

## FACT SHEET FOR PORT OF LONGVIEW STATE WASTE DISCHARGE PERMIT ST 6081

### Purpose of this Fact Sheet

This fact sheet explains and documents the decisions the Department of Ecology (Ecology) made in drafting the proposed State Waste Discharge permit for the Port of Longview (Port) that will allow discharge of wastewater to the Three Rivers Regional Wastewater Plant (TRRWP).

State law requires any commercial or industrial facility to obtain a permit before discharging waste or chemicals to municipal sanitary sewer collection and treatment systems.

Ecology makes the draft permit and fact sheet available for public review and comment at least 30 days before it issues the final permit to the facility operator. Copies of the fact sheet and draft permit for the Port, State Waste Discharge permit ST 6081, are available for public review and comment from \_\_\_\_\_, until the close of business \_\_\_\_\_. For more details on preparing and filing comments about these documents, please see Appendix A - Public Involvement Information.

The Port reviewed the draft permit and fact sheet for factual accuracy. Ecology corrected any errors or omissions about the facility's location, history, product type, production rate, or discharges prior to publishing this draft fact sheet for public notice.

After the public comment period closes, Ecology will summarize substantive comments and our responses to them. Ecology will include our summary and responses to comments to this fact sheet as **Appendix E - Response to Comments**, and publish it when we issue the final State Waste Discharge permit. Ecology generally will not revise the rest of the fact sheet. The full document will become part of the legal history contained in the facility's permit file.

### Summary

The Port is a public port district located in Cowlitz County, Washington, adjacent to and partially within the limits of the city of Longview. Ecology issued the previous permit for this facility on November 16, 2011. This permit was set to expire on November 30, 2016, and this permit has been reauthorized.

The Port of Longview discharges pretreated process wastewater to the TRRWP. The Port installed a storage pond and has made various improvements to accommodate the increased flow from their operations while remaining mostly within the permitted discharge limits.

Effluent limits for Ammonia has been changed from a mass based limit to a concentration based limit to meet the pretreatment policy for the Three Rivers Regional Wastewater Authority (TRRWA). Total Suspended Solids (TSS), Oil & Grease, and Zinc limits have also been changed to match the TRRWA pretreatment policy. The proposed pH limit is more stringent and a testing requirement for Biochemical Oxygen Demand (BOD5) has also been added to the permit to meet the TRRWA pretreatment policy. Effluent limits for flow has also been modified compared to the previous permit issued in 2011. The monitoring frequencies are also different to account for more frequent monitoring during months with more precipitation.

## TABLE OF CONTENTS

I.	INTRODUCTION .....	1
II.	BACKGROUND INFORMATION .....	2
A.	Facility Description.....	4
	History.....	4
	Industrial Process(s).....	5
	Wastewater Pretreatment.....	5
	Solid Wastes.....	7
B.	Discharge Location to the Three Rivers Regional Wastewater Plant .....	7
C.	Wastewater Characterization .....	8
D.	Summary of Compliance with Previous Permit Issued .....	8
E.	State Environmental Policy Act (SEPA) Compliance .....	11
III.	PROPOSED PERMIT LIMITS .....	11
A.	Technology-Based Effluent Limits .....	11
B.	Effluent Limits Based On Local Limits .....	12
D.	Comparison of Effluent Limits with the Previous Permit Issued on November 11, 2011 .....	13
	pH Effluent Limit .....	14
	Flow Effluent Limit .....	14
	Ammonia Effluent Limit .....	15
IV.	MONITORING REQUIREMENTS .....	16
A.	Lab Accreditation .....	16
B.	Wastewater Monitoring .....	16
V.	OTHER PERMIT CONDITIONS .....	16
A.	Reporting and Recordkeeping .....	16
B.	Operations and Maintenance .....	16
C.	Prohibited Discharges .....	16
D.	Dilution Prohibited.....	17
E.	Solid Waste Control Plan .....	17
F.	Non Routine and Unanticipated Wastewater .....	17
G.	Spill Plan.....	17
H.	General Conditions .....	18
VI.	PUBLIC NOTIFICATION OF NONCOMPLIANCE .....	18
VII.	PERMIT ISSUANCE PROCEDURES .....	18
A.	Permit Modifications .....	18

*FACT SHEET FOR  
PORT OF LONGVIEW  
PERMIT NO. ST 6081*

B. Proposed Permit Issuance .....	18
VII. REFERENCES FOR TEXT AND APPENDICES .....	18
APPENDIX A - PUBLIC INVOLVEMENT INFORMATION .....	19
APPENDIX B - YOUR RIGHT TO APPEAL.....	20
APPENDIX C - GLOSSARY .....	21
APPENDIX D - TECHNICAL CALCULATIONS.....	29
APPENDIX E - RESPONSE TO COMMENTS.....	30
Table 1: General Facility Information .....	2
Table 2: Wastewater Characterization .....	8
Table 3: Violations/Permit Triggers .....	9
Table 4: Permit Submittals.....	9
Table 6: Limits Based on Local Limits.....	12
Table 7: Comparison of Effluent Limits.....	13
Figure 1: Facility Location Map .....	3
Figure 2 : Berth 7 Industrial Wastewater Treatment Plant Process Flow Diagram .....	7
Figure 3 - Table and graph of Outfall 004 annual flow .....	15
Figure 4 - Amount of ammonia concentration exceedances pre and post pond commissioning.....	15

## I. INTRODUCTION

The legislature defined Ecology's authority and obligations for the wastewater discharge permit program in the Water Pollution Control law, chapter 90.48 Revised Code of Washington (RCW).

The Department of Ecology (Ecology) adopted rules describing how it exercises its authority:

- State Waste Discharge Program [chapter 173-216 Washington Administrative Code (WAC)]
- Submission of Plans and Reports for Construction of Wastewater Facilities (chapter 173-240 WAC)

These rules require any industrial facility owner/operator to obtain a State Waste Discharge permit before discharging wastewater to state waters. This rule includes commercial or industrial discharges to sewerage systems operated by municipalities or public entities which discharge into public waters of the state. They also help define the basis for limits on each discharge and for other performance requirements imposed by the permit.

Under the State Waste Discharge permit program and in response to a complete and accepted permit application, Ecology generally prepares a draft permit and accompanying fact sheet, and makes it available for public review before final issuance. If the volume of the discharge has not changed or if the characteristics of the discharge have not changed Ecology may choose not to issue a public notice. When Ecology publishes an announcement (public notice); it tells people where they can read the draft permit, and where to send their comments, during a period of 30 days. (See **Appendix A - Public Involvement Information** for more detail about the public notice and comment procedures). After the public comment period ends, Ecology may make changes to the draft State Waste Discharge permit in response to comment(s). Ecology will summarize the responses to comments and any changes to the permit in **Appendix E**.

## II. BACKGROUND INFORMATION

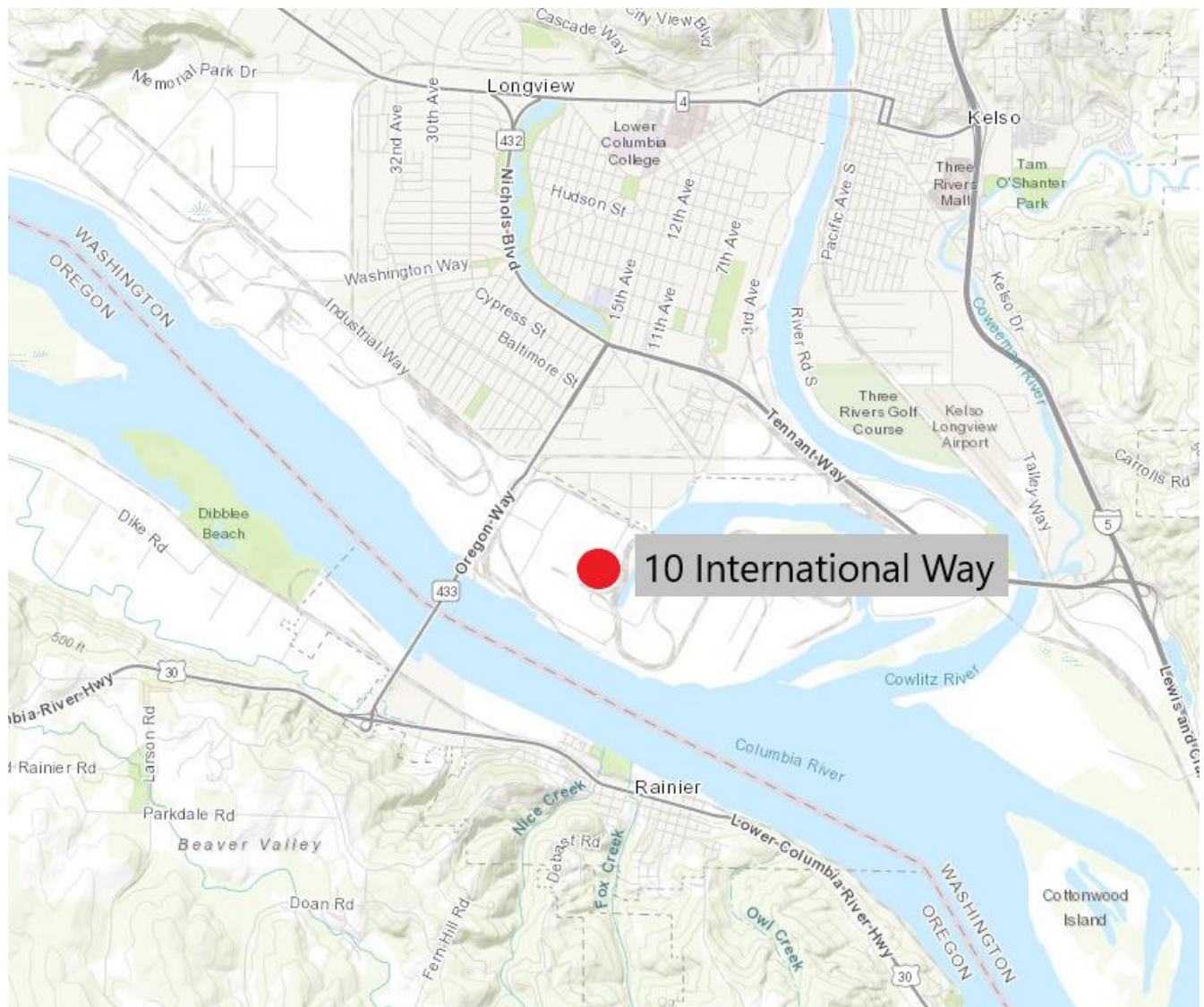
Table 1: General Facility Information

Facility Information	
Applicant	Port of Longview
Facility Name and Address	Port of Longview 10 International Way Longview, WA 98632
Contact at Facility	Name: Lisa Hendriksen Telephone #: 360-703-0207
Responsible Official	Name: Lisa Hendriksen Title: Director of Planning and Environmental Services Address: 10 International Way Longview, WA 98632 Telephone #: 360-703-0207
Industrial User Type	Significant Industrial User
Industry Type	Marine Cargo Handling
Type of Treatment by Industry	Storage Pond, Inclined Plate Clarifiers, and pH Adjustment
Fee Category	Facilities Not Otherwise Classified – Individual 50,000 - < 100,000 gpd
SIC Codes	4491
NAIC Codes	488320
Facility Location (NAD83/WGS84 reference datum)	Latitude: 46.10845 Longitude: -122.95723
Treatment Plant Receiving Discharge	Three Rivers Regional Wastewater Plant (TRRWP)
Discharge Location (NAD83/WGS84 reference datum)	Latitude: 46.10845 Longitude: -122.95723
Permit Status	
Issuance Date of Previous Permit	November 16, 2011

**FACT SHEET FOR  
PORT OF LONGVIEW  
PERMIT NO. ST 6081**

Application for Permit Renewal Submittal Date	May 29, 2015 (Permit Renewal) August 21, 2018 (Revised Application After Berth 1 and 2 Were Leased to a Third Party)
Date of Ecology Acceptance of Application	May 21, 2019
<b>Inspection Status</b>	
Date of Last Non-sampling Inspection Date	August 24, 2020

**Figure 1: Facility Location Map**



A. Facility Description

History

The Port of Longview (Port) is a public port district located in Cowlitz County, Washington, adjacent to and partially within the limits of the city of Longview. Shipping operations at the Port began in 1921 on the Cowlitz River. In 1925, the Port moved its operations on the Columbia River where the Port exists today.

The Port is considered a major seaport. There are eight berths at the Port where a variety of bulk and breakbulk cargos are handled. Berths 4 through 7 are currently operated by the Port. Berths 1 through 8 have coverage under the Port's Industrial Stormwater General Permit (ISGP). Berth 9 is leased and operated by Export Grain Germinal (EGT) and not within the Port's ISGP. The activity and types of cargo currently handled at each berth are described in the following list:

- Berth 1 – leased to International Raw Materials Ltd. (IRM). This berth is currently inactive.
- Berth 2 – leased to and operated by IRM. Handles mostly soda ash and other similar type cargos.
- Berth 3 – no longer exists and is incorporated into Berth 2.
- Berth 4 – used as a layberth and is planned for future redevelopment.
- Berth 5 – dedicated to calcined petroleum coke.
- Berth 6 – handles break bulk, project cargo, and log export.
- Berth 7 – handles bulk, break bulk, and project cargo.
- Berth 8 – handles breakbulk, project cargo, and log export.
- Berth 9 – leased to Export Grain Terminal (EGT) which exports grains.

The Port has increased the amount of cargo handled in recent years and also has increased the amount of wastewater that is treated and discharged. To accommodate for the increased activity, the Port has made various improvements to its wastewater and stormwater collection, conveyance, and treatment systems; and has increased the volume of wastewater treated and discharged.

In October of 2015, the Port constructed and commissioned an industrial wastewater storage pond at the Berth 7 Industrial Wastewater Treatment Plant (B7 IWTP). This 1,400,000-gallon storage pond provides additional wastewater storage capacity which increases the total number of wastewater that can be collected and processed through the treatment plant at the Port. The storage pond also provides treatment through settling prior to treatment at the B7 IWTP.

The Port has an existing State Water Discharge Permit (ST 6081). This permit covers discharge from Outfall 001 (inactive), Outfall 002 (active), Outfall 003 (inactive), and Outfall 004 (active). The discharge is conveyed to the Three Rivers Regional Wastewater Plant (TRRWP). In 2017, IRM leased out Berths 1 and 2 and Outfall 002 is now covered by IRM. Outfall 001 and 003 are inactive. Therefore, the new permit for the Port only includes Outfall 004.

### Industrial Process(s)

The Port is a Significant Industrial User (SIU) and mostly operates five 8-hour days per week for the entire year. The Port encompasses 597 acres and of these, 345 acres are Port-owned and operated, 123 acres are leased to tenants, and 129 acres are privately owned land.

The Port handles a broad variety of cargo such as breakbulk, project and direct transfer cargos, containers, forest products, steel and aluminum products, and a number of dry bulk commodities such as mineral ores, concentrates, fertilizers, clays, grains, and bulk agricultural commodities.

The Port generates industrial wastewater from cargo handling and cleanup activities on Berth 5, the upstream end of Berth 6, Berth 7, and other areas of wastewater collection. Each area has dedicated collection conveyance system that transfers the wastewater to a treatment system designed to pretreat the pollutants generated. The pretreatment reduces the pollutant load discharge to the TRRWP. Industrial wastewater includes incidental stormwater that falls on active areas during cargo operations and cleanup. Once the operation area is clean, stormwater runoff is directed to the stormwater conveyance systems and does not go to the B7 IWTP. The proposed permit prohibits the Port from sending non-contaminated stormwater to the TRRWP via the B7 IWTP.

In 2011, which was when the previous permit was issued, the Port handled roughly 900,000 metric tons of cargo and discharged over 2,500,000 gallons of wastewater through Outfall 002 and Outfall 004 combined. In 2019, the Port handled over 1,200,000 tons and discharged over 4,400,000 gallons of wastewater through Outfall 004 alone. The amount of cargo handled by the Port varies by year. The volume of wastewater discharged by the Port also varies by year. The discharge flow depends on the duration of cargo handling activity in the wastewater collection areas and the amount of rainfall. A rainy year is likely to result in more wastewater being discharged since more water is captured in containment at the Port that needs to be treated at the B7 IWTP.

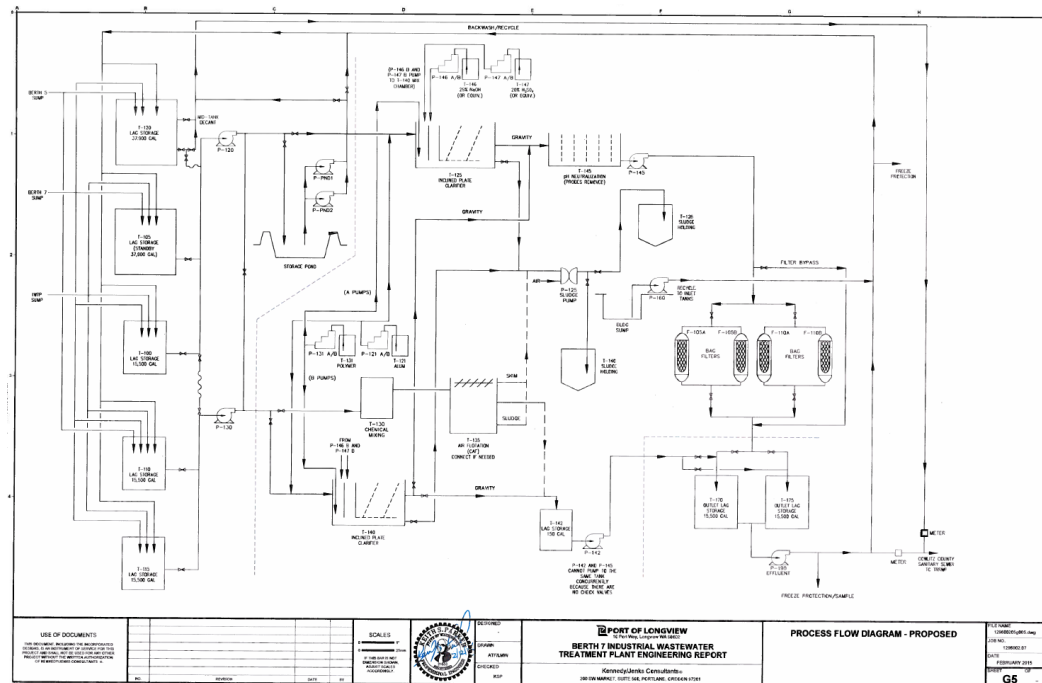
### Wastewater Pretreatment

Wastewater and incidental contact stormwater that falls onto the active area during cargo handling and cleanup operations at Berth 7 and the upstream end of Berth 6 are collected at the berths. The wastewater and incidental stormwater are then pumped to the B7 IWTP where it is treated primarily to remove suspended solids and to adjust pH. The treated wastewater and incidental stormwater are then discharged through Outfall 004 and conveyed to the TRRWP. The B7 IWTP consists of the main elements:



- Storage pond – this pond has a capacity of 1,400,000 gallons of wastewater. The pond level is driven down in the dry months to provide capacity for more wastewater storage in the wet months and to stabilize flow during these months. The Engineering Report for this pond and the associated collection and conveyance system were approved by Ecology. In addition to increasing the treatment capacity of the B7 IWTP, the pond also provides settling of solids. No chemicals are used in the pond.
- Storage tanks – there are five tanks that are available for the influent and effluent wastewater to be stored. The pond being built has provided additional flexibility at the B7 IWTP since these five storage tanks can also be used as temporary storage where the wastewater's characteristics can be assessed prior to treatment or discharge to TRRWTP.
- Inclined plate clarifiers (IPC) – there are 2 IPCs at the B7 IWTP. These IPCs are piped in parallel to each other and are designed to reduce Total Suspended Solids (TSS) by 95 percent. Aluminum sulfate (Alum) and a flocculent are used to optimize the performance for the IPCs.
- pH neutralization system – a sulfuric acid solution or a base solution are used to lower or raise pH accordingly.
- Sampling station – after treatment at the B7 IWTP, water is pumped to a storage tank or directly to TRRWTP via Outfall 004. Before the water leaves Outfall 004, there is a sampling station and a flow meter that allows the Port to monitor flow and characteristics of the effluent leaving the Port.

Figure 2 : Berth 7 Industrial Wastewater Treatment Plant Process Flow Diagram



## Solid Wastes

The inclined plate clarifiers (IPC) at the Berth 7 Industrial Wastewater Treatment Plant (B7 IWTP) generates solid waste (sludge). The sludge from the IPCs is pumped from the bottom of the IPCs to holding tanks outside the B7 IWTP for initial settling and consolidation. The thickened sludge is then pumped to a dewatering box. The drained water is pumped and treated through B7 IWTP. The sludge is hauled for disposal at a non-hazardous waste landfill.

The proposed permit requires the Port to monitor and report the sediment build-up at the inlet of the storage pond. When the sediment build-up depth is greater than 18 inches, the port must empty and clean out the settling pond. The solid waste is hauled off-site to a landfill for disposal.

The Port has an approved solid waste control plan that covers the solid waste from the IPCs and the storage pond.

## B. Discharge Location to the Three Rivers Regional Wastewater Plant

Sampling is conducted at the Berth 7 Industrial Wastewater Treatment Plant (B7 IWTP), which discharges through Outfall 004. The sample is collected using an auto-sampler. There is also a Siemens flow meter at Outfall 004 that measures the flow leaving the Port.

The pretreated effluent from Outfall 004 is then discharged to the County's sanitary sewer system and conveyed to the TRRWP, which is operated by the Three Rivers Regional Wastewater Authority (TRRWA).

C. Wastewater Characterization

The Port of Longview reported the concentration of pollutants in the permit application and in discharge monitoring reports. The tabulated data represents the quality of the effluent discharged from December 1, 2011, through August 31, 2020. The effluent is characterized as follows:

Table 2: Wastewater Characterization

Outfall 004			
Parameter	Units	Average Value	Maximum Value
Flow	GPD	22,789	120,000
TSS	mg/L	10.93	123
Oil & Grease	mg/L	4.19	7.65
Ammonia	lbs/day	1.66	123
Ammonia	mg/L	23.12	3,070
Zinc	mg/L	0.46	5.4
Parameter	Units	Minimum Value	Maximum Value
pH	Standard Unit	5.5	9.0

D. Summary of Compliance with Previous Permit Issued

The previous permit placed effluent limits on Flow (GPD), TSS (mg/L), Oil and Grease (mg/L), Ammonia (lbs/day), Zinc (mg/L), and pH. The previous permit includes effluent limits for Outfall 001, 002, 003, and 004.

Outfalls 001 and 003 are no longer in use. And Outfall 002 is leased out to a tenant, International Raw Materials Ltd. (IRM) and covered by IRM's permit. Therefore, the proposed permit for the Port only covers the effluent from Outfall 004.

Because the proposed permit for the Port no longer covers Outfall 001, 002, and 003, only violations from Outfall 004 will be covered below.

The Port has complied with the effluent limits and permit conditions throughout the duration of the permit issued on November 16, 2011, for TSS, Oil and Grease, Ammonia (mass), and pH.

However, the Port has had violations for flow, zinc, and has had late submittals. The previous permit allowed the Port to discharge up to 50,000 GPD for any two outfalls, when necessary to accommodate excessive stormwater, for a total of up to 100,000 GPD. The Port exceeded this 100,000 GPD limit in February 2014 and December 2015. Ecology's database showed the Port had discharged 106,900 GPD in February 2014. However, the Port had discharged 99,500 GPD in February 2014 and the Port notified Ecology of the discrepancy in December 2015.

FACT SHEET FOR  
PORT OF LONGVIEW  
PERMIT NO. ST 6081

The Port has exceeded the 2 mg/L limit for zinc three times since 2011 (November 2012, April 2015, and July 2015). The Port submitted their Discharge Monitoring Reports (DMRs) late twice (July 2017 and December 2018).

Ecology assessed compliance based on its review of the facility's information in the Ecology Permitting and Reporting Information System (PARIS), DMRs, and on inspections conducted by Ecology.

The following table summarizes the violations that occurred during the permit term.

Table 3: Violations/Permit Triggers

Outfall 004				
Reporting Period	Parameter	Reported Value	Permit Limit	Violation
November 2012	Zinc	5.4 mg/L	2 mg/L	Numeric Effluent Violation
December 2015	Flow <sup>a</sup>	120,000 GPD	100,000 GPD	Numeric Effluent Violation
July 2017	Late Submittal			
December 2018	Late Submittal			
<sup>a</sup> The reauthorized permit issued on November 11, 2011, allows discharge rates up to 50,000 GPD for any two outfalls, when necessary to accommodate excessive stormwater, for a total of up to 100,000 GPD. To receive this allowance, rainfall amount(s) for the days involved shall be documents in the monthly discharge monitoring reports. The values listed above are sums of the daily flow from Outfall 002 and Outfall 004				

The following table summarizes compliance with report submittal requirements over the permit term.

Table 4: Permit Submittals

Submittal Document	Status	Due Date	Received Date
Operation & Maintenance (O&M) Manual (Update)	Accepted	5/31/2013	5/15/2014
Formal Response to Warning Letter	Accepted	n/a	11/12/2014
Treatment Plant Evaluation	Received	n/a	4/7/2015
Engineering Report - Berth 7 (Includes Storage Pond)	Approved	n/a	2/20/2015
Noncompliance Notification	Received	n/a	1/19/2016

FACT SHEET FOR  
PORT OF LONGVIEW  
PERMIT NO. ST 6081

Submittal Document	Status	Due Date	Received Date
Noncompliance Notification	Received	n/a	5/12/2015
O&M Manual (Update)	Accepted	5/31/2015	6/1/2015
Spill Prevention Plan Update	Accepted	5/31/2015	6/1/2015
Solid Waste Control Plan Update	Accepted	5/31/2015	6/1/2015
Bypass Report	Received	n/a	1/20/2016
Noncompliance Notification	Reviewed	n/a	1/19/2016
Supplemental Information regarding Ammonia Limitations	Received	n/a	5/11/2016
O&M Manual (Update)	Received	5/31/2016	5/31/2016
Signatory Requirements	Accepted	n/a	1/18/2017
O&M Manual (Update)	Accepted	5/31/2017	5/31/2017
Signatory Requirements	Reviewed	n/a	7/5/2017
Notice of Handling New Cargo	Accepted	n/a	10/17/2017
Signatory Requirements	Reviewed	n/a	3/27/2018
Duty to Reapply (Original Application)	Received	5/31/2015	5/29/2018
Duty to Reapply (Modified Application)	Received	n/a	8/21/18 8/24/18
Conceptual Plans - Flow Meter and Composite Sampler	Accepted	n/a	5/28/2019
O&M Manual (Update)	Submitted	5/31/2020	5/29/2020
O&M Manual (Update)		5/31/2012	
O&M Manual (Update)	Submitted	5/31/2018	5/31/2018
O&M Manual (Update)	Submitted	5/31/2019	5/31/2019

E. State Environmental Policy Act (SEPA) Compliance

State law exempts the issuance, reissuance or modification of any wastewater discharge permit from the SEPA process as long as the permit contains conditions that are no less stringent than federal and state rules and regulations (RCW 43.21C.0383). The exemption applies only to existing discharges, not to new discharges.

III. PROPOSED PERMIT LIMITS

State regulations require that Ecology base limits in a State Waste Discharge permit on the:

- Technology and treatment methods available to treat specific pollutants (technology-based). Technology-based limits are set by the EPA and published as a regulation [40 Code of Federal Regulations (CFR) 400 – 471], or Ecology develops limits on a case-by-case basis (40 CFR 125.3, and RCW 90.48). Dischargers must treat wastewater using all known, available, reasonable methods of prevention, control, and treatment (AKART).
- Effects of the pollutants on the Publicly-Owned Treatment Works (POTW). Wastewater must not interfere with the operation of the POTW. Ecology considers local limits in developing permit limits.
- Applicable requirements of other local, state and federal laws.

Ecology applies the most stringent of these limits to each parameter of concern and further describes the proposed limits below.

The limits in this permit reflect information received in the application and from supporting reports (engineering, hydrogeology, monitoring, etc.). Ecology evaluated the permit application and determined the limits needed to comply with the rules adopted by the state of Washington. Ecology does not develop effluent limits for all reported pollutants. Some pollutants are not treatable at the concentrations reported, are not controllable at the source, and are not listed in regulation.

Ecology does not usually develop permit limits for pollutants not reported in the permit application but may be present in the discharge. The permit does not authorize the discharge of the non-reported pollutants. During the five-year permit term, the facility's effluent discharge conditions may change from those conditions reported in the permit application. The facility must notify Ecology if significant changes occur in any constituent. Until Ecology modifies the permit to reflect additional discharge of pollutants, a permitted facility could be violating its permit.

A. Technology-Based Effluent Limits

Waste discharge permits issued by Ecology specify conditions requiring AKART of discharges to waters of the state (RCW 90.48).

The Port falls under Standard Industrial Classification (SIC) 4491, marine cargo handling. There are no existing federal categorical limits application to indirect discharge of wastewater associated with industrial activity from marine cargo to a POTW.

The State Waste Discharge permit regulations include restrictions and prohibitions to protect publicly-owned sewerage systems. A facility may not discharge any wastewater having a pH less than 5.0 or greater than 11.0 or having any other corrosive property capable of causing damage or hazard to structures, equipment, or personnel unless the:

- System is specifically designed to accommodate such discharge.
- Discharge is authorized by a permit (WAC 173-216-060).

Federal regulations (40 CFR 403.5b) also prohibits the discharge of pollutants which will cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.0, unless the collection and treatment system is designed to accommodate such discharges.

#### B. Effluent Limits Based on Local Limits

To protect TRRWP from pass-through, interference, concentrations of toxic chemicals that would impair beneficial or designated uses of sludge, or potentially hazardous exposure levels, Ecology believes it necessary to impose limits for certain parameters. Ecology based these limits on local limits established by the TRRWA and codified in ordinance. Ecology's pretreatment program delegation agreement with EPA includes language in which Ecology agreed to enforce limits adopted by non-delegated programs (local limits). Applicable limits for this discharge include the following:

Table 5: Limits Based on Local Limits

Effluent Limits		
Parameter	Average Monthly	Maximum Daily
BOD5	350 mg/L	350 mg/L
TSS	350 mg/L	350 mg/L
Total Ammonia	44 mg/L	44 mg/L
Oil & Grease	100 mg/L	100 mg/L
Zinc	4.6 mg/L	4.6 mg/L
Parameter	Daily Minimum	Daily Maximum
pH	6.0 Standard Units	9.0 Standard Units

Pollutant concentrations in the proposed discharge with technology-based controls in place will not cause problems at the receiving POTW such as interference, pass-through or hazardous exposure conditions to POTW workers nor will it result in unacceptable pollutant levels in the POTW's sludge/biosolids. The TRRWA Discharge Pretreatment Policy can be found in the link below:

[https://www.kelso.gov/sites/default/files/docs/trrwa\\_pretreatment\\_policy\\_06-19-2012.pdf](https://www.kelso.gov/sites/default/files/docs/trrwa_pretreatment_policy_06-19-2012.pdf)

C. Comparison of Effluent Limits with the Previous Permit Issued on November 11, 2011

Table 6: Comparison of Effluent Limits

		Previous Effluent Limits: Outfall # 004		Proposed Effluent Limits: Outfall # 004	
Parameter	Basis of Limit	Average Monthly	Maximum Daily	Average Monthly	Maximum Daily
Flow	Technology	20,000 GPD	20,000 GPD for Outfall 004 OR 100,000 GPD combined from any 2 outfalls	40,000 GPD	100,000 GPD
BOD <sub>5</sub>	Local	n/a	n/a	350 mg/L	350 mg/L
TSS	Local	200 mg/L	200 mg/L	350 mg/L	350 mg/L
Oil & Grease	Local	50 mg/L	50 mg/L	100 mg/L	100 mg/L
Total Ammonia	Local	125 lbs/day	125 lbs/day	44 mg/L	44 mg/L
Zinc	Local	2.0 mg/L	2.0 mg/L	4.6 mg/L	4.6 mg/L
Parameter	Basis of Limit	Daily Minimum	Daily Maximum	Daily Minimum	Daily Maximum
pH	Local	5.5	10.0	6.0	9.0

The proposed permit includes a higher limit for TSS (350 mg/L), Oil & Grease (100 mg/L), and Zinc (4.6 mg/L). These limits were changed to match the TRRWPA pretreatment policy limits. TRRWPA approved these changes.

The previous permit did not have an effluent limit for BOD. A BOD limit of 350 mg/L has been added to meet the pretreatment policy for TRRWPA.

The sampling frequency in the previous permit was one per batch for BOD, TSS, Oil & Grease, Ammonia, Copper, Zinc, and pH. After the entity review, the Port requested the sampling frequency from one per batch to be changed to a flow-based sampling (e.g. one sample per 400,000 gallons) with a minimum of two samples per months for the months when the Port discharges wastewater. The Port has typically sampled twice per month, sometimes more frequently during the previous permit period.

A flow-based monitoring frequency is difficult to track for compliance using the database that Ecology uses. Therefore, the monitoring frequency in the proposed permit varies by season to



require more monitoring during the wetter months. The parameters that are included are BOD, TSS, Oil & Grease, Ammonia, Copper, Zinc, and pH. When there is a discharge, the Port must sample at least every two weeks for the months of May through October. When there is a discharge, the Port must sample at least weekly during the months of November through April.

#### pH Effluent Limit

The pH range was changed from having a minimum of 5.5 and a maximum of 10.0, to a more stringent range having a minimum of 6.0 and a maximum of 9.0 to also meet the pretreatment policy for TRRWA.

The Port was in compliance for the pH limit between 5.5 and 10.0 during the previous permit effective date of November 16, 2011 and August 31, 2020. With the proposed pH range (6.0 – 9.0) that is more stringent to meet the TRRWA treatment policy, the Port would have been out of compliance just twice between November 16, 2011 and August 31, 2020. These two pH limit exceedances were in December of 2011 and September of 2015. Ecology feels that the Port can continue to be in compliance and stay between the proposed 6.0 and 9.0 pH range as they have in the previous five years.

#### Flow Effluent Limit

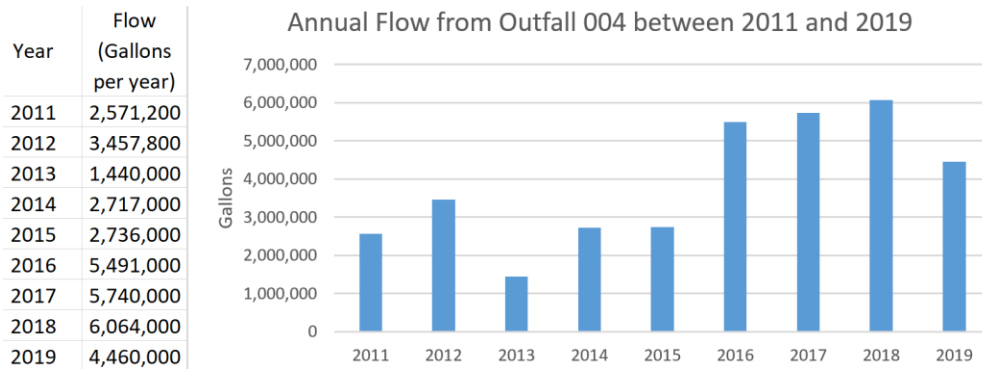
The previous permit for the Port covered four outfalls, which were Outfall 001, 002, 003, and 004. The combined maximum daily flow permitted from all four outfalls was 40,000 GPD. The previous permit allowed discharge flow rates up to 50,000 GPD for any two outfalls when necessary to accommodate excessive stormwater, for a total of up to 100,000 GPD. The proposed permit has a maximum daily flow of 100,000 GPD from Outfall 004. The average monthly flow from Outfall 004 has been increased to 100,000 GPD to accommodate potential increased volume of discharge during rainy months. The TRRWP has approved the proposed increase in flow from the Port.

The table and graph below shows the trend of total annual wastewater discharge from Outfall 004 from 2011 to 2019. The inland containment area at Berth 5 Coke export facility was expanded in 2010. The volume of bulk cargo handled at areas served by the B7 IWTP of the Port was unusually low in 2013 and precipitation was below average. The storage pond at the B7 IWTP was commissioned in October of 2015. The pond provides treatment through settling and the additional wastewater storage capacity provided by the pond allowed the Port to increase the total amount of wastewater that can be collected and processed through the treatment plant. The addition of the storage pond, and improvements to the collection and conveyance system to expand the containment area of Berth 7 to support the Port starting to export scrap metal, contributed to the increase in wastewater discharge in 2016.

Variations in flow volume are the result of varying rainfall amounts and from varying amount of cargo handled at the Port, which differ from year to year. Weather and cargo timing also contributes to flow variation between years. For example, if there is more rainfall during a cargo handling operation that requires the incidental stormwater to be conveyed to wastewater, there will be more flow to the B7 IWTP. Conversely, if there is

little rainfall during cargo handling and cleanup operations, there will be less flow to the B7 IWTP. Therefore, cargo volume, rainfall amounts, and discharge volume do not always correlate directly.

Figure 3 - Table and Graph of Outfall 004 annual flow



### Ammonia Effluent Limit

The previous permit had a mass limit for ammonia of 125 lbs/day. The proposed permit has a concentration limit of 44 mg/L which meets the pretreatment policy for TRRW. A.

Between the previous permit effective date, November 16, 2011, and August 31, 2020, Outfall 004 never exceeded the ammonia mass limit of 125 lbs/day. During the same time period, Outfall 004 exceeded the proposed 44 mg/L ammonia concentration limit 21 times. However, after the storage pond was commissioned in October of 2015, there has only been two instances where Outfall 004 exceeded the ammonia concentration limit of 44 mg/L. The figure below shows the ammonia concentration exceedance split up for before and after the pond was commissioned.

Figure 4 - Amount of ammonia concentration exceedances pre and post pond commissioning

Pond Status	Time Period	Amount of Ammonia Concentration Limit (44 mg/L) Exceedance	Exceedance Years
Pre-Pond Commissioning	11/16/2011 - 10/30/2015	19	Most of 2014 & most of 2015
Post-Pond Commissioning	11/1/2015 - 8/31/2020	2	November of 2015 & January of 2016

The proposed permit has a concentration limit for ammonia of 44 mg/L because this meets the pretreatment policy for TRRW. The Port has not exceeded the 44 mg/L since January of 2016. Ecology feels that the Port can continue to stay within the 44 mg/L limit for ammonia as the Port has in the previous four years.

#### IV. MONITORING REQUIREMENTS

Ecology requires monitoring, recording, and reporting (WAC 173-216-110) to verify that the treatment process functions correctly and that the discharge complies with the permit's effluent limits.

If a facility uses a contract laboratory to monitor wastewater, it must ensure that the laboratory uses the methods and meets or exceeds the method detection levels required by the permit. The permit describes when facilities may use alternative methods. It also describes what to do in certain situations when the laboratory encounters matrix effects. When a facility uses an alternative method as allowed by the permit, it must report the test method, Detection Level (DL), and Quantitation Level (QL) on the discharge monitoring report or in the required report.

##### A. Lab Accreditation

Ecology requires that facilities must use a laboratory registered or accredited under the provisions of chapter 173-50 WAC, Accreditation of Environmental Laboratories, to prepare all monitoring data (with the exception of certain parameters).

##### B. Wastewater Monitoring

Ecology details the proposed monitoring schedule under Special Condition S2 Specified Monitoring Frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring.

#### V. OTHER PERMIT CONDITIONS

##### A. Reporting and Recordkeeping

Ecology based Special Condition S3 on its authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges [WAC 173-216-110 and CFR 403.12 (e),(f), (g), (h), (j), (l), (n), (o), and (p)].

##### B. Operations and Maintenance

Ecology requires dischargers to take all reasonable steps to properly operate and maintain their wastewater treatment system in accordance with state regulations (WAC 173-240-080 and WAC 173-216-110). The facility must submit an updated of an O&M Manual as required by state regulation for the construction of wastewater treatment facilities (WAC 173-240-150). Implementation of the procedures in the operation and maintenance manual ensures the facility's compliance with the terms and limits in the permit.

##### C. Prohibited Discharges

Ecology prohibits certain pollutants from being discharged to the POTW. These include substances which cause pass-through or interference, pollutants which may cause damage to the POTW or harm to the POTW workers (chapter 173-216 WAC) and the discharge of designated dangerous wastes not authorized by this permit (chapter 173-303 WAC).

**D. Dilution Prohibited**

Ecology prohibits the facility from diluting its effluent as a partial or complete substitute for adequate treatment to achieve compliance with permit limits.

**E. Solid Waste Control Plan**

The Port could cause pollution of the waters of the state through inappropriate disposal of solid waste or through the release of leachate from solid waste.

This proposed permit requires this facility to update the approved solid waste control plan designed to prevent solid waste from causing pollution of waters of the state. The Port must submit the updated Plan to Ecology for approval (RCW 90.48.080).

**F. Non Routine and Unanticipated Wastewater**

Occasionally, this facility may generate wastewater not characterized in the permit application because it is not a routine discharge and the facility did not anticipate it at the time of application. These wastes typically consist of waters used to pressure-test storage tanks or fire water systems or of leaks from drinking water systems.

The permit authorizes the discharge of non-routine and unanticipated wastewater under certain conditions. The facility must characterize these waste waters for pollutants and examine the opportunities for reuse. Depending on the nature and extent of pollutants in this wastewater and on any opportunities for reuse, Ecology may:

- Authorize the facility to discharge the water
- Require the facility to treat the wastewater
- Require the facility to reuse the wastewater

**G. Spill Plan**

This facility stores a quantity of chemicals on-site that have the potential to cause water pollution and/or interference or pass through at the receiving POTW if accidentally released. Ecology can require a facility to develop best management plans to prevent this

accidental release [Section 402(a)(1) of the Federal Water Pollution Control Act (FWPCA) and RCW 90.48.080].

The Port developed a plan for preventing the accidental release of pollutants to state waters, to the receiving treatment plant, and for minimizing damages if such a spill occurs. The proposed permit requires the facility to update this plan and submit it to Ecology.

#### H. General Conditions

Ecology bases the standardized general conditions on state law and regulations. They are included in all state waste discharge permits issued by Ecology.

### VI. PUBLIC NOTIFICATION OF NONCOMPLIANCE

Ecology may annually publish a list of all industrial users in significant noncompliance with Pretreatment Standards or Requirements during any of the previous four quarters in a local newspaper. Accordingly, this permit Special Condition informs the Facility that noncompliance with this permit may result in publication of the noncompliance.

### VII. PERMIT ISSUANCE PROCEDURES

#### A. Permit Modifications

Ecology may modify this permit to impose or change the numerical limits, if necessary to comply with changes in the pretreatment requirements, conditions in local sewer ordinances, or based on new information from sources such as inspections and effluent monitoring. It may also modify this permit to comply with new or amended state or federal regulations.

#### B. Proposed Permit Issuance

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limits and conditions believed necessary to control toxics. Ecology proposes that the permit be issued for five years.

### VIII. REFERENCES FOR TEXT AND APPENDICES

Washington State Department of Ecology.

[Laws, Rules & Rulemaking](https://ecology.wa.gov/About-us/How-we-operate/rulemaking) (<https://ecology.wa.gov/About-us/How-we-operate/rulemaking>)

[Permit and Wastewater Related Information](https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Water-quality-permits-guidance) (<https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Water-quality-permits-guidance>)

[Permit Writer's Manual](https://fortress.wa.gov/ecy/publications/documents/92109.pdf), January 2015. Publication Number 92-109  
(<https://fortress.wa.gov/ecy/publications/documents/92109.pdf>)

Focus Sheet on [Developing a Solid Waste Control Plan](https://fortress.wa.gov/ecy/publications/documents/0710024.pdf) for Industrial Wastewater Discharge Permittees, February 2007. Publication Number 07-10-024.  
(<https://fortress.wa.gov/ecy/publications/documents/0710024.pdf>)

## APPENDIX A - PUBLIC INVOLVEMENT INFORMATION

Ecology proposes to reissue a permit to the Port of Longview. The permit includes wastewater discharge limits and other conditions. This fact sheet describes the facility and Ecology's reasons for requiring permit conditions.

Ecology placed a Public Notice of Application on June 15, 2019; June 12, 2019; June 10, 2020; and June 17, 2020, in the *Daily News* to inform the public about the submitted application and to invite comment on the reissuance of this permit.

Ecology will place a Public Notice of Draft on \_\_\_\_\_, in the *Daily News* to inform the public and to invite comment on the proposed draft State Waste Discharge permit and fact sheet.

The notice:

- Tells where copies of the draft Permit and Fact Sheet are available for public evaluation (a local public library, the closest Regional or Field Office, posted on our website).
- Offers to provide the documents in an alternate format to accommodate special needs.
- Urges people to submit their comments, in writing, before the end of the Comment Period
- Tells how to request a public hearing of comments about the proposed state waste discharge permit.
- Explains the next step(s) in the permitting process.

Ecology has published a document entitled Frequently Asked Questions about Effective Public Commenting, available at <https://fortress.wa.gov/ecy/publications/documents/0307023.pdf>.

You may obtain further information from Ecology by email at [carey.cholski@ecy.wa.gov](mailto:carey.cholski@ecy.wa.gov) or by writing to the address listed below.

Water Quality Permit Coordinator  
Department of Ecology  
Southwest Regional Office  
PO Box 47775  
Olympia, WA 98504-7775

The primary author of this permit and fact sheet is Hiro Kusakabe.

**IX. APPENDIX B - YOUR RIGHT TO APPEAL**

You have a right to appeal this permit to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of the final permit. The appeal process is governed by chapter 43.21B RCW and chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2) (see glossary).

To appeal you must do the following within 30 days of the date of receipt of this permit:

- File your appeal and a copy of this permit with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this permit on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

You must also comply with other applicable requirements in chapter 43.21B RCW and chapter 371-08 WAC.

**ADDRESS AND LOCATION INFORMATION**

Street Addresses	Mailing Addresses
<b>Department of Ecology</b> Attn: Appeals Processing Desk 300 Desmond Drive Southeast Lacey, WA 98503	<b>Department of Ecology</b> Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608
<b>Pollution Control Hearings Board</b> 1111 Israel Road Southwest, Suite 301 Tumwater, WA 98501	<b>Pollution Control Hearings Board</b> PO Box 40903 Olympia, WA 98504-0903

## APPENDIX C - GLOSSARY

**1-DMax or 1-day maximum temperature** -- The highest water temperature reached on any given day. This measure can be obtained using calibrated maximum/minimum thermometers or continuous monitoring probes having sampling intervals of thirty minutes or less.

**7-DADMax or 7-day average of the daily maximum temperatures** - The arithmetic average of seven consecutive measures of daily maximum temperatures. The 7-DADMax for any individual day is calculated by averaging that day's daily maximum temperature with the daily maximum temperatures of the three days prior and the three days after that date.

**Acute toxicity** - The lethal effect of a compound on an organism that occurs in a short time period, usually 48 to 96 hours.

**AKART** - The acronym for "all known, available, and reasonable methods of prevention, control and treatment." AKART is a technology-based approach to limiting pollutants from wastewater discharges, which requires an engineering judgment and an economic judgment. AKART must be applied to all wastes and contaminants prior to entry into waters of the state in accordance with RCW 90.48.010 and 520, WAC 173-200-030(2)(c)(ii), and WAC 173-216-110(1)(a).

**Alternate point of compliance** - An alternative location in the groundwater from the point of compliance where compliance with the groundwater standards is measured. It may be established in the groundwater at locations some distance from the discharge source, up to, but not exceeding the property boundary and is determined on a site specific basis following an AKART analysis. An "early warning value" must be used when an alternate point is established. An alternate point of compliance must be determined and approved in accordance with WAC 173-200-060(2).

**Ambient water quality** - The existing environmental condition of the water in a receiving water body.

**Ammonia** - Ammonia is produced by the breakdown of nitrogenous materials in wastewater. Ammonia is toxic to aquatic organisms, exerts an oxygen demand, and contributes to eutrophication. It also increases the amount of chlorine needed to disinfect wastewater.

**Annual average design flow (AADF)** - Average of the daily flow volumes anticipated to occur over a calendar year.

**Average monthly (intermittent) discharge limit** - The average of the measured values obtained over a calendar months time taking into account zero discharge days.

**Average monthly discharge limit** - The average of the measured values obtained over a calendar month's time.

**Background water quality** - The concentrations of chemical, physical, biological or radiological constituents or other characteristics in or of groundwater at a particular point in time upgradient of an activity that has not been affected by that activity, [WAC 173-200-020(3)]. Background water quality for any parameter is statistically defined as the 95 percent upper tolerance interval with a 95 percent confidence based on at least eight hydraulically upgradient water quality samples. The eight



samples are collected over a period of at least one year, with no more than one sample collected during any month in a single calendar year.

**Best management practices (BMPs)** - Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the state. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

**BOD5** - Determining the five-day Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD5 is used in modeling to measure the reduction of dissolved oxygen in receiving waters after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD<sub>5</sub> is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

**Bypass** - The intentional diversion of waste streams from any portion of a treatment facility.

**Categorical pretreatment standards** - National pretreatment standards specifying quantities or concentrations of pollutants or pollutant properties, which may be discharged to a POTW by existing or new industrial users in specific industrial subcategories.

**Chlorine** - A chemical used to disinfect wastewaters of pathogens harmful to human health. It is also extremely toxic to aquatic life.

**Chronic toxicity** - The effect of a compound on an organism over a relatively long time, often 1/10 of an organism's lifespan or more. Chronic toxicity can measure survival, reproduction or growth rates, or other parameters to measure the toxic effects of a compound or combination of compounds.

**Clean water act (CWA)** - The federal Water Pollution Control Act enacted by Public Law 92-500, as amended by Public Laws 95-217, 95-576, 96-483, 97-117; USC 1251 et seq.

**Compliance inspection-without sampling** - A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

**Compliance inspection-with sampling** - A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations. In addition, it includes as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. Ecology may conduct additional sampling.

**Composite sample** - A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite" (collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots).

**Construction activity** - Clearing, grading, excavation, and any other activity, which disturbs the surface of the land. Such activities may include road building; construction of residential houses, office buildings, or industrial buildings; and demolition activity.

**Continuous monitoring** - Uninterrupted, unless otherwise noted in the permit.

**Critical condition** - The time during which the combination of receiving water and waste discharge conditions have the highest potential for causing toxicity in the receiving water environment. This situation usually occurs when the flow within a water body is low, thus, its ability to dilute effluent is reduced.

**Date of receipt** - This is defined in RCW 43.21B.001(2) as five business days after the date of mailing; or the date of actual receipt, when the actual receipt date can be proven by a preponderance of the evidence. The recipient's sworn affidavit or declaration indicating the date of receipt, which is unchallenged by the agency, constitutes sufficient evidence of actual receipt. The date of actual receipt, however, may not exceed forty-five days from the date of mailing.

**Detection limit** - The minimum concentration of a substance that can be measured and reported with 99 percent confidence that the pollutant concentration is above zero and is determined from analysis of a sample in a given matrix containing the pollutant.

**Dilution factor (DF)** - A measure of the amount of mixing of effluent and receiving water that occurs at the boundary of the mixing zone. Expressed as the inverse of the percent effluent fraction, for example, a dilution factor of 10 means the effluent comprises 10 percent by volume and the receiving water 90 percent.

**Distribution uniformity** - The uniformity of infiltration (or application in the case of sprinkle or trickle irrigation) throughout the field expressed as a percent relating to the average depth infiltrated in the lowest one-quarter of the area to the average depth of water infiltrated.

**Early warning value** - The concentration of a pollutant set in accordance with WAC 173-200-070 that is a percentage of an enforcement limit. It may be established in the effluent, groundwater, surface water, the vadose zone or within the treatment process. This value acts as a trigger to detect and respond to increasing contaminant concentrations prior to the degradation of a beneficial use.

**Enforcement limit** - The concentration assigned to a contaminant in the groundwater at the point of compliance for the purpose of regulation, [WAC 173-200-020(11)]. This limit assures that a groundwater criterion will not be exceeded and that background water quality will be protected.

**Engineering report** - A document that thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report must contain the appropriate information required in WAC 173-240-060 or 173-240-130.

**Fecal coliform bacteria** - Fecal coliform bacteria are used as indicators of pathogenic bacteria in the effluent that are harmful to humans. Pathogenic bacteria in wastewater discharges are controlled by disinfecting the wastewater. The presence of high numbers of fecal coliform bacteria in a water body can indicate the recent release of untreated wastewater and/or the presence of animal feces.

**Grab sample** - A single sample or measurement taken at a specific time or over as short a period of time as is feasible.

**Groundwater** - Water in a saturated zone or stratum beneath the surface of land or below a surface water body.

**Industrial user** - A discharger of wastewater to the sanitary sewer that is not sanitary wastewater or is not equivalent to sanitary wastewater in character.

**Industrial wastewater** - Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business; from the development of any natural resource; or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated stormwater and, also, leachate from solid waste facilities.

**Interference** - A discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

- Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and
- Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), sludge regulations appearing in 40 CFR Part 507, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

**Local limits** - Specific prohibitions or limits on pollutants or pollutant parameters developed by a POTW.

**Major facility** - A facility discharging to surface water with an EPA rating score of > 80 points based on such factors as flow volume, toxic pollutant potential, and public health impact.

**Maximum daily discharge limit** - The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is the maximum discharge of a pollutant measured during a calendar day.

**Maximum day design flow (MDDF)** - The largest volume of flow anticipated to occur during a one-day period, expressed as a daily average.

**Maximum month design flow (MMDF)** - The largest volume of flow anticipated to occur during a continuous 30-day period, expressed as a daily average.

**Maximum week design flow (MWDF)** - The largest volume of flow anticipated to occur during a continuous 7-day period, expressed as a daily average.

**Method detection level (MDL)** - See Detection Limit.

**Minor facility** - A facility discharging to surface water with an EPA rating score of < 80 points based on such factors as flow volume, toxic pollutant potential, and public health impact.

**Mixing zone** - An area that surrounds an effluent discharge within which water quality criteria may be exceeded. The permit specifies the area of the authorized mixing zone that Ecology defines following procedures outlined in state regulations (chapter 173-201A WAC).

**National pollutant discharge elimination system (NPDES)** - The NPDES (Section 402 of the Clean Water Act) is the federal wastewater permitting system for discharges to navigable waters of the United States. Many states, including the state of Washington, have been delegated the authority to issue these permits. NPDES permits issued by Washington State permit writers are joint NPDES/State permits issued under both state and federal laws.

**pH** - The pH of a liquid measures its acidity or alkalinity. It is the negative logarithm of the hydrogen ion concentration. A pH of 7 is defined as neutral and large variations above or below this value are considered harmful to most aquatic life.

**Pass-through** - A discharge which exits the POTW into waters of the State in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation), or which is a cause of a violation of State water quality standards.

**Peak hour design flow (PHDF)** - The largest volume of flow anticipated to occur during a one-hour period, expressed as a daily or hourly average.

**Peak instantaneous design flow (PIDF)** - The maximum anticipated instantaneous flow.

**Point of compliance** - The location in the groundwater where the enforcement limit must not be exceeded and a facility must comply with the Ground Water Quality Standards. Ecology determines this limit on a site-specific basis. Ecology locates the point of compliance in the groundwater as near and directly downgradient from the pollutant source as technically, hydrogeologically, and geographically feasible, unless it approves an alternative point of compliance.

**Potential significant industrial user (PSIU)** - A potential significant industrial user is defined as an Industrial User that does not meet the criteria for a Significant Industrial User, but which discharges wastewater meeting one or more of the following criteria:

- a. Exceeds 0.5 percent of treatment plant design capacity criteria and discharges <25,000 gallons per day or;
- b. Is a member of a group of similar industrial users which, taken together, have the potential to cause pass through or interference at the POTW (e.g. facilities which develop photographic film

or paper, and car washes). Ecology may determine that a discharger initially classified as a potential significant industrial user should be managed as a significant industrial user.

**Quantitation level (QL)** - Also known as Minimum Level of Quantitation (ML) – The lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. It is equivalent to the concentration of the lowest calibration standard, assuming that the lab has used all method-specified sample weights, volumes, and cleanup procedures. The QL is calculated by multiplying the MDL by 3.18 and rounding the result to the number nearest to  $(1, 2, \text{ or } 5) \times 10^n$ , where n is an integer. (64 FR 30417).

**ALSO GIVEN AS:**

The smallest detectable concentration of analyte greater than the Detection Limit (DL) where the accuracy (precision & bias) achieves the objectives of the intended purpose. (Report of the Federal Advisory Committee on Detection and Quantitation Approaches and Uses in Clean Water Act Programs Submitted to the US Environmental Protection Agency December 2007).

**Reasonable potential** - A reasonable potential to cause a water quality violation, or loss of sensitive and/or important habitat.

**Responsible corporate officer** - A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures (40 CFR 122.22).

**Sample Maximum** - No sample may exceed this value.

**Significant industrial user (SIU) --**

- 1) All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N and;
- 2) Any other industrial user that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling, and boiler blow-down wastewater); contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the Control Authority\* on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement [in accordance with 40 CFR 403.8(f)(6)].

Upon finding that the industrial user meeting the criteria in paragraph 2, above, has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, the Control Authority\* may at any time, on its own initiative or in response to a petition received from an industrial user or POTW, and in accordance with 40 CFR 403.8(f)(6), determine that such industrial user is not a significant industrial user.

\*The term "Control Authority" refers to the Washington State Department of Ecology in the case of non-delegated POTWs or to the POTW in the case of delegated POTWs.

**Slug discharge** - Any discharge of a non-routine, episodic nature, including but not limited to an accidental spill or a non-customary batch discharge to the POTW. This may include any pollutant released at a flow rate that may cause interference or pass through with the POTW or in any way violate the permit conditions or the POTW's regulations and local limits.

**Soil scientist** - An individual who is registered as a Certified or Registered Professional Soil Scientist or as a Certified Professional Soil Specialist by the American Registry of Certified Professionals in Agronomy, Crops, and Soils or by the National Society of Consulting Scientists or who has the credentials for membership. Minimum requirements for eligibility are: possession of a baccalaureate, masters, or doctorate degree from a U.S. or Canadian institution with a minimum of 30 semester hours or 45 quarter hours professional core courses in agronomy, crops or soils, and have 5, 3, or 1 years, respectively, of professional experience working in the area of agronomy, crops, or soils.

**Solid waste** - All putrescible and non-putrescible solid and semisolid wastes including, but not limited to, garbage, rubbish, ashes, industrial wastes, swill, sewage sludge, demolition and construction wastes, abandoned vehicles or parts thereof, contaminated soils and contaminated dredged material, and recyclable materials.

**Soluble BOD<sub>5</sub>** - Determining the soluble fraction of Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of soluble organic material present in an effluent that is utilized by bacteria. Although the soluble BOD<sub>5</sub> test is not specifically described in Standard Methods, filtering the raw sample through at least a 1.2 um filter prior to running the standard BOD<sub>5</sub> test is sufficient to remove the particulate organic fraction.

**State waters** - Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

**Stormwater** - That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a stormwater drainage system into a defined surface water body, or a constructed infiltration facility.

**Technology-based effluent limit** - A permit limit based on the ability of a treatment method to reduce the pollutant.

**Total coliform bacteria** - A microbiological test, which detects and enumerates the total coliform group of bacteria in water samples.

**Total dissolved solids** - That portion of total solids in water or wastewater that passes through a specific filter.

**Total maximum daily load (TMDL)** - A determination of the amount of pollutant that a water body can receive and still meet water quality standards.

**Total suspended solids (TSS)** - Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any

toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

**Upset** - An exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limits because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, lack of preventative maintenance, or careless or improper operation.

**Water quality-based effluent limit** - A limit imposed on the concentration of an effluent parameter to prevent the concentration of that parameter from exceeding its water quality criterion after discharge into receiving waters.

APPENDIX D - TECHNICAL CALCULATIONS



**APPENDIX E - RESPONSE TO COMMENTS**

[Ecology will complete this section after the public notice of draft period.]