L ☐ ML ☑ MDL
Dimethyl phthalate	<0.068	µg/L	<0.033	µg/L	4	625.1	0.068 µg/L ☐ ML ☑ MDL
2,4-dinitrotoluene	<0.190	µg/L	<0.075	µg/L	4	625.1	0.19 µg/L ☐ ML ☑ MDL
2,6-dinitrotoluene	<0.170	µg/L	<0.067	µg/L	4	625.1	0.17 µg/L ☐ ML ☑ MDL

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TABLE C. EFFLUENT PARAMETERS FOR SELECTED POTWS

Pollutant	Maximum Daily Discharge		Average Daily Discharge			Analytical Method[1]	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
1,2-diphenylhydrazine	<0.082	µg/L	<0.036	µg/L	4	625.1	0.082 µg/L ☐ ML ☑ MDL
Fluoranthene	<0.069	µg/L	<0.032	µg/L	4	625.1	0.069 µg/L ☐ ML ☐ MDL
Fluorene	<0.035	µg/L	<0.029	µg/L	4	625.1	0.035 µg/L ☐ ML ☑ MDL
Hexachlorobenzene	<0.041	µg/L	<0.027	µg/L	4	625.1	0.041 µg/L ☐ ML ☑ MDL
Hexachlorobutadiene	<0.21	µg/L	<0.073	µg/L	4	625.1	0.21 µg/L ☐ ML ☑ MDL
Hexachlorocyclo-pentadiene	<1.1	µg/L	<0.42	µg/L	4	625.1	1.1 µg/L ☐ ML ☑ MDL
Hexachloroethane	<0.21	µg/L	<0.071	µg/L	4	625.1	0.21 µg/L ☐ ML ☑ MDL
Indeno(1,2,3-cd)pyrene	<0.2	µg/L	<0.066	µg/L	4	625.1	0.2 µg/L ☐ ML ☑ MDL
Isophorone	<0.17	µg/L	<0.078	µg/L	4	625.1	0.17 µg/L ☐ ML ☑ MDL
Naphthalene	<0.087	µg/L	<0.062	µg/L	4	625.1	0.039 µg/L ☐ ML ☑ MDL
Nitrobenzene	<0.14	µg/L	<0.056	µg/L	4	625.1	0.14 µg/L ☐ ML ☑ MDL
N-nitrosodi-n-propylamine	<0.14	µg/L	<0.063	µg/L	4	625.1	0.14 µg/L ☐ ML ☑ MDL
N-nitrosodimethylamine	<0.42	µg/L	<0.39	µg/L	4	625.1	0.28 µg/L ☐ ML ☑ MDL
N-nitrosodiphenylamine	<0.082	µg/L	<0.057	µg/L	4	625.1	0.082 µg/L ☐ ML ☑ MDL
Phenanthrene	<0.034	µg/L	<0.026	µg/L	4	625.1	0.034 µg/L ☐ ML ☑ MDL
Pyrene	<0.09	µg/L	<0.037	µg/L	4	625.1	0.09 µg/L ☐ ML ☑ MDL
1,2,4-trichlorobenzene	<0.160	µg/L	<0.056	µg/L	4	625.1	0.033 µg/L ☐ ML ☑ MDL

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR Chapter I, Subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
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TABLE D. ADDITIONAL POLLUTANTS AS REQUIRED BY NPDES PERMITTING AUTHORITY

Pollutant (list)	Maximum Daily Discharge		Average Daily Discharge			Analytical Method[1]	ML or MDL (include units)
	Value	Units	Value	Units	Number of Samples		
☐ No additional sampling is required by NPDES permitting authority.							
P, sol. reactive, mg/L	5.22	mg/L	3.46	mg/L	12	365.3	0.04 mg/L ☐ ML ☑ MDL
							☐ ML ☐ MDL
							☐ ML ☐ MDL
							☐ ML ☐ MDL
							☐ ML ☐ MDL
							☐ ML ☐ MDL
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							☐ ML ☐ MDL
							☐ ML ☐ MDL
							☐ ML ☐ MDL
							☐ ML ☐ MDL
							☐ ML ☐ MDL

[1] Sampling shall be conducted according to sufficiently sensitive test procedures (i.e., methods) approved under 40 CFR 136 for the analysis of pollutants or pollutant parameters or required under 40 CFR chapter I, subchapter N or O. See instructions and 40 CFR 122.21(e)(3).

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EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA0037061	Budd Inlet Treatment Plant	001

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TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for one whole effluent toxicity sample. Copy the table to report additional test results.

Test Information

	Test Number 1	Test Number 2	Test Number 3
Test species	Americamysis bahia	Atherinops affinis	Americamysis bahia
Age at initiation of test	7 days post-hatch	10 days post-hatch	7 days post-hatch
Outfall number	001	001	001
Date sample collected	11/05/2018	11/05/2018	03/11/2019
Date test started	11/06/2018	11/06/2018	03/12/2019
Duration	7 days	7 days	7 days
Toxicity Test Methods			
Test method number	EPA-821-R-02-014	EPA-600-R-95-136	EPA-821-R-02-014
Manual title	Chronic Toxicity of Effluents and Receiving Wat	Toxicity of Effluents and Receiving Waters to th	Chronic Toxicity of Effluents and Receiving Wat
Edition number and year of publication	Third Edition	First Edition	Third Edition
Page number(s)	pp 214-292	pp 71-140	pp 214-292
Sample Type			
Check one:	☐ Grab ☑ 24-hour composite	☐ Grab ☑ 24-hour composite	☐ Grab ☑ 24-hour composite
Sample Location			
Check one:	☐ Before Disinfection ☑ After Disinfection ☐ After Dechlorination	☐ Before Disinfection ☑ After Disinfection ☐ After Dechlorination	☐ Before disinfection ☑ After disinfection ☐ After dechlorination
Point in Treatment Process			
Describe the point in the treatment process at which the sample was collected for each test.	UV Effluent Channel after UV Disinfection	UV Effluent Channel after UV Disinfection	UV Effluent Channel after UV Disinfection
Toxicity Type			
Indicate for each test whether the test was performed to asses acute or chronic toxicity, or both. (Check one response.)	☐ Acute ☑ Chronic ☐ Both	☐ Acute ☑ Chronic ☐ Both	☐ Acute ☑ Chronic ☐ Both

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
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TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for one whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number 1	Test Number 2	Test Number 3
Test Type			
Indicate the type of test performed. (Check one response.)	☐ Static ☑ Static-renewal ☐ Flow-through	☐ Static ☑ Static-renewal ☐ Flow-through	☐ Static ☑ Static-renewal ☐ Flow-through
Source of Dilution Water			
Indicate the source of dilution water. (Check one response.)	☑ Laboratory water ☐ Receiving water	☑ Laboratory water ☐ Receiving water	☑ Laboratory water ☐ Receiving water
If laboratory water, specify type.	Crystal Sea Marine Mix artificial seawater	Crystal Sea Marine Mix artificial seawater	Crystal Sea Marine Mix artificial seawater
If receiving water, specify source.			
Type of Dilution Water			
Indicate the type of dilution water. If salt water, specify "natural" or type of artificial sea salts or brine used.	☐ Fresh water ☑ Salt water (specify)	☐ Fresh water ☑ Salt water (specify)	☐ Fresh water ☑ Salt water (specify)
Percentage Effluent Used			
Specify the percentage effluent used for all concentrations in the test series.	100, 30, 10, 2.8, 2.0, 0 (Control)	100, 30, 10, 2.8, 2.0, 0 (Control)	100, 30, 10, 2.8, 2.0, 0 (Control

Parameters Tested						
Check the parameters tested.	■ pH ☐ Salinity ☐ Temperature	☐ Ammonia ☐ Dissolved oxygen	■ pH ☐ Salinity ☐ Temperature	☐ Ammonia ☐ Dissolved oxygen	■ pH ☐ Salinity ☐ Temperature	☐ Ammonia ☐ Dissolved oxygen

Acute Test Results			
Percent survival in 100% effluent	%	%	%
LC_{50}			
95% confidence interval	%	%	%
Control percent survival	%	%	%

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	WA0037061	Budd Inlet Treatment Plant	001

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TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for one whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number 1		Test Number 2		Test Number 3	
Acute Test Results Continued						
Other (describe)						
Chronic Test Results						
NOEC	100 %		100 %		100 %	
IC_{25}	%		%		%	
Control percent survival	90 %		96 %		97.5 %	
Other (describe)	7 day biomass NOEC: 100% 7 day dry weight NOEC: 100%		7 day biomass NOEC: 100% 7 day dry weight NOEC: 100%		7 day biomass NOEC: 30% 7 day dry weight NOEC: 30%	
Quality Control/Quality Assurance						
Is reference toxicant data available?	☑ Yes	☐ No	☑ Yes	☐ No	☑ Yes	☐ No
Was reference toxicant test within acceptable bounds?	☑ Yes	☐ No	☑ Yes	☐ No	☑ Yes	☐ No
What date was reference toxicant test run (MM/DD/YYYY)?	11/06/2018		11/06/2018		03/12/2019	
Other (describe)						

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA0037061	Budd Inlet Treatment Plant	001

Form Approved 03/05/19
OMB No. 2040-0004

TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for one whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number 4	Test Number 5	Test Number 6
Test Information			
Test species	Atherinops affinis	Americamysis bahia	Atherinops affinis
Age at initiation of test	11 days post-hatch	7 days	
Outfall number	001	001	001
Date sample collected	03/11/2019	05/18/2020	05/18/2020
Date test started	03/12/2019	05/19/2020	05/19/2020
Duration	7 days	7 days	
Toxicity Test Methods			
Test method number	EPA-600-R-95-136	EPA-821-R-02-014	EPA-600-R-95-136
Manual title	Toxicity of Effluents and Receiving Waters to th	Chronic Toxicity of Effluents and Receiving Wa	Toxicity of Effluents and Receiving Waters to th
Edition number and year of publication	First Edition	Third Edition	First Edition
Page number(s)	pp 71-140	pp 214-292	pp 71-140
Sample Type			
Check one:	☐ Grab ☑ 24-hour composite	☐ Grab ☑ 24-hour composite	☐ Grab ☑ 24-hour composite
Sample Location			
Check one:	☐ Before Disinfection ☑ After Disinfection ☐ After Dechlorination	☐ Before Disinfection ☑ After Disinfection ☐ After Dechlorination	☐ Before disinfection ☑ After disinfection ☐ After dechlorination
Point in Treatment Process			
Describe the point in the treatment process at which the sample was collected for each test.	UV Effluent Channel after UV Disinfection	UV Effluent Channel after UV Disinfection	UV Effluent Channel after UV Disinfection
Toxicity Type			
Indicate for each test whether the test was performed to asses acute or chronic toxicity, or both. (Check one response.)	☐ Acute ☑ Chronic ☐ Both	☐ Acute ☑ Chronic ☐ Both	☐ Acute ☑ Chronic ☐ Both

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA0037061	Budd Inlet Treatment Plant	001

Form Approved 03/05/19
OMB No. 2040-0004

TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for one whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number 4	Test Number 5	Test Number 6
Test Type			
Indicate the type of test performed. (Check one response.)	☐ Static ☑ Static-renewal ☐ Flow-through	☐ Static ☑ Static-renewal ☐ Flow-through	☐ Static ☑ Static-renewal ☐ Flow-through
Source of Dilution Water			
Indicate the source of dilution water. (Check one response.)	☑ Laboratory water ☐ Receiving water	☑ Laboratory water ☐ Receiving water	☑ Laboratory water ☐ Receiving water
If laboratory water, specify type.	Crystal Sea Marine Mix artificial seawater	0.45um-filtered North Hood Canal seawater	0.45um-filtered North Hood Canal seawater
If receiving water, specify source.			
Type of Dilution Water			
Indicate the type of dilution water. If salt water, specify "natural" or type of artificial sea salts or brine used.	☐ Fresh water ☑ Salt water (specify)	☐ Fresh water ☑ Salt water (specify)	☐ Fresh water ☑ Salt water (specify)
Percentage Effluent Used			
Specify the percentage effluent used for all concentrations in the test series.	100, 30, 10, 2.8, 2.0, 0 (Control)	100, 30, 10, 2.8, 2.0, 0 (Control)	100, 30, 10, 2.8, 2.0, 0 (Control)
Parameters Tested			
Check the parameters tested.	☑ pH ☐ Salinity ☐ Temperature ☐ Ammonia ☐ Dissolved oxygen	☑ pH ☐ Salinity ☐ Temperature ☐ Ammonia ☐ Dissolved oxygen	☐ pH ☐ Salinity ☐ Temperature ☐ Ammonia ☐ Dissolved oxygen
Acute Test Results			
Percent survival in 100% effluent	%	%	%
LC_{50}			
95% confidence interval	%	%	%
Control percent survival	%	%	%

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA0037061	Budd Inlet Treatment Plant	001

Form Approved 03/05/19
OMB No. 2040-0004

TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for one whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number 4		Test Number 5		Test Number 6	
Acute Test Results Continued						
Other (describe)						
Chronic Test Results						
NOEC	100 %		100 %		100 %	
IC_{25}	%		%		%	
Control percent survival	100 %		97.5 %		100 %	
Other (describe)	7 day biomass NOEC: 100% 7 day dry weight NOEC: 100%		7 day growth NOEC: 100% 7 day biomass NOEC: 100%		7 day growth NOEC: 100% 7 day biomass NOEC: 100%	
Quality Control/Quality Assurance						
Is reference toxicant data available?	☑ Yes	☐ No	☑ Yes	☐ No	☑ Yes	☐ No
Was reference toxicant test within acceptable bounds?	☑ Yes	☐ No	☑ Yes	☐ No	☑ Yes	☐ No
What date was reference toxicant test run (MM/DD/YYYY)?	03/12/2019		05/19/2020		05/19/2020	
Other (describe)						

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA0037061	Budd Inlet Treatment Plant	001

Form Approved 03/05/19
OMB No. 2040-0004

TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for one whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number 7	Test Number 8	Test Number ____
Test Information			
Test species	Americamysis bahia	Atherinops affinis	
Age at initiation of test	7 days	11 days	
Outfall number	001	001	
Date sample collected	05/17/2021	05/17/2021	
Date test started	05/18/2021	05/18/2021	
Duration	7 days	7 days	
Toxicity Test Methods			
Test method number	EPA-821-R-02-014	EPA-600-R-95-136	
Manual title	Chronic Toxicity of Effluents and Receiving Wa	Toxicity of Effluents and Receiving Waters to th	
Edition number and year of publication	Third Edition	First Edition	
Page number(s)	pp 214-292	pp 71-140	
Sample Type			
Check one:	☐ Grab ☑ 24-hour composite	☐ Grab ☑ 24-hour composite	☐ Grab ☐ 24-hour composite
Sample Location			
Check one:	☐ Before Disinfection ☑ After Disinfection ☐ After Dechlorination	☐ Before Disinfection ☑ After Disinfection ☐ After Dechlorination	☐ Before disinfection ☐ After disinfection ☐ After dechlorination
Point in Treatment Process			
Describe the point in the treatment process at which the sample was collected for each test.	UV Effluent Channel after UV Disinfection	UV Effluent Channel after UV Disinfection	
Toxicity Type			
Indicate for each test whether the test was performed to asses acute or chronic toxicity, or both. (Check one response.)	☐ Acute ☑ Chronic ☐ Both	☐ Acute ☑ Chronic ☐ Both	☐ Acute ☐ Chronic ☐ Both

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA0037061	Budd Inlet Treatment Plant	001

Form Approved 03/05/19
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TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for one whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number 7	Test Number 8	Test Number ____
Test Type			
Indicate the type of test performed. (Check one response.)	☐ Static ☑ Static-renewal ☐ Flow-through	☐ Static ☑ Static-renewal ☐ Flow-through	☐ Static ☐ Static-renewal ☐ Flow-through
Source of Dilution Water			
Indicate the source of dilution water. (Check one response.)	☑ Laboratory water ☐ Receiving water	☑ Laboratory water ☐ Receiving water	☐ Laboratory water ☐ Receiving water
If laboratory water, specify type.	0.45um-filtered North Hood Canal seawater	0.45um-filtered North Hood Canal seawater	
If receiving water, specify source.			
Type of Dilution Water			
Indicate the type of dilution water. If salt water, specify "natural" or type of artificial sea salts or brine used.	☐ Fresh water ☑ Salt water (specify)	☐ Fresh water ☑ Salt water (specify)	☐ Fresh water ☐ Salt water (specify)
Percentage Effluent Used			
Specify the percentage effluent used for all concentrations in the test series.	100, 30, 10, 2.8, 2.0, 0 (Control)	100, 30, 10, 2.8, 2.0, 0 (Control)	

Parameters Tested						
Check the parameters tested.	☑ pH ☐ Salinity ☐ Temperature	☐ Ammonia ☐ Dissolved oxygen	☑ pH ☐ Salinity ☐ Temperature	☐ Ammonia ☐ Dissolved oxygen	☐ pH ☐ Salinity ☐ Temperature	☐ Ammonia ☐ Dissolved oxygen
Acute Test Results						
Percent survival in 100% effluent	%		%		%	
LC_{50}						
95% confidence interval	%		%		%	
Control percent survival	%		%		%	

EPA Identification Number	NPDES Permit Number	Facility Name	Outfall Number
	WA0037061	Budd Inlet Treatment Plant	001

Form Approved 03/05/19
OMB No. 2040-0004

TABLE E. EFFLUENT MONITORING FOR WHOLE EFFLUENT TOXICITY

The table provides response space for one whole effluent toxicity sample. Copy the table to report additional test results.

	Test Number 7		Test Number 8		Test Number ____	
Acute Test Results Continued						
Other (describe)						
Chronic Test Results						
NOEC	100 %		100 %		%	
IC_{25}	%		%		%	
Control percent survival	95 %		100 %		%	
Other (describe)	7 day biomass NOEC: 100% 7 day dry weight NOEC: 100%		7 day growth NOEC: 100% 7 day biomass NOEC: 100%			
Quality Control/Quality Assurance						
Is reference toxicant data available?	☑ Yes	☐ No	☑ Yes	☐ No	☐ Yes	☐ No
Was reference toxicant test within acceptable bounds?	☑ Yes	☐ No	☑ Yes	☐ No	☐ Yes	☐ No
What date was reference toxicant test run (MM/DD/YYYY)?	05/21/2021		05/04/2021			
Other (describe)						

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EPA Identification Number	NPDES Permit Number	Facility Name
	WA0037061	Budd Inlet Treatment Plant

Form Approved 03/05/19
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TABLE F. INDUSTRIAL DISCHARGE INFORMATION

Response space is provided for three SIUs. Copy the table to report information for additional SIUs.

	SIU 1	SIU 2	SIU 3
Name of SIU	Georgia-Pacific Corrugated LLC	Crown Cork and Seal Company Inc.	International Paper Company
Mailing address (street or P.O. box)	1203 Fones Rd.	770 Township Line Road	P.O. Box 101
City, state, and ZIP code	Olympia, WA 98507	Yardley, PA 19067	Olympia, WA 98501
Description of all industrial processes that affect or contribute to the discharge.	Corrugated cardboard container manufacturer	Aluminum can manufacturer	Corrugated cardboard container manufacturer
List the principal products and raw materials that affect or contribute to the SIU's discharge.	Corrugated containers and sheets Linerboard, starch, inks, sodium hydroxide, adhesive, borax, resins	Two-piece aluminum cans Aluminum coils, ink, lacquer	Corrugated containers and sheets Linerboard, starch, inks, sodium hydroxide, adhesive, borax, resins
Indicate the average daily volume of wastewater discharged by the SIU.	5607 gpd	90,000 gpd	2432 gpd
How much of the average daily volume is attributable to process flow?	4218 gpd	81,000 gpd	2069 gpd
How much of the average daily volume is attributable to non-process flow?	1389 gpd	9,000 gpd	364 gpd
Is the SIU subject to local limits?	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Is the SIU subject to categorical standards?	☐ Yes ☑ No	☑ Yes ☐ No	☐ Yes ☑ No

TABLE F. INDUSTRIAL DISCHARGE INFORMATION

Response space is provided for three SIUs. Copy the table to report information for additional SIUs.

	SIU 1	SIU 2	SIU 3
Under what categories and subcategories is the SIU subject?	N/A POTW designated SIU	40 CFR Part 465 Coil Coating Subpart D Canmaking	N/A POTW designated SIU
Has the POTW experienced problems (e.g., upsets, pass-through interferences) in the past 4.5 years that are attributable to the SIU?	☐ Yes ☑ No	☐ Yes ☑ No	☐ Yes ☑ No
If yes, describe.			

EPA Identification Number	NPDES Permit Number	Facility Name
	WA0037061	Budd Inlet Treatment Plant

Form Approved 03/05/19
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TABLE F. INDUSTRIAL DISCHARGE INFORMATION

Response space is provided for three SIUs. Copy the table to report information for additional SIUs.

	SIU 4	SIU 5	SIU 6
Name of SIU	Thurston County Waste and Recovery Center	Pepsi Northwest Beverages	A&R Aviation
Mailing address (street or P.O. box)	P.O. Box 11039	3003 RW Johnson Blvd SW	7915 Old Highway 99 SE
City, state, and ZIP code	Olympia, WA 98508-1039	Tumwater, WA 98512	Tumwater, WA 98501
Description of all industrial processes that affect or contribute to the discharge.	Solid waste transfer station and decommissioned landfills cells (leachate pond)	Carbonated and noncarbonated beverages manufacturer	Non destructive penetrant dye testing of aviation parts.
List the principal products and raw materials that affect or contribute to the SIU's discharge.	Landfill leachate and solid waste transfer station runoff Solid waste	Carbonated and noncarbonated beverages High-fructose corn sweetner, flavor conc., acids, salts, treated water, CO_2, nitrogen	Penetrant dye wastewater.
Indicate the average daily volume of wastewater discharged by the SIU.	409 gpd	113,708 gpd	39.9 gpd
How much of the average daily volume is attributable to process flow?	12,181 gpd	110,785 gpd	0.9 gpd
How much of the average daily volume is attributable to non-process flow?	12590 gpd	2923 gpd	39 gpd
Is the SIU subject to local limits?	☑ Yes ☐ No	☑ Yes ☐ No	☑ Yes ☐ No
Is the SIU subject to categorical standards?	☐ Yes ☑ No	☐ Yes ☑ No	☑ Yes ☐ No

EPA Identification Number	NPDES Permit Number	Facility Name	Form Approved 03/05/19 OMB No. 2040-0004
	WA0037061	Budd Inlet Treatment Plant	

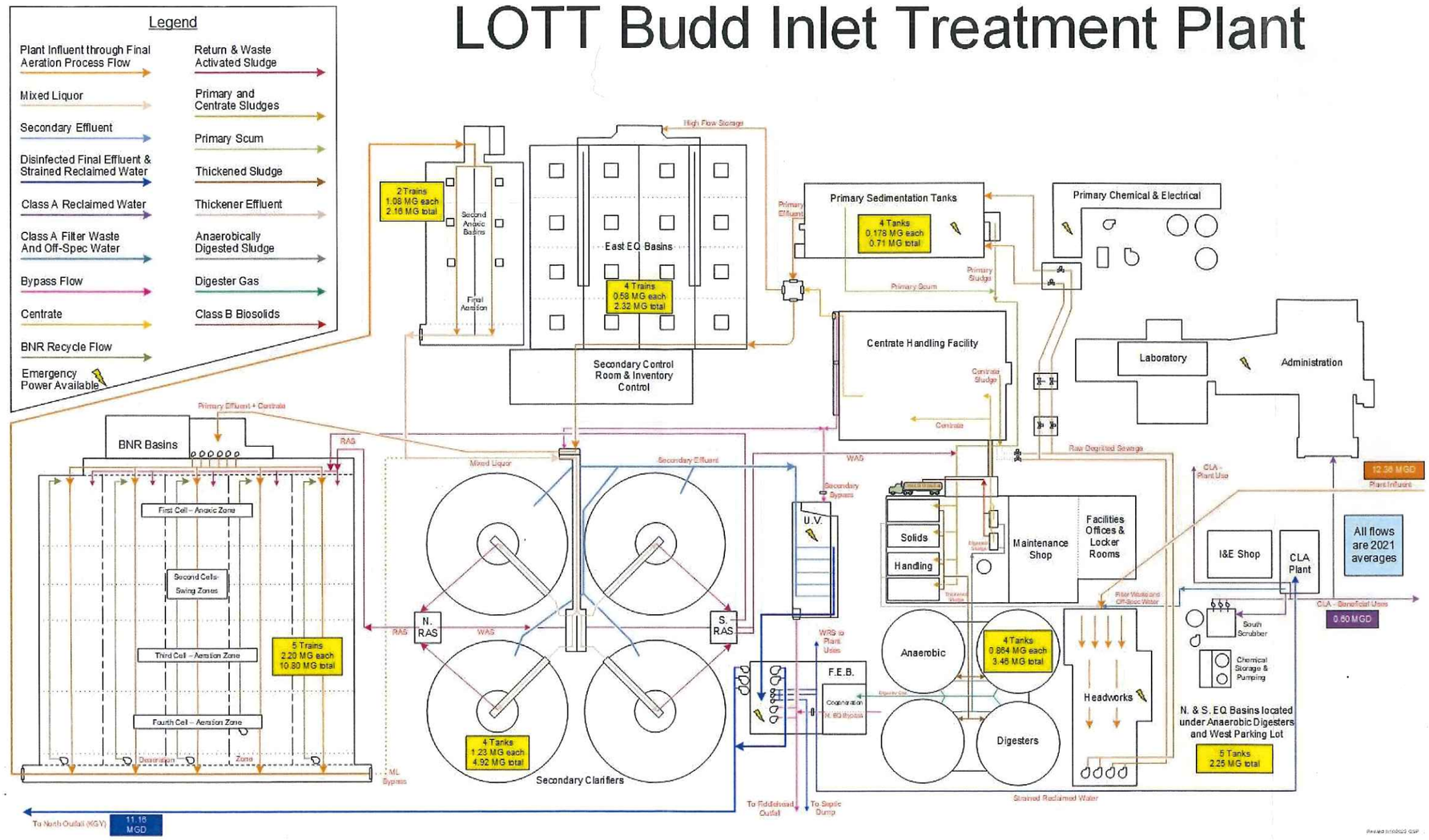
TABLE F. INDUSTRIAL DISCHARGE INFORMATION

Response space is provided for three SIUs. Copy the table to report information for additional SIUs.

	SIU 4	SIU 5	SIU 6
Under what categories and subcategories is the SIU subject?	N/A SIU based on flows greater than 25,000 gallons per day	N/A SIU based on flows greater than 25,000 gallons per day	40 CFR Part 433 Metal Finishing Subpart A Metal Finishing
Has the POTW experienced problems (e.g., upsets, pass-through interferences) in the past 4.5 years that are attributable to the SIU?	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☑ No
If yes, describe.			

B.2. Topographic Map

LOTT Budd Inlet Treatment Plant



The Budd Inlet Wastewater Treatment Plant (BITP) is located in downtown Olympia, Washington. Its primary purpose is to treat domestic and light industrial sewage received from portions of the cities of Lacey, Olympia, Tumwater, and Thurston County to meet the permit requirements as established by local and Federal regulatory agencies.

This raw influent wastewater is conveyed to the plant through a series of gravity and force mains from the surrounding area. In addition, combined sewers in the local area direct stormwater flows to the plant influent, which if severe, significantly challenge the hydraulic and treatment capacities of the plant.

This water is sampled for laboratory analysis before any internal treatment is accomplished.

Water enters the Headworks Building, where it is screened and de-gritted. Captured grit and screenings are dewatered and stored on site for periodic removal to the Thurston County Waste and Recovery Center. Below grade storage basins (EQs) are directly connected to the Headworks Influent Pumping wetwells and can store excess flows of up to 2.2 million gallons in cases of hydraulic stress or for flow pacing. A wet chemical scrubber dedicated to the Headworks Building provides for the removal of odors associated with raw wastewater.

Water leaving the Headworks (RDS) is pumped to Primary Treatment, where it is sampled. Four Clarifiers remove suspended solids, scum and BOD. The tanks are indoors and covered. A dedicated odor scrubbing facility using both wet chemical and packed bed carbon technologies provide odor treatment. Accumulated sludge and scum are pumped to Solids Handling for additional treatment.

Water leaving the Primary Clarifiers is sampled and flows by gravity to the Intermediate Pumping Station. Intermediate Pumps lift the water into any of five Biological Nutrient Removal (BNR) basins for Secondary Treatment to remove BOD and Ammonia.

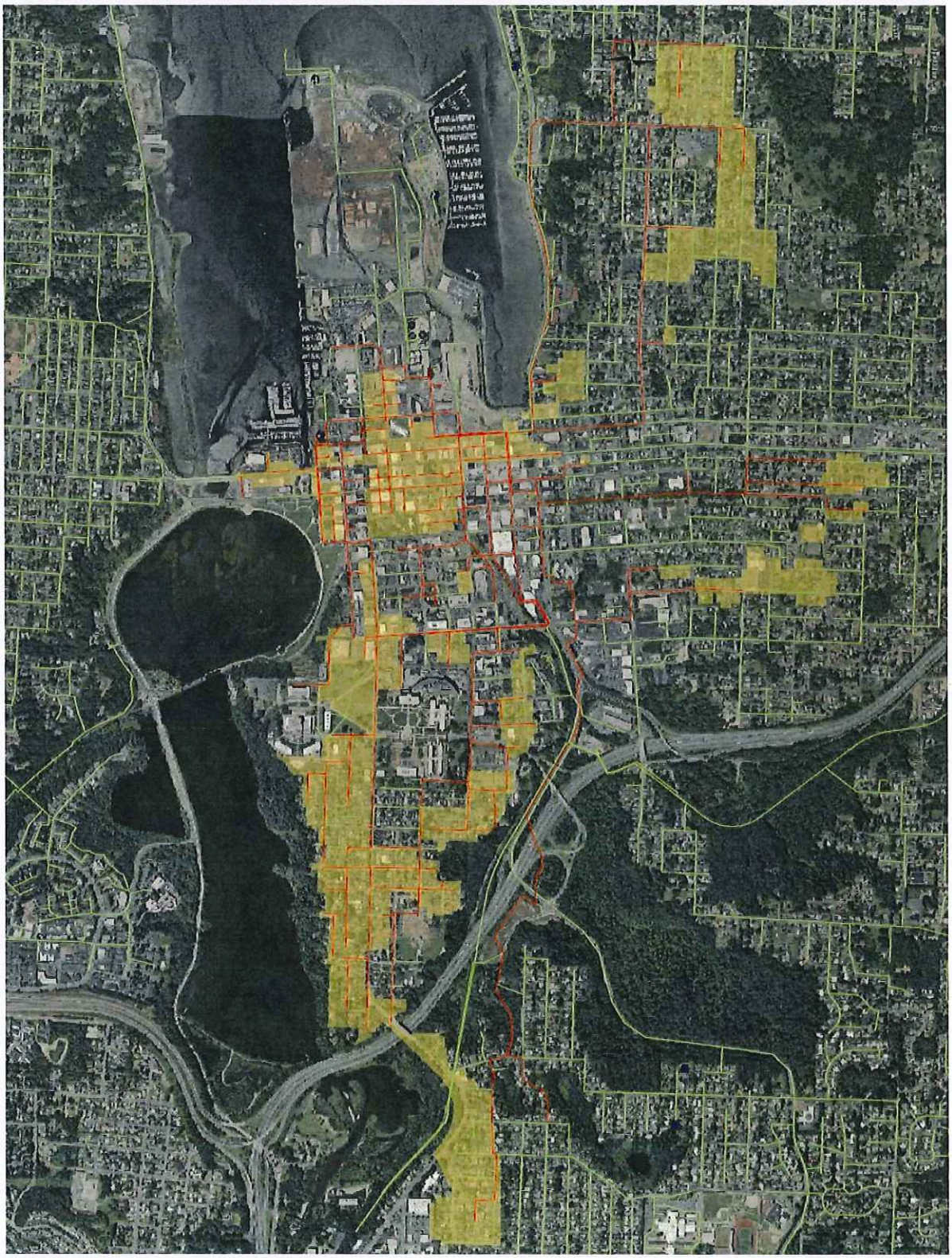
Water leaving the BNR Basins flows by gravity to two Second Anoxic/Final Aeration Basins for additional treatment - denitrification. Water then proceeds to a complement of four Secondary Clarifiers. Activated Sludge as Mixed Liquor enters the clarifiers and settles, becoming return activated sludge (RAS) which is pumped back to the BNR Basins, and waste activated sludge (WAS), which is pumped to Solids Handling.

Water leaving the Secondary Clarifiers gravity flows to the Ultraviolet (UV) Disinfection Building. Five channels, each with 2 banks of UV lights, serve to disinfect the wastewater, which is then sampled before flowing to the Final Effluent Building (FEB).

From wet wells under the FEB, five pumps deliver FE to the North Outfall for dispersal into the Budd Inlet portion of Puget Sound. Three smaller reclaimed water pumps provide process water for several internal plant systems, including a Class A Reclaimed Water (CLA) Plant, which provides CLA to the local area for irrigation, as well as additional process water for plant uses. In addition, two dedicated Combined Sewer Overflow (CSO) pumps deliver water to a secondary outfall (Fiddlehead) should the need arise due to bypass conditions caused by excessive stormwater flows.

Sludges and scum collected from Primary, Secondary and Centrate Treatment are pumped to the Solids Handling Building, where four Dissolved Air Floatation Thickeners (DAFs) are in place to thicken these solids, which are then pumped to anaerobic digesters. Four digesters are available and are generally used in primary/secondary roles. Digestion byproducts include gas and sludge. The gas, comprised mostly of Carbon Dioxide, Methane and Hydrogen Sulfide, is burned to produce heat (used for building HVAC needs and various internal processes), and electricity for selected plant systems. The second byproduct, sludge, is centrifuged and transported to Eastern Washington as a Class B Biosolids for soil amendment. Ammonia-rich centrate is directed to a Centrate Handling Facility (CHaF) where accumulated solids are recycled back to the DAFs and the remaining liquid stream is pumped into the Primary Effluent for BNR treatment.

LOTT Clean Water Alliance Combined Storm/Sewer System



Please note, the red lines are the combined sewer lines, the CSO system diagram is included on the previous diagram and is labeled the "Fiddlehead" discharge

Capital Budget and Capital Improvements Plan

DRAFT

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

Summary Page		Year Start	Year Complete	2023-2024 Expenditure	2023-2028 CIP
	System Upgrade Projects			**$39,475,600**	**$71,702,279**
	Budd Inlet Treatment Plant			**$37,483,180**	**$77,984,248**
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	2023	2025	$16,432,461	$28,383,341
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			**$5,488,827**	**$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	$329,078	$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)*

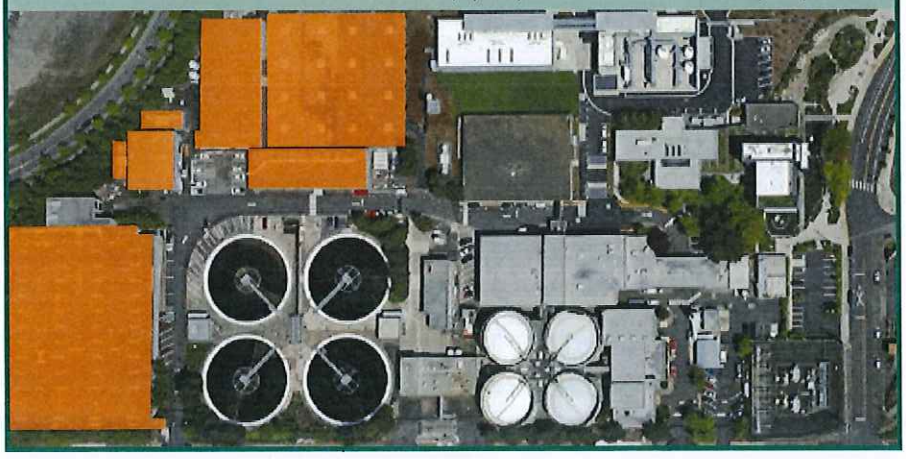
Summary Page		Year Start	Year Complete	2023-2024 Expenditure	2023-2028 CIP
	Support Services and Projects			**$18,577,113**	**$49,781,179**
41	Annual Miscellaneous Professional Services	2006	Ongoing	$1,440,966	$4,591,507
42	Engineering Project Support	2006	Ongoing	$4,172,466	$12,399,027
43	Facilities Project Support	2006	Ongoing	$2,507,415	$7,882,741
44	Administrative Project Support	2006	Ongoing	$3,120,200	$9,415,500
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	$1,050,000
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	Sea Level Rise Response	2017	Ongoing	$50,000	$150,000
56	Property Acquisition	2001	Ongoing	$2,000,000	$2,000,000
	Total			**$67,667,672**	**$159,566,323**

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.

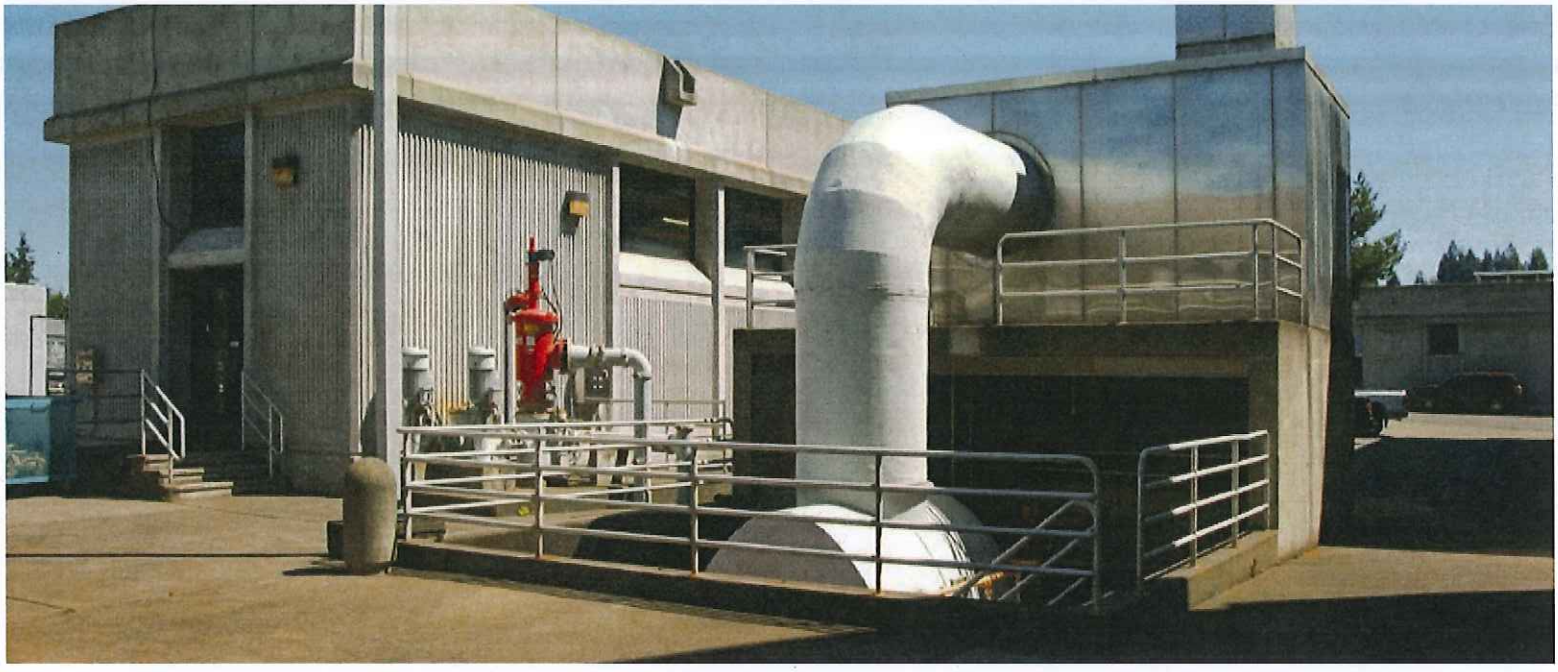
Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2022	2024	$6,994,658	$6,994,658

Digester System Improvements

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	$16,432,461	$28,383,341

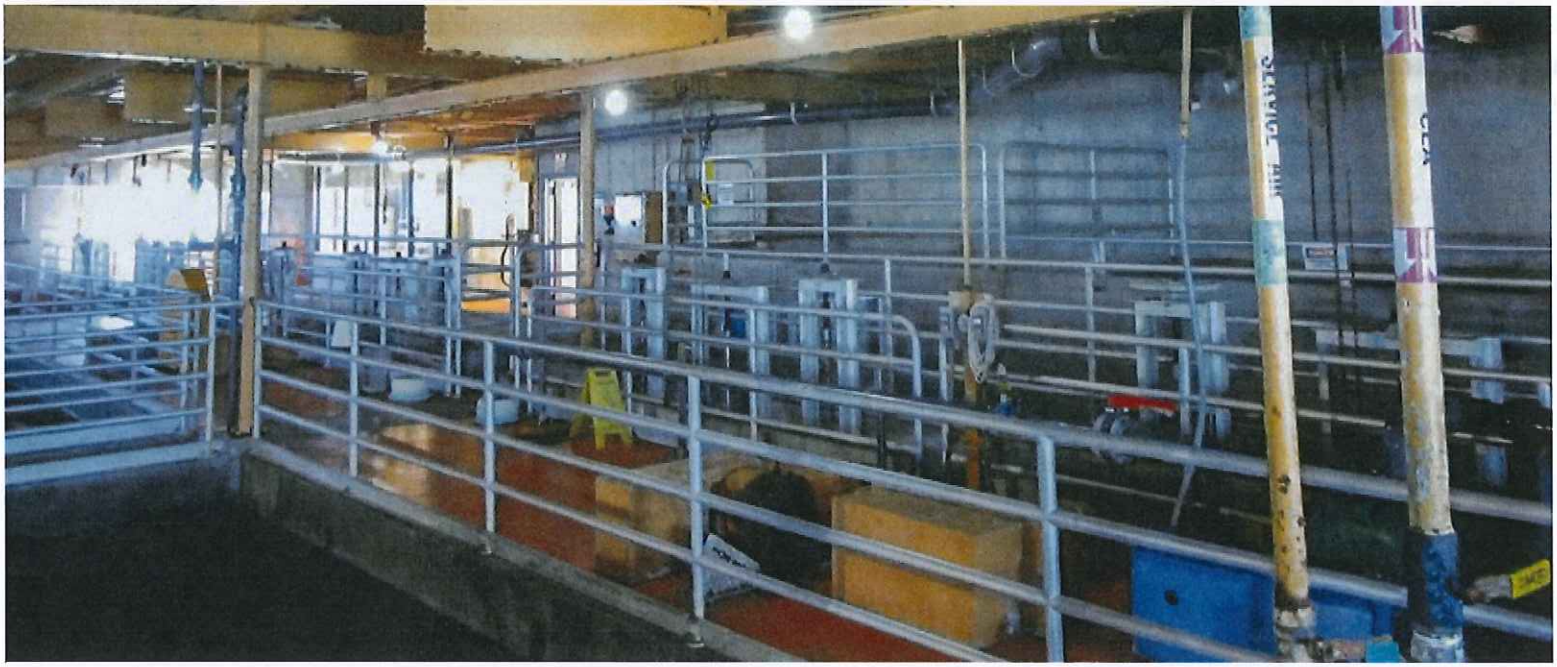
Odor Control Upgrades



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.

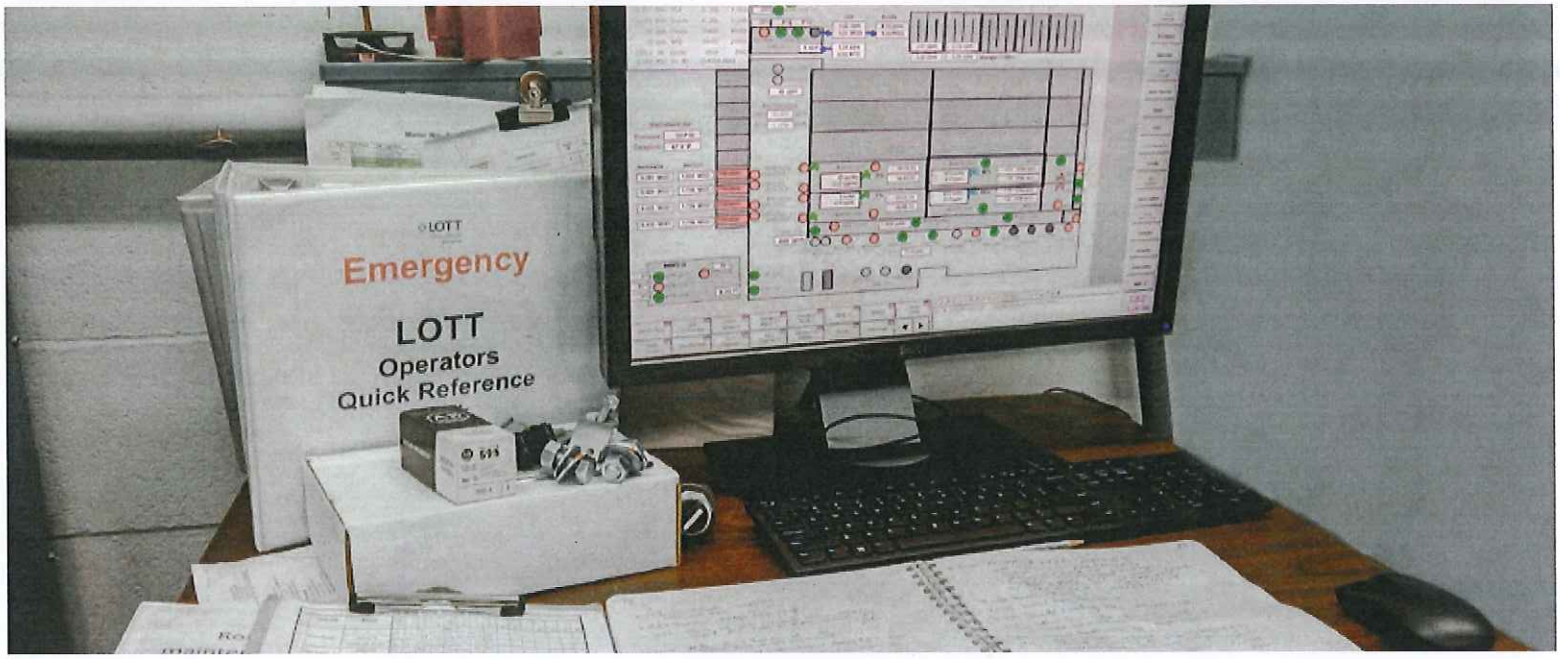
Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2025	2027	$213,022	$7,100,720

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

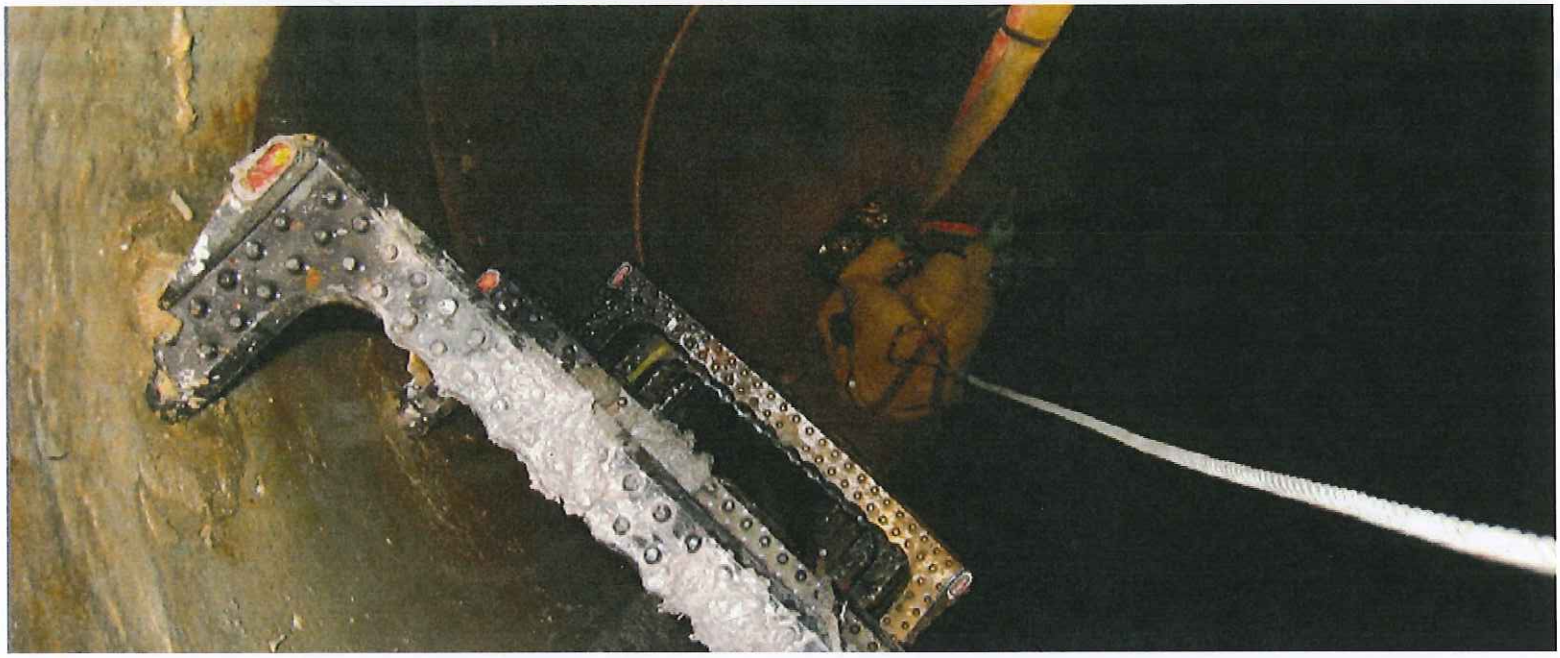
Martin Way Pump Station Emergency Power Upgrades



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.

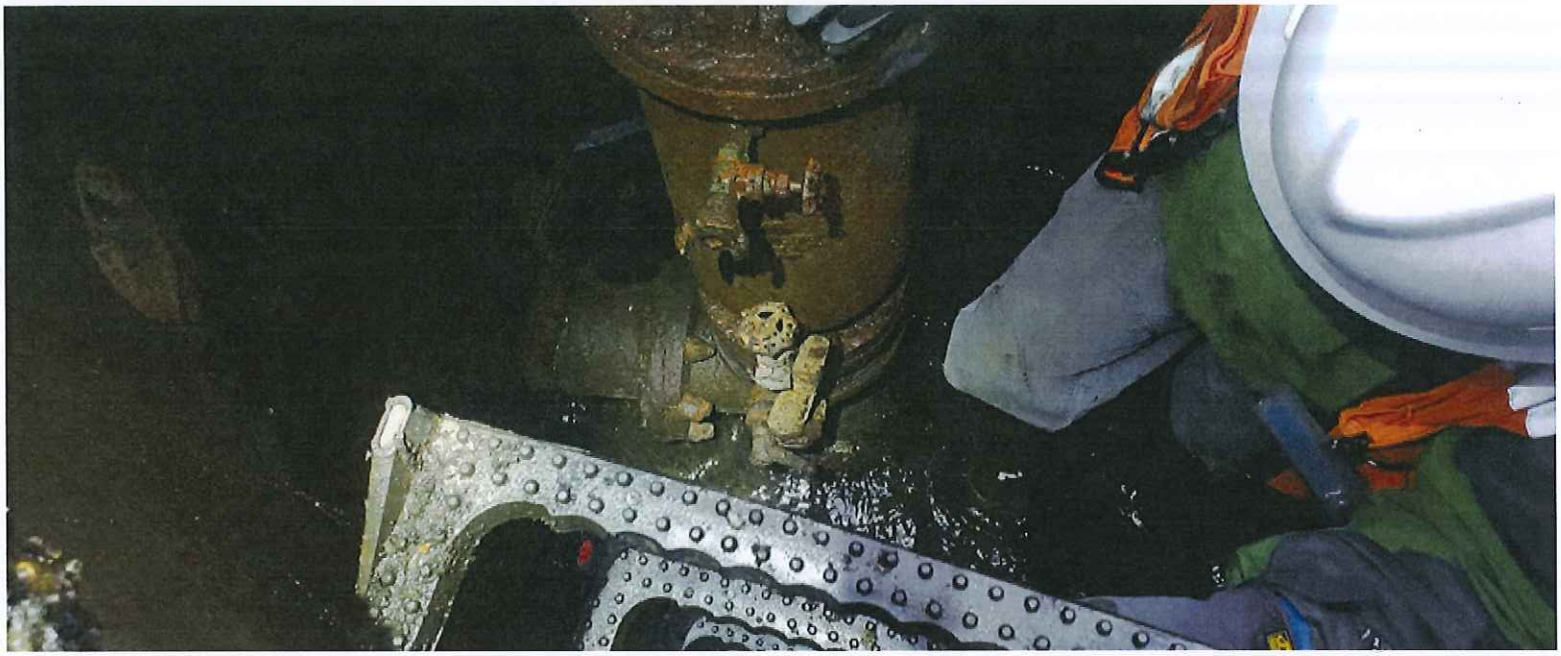
Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2008	Ongoing	$410,873	$1,446,820

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

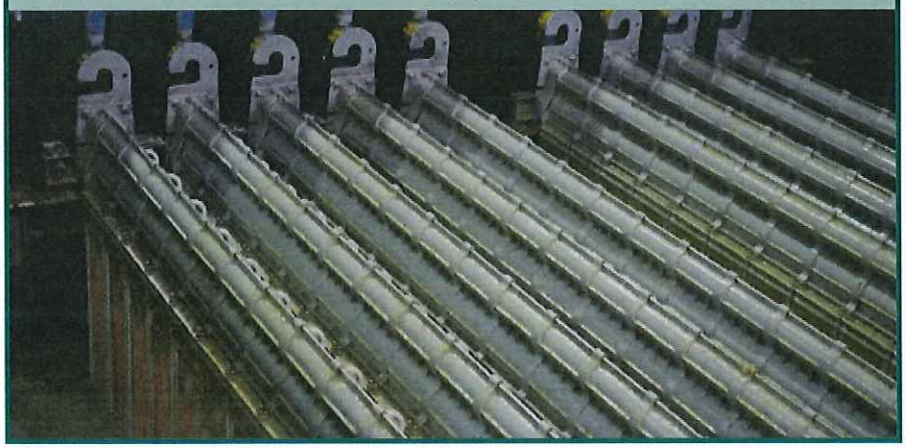
Project Type	System Upgrade
Location	Martin Way Reclaimed Water Plant
Description	This project involves a number of improvements to the treatment plant to replace aging infrastructure and improve operational reliability. Improvements include valve replacement, additional blower capacity, improvements 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

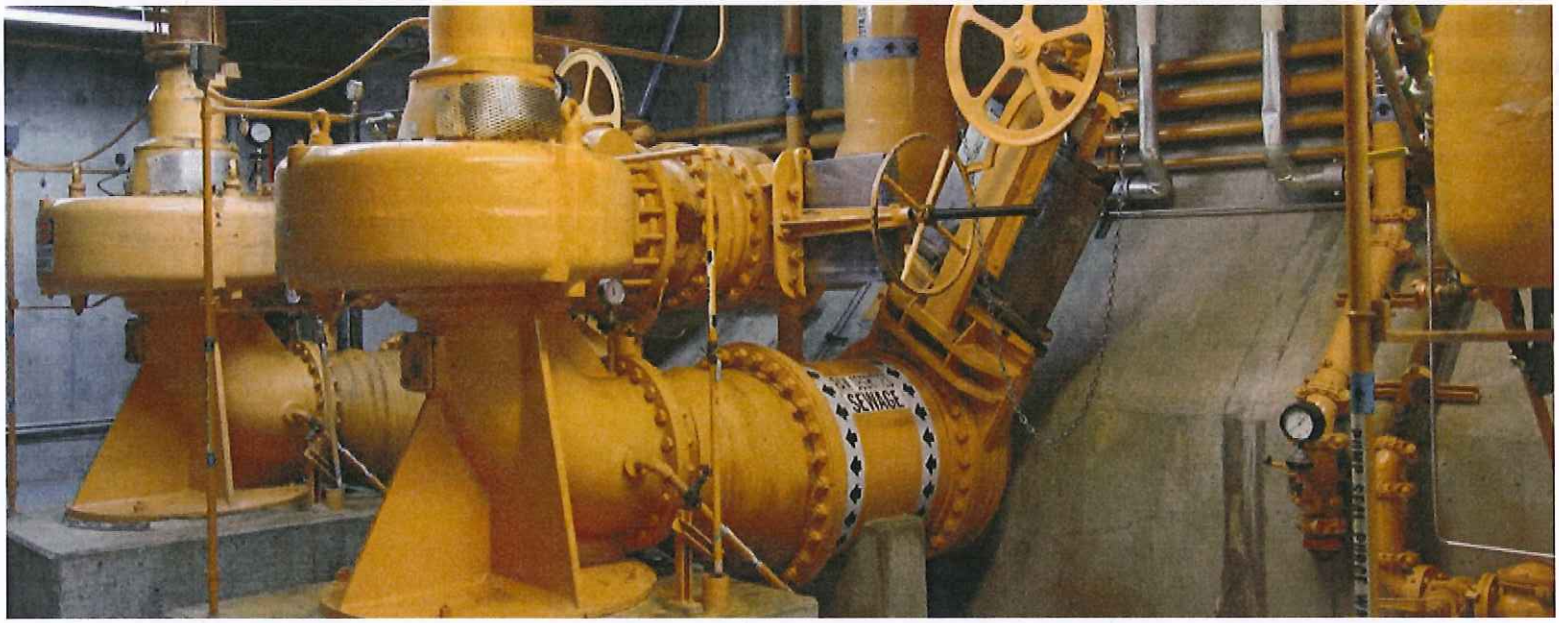


Reclaimed Water Capacity Development

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	$329,078	$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.

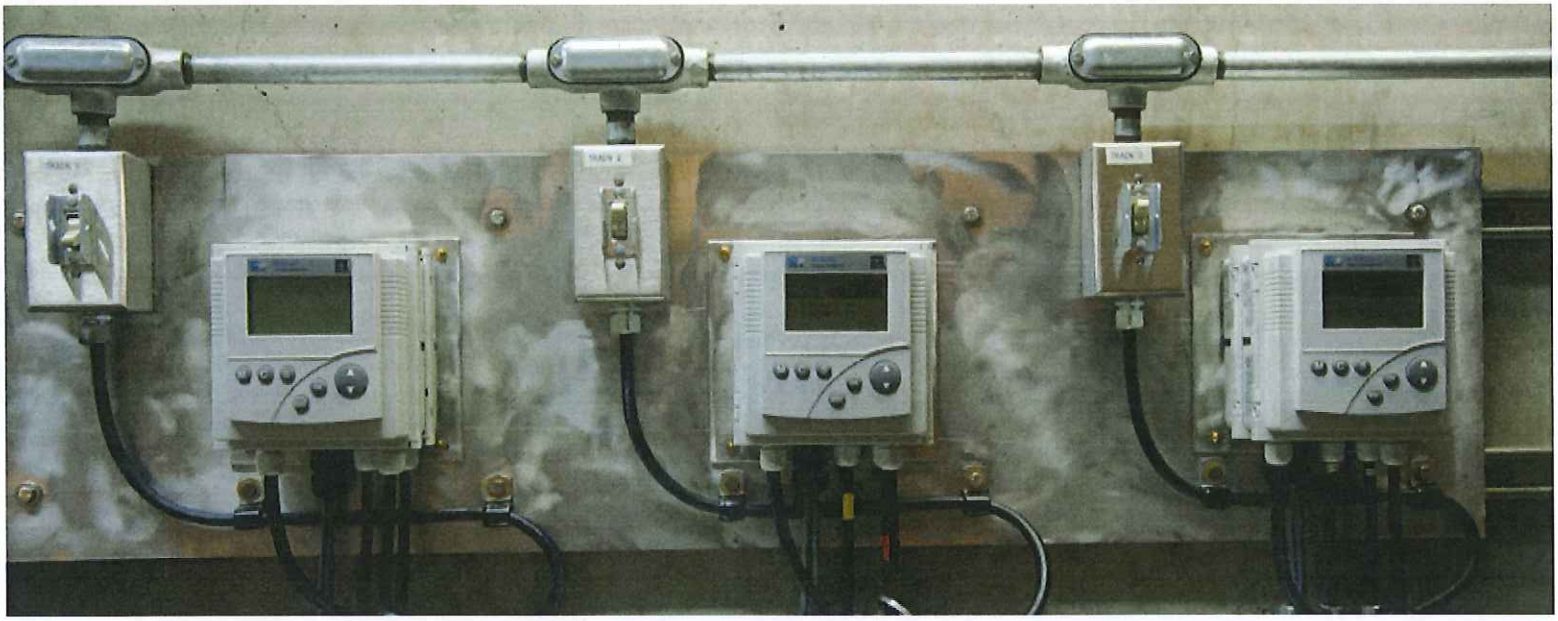
Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2026	2027	$0	$3,032,074

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

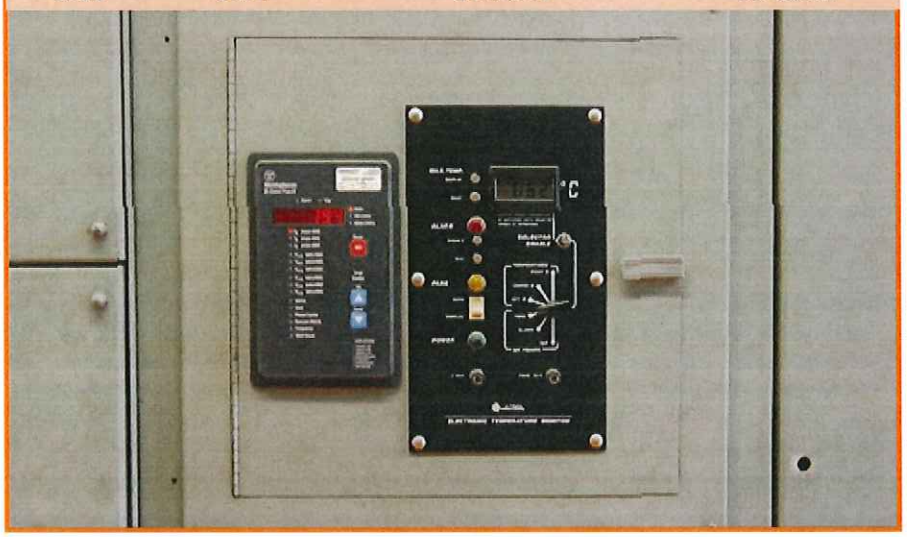
Project Type	Asset Management
Location	Budd Inlet Treatment Plant
Description	The intermediate pump station is responsible for recirculating flow to support the biological nutrient treatment process. This project includes replacing aging and inefficient equipment in the intermediate pump station and 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

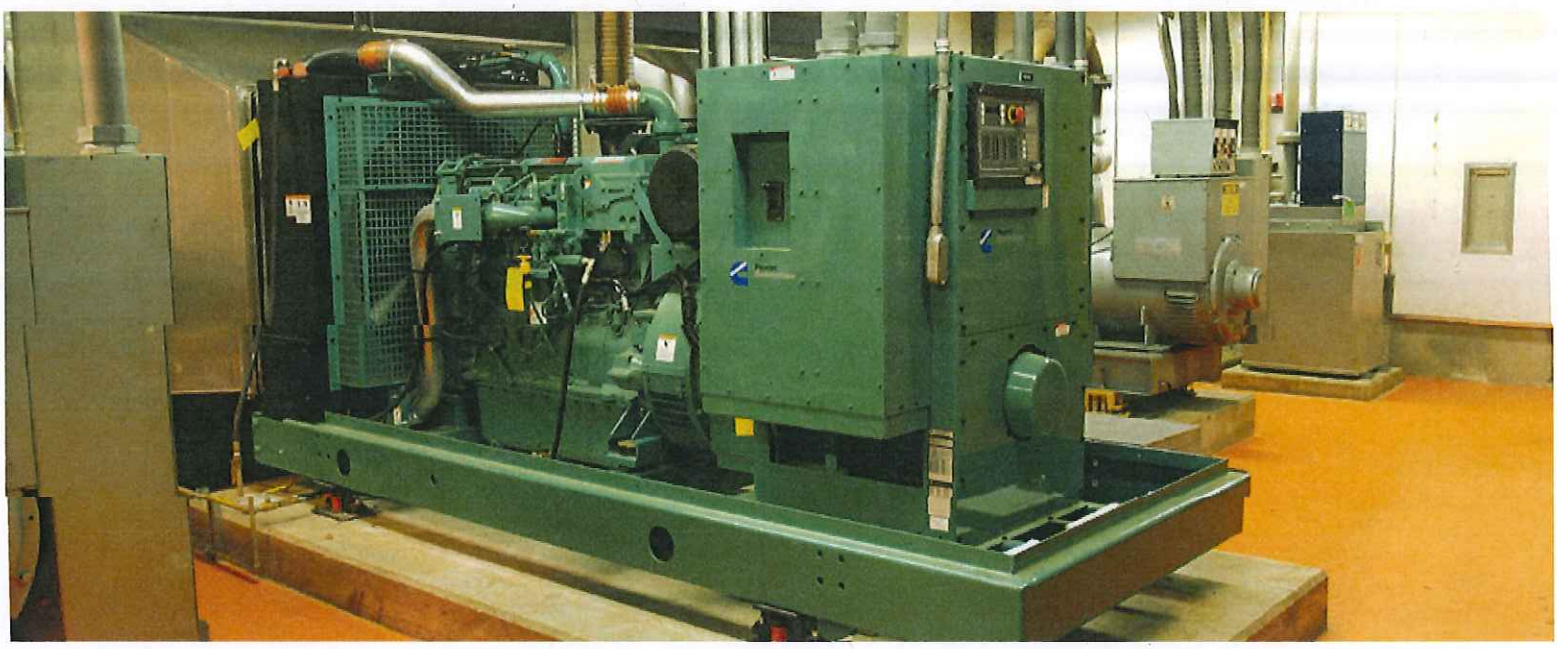
Substation and Switchgear A/B Replacement

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.

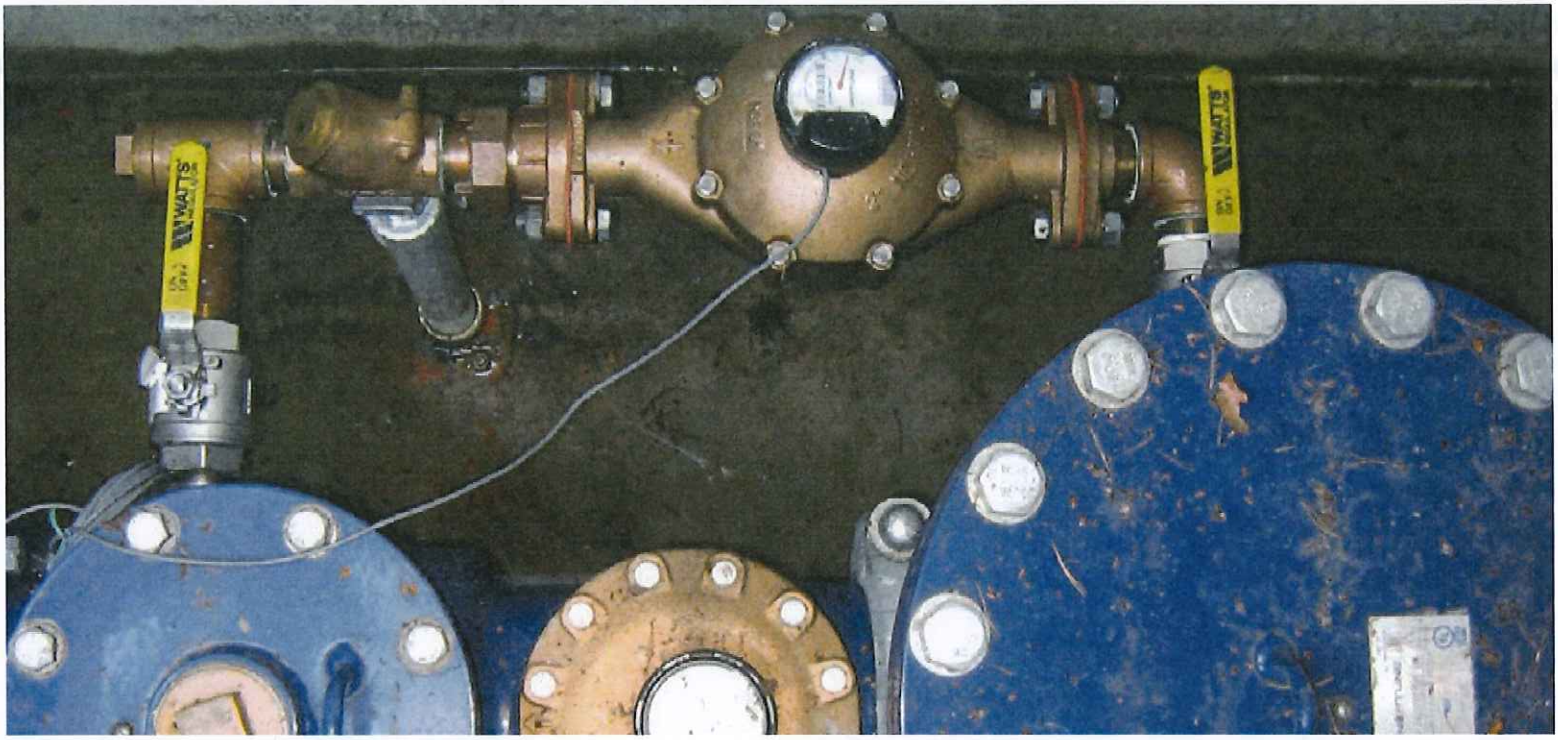
Start	Complete	2023-2024 Expenditure	2023-2028 CIP
2023	2024	$389,623	$389,623

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	$4,172,466	$12,399,027

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	$2,507,415	$7,882,741

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	$3,120,200	$9,415,500

Flow Monitoring Program

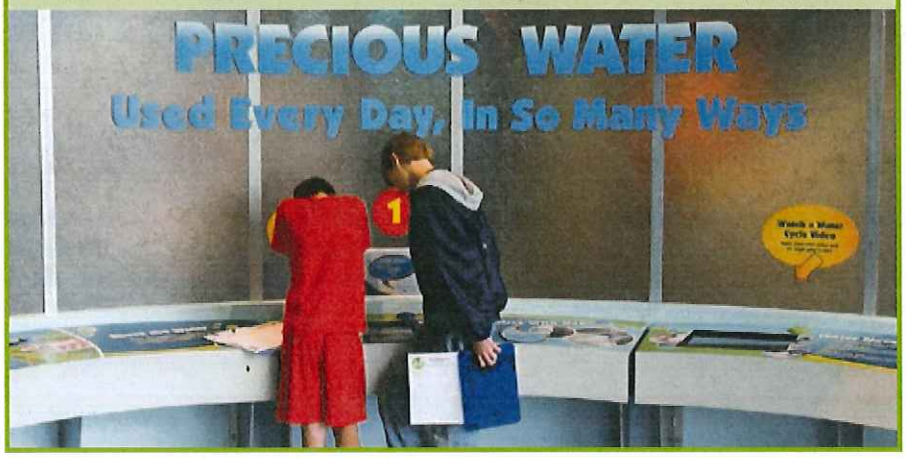
Project Type	Support Services and Projects
Location	Systemwide
Description	This provides funding for the collection and analysis of flow monitoring data to support the development of the annual three-part Capacity Report (Flows and Loadings, Inflow & Infiltration and Flow Monitoring, and Capacity Assessment). 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

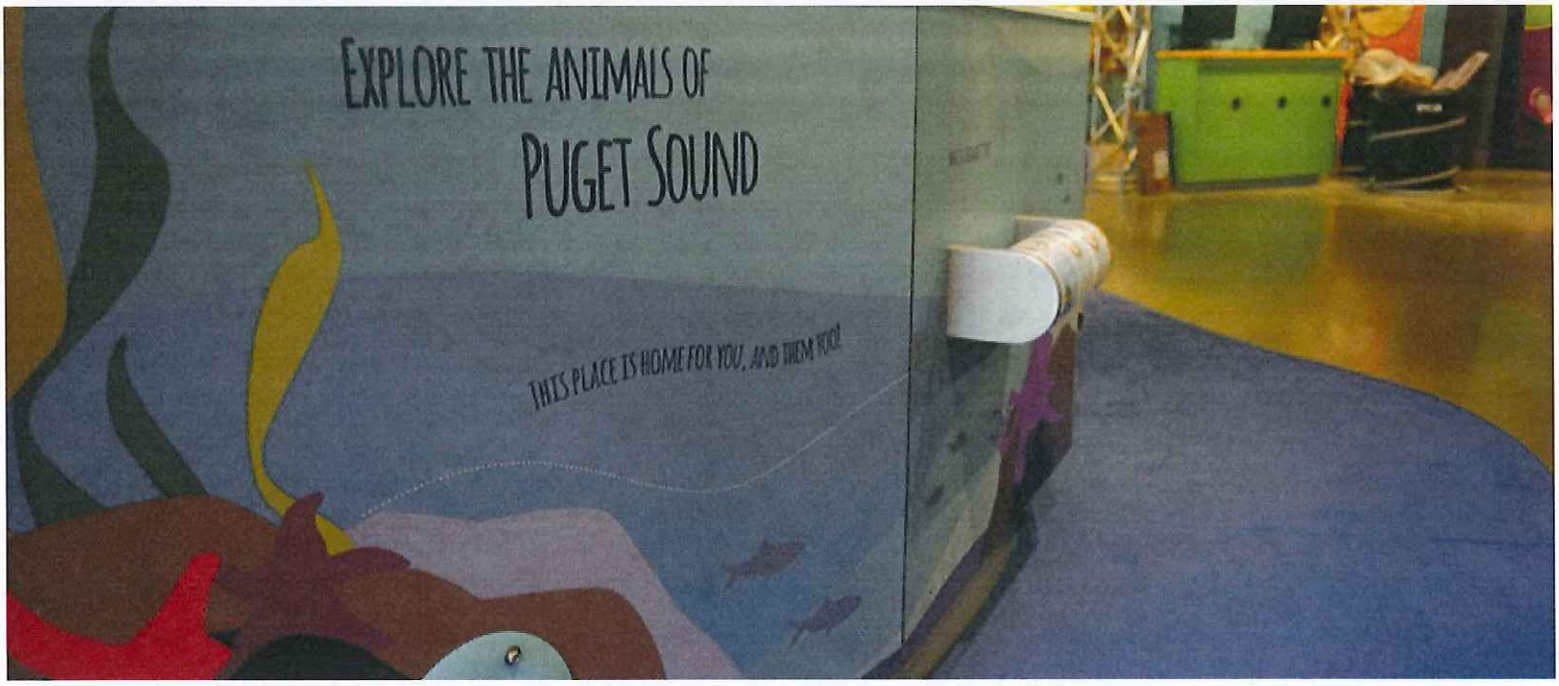
Flow Reduction Programs

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.

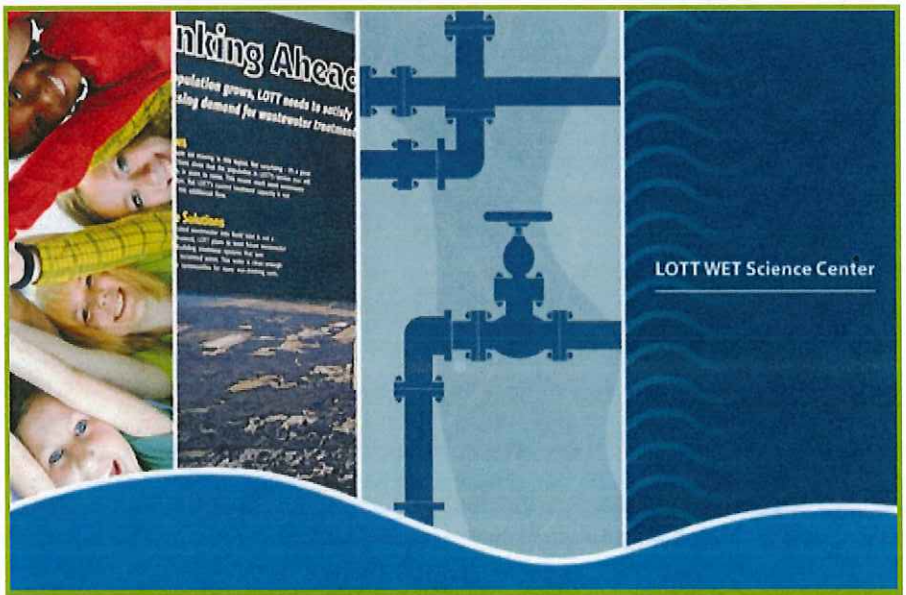
Start	Complete	2023-2024 Expenditure	2023-2028 CIP
1997	2024	$260,000	$260,000



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

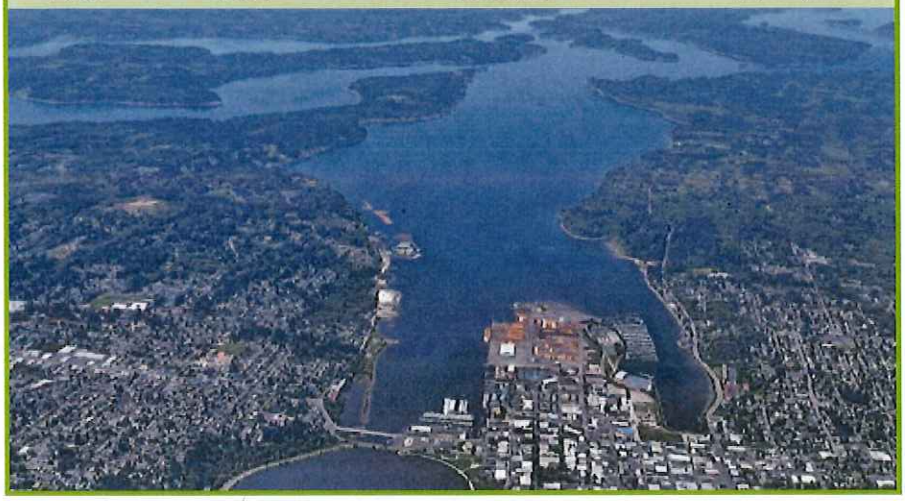
Project Type	Support Services and Projects
Location	Systemwide
Description	This funds information system upgrades to include network servers, routers, switches, desktop computers, security, fire protection, and video surveillance systems. It also supports the continued development of LOTT's electronic 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	$1,050,000

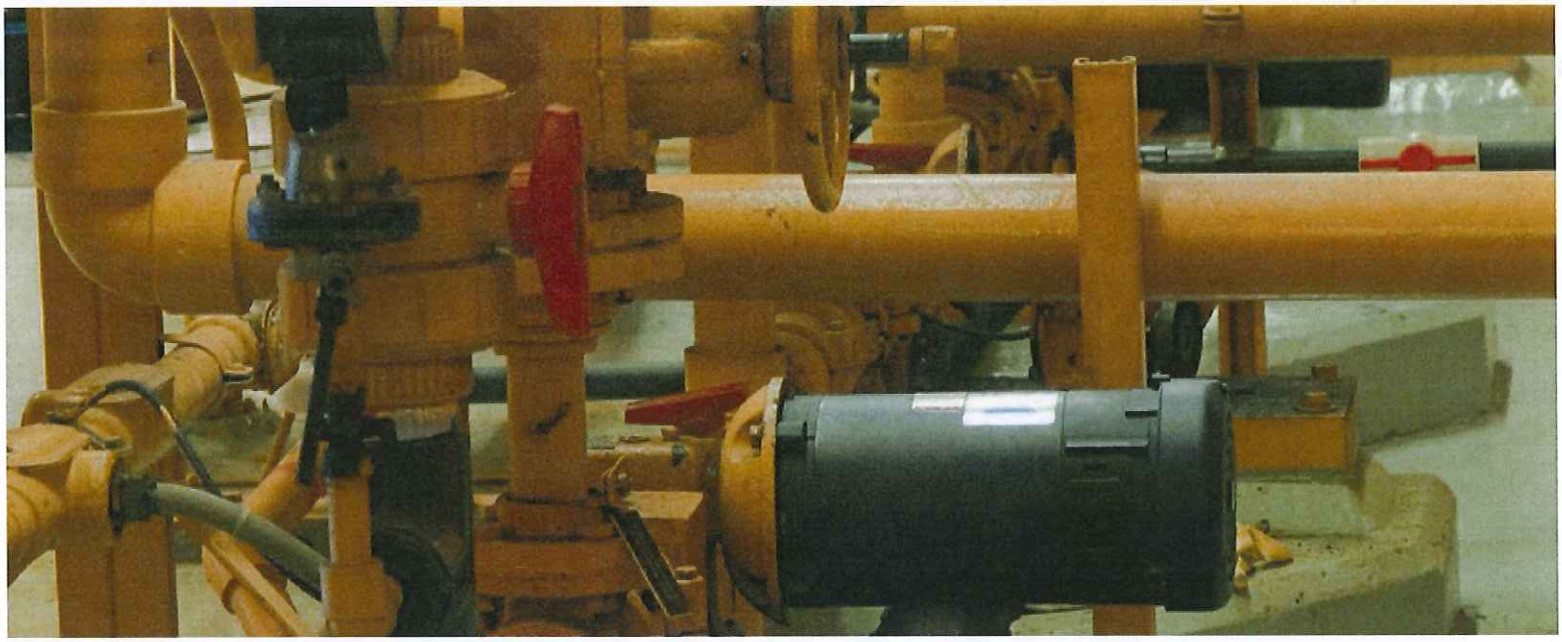


Septic Conversion Incentive Program

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

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	$50,000	$150,000

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 II		✓	$49,681,830
Secondary Clarifiers			
Secondary Clarifier Refurbishment	✓		$1,459,360
Secondary Clarifier Expansion		✓	$32,348,869
Tertiary Treatment Facility Phase I	✓		$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	✓		$8,145,342
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