

## NPDES Waste Discharge and Reclaimed Water Permit No. WA0037061 Combined Sewer Overflow Report

2024

This submittal of the LOTT Clean Water Alliance Combined Sewer Overflow Report demonstrates the implementation by the LOTT Clean Water Alliance (LOTT) and the City of Olympia of the controls listed in S10 B. 1 – 9 of NPDES Permit No. WA0037061, issued to LOTT on February 16, 2018. As of the end of 2024, LOTT had experienced two (2) combined sewer overflow (CSO) events since April 1991 (see attached table). These events occurred on December 3, 2007, and January 7 – 8, 2009. The events that occurred in 2007 and 2009 were the result of severe storm events in which over five (5) inches of rainfall fell in a 24-hour period.

The following responses reflect this performance and are numbered to correspond with S10 B. 1 – 9.

1. The combined sewer systems discharging to the Budd Inlet Treatment Plant are located within the City of Olympia in the older downtown areas south to the Capitol neighborhoods and in select areas of East Olympia. The following are CSO-related projects completed by the City of Olympia within the last 23 years:
  - July 2002 – At 7th Avenue & Columbia Street, stormwater overflowing to the sanitary sewer was found and removed. It is unknown how long this overflow existed or how often it was active.
  - December 2003 – At Capitol Way & Olympia Avenue, a stormwater pipe running north through a sanitary sewer maintenance hole was found leaking into the sanitary sewer and was repaired. In addition to stormwater flows, this pipe conveys an estimated thirty (30) gallons per minute of artesian spring water year-round. These flows were removed from the sanitary sewer system with this repair.
  - July 2004 – At Union Avenue & Cherry Street, a combined sewer overflow pipe was found and removed.
  - December 2004 – At 16<sup>th</sup> Avenue & Jefferson Street, a combined sewer overflow pipe was found and removed.
  - Summer 2004 – Near 25<sup>th</sup> Avenue & Washington Street, stormwater pipes and catch basins were installed, removing approximately 4.5 acres from the combined sewer system.
  - June 2005 – At Vista Street & Maringo Road, stormwater pipes, catch basins, and drywells were installed, removing approximately 0.5 acres from the combined sewer system.
  - December 2006 – Began investigating sources of stormwater inflow in the West Bay area of Olympia. As a result, projects were scheduled for 2008 to remove these sources, and to install control mechanisms and pump station improvements to improve the hydraulic capacity in the area.
  - October 2007 – Repaired and increased the capacity of the Lilly Road sewer interceptor.
  - December 2007 – Replaced failing and outdated control equipment with new variable frequency drive to operate one of the 13,000 gallon per minute combined sewage pumps at the Water Street Pump Station.

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- October 2008 — 60% design for rerouting the West side sewer interceptor to provide additional conveyance capacity was achieved. This existing interceptor overflows to the West Bay pump station and has been identified as needing additional capacity.
- November 2008 — Failing control equipment at the Water Street pump station was replaced with a new variable frequency drive (VFD), and the drive motor operating the second of the 13,000 GPM combined sewage pumps was rebuilt.
- December 2008 – East Bay pump station was completely rebuilt, except for the wet well, which was relined.
- December 2008 – The Division and Jackson Street pump station was replaced completely.
- December 2008 – A consultant was hired to prepare a preliminary design for rebuilding the West Bay pump station.
- Throughout 2009 – Televised and condition-rated more than 90% of all critical sewer mains in CSO drainage basins, identifying structural defects and maintenance problems.
- Throughout 2009 – Completed eight spot repairs for structural defects of sanitary sewer mains in CSO drainage basins.
- Throughout 2009 – Replaced sixteen maintenance hole castings in CSO drainage basins.
- April 2009 – Disconnected a stormwater catch basin on Orchard Drive from the sanitary sewer.
- September-November 2009 – Completed construction of the West Side Interceptor (2,000 feet of 18" and 21" sewer interceptor), providing additional capacity to convey flow from the west side and reduce the potential of flow diversion to the West Bay pump station where overflows have been observed in the past.
- October-November 2009 – Completed rehabilitation of 2,500 linear feet of sewer main and grouting of nineteen sewer taps along Crestline Drive in the West Bay basin where inflow and infiltration was observed in the past.
- November 2009 – Installed a bypass pump to provide additional flow capacity for the West Bay pump station during wet weather.
- 2010 – the City of Olympia focused on the West Bay and downtown Olympia CSO drainage basins:
  - ❖ Televised and condition rated more than 120,000 linear feet of sanitary sewer main, identifying structural defects and maintenance problems.
  - ❖ Cleaned approximately 198,000 linear feet of sanitary sewer mains, and sixty-eight lift stations.
  - ❖ Completed twenty-one trenchless repairs and eighty-three spot repairs on gravity sanitary sewer mains, addressing structural defects and infiltration issues.
  - ❖ Performed repairs or rehabilitations to eleven sanitary sewer maintenance holes.
- 2011 – the City of Olympia completed the following maintenance activities involving their sanitary sewer collection system, much of which was performed in their combined sewer drainage basins:
  - ❖ Televised and condition rated more than 161,000 linear feet of sanitary sewer main, identifying structural defects and maintenance problems.
  - ❖ Cleaned approximately 199,000 linear feet of sanitary sewer mains, and thirty-four lift stations.

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- ❖ Completed thirteen trenchless repairs and thirty-three spot repairs on gravity sanitary sewer mains, addressing structural defects and infiltration issues.
- ❖ Completed 1,791 linear feet of cured-in-place-pipe rehabilitations on gravity sewer mains from 6 to 15 inches in diameter, addressing structural defects and infiltration issues.
- ❖ Inspected eighty-nine sanitary sewer maintenance holes, replacing, or performing repairs/rehabilitations to nine of them.
- 2012 – the City of Olympia completed the following maintenance activities involving their sanitary sewer collection system, much of which, was performed in their combined sewer drainage basins:
  - ❖ Televised and condition rated more than 140,000 linear feet of sanitary sewer main, identifying structural defects and maintenance problems.
  - ❖ Cleaned approximately 163,533 linear feet of sanitary sewer mains, and seventy-five lift station wet wells.
  - ❖ Completed ten trenchless repairs and thirty-six sewer spot repairs on gravity sanitary sewer mains, addressing structural defects and infiltration issues.
  - ❖ Installed approximately 3,000 linear feet of 12-inch sewer force main by City contract, replacing the existing 8-inch AC force main for the West Bay Lift Station.
  - ❖ Inspected ninety-five sanitary sewer maintenance holes, performing repairs/rehabilitations to ten, and replacing nine.
  - ❖ Installed an onsite emergency power generator at the Roosevelt and Yew Lift Station.
  - ❖ Upgraded the capacity of the Goldcrest Lift Station by adding a second wet well.
- 2013 – the City of Olympia completed the following maintenance activities involving their sanitary sewer collection system, much of which was performed in their combined sewer drainage basins:
  - ❖ Televised and condition rated more than 115,000 linear feet of sanitary sewer main, identifying structural defects and maintenance problems.
  - ❖ Cleaned approximately 182,642 linear feet of sanitary sewer mains.
  - ❖ Cleaned twenty-three lift station wet wells three times.
  - ❖ Completed thirty-eight sewer spot repairs, including eighteen trenchless repairs, on gravity sanitary sewer mains, addressing structural defects and infiltration issues.
  - ❖ Inspected two hundred and twenty-five sanitary sewer maintenance holes, performing repairs/rehabilitations to thirty-two, and replacing thirteen.
  - ❖ Replaced three hundred and seventeen feet of sanitary sewer piping.
  - ❖ Installed an onsite emergency power generator at the Roosevelt and Yew Lift Station.
  - ❖ Increased the capacity and improved the reliability of the West Bay Lift Station by replacing the pumps, controls, and emergency generator.
  - ❖ Upgraded the capacity of the Holiday Hills Lift Station by adding a second wet well.
  - ❖ Improved the reliability of the Woodcrest Lift Station by replacing the pumps and upgrading the telemetry.
  - ❖ Conducted a study, in January 2013, to identify potential connections between the storm sewer and sanitary sewer systems. Each of the identified possible cross connections was investigated and eliminated, as necessary.

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- 2014 – the City of Olympia completed the following maintenance activities involving their sanitary sewer collection system, some were performed in their combined sewer drainage basins:
  - ❖ Televised and condition rated more than 93,000 linear feet of sanitary sewer main, identifying structural defects and maintenance problems.
  - ❖ Cleaned approximately 240,000 linear feet of sanitary sewer mains.
  - ❖ Cleaned twenty-three lift station wet wells three times.
  - ❖ Completed fourteen sewer spot repairs, including seven trenchless repairs, on gravity sanitary sewer mains, addressing structural defects and infiltration issues.
  - ❖ Inspected 185 sanitary sewer maintenance holes, performing repairs/rehabilitations to forty-five and replacing four.
  - ❖ Replaced 175 feet of sanitary sewer piping.
  - ❖ Increased the capacity and improved the reliability of the Black Lake Lift Station by replacing the lift station.
- 2015 – the City of Olympia completed the following maintenance activities involving their wastewater collection system, some of which was performed in their combined sewer drainage basins:
  - ❖ Televised and condition rated more than 136,000 linear feet of sanitary sewer main, identifying structural defects and maintenance problems.
  - ❖ Cleaned approximately 206,000 linear feet of sanitary sewer mains.
  - ❖ Cleaned thirty-two lift station wet wells two to four times each.
  - ❖ Completed twenty-nine sewer spot repairs, including thirteen trenchless repairs, on gravity sanitary sewer mains, addressing structural defects and infiltration issues.
  - ❖ Inspected 566 sanitary sewer maintenance holes, performing repairs/rehabilitations to fifty-four and replacing three.
  - ❖ Completed 6,080 linear feet of cured-in-place-pipe rehabilitations on gravity sewer mains from 6 to 10 inches in diameter, addressing structural defects and infiltration issues.
- 2016 – the City of Olympia completed the following maintenance activities involving their wastewater collection system, some of which was performed in their combined sewer drainage basins:
  - ❖ Televised and condition rated more than 154,770 linear feet of sanitary sewer main, identifying structural defects and maintenance problems.
  - ❖ Cleaned approximately 232,350 linear feet of sanitary sewer mains.
  - ❖ Cleaned thirty-one lift station wet wells two or four times each.
  - ❖ Completed twenty-seven sewer spot repairs, including sixteen trenchless repairs, on gravity sanitary sewer mains, addressing structural defects and infiltration issues.
  - ❖ Inspected 930 sanitary sewer maintenance holes, performing repairs/rehabilitations to forty-three and replacing one.
- 2017 – the City of Olympia completed the following maintenance activities involving their wastewater collection system, some of which was performed in their combined sewer drainage basins:
  - ❖ Televised and condition rated 158,940 linear feet of sanitary sewer main, identifying structural defects and maintenance problems.
  - ❖ Cleaned approximately 245,540 linear feet of sanitary sewer mains.
  - ❖ Cleaned and inspected thirty-one lift stations.

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- ❖ Completed seventy-seven sewer repairs including twenty-three trenchless repairs.
- ❖ Inspected 817 sanitary sewer maintenance holes, performing repairs/rehabilitations to thirty-three and replacing one.
- ❖ Eliminated one illicit connection – 1011 10<sup>th</sup> Ave.
- 2018 – the City of Olympia completed the following maintenance activities involving their wastewater collection system, some of which was performed in their combined sewer drainage basins:
  - ❖ Televised and condition rated more than 174,622 linear feet of sanitary sewer main, identifying structural defects and maintenance problems.
  - ❖ Cleaned approximately 32,694 linear feet of sanitary sewer mains.
  - ❖ Cleaned thirty-one lift station wet wells two or four times each.
  - ❖ Completed sixty-eight sewer spot repairs, including eleven trenchless repairs, on gravity sanitary sewer mains, addressing structural defects and infiltration issues.
  - ❖ Inspected 809 sanitary sewer maintenance holes, performing repairs/rehabilitations to fifty-nine and replacing none.
- 2019 – the City of Olympia completed the following maintenance activities involving their wastewater collection system, some of which was performed in their combined sewer drainage basins:
  - ❖ Televised and condition rated more than 249,503 linear feet of sanitary sewer main, identifying structural defects and maintenance problems.
  - ❖ Cleaned approximately 225,541 linear feet of sanitary sewer mains.
  - ❖ Cleaned thirty-one lift station wet wells two or four times each.
  - ❖ Completed seventy-nine sewer spot repairs, including nine trenchless repairs, on gravity sanitary sewer mains, addressing structural defects and infiltration issues.
  - ❖ Inspected 585 sanitary sewer maintenance holes.
  - ❖ In 2019 the city did not replace or perform any repairs or restorations to sanitary sewer maintenance holes within their collection system.
- 2020 – the City of Olympia completed the following maintenance activities involving their wastewater collection system, some of which was performed in their combined sewer drainage basins:
  - ❖ Televised and condition rated more than 161,936 linear feet of sanitary sewer main, identifying structural defects and maintenance problems.
  - ❖ Cleaned approximately 137,708 linear feet of sanitary sewer mains.
  - ❖ Cleaned thirty-one lift station wet wells two or four times each.
  - ❖ Completed seventeen sewer spot repairs, including eight trenchless repairs, on gravity sanitary sewer mains, addressing structural defects and infiltration issues.
  - ❖ Inspected 1,979 sanitary sewer maintenance holes.
  - ❖ In 2020 the city did not replace or perform any repairs or restorations to sanitary sewer maintenance holes within their collection system.
- 2021 – the City of Olympia completed the following maintenance activities involving their wastewater collection system, some of which was performed in their combined sewer drainage basins:
  - ❖ Televised and condition rated more than 131,028 linear feet of sanitary sewer main, identifying structural defects and maintenance problems.
  - ❖ Cleaned approximately 128,047 linear feet of sanitary sewer mains.
  - ❖ Cleaned thirty-one lift station wet wells two or four times each.

- ❖ Completed twenty-four sewer spot repairs, including ten trenchless repairs, on gravity sanitary sewer mains, addressing structural defects and infiltration issues.
- ❖ Inspected 675 sanitary sewer maintenance holes, performing repairs/rehabilitations to thirty-three, installing two and replacing none.
- 2022 – the City of Olympia completed the following maintenance activities involving their wastewater collection system, some of which was performed in their combined sewer drainage basins:
  - ❖ Televised and condition rated more than 231,000 linear feet of sanitary sewer main, identifying structural defects and maintenance problems.
  - ❖ Cleaned approximately 231,000 linear feet of sanitary sewer mains.
  - ❖ Cleaned thirty-one lift station wet wells two or four times each.
  - ❖ Completed thirty-two sewer spot repairs, including fifteen trenchless repairs, on gravity sanitary sewer mains, addressing structural defects and infiltration issues.
  - ❖ Inspected 436 sanitary sewer maintenance holes, performing repairs/rehabilitations to thirty-four, installing four and replacing none.
- 2023 – the City of Olympia completed the following maintenance activities involving their wastewater collection system, some of which was performed in their combined sewer drainage basins:
  - ❖ Televised and condition rated more than 150,000 linear feet of sanitary sewer main, identifying structural defects and maintenance problems.
  - ❖ Cleaned approximately 150,000 linear feet of sanitary sewer mains.
  - ❖ Cleaned thirty-four lift station wet wells two or four times each.
  - ❖ Completed thirty sewer spot repairs, including nineteen trenchless repairs, on gravity sanitary sewer mains, addressing structural defects and infiltration issues.
  - ❖ Inspected 361 sanitary sewer maintenance holes, performing repairs/rehabilitations to thirty-four, installing eleven and replacing none.
- 2024 – the City of Olympia completed the following maintenance activities involving their wastewater collection system, some of which was performed in their combined sewer drainage basins:
  - ❖ Televised and condition rated more than 144,000 linear feet of sanitary sewer main, identifying structural defects and maintenance problems.
  - ❖ Cleaned approximately 144,000 linear feet of sanitary sewer mains.
  - ❖ Cleaned thirty-four lift station wet wells two or four times each.
  - ❖ Completed nineteen sewer spot repairs, including eleven trenchless repairs, on gravity sanitary sewer mains, addressing structural defects and infiltration issues.
  - ❖ Inspected 460 sanitary sewer maintenance holes, performing repairs/rehabilitations to sixty-nine, installing one and replacing none.

The State & Chestnut Streets CSO outfall (Outfall 003) is located along a LOTT-owned interceptor and is maintained by LOTT. The Water Street CSO outfall (Outfall 004) is located at the City of Olympia's Water Street Pump Station and is maintained by the city. The State & Chestnut Street outfall has been sealed, and the Water Street outfall is inoperative, eliminating the possibility of CSOs occurring at these locations. Fiddlehead Outfall (002) is utilized by the City of Olympia as a year-round stormwater outfall. LOTT maintains the pumps, hydraulic slide gate, and all associated control mechanisms within the Budd Inlet

Treatment Plant required to divert effluent to this outfall. Equipment is exercised twice a year, and performed flawlessly during the December 3, 2007, and January 7- 8, 2009, CSO events.

LOTT initiated a Memorandum of Understanding with the partner cities in 2005 to optimize responses to sanitary sewer overflows (SSO) in the LOTT service area, including CSOs. In a related effort, LOTT entered into a reciprocal agreement with the State of Washington Department of Transportation to increase the availability of equipment, personnel, and other resources for SSO responses.

2. LOTT's Budd Inlet Treatment Plant's flow equalization basins have a maximum capacity of 2.25 million gallons. Up to 2.32 million gallons of storage can also be available in the first anoxic basins. In addition, three new BNR basins with a combined capacity of 6.47 million gallons, are normally available for storage during wet weather months unless a power outage prevents pumping. In 2013 LOTT constructed four new primary sedimentation basins. Each basin has a capacity of .179 million gallons. Procedures developed to maximize the effectiveness of these flow equalization and storage options. The capacity LOTT currently uses is similar to what was utilized during the December 3, 2007, and January 7-8, 2009, CSO event.
3. All the significant industrial users permitted by the LOTT Pretreatment Program could temporarily store their process wastewater discharge if there is a risk of overwhelming wet weather flows being received at the Budd Inlet Treatment Plant.
4. The flow equalization and storage options at the Budd Inlet Treatment Plant described above have been utilized successfully, resulting in only two CSO events occurring since April 1991.
5. No dry weather overflows have ever occurred at LOTT's permitted CSO outfalls.
6. LOTT has operated the Budd Inlet Treatment Plant successfully to assure that all wet weather flows received the maximum treatment possible, with only two CSO events occurring in the last thirty-three years. Influent pump hydraulic improvements, the enlarging and installation of additional influent gates to each primary basin, and the removal of restrictions to the primary effluent launders were completed in 1994, improving LOTT's capability to convey and treat high wet weather flows. LOTT also increased its emergency power generating capacity in 2005 to include powering all the influent screens and influent pumps. This increase in emergency power generation allowed LOTT to operate three of its influent pumps in the event of a power outage, compared to only one pump previously. Additionally, this upgrade included five-millimeter screens in headworks which are extremely efficient at removing visible floating material and debris. In the event of a CSO, LOTT uses every treatment and flow conveyance option available to minimize the discharge of solid and floatable materials.

In 2007 LOTT implemented an automated feature to bypass sluice gate SG12-14. This gate is between Final Effluent Wet Well "C" and EQ Basin #4. The automated feature allows the gate to open in the event there is loss of power to the Ultraviolet disinfection system or if no

effluent pumps are running. This safeguard is in place to decrease incidents of untreated or un-disinfected effluent flows to reach our receiving waters. The gate opening allows the suspect untreated or un-disinfected water to flow back to headworks for treatment.

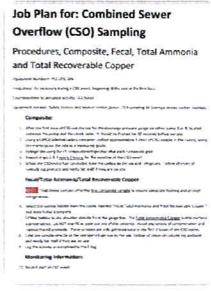
7. The LOTT Pretreatment Program has been successful in significantly reducing the loadings of metals and other pollutants discharged to the sanitary sewer, reducing the impacts of potential CSOs on Budd Inlet.
8. LOTT staff responsible for public outreach are experienced in notifying the public, both directly and in conjunction with LOTT partners, of significant environmental issues. In addition, LOTT laboratory staff have extensive receiving water monitoring experience that can be utilized to track the effects of a CSO on Budd Inlet water quality, should one occur.
9. LOTT has developed CSO response procedures and maintains response kits (Attachment 9A) in the event a CSO occurs. These procedures include sampling instructions, required equipment, record keeping instructions (location, number, frequency, duration), and notification instructions, which include contact information for the Washington State Department of Ecology, Washington State Department of Health (Food Safety and Shellfish Division), and Thurston County Environmental Health. These procedures were implemented successfully during the December 3, 2007, and January 7-8, 2009, CSO events.

LOTT is aware of the following designated uses of Budd Inlet south of Priest Point Park, assigned by the State of Washington and listed in Chapter 173-201A-612 WAC (Attachment 9B):

- A. Aquatic life uses – Good: Good quality salmonid migration and rearing; other fish migration, rearing, and spawning; clam, oyster, and mussel rearing and spawning; crustaceans and other shellfish (crabs, shrimp, crayfish, scallops, etc.) rearing and spawning.
- B. Recreational uses – Primary contact recreation.
- C. Harvest Use – Excludes Shellfish

## Attachments

### 9A - CSO response procedures and response kits



Sample kits and procedures located at the CSO sample tap

**9B – WAC 173-201A612 (Table 612)**  
**Use designations for marine waters.**

**Table 612**

Use Designations for Marine Waters	Aquatic Life Use	Recreational Use	Harvest Use
Budd Inlet south of latitude 47°04'N (south of Priest Point Park).	Good	Primary Contact	Excludes Shellfish

**ATTACHMENTS**

9A – CSO response procedures and water quality sample kit

9B – WAS 173-201A-612 Table 612 (2/2023)

**Job Plan for: Combined Sewer Overflow (CSO) Sampling**

**Procedures, Composite, Fecal, Total Ammonia and Total Recoverable Copper**

Equipment Number: P12-003\_004

Frequency: As necessary during a CSO event, beginning at the end of the first hour.

Estimated time to complete activity: 0.2 hours

Equipment needed: Safety Glasses and latex or similar gloves, CSO sampling kit (storage cooler, carboy, bottles).

**Composite:**

1. After the first hour of CSO use the tap for the discharge pressure gauge on either pump 3 or 4, located between the pump and the check valve. It should be flushed for 30 seconds before sample.
2. Using a LARGE labelled carboy container, collect approximately 3 liters of CSO sample in the carboy, using the markings on the side as a measuring guide.
3. Refrigerate using the FE composite refrigerator after each composite grab
4. Repeat steps 2 & 3 ~~every 2 hours~~, for the duration of the CSO event.
5. When the CSO event has concluded, take the carboy to the lab and refrigerate. Follow all chain-of-custody log protocol and notify lab staff if they are on site.

**Fecal/Total Ammonia/Total Recoverable Copper**

**NOTE:** Grab these samples after the first composite sample to ensure adequate flushing and prompt refrigeration.

6. Select the sample bottles from the cooler labelled "Fecal, Total Ammonia and Total Recoverable Copper," and date/initial it properly.
7. Fill the bottle to the shoulder directly from the gauge tap. The Total Recoverable Copper bottle contains a preservative. Do NOT overfill or pour out any of the contents. Avoid any source of contamination and replace the lid promptly. These samples are only gathered once in the first 2 hours of the CSO event.
8. Take the sample directly to the storage refrigerator in the lab. Follow all chain-of-custody log protocol and notify lab staff if they are on site.
9. Log the activity as completed in the E-log.

**Monitoring Information:**

10. Record start of CSO event.

11. Record end of CSO event.
12. Record total precipitation during CSO event.
13. Record total storm Duration.
14. Record total volume discharged during the CSO event.
15. Email these totals to Operations/Environmental Compliance Supervisors and Operation Leads.
16. E-log these totals as well.

**WAC 173-201A-612 Table 612—Use designations for marine waters.**  
 (1) Table 612 lists uses for marine waters. Only the uses with the most stringent criteria are listed. The criteria notes in Table 612 take precedence over the criteria in WAC 173-201A-210 for the same parameter.

(2) All marine waters listed in Table 612 are protected for the miscellaneous uses of aesthetics, boating, commerce/navigation, and wildlife habitat.

(3) Table 612 is necessary to determine and fully comply with the requirements of this chapter. If you are viewing a paper copy of the rule from the office of the code reviser or are using their website, Table 612 may be missing (it will instead say "please illustrate here"). In this situation, you may view Table 612 at the department of ecology's website at [www.ecy.wa.gov](http://www.ecy.wa.gov), or request a paper copy of the rule with Table 612 from the Department of Ecology or the Office of the code reviser.

**Table 612**

Use Designations for Marine Waters	Aquatic Life Use	Recreational Use	Harvest Use
Budd Inlet south of latitude 47°04'N (south of Priest Point Park).	Good	Primary Contact Excludes Shellfish	
Coastal waters: Pacific Ocean from Ilwaco to Cape Flattery.	Extraordinary	Primary Contact	All
Commencement Bay south and east of a line bearing 258° true from "Brown's Point" and north and west of a line bearing 225° true through the Hydulich Channel to right.	Excellent	Primary Contact	All
Commencement Bay inner, south and east of a line bearing 225° true through Hydulich Channel to right except the city waterway south and east of south 11th Street.	Good	Primary Contact Excludes Shellfish	
Commencement Bay, city waterway south and east of south 11th Street.	Fair	Primary Contact	No Harvest Use Supported
Drayton Harbor, south of entrance.	Excellent	Primary Contact	All
Dyes and Sinclair inlets west of longitude 122°37'W.	Excellent	Primary Contact	All
Elton Bay east of a line between Pier 91 and Duwamish Head.	Excellent	Primary Contact	All
Everett Harbor, inner, northeast of a line bearing 121° true from approximately 47°59'53"N and 122°13'44"W (southwest corner of the pier).	Good	Primary Contact Excludes Shellfish	
Grays Harbor west of longitude 123°59'W.	Excellent	Primary Contact	All
Grays Harbor east of longitude 123°59'W to longitude 123°45'45"W (Capeopolis Channel River mouth to 11). Special condition - Dissolved oxygen must be at least 5.0 mg/l.	Good	Primary Contact Excludes Shellfish	
Guemes Channel, Padilla, Samish and Bellinger bays east of longitude 122°39'W and north of latitude 48°37'30"N.	Excellent	Primary Contact	All
Hood Canal.	Extraordinary	Primary Contact	All
Mukilteo and all North Puget Sound west of longitude 122°39'W (Whidbey, Fidalgo, Guemes and Lummi Islands and State Highway 20 Bridge at Deception Pass), except as otherwise noted.	Extraordinary	Primary Contact	All
Oakland Bay west of longitude 122°05'W (inner Shelton harbor).	Good	Primary Contact Excludes Shellfish	

Certified on 2/29/2023

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NPDES WASTE DISCHARGE AND RECLAIMED WATER PERMIT NO. WA0037061 COMBINED SEWER OVERFLOW REPORT 2024										
YEAR	DATE OF EVENT	TIME OF EVENT	VOLUME (MG)	HOURS OF BYPASS	CSOs PER YEAR	CSOs TO DATE	MONTHS PER YEAR	AVE NUMBER CSOs PER YEAR TO DATE	COMMENTS	
1982	12/03/82	9:00 AM	15		1	1	6.0	2.00	Bypassed part of flow due to heavy rain. (Test results (comp): TSS – 83 mg/L, BOD – 40 mg/L) Secondary Treatment Process on-line 07/01/82	
1983	01/05/83		1.5		1	2	12.0	1.33	Bypassed primary due to heavy rain. (Test results (comp): TSS – 108 mg/L, BOD – 56 mg/L)	
1984	N/A	N/A	N/A	N/A	N/A	2	12.0	0.80	No CSO events occurred	
1985	N/A	N/A	N/A	N/A	N/A	2	12.0	0.57	No CSO events occurred	
		10:45 PM								
1986	01/18/86	to 9:00 AM	30						Bypass due to heavy rain. (Test results (comp): TSS – 98.4 mg/L, BOD – 44.3 mg/L)	
		10:45 AM								
	11/23/86	to 4:45 PM	5	6:00	2	4	12.0	0.89	Bypass due to heavy rain. (Test results (comp): TSS – 79 mg/L, BOD – 39 mg/L)	
	01/31/87	to 10:20 PM								
1987	02/1/87	to 2:15 PM		15:00					Bypass due to heavy rain. (Test results: TSS – 78 mg/L, BOD – 45 mg/L)	
		6:00 PM to								
	12/09/87	9:00 PM	1.0	3:00	2	6	12.0	1.09	Bypass due to heavy rain (3" in 24 hours). (Grab sample at 19:45) Test Results (Grab) BOD – 6 mg/L, TSS – 6 mg/L, Fecal coliform – 1,233 orgs/100 mL	
1988	N/A	N/A	N/A	N/A	N/A	6	12.0	0.92	No CSO events occurred	
1989	N/A	N/A	N/A	N/A	N/A	6	12.0	0.80	No CSO events occurred	
1990	01/09/90	2:35 PM	10	4:20					Bypass due to heavy rain. Used State & Chestnut Street CSO (Outfall 003) from 0742 to 0959 Test results: BOD – 6.0 mg/L, TSS – 17.0 mg/L, Fecal coliform – 600 orgs/100 mL      Outfall 003: BOD – 4.5 mg/L, TSS – 99 mg/L	
1990	11/24/90	7:00 PM	40	~24:00	2	8	12.0	0.94	Due to heavy rain (5.8"). Pretreated, chlorinated wastewater discharge into bay. Total flow was 82 million gallons. Test results of grab at 12:05: BOD – 19.8 mg/L, TSS – 40mg/L, Fecal coliform – 530,000 orgs/100 mL Test results of 24 hour composite sample: BOD – 10.4 mg/L, TSS – 18.6 mg/L	
1991	04/04/91	6:30 AM	12	14:15	1	9	12.0	0.95	Due to heavy rain, portion of plant influent bypassed primary and secondary treatment prior to disinfection Test Results (Grab sample at 1627) BOD – 12.7 mg/L, TSS – 16.4 mg/L, Fecal coliform – 80,000 orgs/100 mL	
1992	N/A	N/A	N/A	N/A	N/A	9	12.0	0.86	No CSO events occurred	
1993	N/A	N/A	N/A	N/A	N/A	9	12.0	0.78	No CSO events occurred	
1994	N/A	N/A	N/A	N/A	N/A	9	12.0	0.72	No CSO events occurred      Biological Nutrient Removal began 04/01/94	
1995	N/A	N/A	N/A	N/A	N/A	9	12.0	0.67	No CSO events occurred	
1996	N/A	N/A	N/A	N/A	N/A	9	12.0	0.62	No CSO events occurred	
1997	N/A	N/A	N/A	N/A	N/A	9	12.0	0.58	No CSO events occurred	
1998	N/A	N/A	N/A	N/A	N/A	9	12.0	0.55	No CSO events occurred	
1999	N/A	N/A	N/A	N/A	N/A	9	12.0	0.51	No CSO events occurred	
2000	N/A	N/A	N/A	N/A	N/A	9	12.0	0.49	No CSO events occurred	
2001	N/A	N/A	N/A	N/A	N/A	9	12.0	0.46	No CSO events occurred	
2002	N/A	N/A	N/A	N/A	N/A	9	12.0	0.44	No CSO events occurred	
2003	N/A	N/A	N/A	N/A	N/A	9	12.0	0.42	No CSO events occurred	
2004	N/A	N/A	N/A	N/A	N/A	9	12.0	0.40	No CSO events occurred	
2005	N/A	N/A	N/A	N/A	N/A	9	12.0	0.38	No CSO events occurred	
2006	N/A	N/A	N/A	N/A	N/A	9	12.0	0.37	No CSO events occurred	
2007	12/03/07	5:57 AM to 2:15 PM	11.75	8:15	1	10	12.0	0.39	5.5 inches of rainfall fell between 1:00 PM 12/2 and 1:00 PM 12/3, causing influents flows of 79 MGD, and forcing LOTT to discharge a total of 9 million gallons of screened, untreated, non-disinfected combined sewer effluent through the Fiddlehead Outfall (Outfall 002) and 2.75 million gallons of primary-treated, disinfected effluent through the North Outfall (Outfall 001). A composite sample from Outfall 002 consisting of hourly grab samples was collected between 12/3/07 at 0730 and 12/4/07 at 0030, and a grab sample was collected on 12/3/07 at 0730. Results for the composite sample were: TSS - 52.5 mg/L, COD - 82.1 mg/L, BOD <sub>5</sub> - < 43.5 mg/L, NH3, Total - 4.74 mg/L, and Copper - 49.5 µg/L. Result for the grab sample was: Fecal coliform - 230,000 mpn/100 mL.	
2008	N/A	N/A	N/A	N/A	N/A	10	12.0	0.38	No CSO events occurred	
2009	01/07/09	8:56 PM to 01/08/09	6.3	7:24	1	11	12.0	0.40	A total of 5.06 inches of rainfall fell between 12:00 AM 1/7, and 12:00 PM 1/8, causing influents flows of 64 MGD, and forcing LOTT to divert a total of 1.5 million gallons of screened, primary-treated effluent around the secondary treatment process, and blend it with the fully-treated final effluent. During this time, 6.3 million gallons of the blended, disinfected final effluent was discharged through the Fiddlehead Outfall (Outfall 002). A final effluent grab sample for Total Copper was collected at 9:10 PM 1/7, with a result of 147.0 µg/L. Results for the composite samples for 1/7 and 1/8 were: 1/7 TSS - 23.0 mg/L, BOD <sub>5</sub> - 17.7 mg/L, Ammonia - 6.86 mg/L; 1/8 TSS - 23.7 mg/L, BOD <sub>5</sub> - 15.2 mg/L, Ammonia - 2.98 mg/L.	
2010	N/A	N/A	N/A	N/A	N/A	11	12.0	0.39	No CSO events occurred	
2011	N/A	N/A	N/A	N/A	N/A	11	12.0	0.37	No CSO events occurred	
2012	N/A	N/A	N/A	N/A	N/A	11	12.0	0.36	No CSO events occurred	
2013	N/A	N/A	N/A	N/A	N/A	11	12.0	0.35	No CSO events occurred	
2014	N/A	N/A	N/A	N/A	N/A	11	12.0	0.34	No CSO events occurred	
2015	N/A	N/A	N/A	N/A	N/A	11	12.0	0.33	No CSO events occurred	
2016	N/A	N/A	N/A	N/A	N/A	11	12.0	0.32	No CSO events occurred	
2017	N/A	N/A	N/A	N/A	N/A	11	12.0	0.31	No CSO events occurred	
2018	N/A	N/A	N/A	N/A	N/A	11	12.0	0.30	No CSO events occurred	
2019	N/A	N/A	N/A	N/A	N/A	11	12.0	0.29	No CSO events occurred	
2020	N/A	N/A	N/A	N/A	N/A	11	12.0	0.29	No CSO events occurred	
2021	N/A	N/A	N/A	N/A	N/A	11	12.0	0.28	No CSO events occurred	
2022	N/A	N/A	N/A	N/A	N/A	11	12.0	0.27	No CSO events occurred	
2023	N/A	N/A	N/A	N/A	N/A	11	12.0	0.27	No CSO events occurred	
2024	N/A	N/A	N/A	N/A	N/A	11	12.0	0.26	No CSO events occurred	