



Issuance Date: August 26, 2011  
Effective Date: October 1, 2011  
Expiration Date: September 30, 2016

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM  
WASTE DISCHARGE AND RECLAIMED WATER PERMIT No. WA0037061

STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY  
OLYMPIA, WASHINGTON 98504-7775

In compliance with the provisions of the  
State of Washington Reclaimed Water Act, Chapter 90.46 Revised Code of Washington  
and the  
Water Pollution Control Law Chapter 90.48 Revised Code of Washington, as amended  
and

The Federal Water Pollution Control Act  
(The Clean Water Act)  
Title 33 United States Code, Section 1251 et seq.  
and

STATE OF WASHINGTON  
DEPARTMENT OF HEALTH  
In compliance with the provisions of Chapter 90.46 and 43.70 Revised Code of Washington  
Authorizes

**LOTT Clean Water Alliance**  
**500 Adams Street Northeast**  
**Olympia, Washington 98501-6911**

and the  
Contributing Jurisdictions<sup>a</sup>

City of Lacey  
P.O. Box 3400  
Lacey, WA 98509

City of Olympia  
P.O. Box 1967  
Olympia, WA 98507

City of Tumwater  
555 Israel Rd SW  
Tumwater, WA 98501

Thurston County  
2000 Lakeridge Dr SW  
Olympia, WA 98502

<u>Plant Location:</u> 500 Adams Street Northeast, Olympia, WA 98501		<u>Receiving Water:</u> Budd Inlet, South Puget Sound	
<u>Water Body I.D. No.:</u> 1224026474620	<u>Plant Discharge Locations:</u>		<u>Reclaimed Water Location:</u>
	001 North Outfall Latitude: 47.05937 N Longitude: -122.90572 W		005 Reclaimed Water 47.0875 N -122.900556W
<u>Plant Type:</u> Activated Sludge/Advanced Treatment and Class A Reclaimed Water		002 Fiddlehead Outfall (Emergency use only) Latitude: 47.05103 N Longitude: -122.90567 W	

to discharge in accordance with the special and general conditions which follow.

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Robert W. Bergquist, LEED® AP  
Southwest Region Manager  
Water Quality Program  
Washington State Department of Ecology

<sup>a</sup>While the LOTT Alliance is the primary Permittee and has day-to-day responsibility for the treatment plant and all permit conditions, except as otherwise noted, the cities of Lacey, Olympia, and Tumwater and Thurston County as contributing jurisdictions collectively share responsibility for permit issues involving the treatment plant and discharge, as well as being responsible for their respective collection systems and lift stations, and the discharge of waste from their systems to the LOTT system.

## TABLE OF CONTENTS

SUMMARY OF PERMIT REPORT SUBMITTALS .....	5
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## SPECIAL CONDITIONS

S1.	DISCHARGE LIMITS .....	6
A.	Effluent Limits	
B.	Mixing Zone Descriptions	
S2.	MONITORING REQUIREMENTS .....	7
A.	Monitoring Schedule	
B.	Sampling and Analytical Procedures	
C.	Flow Measurement	
D.	Laboratory Accreditation	
S3.	REPORTING AND RECORDKEEPING REQUIREMENTS .....	11
A.	Reporting	
B.	Records Retention	
C.	Recording of Results	
D.	Additional Monitoring by the Permittee	
E.	Reporting Permit Violations	
F.	Other Reporting	
G.	Maintaining a Copy of This Permit	
S4.	FACILITY LOADING .....	15
A.	Design Criteria	
B.	Plans for Maintaining Adequate Capacity	
C.	Duty to Mitigate	
D.	Notification of New or Altered Sources	
E.	Infiltration and Inflow Evaluation	
F.	Wasteload Assessment	
S5.	OPERATION AND MAINTENANCE .....	17
A.	Certified Operator	
B.	O & M Program	
C.	Short-term Reduction	
D.	Electrical Power Failure	
E.	Prevent Connection of Inflow	
F.	Bypass Procedures	
G.	Operations and Maintenance Manual	
S6.	PRETREATMENT .....	20
A.	General Requirements	
B.	Monitoring Requirements	
C.	Reporting of Monitoring Results	
D.	Local Limit Development	
S7.	RESIDUAL SOLIDS .....	26
S8.	ACUTE TOXICITY .....	26

A.	Testing Requirements	
B.	Sampling and Reporting Requirements	
S9.	CHRONIC TOXICITY .....	27
A.	Testing Requirements	
B.	Sampling and Reporting Requirements	
S10.	COMBINED SEWER OVERFLOWS .....	29
A.	Discharge Locations	
B.	Technology-based Requirements for CSOs	
C.	Water Quality-based Requirements for CSOs	
D.	Combined Sewer Overflow Report	
S11.	OUTFALL EVALUATION .....	30
S12.	CONTRIBUTING JURISDICTIONS .....	31
A.	Pretreatment Requirements	
B.	Reporting	
C.	Prevention of Facility Overloading	
D.	Operation and Maintenance Program	
E.	Electrical Power Failure	

#### **RECLAIMED WATER CONDITIONS**

R1.	RECLAIMED WATER LIMITATIONS .....	33
R2.	RECLAIMED WATER MONITORING REQUIREMENTS.....	34
A.	Class A Reclaimed Water Monitoring	
B.	Reuse Instrumentation Calibration	
R3.	REPORTING AND RECORDKEEPING REQUIREMENTS .....	36
A.	Submittal Reporting	
B.	Reclaimed Water Operational Records	
R4.	RECLAIMED WATER DISTRIBUTION AND USE .....	37
A.	Water Reuse Summary Plan	
B.	Authorized Uses and Locations	
C.	Authorization for New Direct Non-potable Uses of Reclaimed Water	
D.	Revocation of Authorization	
E.	Bypass Prohibited	
F.	Reliability	
G.	Use Area Responsibilities	
H.	Service and Use Area Contract	
I.	Reclaimed Water Ordinance	
J.	Irrigation Use	
K.	Wetlands Use	
L.	Other Uses of Reclaimed Water	
R5.	OPERATION AND MAINTENANCE .....	41
A.	Reclaimed Water System Maintenance	
B.	Operation and Maintenance Manual	
C.	Electrical Power Failure	

## GENERAL CONDITIONS

G1.	SIGNATORY REQUIREMENTS.....	44
G2.	RIGHT OF INSPECTION AND ENTRY .....	44
G3.	PERMIT ACTIONS.....	45
G4.	REPORTING A CAUSE FOR MODIFICATION .....	46
G5.	PLAN REVIEW REQUIRED .....	46
G6.	COMPLIANCE WITH OTHER LAWS AND STATUTES .....	46
G7.	DUTY TO REAPPLY .....	46
G9.	REDUCED PRODUCTION FOR COMPLIANCE .....	47
G10.	REMOVED SUBSTANCES .....	47
G11.	DUTY TO PROVIDE INFORMATION.....	47
G12.	OTHER REQUIREMENTS OF 40 CFR.....	48
G13.	ADDITIONAL MONITORING .....	48
G14.	PAYMENT OF FEES.....	48
G15.	PENALTIES FOR VIOLATING PERMIT CONDITIONS.....	48
G16.	UPSET .....	48
G17.	PROPERTY RIGHTS.....	49
G18.	DUTY TO COMPLY .....	49
G19.	TOXIC POLLUTANTS.....	49
G20.	PENALTIES FOR TAMPERING .....	49
G21.	REPORTING PLANNED CHANGES.....	49
G22.	REPORTING ANTICIPATED NON-COMPLIANCE.....	49
G23.	REPORTING OTHER INFORMATION .....	50
G24.	REPORTING REQUIREMENTS APPLICABLE TO EXISTING MANUFACTURING, COMMERCIAL, MINING, AND SILVICULTURAL DISCHARGERS .....	50
G25.	COMPLIANCE SCHEDULES .....	50
APPENDIX A.....		51

## SUMMARY OF PERMIT REPORT SUBMITTALS

Refer to the Special and General Conditions of this permit for additional submittal requirements.

Permit Section	Submittal	Frequency	First Submittal Date
S3.A. R3.A.	Discharge Monitoring Report	Monthly	November 15, 2011
S3.E.	Noncompliance Notification	As necessary	
S3.F.	Shellfish Protection	As necessary	
S4.B.	Plans for Maintaining Adequate Capacity	Annually	
S4.D.	Notification of New or Altered Sources	As necessary	
S4.E.	Infiltration and Inflow Evaluation	Annually	May 15, 2012
S4.F.	Wasteload Assessment	Annually	May 15, 2012
S5.G. R5.B.	Operations and Maintenance Manual Update	As necessary	
S6.A.5.	Pretreatment Report	1/year	March 1, 2012
S8.A.	Acute Toxicity Testing Results	1/permit cycle	March 1, 2016
S9.A.	Chronic Toxicity Testing Results	1/permit cycle	March 1, 2016
S10.D.	Combined Sewer Overflow Report	Annually	May 15, 2012
S11.	Outfall Evaluation	1/permit cycle	March 1, 2015
R3.B.3	Monthly Summary of Operating Records	Monthly with DMR	November 15, 2011
R3.B.4	Cross Connection Control Report	Annually	
R4.A.	Water Reuse Summary Plan	Annually	January 31, 2012
R4.H.	Service and Use Area Contract	As needed	
G1.	Notice of Change in Authorization	As necessary	
G4.	Permit Application for Substantive Changes to the Discharge	As necessary	
G5.	Engineering Report for Construction or Modification Activities	As necessary	
G7.	Application for Permit Renewal	1/permit cycle	March 1, 2016
G21	Notice of Planned Changes	As necessary	
G22	Reporting Anticipated Non-compliance	As necessary	

Submittals shall be sent to the following addresses:

1. Department of Ecology, Water Quality Program, Municipal Permit Coordinator, Southwest Regional Office, P.O. Box 47775, Olympia, Washington 98504-7775
2. Department of Health, Office of Shellfish and Water Protection, 16201 East Indiana Avenue, Suite 1500, Spokane Valley, WA 99216

## SPECIAL CONDITIONS

### S1. DISCHARGE LIMITS

#### A. Effluent Limits

Beginning on the effective date of this permit and lasting through the expiration date, the Permittee is authorized to discharge municipal wastewater at the permitted locations subject to complying with the following limitations:

EFFLUENT LIMITS <sup>a</sup> : OUTFALLS # 001 & 002 <sup>b</sup>		
Parameter	Average Monthly	Average Weekly
Winter Season Biochemical Oxygen Demand <sup>c</sup> (5 day) (November – March)	30 mg/L, 5640 lbs/day 85% Removal	45 mg/L, 8460 lbs/day
Spring/Fall Season Biochemical Oxygen Demand <sup>c</sup> (5 day) (April, May, & October)	8 mg/L, 900 lbs/day 85% Removal	12 mg/L, 1350 lbs/day
Summer Season Biochemical Oxygen Demand <sup>c</sup> (5 day) (June – September)	7 mg/L, 671 lbs/day 85% Removal	10.5 mg/L, 1006 lbs/day
Total Suspended Solids <sup>c</sup>	30 mg/L, 5265 lbs/day 85% Removal	45 mg/L, 7898 lbs/day
Fecal Coliform Bacteria	200/100 mL	400/100 mL
pH <sup>d</sup>	Daily minimum is equal to or greater than 6.0 and the daily maximum is less than or equal to 9.0	
Spring/Fall Season Total Inorganic Nitrogen (TIN) <sup>e</sup> (April, May, & October)	3 mg/L, 338 lbs/day	
Summer Season Total Inorganic Nitrogen (TIN) <sup>e</sup> (June – September)	3 mg/L, 288 lbs/day	
EFFLUENT LIMITS <sup>a</sup> : OUTFALL # 001 ONLY		
Parameter	Average Monthly	Maximum Daily <sup>f</sup>
Winter Season Total Ammonia (as N) <sup>g</sup> (November – March)	26 mg/L	36 mg/L
EFFLUENT LIMITS <sup>a</sup> : OUTFALL # 002 <sup>b</sup> ONLY		
Parameter	Average Monthly	Maximum Daily <sup>f</sup>
Winter Season Total Ammonia (as N) <sup>g</sup> (November – March)	22 mg/L	31 mg/L
Total Recoverable Copper	6 µg/L	7.5 µg/L

<b>EFFLUENT LIMITATIONS FOR CLASS A RECLAIMED WATER: SEE CONDITION R1</b>	
<sup>a</sup> The average monthly and weekly effluent limitations are based on the arithmetic mean of the samples taken with the exception of fecal coliform, which is based on the geometric mean.	
<sup>b</sup> Outfall 002 (Fiddlehead) is to be used in emergency situations only, except as described in S13.E	
<sup>c</sup> The average monthly effluent concentration for BOD <sub>5</sub> and Total Suspended Solids shall not exceed 30 mg/L or 15 percent of the respective monthly average influent concentrations, whichever is more stringent. The 85 percent removal requirement applies to the overall treatment system, including the Budd Inlet Treatment Plant, the Satellite Reclamation Plants, and STEP tanks in the collection system.	
<sup>d</sup> Indicates the range of permitted values. When pH is continuously monitored, excursions between 5.0 and 6.0, or 9.0 and 10.0 shall not be considered violations provided no single excursion exceeds 60 minutes in length and total excursions do not exceed 7 hours and 30 minutes per month. Any excursions below 5.0 and above 10.0 are violations. The instantaneous maximum and minimum pH shall be reported monthly.	
<sup>e</sup> Total Inorganic Nitrogen (TIN) is the sum of the inorganic forms of Nitrogen (Nitrate, Nitrite, and Ammonia) each reported as Nitrogen. The TIN limit shall be a seasonal limit and shall apply from April 1, through October 31, of each year, with higher Spring and Fall loading limits.	
<sup>f</sup> The maximum daily effluent limitation is defined as the highest allowable daily discharge. The daily discharge means the discharge of a pollutant measured during a calendar day. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For other units of measurement, the daily discharge is the average measurement of the pollutant over the day.	
<sup>g</sup> The Winter Season Total Ammonia limit is a seasonal limit and shall apply from November 1, through March 31, of each year.	

**B. Mixing Zone Descriptions**

The maximum boundaries of the mixing zones are defined as follows:

North Outfall (#001):

The chronic mixing zone extends 213.5 feet from the last discharge port at both ends of the diffuser section and 215 feet from the centerline of the diffuser section. The acute zone extends 21.4 feet from the ends of the diffuser and 21.5 feet from the centerline of the diffuser pipe.

Fiddlehead Outfall (#002):

The chronic mixing zone consists of that portion of a 201-foot circle centered over the discharge point that does not impinge upon the shoreline. The acute zone extends 20.1 feet in a circle centered over the discharge point.

**S2. MONITORING REQUIREMENTS**

**A. Monitoring Schedule**

Category	Parameter	Units	Sample Point	Minimum Sampling Frequency	Sample Type
Wastewater Influent	BOD <sub>5</sub>	mg/L lbs/day	Plant Influent	3 days/week	24-hour composite

Category	Parameter	Units	Sample Point	Minimum Sampling Frequency	Sample Type
Wastewater Influent	TSS	mg/L lbs/day	Plant Influent	3 days/week	24-hour composite
Wastewater Influent	Flow	MGD	Plant Influent	Continuous <sup>1</sup>	Recording meter
Wastewater Influent	pH	Standard Units	Plant Influent	Daily	Grab
Wastewater Influent	Ammonia as (N)	mg/L lbs/day	Plant Influent	5 days/week from April 1 through October 31, 1 day/week otherwise	24-hour composite
Wastewater Influent	Nitrate & Nitrite Total as (N)	mg/L	Plant Influent	5 days/week from April 1 through October 31, 1 day/week otherwise	24-hour composite
Wastewater Influent	TKN	mg/L	Plant Influent	1 day/week	24-hour composite
Wastewater Effluent	Flow	MGD	Plant Effluent	Continuous <sup>1</sup>	Recording meter
Wastewater Effluent	BOD <sub>5</sub>	mg/L lbs/day	Plant Effluent	3 days/week	24-hour composite
Wastewater Effluent	TSS	mg/L lbs/day	Plant Effluent	Daily	24-hour composite
Wastewater Effluent	pH	Standard Units	Plant Effluent	Daily	Grab
Wastewater Effluent	Fecal Coliform Bacteria	#/100 mL	Plant Effluent	Daily	Grab
Wastewater Effluent	Temperature	°C	Plant Effluent	Daily	Grab
Wastewater Effluent	Ammonia as (N)	mg/L	Plant Effluent	5 days/week from, April 1 through October 31, 1 day/week otherwise	24-hour composite



Category	Parameter	Units	Sample Point	Minimum Sampling Frequency	Sample Type
Wastewater Effluent	Nitrate & Nitrite Total as (N)	mg/L	Plant Effluent	5 days/week from April 1 through October 31, 1 day/week otherwise	24-hour composite
Wastewater Effluent	TKN	mg/L	Plant Effluent	1 day/week	24-hour composite
Wastewater Effluent	Total Recoverable Metals: Copper, Lead, Nickel, Silver, & Zinc	µg/L	Plant Effluent	Monthly	24-hour composite
Pretreatment	As specified in Permit Condition S6.				
Acute Toxicity Testing	As specified in Permit Condition S8.				
Chronic Toxicity Testing	As specified in Permit Condition S9.				
Outfall 002 <sup>2</sup> during bypass of Outfall 001	Flow	Gallons discharged and duration	Outfall 002	Continuous <sup>1</sup>	Recording meter
Outfall 002 <sup>2</sup> during bypass of Outfall 001	Total Ammonia as (N)	mg/L	Outfall 002	At least once during any discharge lasting an hour or longer	Composite
Outfall 002 <sup>2</sup> during bypass of Outfall 001	Total Recoverable Copper	µg/L	Outfall 002	At least once during any discharge lasting an hour or longer	Composite

Category	Parameter	Units	Sample Point	Minimum Sampling Frequency	Sample Type
CSOs	Flow	Gallons discharged and duration of flow	Outfalls 002, 003, & 004	Continuous <sup>1</sup>	Recording meter
CSOs	Fecal Coliform Bacteria	#/100 mL	Outfalls 002, 003, & 004	At least once during any discharge lasting an hour or longer	Grab
CSOs	BOD <sub>5</sub>	mg/L	Outfalls 002, 003, & 004	At least once during any discharge lasting an hour or longer	Composite over the duration of a CSO event
CSOs	TSS	mg/L	Outfalls 002, 003, & 004	At least once during any discharge lasting an hour or longer	Composite over the duration of a CSO event
Reclaimed Water	As specified in Permit Condition R2				
<sup>1</sup> Continuous means uninterrupted except for brief lengths of time for calibration, for power failure, or for unanticipated equipment repair or maintenance. Measurements shall be taken daily when continuous monitoring is not possible.					
<sup>2</sup> These analyses are in addition to normal wastewater effluent sampling, and are to be taken anytime Outfall 002 (Fiddlehead) is used as a bypass of Outfall 001 for discharge of treated effluent for longer than an hour.					

**B. Sampling and Analytical Procedures**

Samples and measurements taken to meet the requirements of this permit shall be representative of the volume and nature of the monitored parameters, including representative sampling of any unusual discharge or discharge condition, including bypasses, upsets and maintenance-related conditions affecting effluent quality.

Sampling and analytical methods used to meet the monitoring requirements specified in this permit shall conform to the latest revision of the *Guidelines Establishing Test Procedures for the Analysis of Pollutants* contained in 40 CFR Part 136 or to the latest revision of *Standard Methods for the Examination of Water and Wastewater* (APHA), unless otherwise specified in this permit or approved in writing by the Department of Ecology (Ecology).

C. Flow Measurement

Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the quantity of monitored flows. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements are consistent with the accepted industry standard for that type of device. Frequency of calibration shall be in conformance with manufacturer's recommendations and at a minimum frequency of at least one calibration per year. Calibration records shall be maintained for at least three years.

D. Laboratory Accreditation

All monitoring data required by Ecology shall be prepared by a laboratory registered or accredited under the provisions of, *Accreditation of Environmental Laboratories*, Chapter 173-50 Washington Administrative Code (WAC). Flow, temperature, settleable solids, conductivity, pH, and internal process control parameters are exempt from this requirement. Conductivity and pH shall be accredited if the laboratory must otherwise be registered or accredited. Ecology exempts crops, soils, and hazardous waste data from this requirement pending accreditation of laboratories for analysis of these media.

**S3. REPORTING AND RECORDKEEPING REQUIREMENTS**

The Permittee must monitor and report in accordance with the following conditions. Falsification of information submitted to Ecology is a violation of the terms and conditions of this permit.

A. Reporting

The first monitoring period begins on the effective date of the permit. The Permittee must:

1. Submit monitoring results each month.
2. Summarize, report, and submit monitoring data obtained during each monitoring period on a Discharge Monitoring Report (DMR) form provided, or otherwise approved, by Ecology.
3. Submit DMR forms monthly whether or not the facility was discharging. If the facility did not discharge during a given monitoring period, submit the form as required with the words "NO DISCHARGE" entered in place of the monitoring results.
4. Ensure that DMR forms are postmarked or received by Ecology no later than the 15<sup>th</sup> day of the month following the completed monitoring period, unless otherwise specified in this permit.
5. Submit priority pollutant analysis data no later than forty-five (45) days following the monitoring.
6. Send report(s) to Ecology at:

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

All laboratory reports providing data for organic and metal parameters must include the following information: sampling date, sample location, date of analysis, parameter name, CAS number, analytical method/number, method detection limit (MDL), laboratory practical quantitation limit (PQL), reporting units, and concentration detected. Analytical results from samples sent to a contract laboratory must include information on the chain of custody, the analytical method, QA/QC results, and documentation of accreditation for the parameter.

B. Records Retention

The Permittee must retain records of all monitoring information for a minimum of three years. Such information must include all calibration and maintenance records and all original recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit. The Permittee must extend this period of retention during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by Ecology.

C. Recording of Results

For each measurement or sample taken, the Permittee must record the following information:

1. The date, exact place, method, and time of sampling or measurement.
2. The individual who performed the sampling or measurement.
3. The dates the analyses were performed.
4. The individual who performed the analyses.
5. The analytical techniques or methods used.
6. The results of all analyses.

D. Additional Monitoring by the Permittee

If the Permittee monitors any pollutant more frequently than required by Condition S2 of this permit, then the Permittee must include the results of such monitoring in the calculation and reporting of the data submitted in the Permittee's DMR.

E. Reporting Permit Violations

The Permittee must take the following actions when it violates or is unable to comply with any permit condition:

- Immediately take action to stop, contain, and cleanup unauthorized discharges or otherwise stop the noncompliance and correct the problem.
- If applicable, immediately repeat sampling and analysis. Submit the results of any repeat sampling to Ecology within 30 days of sampling.

1. Immediate Reporting

The Permittee must report any failure of the disinfection system immediately to the Department of Ecology's Regional Office 24-hour number listed below:

Southwest Regional Office      360-407-6300

The Permittee must report any failure of the disinfection system, any collection system overflows which may reach surface waters or any plant bypass discharging to a shellfish area immediately to the Department of Ecology and the Department of Health, Shellfish Program at the numbers listed below:

Southwest Regional Office      360-407-6300

Department of Health, Shellfish Program      360-236-3330  
(business hours)  
360-786-4183  
(24 hours)

The Permittee must report any failure of the disinfection system, any collection system overflows, or any plant bypass discharging to a waterbody used as a source of drinking water immediately to the Department of Ecology and the Department of Health, Drinking Water Program at the numbers listed below:

Southwest Regional Office      360-407-6300

Department of Health Drinking Water      360-521-0323  
Program      (business hours)  
360-481-4901  
(after business hours)

2. Twenty-Four (24)-Hour Reporting

The Permittee must report the following occurrences of noncompliance by telephone, to Ecology at 360-407-6300, within 24 hours from the time the Permittee becomes aware of any of the following circumstances:

- a. Any noncompliance that may endanger health or the environment, unless previously reported under subpart 1, above.
- b. Any unanticipated **bypass** that exceeds any effluent limitation in the permit (See Part S5.F., "Bypass Procedures").
- c. Any **upset** that exceeds any effluent limitation in the permit (See G.15, "Upset").

- d. Any violation of a maximum daily or instantaneous maximum discharge limitation for any of the pollutants in Section S1.A of this permit.
- e. Any overflow prior to the treatment works, whether or not such overflow endangers health or the environment or exceeds any effluent limitation in the permit.

3. Report Within Five Days

The Permittee must also provide a written submission within five days of the time that the Permittee becomes aware of any event required to be reported under subparts 1 or 2, above. The written submission must contain:

- a. A description of the noncompliance and its cause.
- b. The period of noncompliance, including exact dates and times.
- c. The estimated time noncompliance is expected to continue if it has not been corrected.
- d. Steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
- e. If the noncompliance involves an overflow prior to the treatment works, an estimate of the quantity (in gallons) of untreated overflow.

4. Waiver of Written Reports

Ecology may waive the written report required in subpart 3, above, on a case-by-case basis upon request if a timely oral report has been received.

5. All Other Permit Violation Reporting

The Permittee must report all permit violations, which do not require immediate or within 24 hours reporting, when it submits monitoring reports for S3.A ("Reporting"). The reports must contain the information listed in paragraph E.3, above. Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply.

6. Report Submittal

The Permittee must submit reports to the address listed in S3.

F. Other Reporting

The Permittee must report a spill of oil or hazardous materials in accordance with the requirements of RCW 90.56.280 and chapter 173-303-145. You can obtain further instructions at the following website:

<http://www.ecy.wa.gov/programs/spills/other/reportaspill.htm>.

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to Ecology, it must submit such facts or information promptly.

The Permittee must submit a new application or supplement at least 180 days prior to commencement of discharges, resulting from the activities listed below, which may result in permit violations. These activities include: any facility expansions, production increases, or other planned changes, such as process modifications, in the permitted facility.

G. Maintaining a Copy of This Permit

The Permittee must keep a copy of this permit at the facility and make it available upon request to Ecology inspectors.

**S4. FACILITY LOADING**

A. Design Criteria

Flows or waste loadings of the following design criteria for the permitted treatment facility shall not be exceeded:

**FLOWS**

Average flow for the maximum month:	28 MGD
Maximum Day:	55 MGD
Peak Hourly to Treatment Plant:	64 MGD

**BIOCHEMICAL OXYGEN DEMAND (BOD<sub>5</sub>)**

Maximum Month Loading:	37,600 lbs/day
Annual Average Loading:	31,400 lbs/day
Peak Hourly Loading:	75,300 lbs/day

**TOTAL SUSPENDED SOLIDS**

Maximum Month Loading:	35,100 lbs/day
Annual Average Loading:	29,200 lbs/day
Peak Hourly Loading:	87,700 lbs/day

**NITROGEN LOADING**

Maximum Month Loading:	6,420 lbs/day
Annual Average Loading:	5,350 lbs/day
Peak Hourly Loading:	16,060 lbs/day

B. Plans for Maintaining Adequate Capacity

While pursuing the Highly Managed Plan as described in the 1998 LOTT Wastewater Resource Management Plan, the Permittee shall conduct annual capacity assessments. The Permittee shall submit to Ecology annual capacity assessment reports and Capital Improvements Plans (CIP), in accordance with the requirements set forth in the 1998 LOTT Wastewater Resource Management Plan. The CIP shall include a schedule for

continuing to maintain system capacity at the facilities sufficient to achieve the effluent limitations, reclaimed water standards, and other conditions of this permit. The CIP shall address any of items 1-5 below, and any other items necessary to meet this objective.

If the Permittee abandons the Highly Managed Plan, then when the actual flow or waste load reaches 85 percent of any one of the design criteria in S4.A for three consecutive months, or when the projected increase would reach design capacity within five years, whichever occurs first, the Permittee shall submit to Ecology, a plan and schedule for continuing to maintain system capacity at the facilities sufficient to achieve the effluent limitations, water reclamation standards, and other conditions of this permit. This plan shall address any of the following actions or any others necessary to meet this objective.

1. Analysis of the present design including the introduction of any process modifications that would establish the ability of the existing facility to achieve the effluent limits and other requirements of this permit at specific levels in excess of the existing design criteria specified in paragraph A above.
2. Reduction or elimination of excessive infiltration and inflow of uncontaminated ground and surface water into the sewer system and feasible reductions of per capita residential flows.
3. Limitation on future sewer extensions or connections or additional waste loads.
4. Modification or expansion of facilities necessary to accommodate increased flow or waste load.
5. Reduction of industrial or commercial flows or waste loads to allow for increasing sanitary flow or waste load.

Engineering documents associated with the plan must meet the requirements of WAC 173-240-060, "Engineering Report," and be approved by Ecology prior to any construction. The plan shall specify any contracts, ordinances, methods for financing, or other arrangements necessary to achieve this objective

C. Duty to Mitigate

The Permittee is required to take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment

D. Notification of New or Altered Sources

The Permittee shall submit written notice to Ecology whenever any new discharge or a substantial change in volume or character of an existing discharge into the Publicly Owned Treatment Works (POTW) is proposed which: (1) would interfere with the operation of, or exceed the design capacity of, any portion of the POTW; (2) is not part of an approved general sewer plan or approved plans and specifications; or (3) would be subject to pretreatment standards under 40 CFR Part 403 and Section 307(b) of the Clean Water Act. This notice shall include an evaluation of the POTW's ability to adequately transport and treat the added flow and/or waste load, the quality and volume of effluent to be discharged to the POTW, and the anticipated impact on the Permittee's effluent [40 CFR 122.42(b)].



E. Infiltration and Inflow Evaluation

1. The Permittee shall annually conduct an infiltration and inflow evaluation for sub-basins of the system such that the entire system is evaluated once every 7 years. Plant monitoring and system flow meter records may be used to assess measurable infiltration and inflow. Refer to the U.S. EPA publication, *I/I Analysis and Project Certification*, available as Publication No. 97-03 at: Publications Office, Department of Ecology, P.O. Box 47600, Olympia, Washington 98504-7600.
2. A report shall be prepared which summarizes any measurable infiltration and inflow. If infiltration and inflow have increased by more than 15 percent from that found in the 1995 LOTT Inflow and Infiltration Report, the report shall contain a plan and a schedule for: (1) locating the sources of infiltration and inflow; and (2) correcting the problem.
3. The report shall be submitted by **May 15, 2012**, and **annually** thereafter.

F. Wasteload Assessment

As part of the CIP identified in condition S4.B, the Permittee shall conduct an annual assessment of their flow and waste load and submit a report to Ecology by **May 15, 2012**, and **annually** thereafter. The report shall contain the following: an indication of compliance or noncompliance with the permit effluent limitations; a comparison between the existing and design monthly average dry weather and wet weather flows, peak flows, BOD, and total suspended solids loadings; and (except for the first report) the percentage increase in these parameters since the last annual report. The report shall also state the present and design population or population equivalent, projected population growth rate, and the estimated date upon which the design capacity is projected to be reached, according to the most restrictive of the parameters above. The interval for review and reporting may be modified if Ecology determines that a different frequency is sufficient.

**S5. OPERATION AND MAINTENANCE**

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems, which are installed by a Permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

A. Certified Operator

An operator certified for at least a Class 4 plant by the state of Washington shall be in responsible charge of the day-to-day operation of the LOTT wastewater system of treatment and reclamation plants. An operator certified for at least a Class 3 plant shall be in charge during all regularly scheduled shifts when operational changes are made to the treatment process.

B. O & M Program

The Permittee shall institute an adequate operation and maintenance program for their entire sewage system. Maintenance records shall be maintained on all major electrical

and mechanical components of the treatment plant, as well as the sewage system and pumping stations. Such records shall clearly specify the frequency and type of maintenance recommended by the manufacturer and shall show the frequency and type of maintenance performed. These maintenance records shall be available for inspection at all times.

C. Short-term Reduction

If a Permittee contemplates a reduction in the level of treatment that would cause a violation of permit discharge limitations on a short-term basis for any reason, and such reduction cannot be avoided, the Permittee shall give written notification to Ecology, if possible, 30 days prior to such activities, detailing the reasons for, length of time of, and the potential effects of the reduced level of treatment. This notification does not relieve the Permittee of their obligations under this permit.

D. Electrical Power Failure

The Permittee is responsible for maintaining adequate safeguards to prevent the discharge of untreated wastes or wastes not treated in accordance with the requirements of this permit during electrical power failure at the treatment plant and/or sewage lift stations either by means of alternate power sources, standby generator, or retention of inadequately treated wastes. The Permittee shall maintain Reliability Class II (EPA 430-99-74-001) at the wastewater treatment plant, which requires primary sedimentation and disinfection.

E. Prevent Connection of Inflow

The Permittee and contributing jurisdictions shall strictly enforce their sewer ordinances and not allow the connection of inflow (roof drains, foundation drains, etc.) to the sanitary sewer system.

F. Bypass Procedures

Bypass, which is the intentional diversion of waste streams from any portion of a treatment facility, is prohibited, and Ecology may take enforcement action against a Permittee for bypass unless one of the following circumstances (1, 2, or 3) is applicable.

1. Bypass for essential maintenance without the potential to cause violation of permit limits or conditions.

Bypass is authorized if it is for essential maintenance and does not have the potential to cause violations of limitations or other conditions of this permit, or adversely impact public health as determined by Ecology prior to the bypass. The Permittee shall submit prior notice, if possible at least ten days before the date of the bypass.

2. Bypass which is unavoidable, unanticipated and results in noncompliance of this permit.

This bypass is permitted only if:

- a. Bypass is unavoidable to prevent loss of life, personal injury, or severe property damage. "Severe property damage" means substantial physical

damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.

- b. There are no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, stopping production, maintenance during normal periods of equipment downtime (but not if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance), or transport of untreated wastes to another treatment facility.
- c. Ecology is properly notified of the bypass as required in Condition S3E of this permit.

3. Bypass which is anticipated and has the potential to result in noncompliance of this permit

The Permittee shall notify Ecology at least 30 days before the planned date of bypass. The notice shall contain: (1) a description of the bypass and its cause; (2) an analysis of all known alternatives which would eliminate, reduce, or mitigate the need for bypassing; (3) a cost-effectiveness analysis of alternatives including comparative resource damage assessment; (4) the minimum and maximum duration of bypass under each alternative; (5) a recommendation as to the preferred alternative for conducting the bypass; (6) the projected date of bypass initiation; (7) a statement of compliance with State Environmental Policy Act (SEPA); (8) a request for modification of water quality standards as provided for in WAC 173-201A-110, if an exceedance of any water quality standard is anticipated; and (9) steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass.

For probable construction bypasses, the need to bypass is to be identified as early in the planning process as possible. The analysis required above shall be considered during preparation of the engineering report or facilities plan and plans and specifications and shall be included to the extent practical. In cases where the probable need to bypass is determined early, continued analysis is necessary up to and including the construction period in an effort to minimize or eliminate the bypass.

Ecology will consider the following prior to issuing an administrative order for this type bypass:

- a. If the bypass is necessary to perform construction or maintenance-related activities essential to meet the requirements of this permit.
- b. If there are feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, stopping production, maintenance during normal periods of equipment down time, or transport of untreated wastes to another treatment facility.

- c. If the bypass is planned and scheduled to minimize adverse effects on the public and the environment.

After consideration of the above and the adverse effects of the proposed bypass and any other relevant factors, Ecology will approve or deny the request. The public shall be notified and given an opportunity to comment on bypass incidents of significant duration, to the extent feasible. Approval of a request to bypass will be by administrative order issued by Ecology under Revised Code of Washington (RCW) 90.48.120.

G. Operations and Maintenance Manual

The approved Operations and Maintenance Manual shall be kept available at the treatment plant and all operators shall follow the instructions and procedures of this manual. An electronic equivalent of a paper manual is an acceptable alternative.

The Operations and Maintenance (O&M) Manual shall be updated by the Permittee in accordance with WAC 173-240-080 and be submitted to Ecology for approval prior to start-up of any reclaimed water system. This update shall include the O&M procedures for the reclaimed water system at the Budd Inlet plant. Substantial changes or updates to the O&M Manual shall be submitted to Ecology whenever they are incorporated into the manual.

The updated O&M Manual shall include:

1. Emergency procedures for plant shutdown and cleanup in event of wastewater system upset or failure.
2. Plant maintenance procedures.
3. The process control monitoring schedule.
4. Details on the reclaimed water system operation at the Budd Inlet plant.

**S6. PRETREATMENT**

A. General Requirements

1. The Permittee shall implement the Industrial Pretreatment Program in accordance with the legal authorities, policies, procedures, and financial provisions described in the Permittee's approved pretreatment program submittal entitled "Pretreatment Program Manual" and dated November 1999; any approved revisions thereto; and the General Pretreatment Regulations (40 CFR Part 403). At a minimum, the following pretreatment implementation activities shall be undertaken by the Permittee:
  - a. Enforce categorical pretreatment standards promulgated pursuant to Section 307(b) and (c) of the Federal Clean Water Act (hereinafter, the Act), prohibited discharge standards as set forth in 40 CFR 403.5, local limitations specified in Section 5 (the LOTT Discharge and Industrial Pretreatment Regulations, and as codified in the following enabling ordinances: Lacey Ordinance 994, Olympia Ordinance 5462, Tumwater Ordinance 094-032, and Thurston County Ordinance 10750 as exist at

the time of issuance of this permit), or state standards, which ever are most stringent or apply at the time of issuance or modification of a local industrial waste discharge permit. Locally derived limitations shall be defined as pretreatment standards under Section 307(d) of the Act and shall not be limited to categorical industrial facilities.

- b. Issue industrial waste discharge permits to all significant industrial users [SIUs, as defined in 40 CFR 403.3(t)(i)(ii)] contributing to the treatment system, including those from other jurisdictions. Industrial waste discharge permits shall contain as a minimum, all the requirements of 40 CFR 403.8 (f)(1)(iii). The Permittee shall coordinate the permitting process with Ecology regarding any industrial facility, which may possess a state waste discharge permit issued by Ecology. Once issued, an industrial waste discharge permit will take precedence over a state-issued waste discharge permit.
- c. Maintain and update, as necessary, records identifying the nature, character, and volume of pollutants contributed by industrial users to the POTW. Records shall be maintained for at least a three-year period.
- d. Perform inspections, surveillance, and monitoring activities on industrial users to determine and/or confirm compliance with applicable pretreatment standards and requirements. A thorough inspection of SIUs shall be conducted annually. Frequency of regular local monitoring of SIU wastewaters shall normally be commensurate with the character and volume of the wastewater but shall not be less than once per year. Sample collection and analysis shall be performed in accordance with 40 CFR Part 403.12(b)(5)(ii)-(v) and 40 CFR Part 136.
- e. Enforce and obtain remedies for noncompliance by any industrial users with applicable pretreatment standards and requirements. Once violations have been identified, the Permittee shall take timely and appropriate enforcement action to address the noncompliance. The Permittee's action shall follow its enforcement response procedures and any amendments, thereof.
- f. Publish, at least annually in the largest daily newspaper in the Permittee's service area, a list of all nondomestic users which, at any time in the previous 12 months, were in significant noncompliance as defined in 40 CFR 403.8(f)(2)(vii).
- g. If the Permittee elects to conduct sampling of a SIU's discharge in lieu of the user self-monitoring, it shall sample and analyze for all regulated pollutants in accordance with 40 CFR Part 403.12(b)(5)(ii)-(v), 40 CFR 403.12(g), and 40 CFR Part 136. The character and volume of the samples shall be representative of the discharge and shall provide adequate data to determine compliance, but in no case should sampling occur less than two times per year.
- h. Develop and maintain a data management system designed to track the status of the Permittee's industrial user inventory, industrial user discharge characteristics, and compliance status.

- i. Maintain adequate staff, funds, and equipment to implement its pretreatment program.
  - j. Establish, where necessary, contracts or legally binding agreements with contributing jurisdictions to ensure compliance with applicable pretreatment requirements by commercial or industrial users within these jurisdictions. These contracts or agreements shall identify the agency responsible for the various implementation and enforcement activities to be performed in the contributing jurisdiction. In addition, the Permittee shall be required to develop a Memorandum of Understanding (or Interlocal Agreement) that outlines the specific roles, responsibilities, and pretreatment activities of each jurisdiction.
2. The Permittee shall implement the Accidental Spill Prevention Program described in the approved Industrial Pretreatment Program dated November 1999, or any approved revisions thereto.
3. The Permittee shall evaluate, at least once every two years, whether each Significant Industrial User needs a plan to control slug discharges. For purposes of this subsection, a slug discharge is any discharge of a nonroutine, episodic nature, including but not limited to an accidental spill or noncustomary batch discharge. The results of such activities shall be available to Ecology upon request. If the Permittee decides that a slug control plan is needed, the plan shall contain, at a minimum, the following elements:
  - a. Description of discharge practices, including nonroutine batch discharges.
  - b. Description of stored chemicals.
  - c. Procedures for immediately notifying the Permittee of slug discharges, including any discharge that would violate a prohibition under 40 CFR 403.5(b), with procedures for follow-up written notification within five days.
  - d. If necessary, procedures to prevent adverse impact from accidental spills, including inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site run-off, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants (including solvents), and/or measures and equipment necessary for emergency response.
4. Whenever it has been determined, on the basis of information provided to or obtained by Ecology, that any waste source contributes pollutants to the Permittee's treatment works in violation of Subsection (b), (c), or (d) of Section 307 of the Act, and the Permittee has not taken adequate corrective action, Ecology shall notify the Permittee of this determination. Failure by the Permittee to commence an appropriate enforcement action within 30 days of this notification may result in appropriate enforcement action by Ecology against the source and/or the Permittee.

5. Pretreatment Report

The Permittee shall provide to Ecology an annual report that briefly describes its program activities during the previous calendar year. This report shall be submitted no later than **March 1, 2012**, and **annually** thereafter to: Washington Department of Ecology, Southwest Regional Office, P.O. Box 47775, Olympia, Washington 98504.

The report shall include the following information:

- a. An updated nondomestic inventory.
- b. Results of wastewater sampling at the treatment plant as specified in S6.B. The Permittee shall calculate removal rates for each pollutant and evaluate the adequacy of the existing local limitations in Section 5 of the LOTT Discharge and Industrial Pretreatment Regulations in prevention of treatment plant interference, pass through of pollutants that could affect receiving water quality, and sludge contamination. Potential interference or pass through at planned satellite plants should also be addressed.
- c. Status of program implementation, including:
  - (1) Any substantial modifications to the pretreatment program as originally approved by Ecology, including staffing and funding levels.
  - (2) Any interference, upset, or permit violations experienced at the POTW that are directly attributable to wastes from industrial users.
  - (3) Listing of industrial users inspected and/or monitored, and a summary of the results.
  - (4) Listing of industrial users scheduled for inspection and/or monitoring for the next year, and expected frequencies.
  - (5) Listing of industrial users notified of promulgated pretreatment standards and/or local standards as required in 40 CFR 403.8(f)(2)(iii). Indicate which industrial users are on compliance schedules and the final date of compliance for each.
  - (6) Listing of industrial users issued industrial waste discharge permits.
  - (7) Planned changes in the pretreatment program implementation plan. (See subsection A.6. below.)
- d. Status of compliance activities, including:

- (1) Listing of industrial users that failed to submit baseline monitoring reports or any other reports required under 40 CFR 403.12 and in the most current approved version of the Permittee's pretreatment program.
  - (2) Listing of industrial users that were at any time during the reporting period not complying with federal, state, or local pretreatment standards or with applicable compliance schedules for achieving those standards, and the duration of such noncompliance.
  - (3) Summary of enforcement activities and other corrective actions taken or planned against noncomplying industrial users. The Permittee shall supply to Ecology a copy of the public notice of facilities that were in significant noncompliance.
6. The Permittee shall request and obtain approval from Ecology prior to implementing any significant changes to the local pretreatment program as approved. The procedure of 40 CFR 403.18 (b) & (c) shall be followed.

B. Monitoring Requirements

The Permittee shall monitor its influent, effluent, and sludge for the priority pollutants identified in Tables II and III of Appendix D of 40 CFR Part 122 as amended, any compounds identified as a result of Condition S6.B.4, and any other pollutants expected from nondomestic sources using U.S. EPA-approved procedures for collection, preservation, storage, and analysis. Influent, effluent, and sludge samples shall be tested for the priority pollutant metals (Table III, 40 CFR 122, Appendix D) on a quarterly basis throughout the term of this permit. Influent, effluent, and sludge samples shall be tested for the organic priority pollutants (Table II, 40 CFR 122, Appendix D) on an annual basis.

1. The POTW influent and effluent shall be sampled on a day when industrial discharges are occurring at normal to maximum levels. Samples for the analysis of acid and base/neutral extractable compounds and metals shall be 24-hour composites. Samples for the analysis of volatile organic compounds shall be collected using grab sampling techniques at equal intervals for the total of four grab samples per day.

A single analysis for volatile pollutants (Method 624) may be run for each monitoring day by compositing equal volumes of each grab sample directly in the GC purge and trap apparatus in the laboratory, with no less than 1 ml of each grab included in the composite.

Unless otherwise indicated, all reported test data for metals shall represent the total amount of the constituent present in all phases, whether solid, suspended, or dissolved, elemental or combined including all oxidation states.

Wastewater samples must be handled, prepared, and analyzed by GC/MS in accordance with the U.S. EPA Methods 624 and 625 (October 26, 1984).



2. A sludge sample shall be collected concurrent with a wastewater sample and may be taken as a single grab of residual sludge. Sampling and analysis shall conform to U.S. EPA Methods 624 and 625 unless the Permittee requests an alternate method and it has been approved by Ecology. Sludge metals priority pollutant sampling and analysis must conform to U.S. EPA SW 846 6000/7000 Series Methods unless the Permittee requests an alternate method and is approved by Ecology.
3. Cyanide, phenols, and oils shall be taken as grab samples. Oils shall be hexane soluble or equivalent, and should be measured in the influent and effluent only.
4. In addition to quantifying pH, oil and grease, and all priority pollutants, a reasonable attempt should be made to identify all other substances and quantify all pollutants shown to be present by gas chromatograph/mass spectrometer (GC/MS) analysis per 40 CFR 136, Appendix A, Methods 624 and 625. Determinations of pollutants should be attempted for each fraction, which produces identifiable spectra on total ion plots (reconstructed gas chromatograms). Determinations should be attempted from all peaks with responses 5 percent or greater than the nearest internal standard. The 5 percent value is based on internal standard concentrations of 30 µg/l, and must be adjusted downward if higher internal standard concentrations are used or adjusted upward if lower internal standard concentrations are used. Non-substituted aliphatic compounds may be expressed as total hydrocarbon content. Identification shall be attempted by a laboratory whose computer data processing programs are capable of comparing sample mass spectra to a computerized library of mass spectra, with visual confirmation by an experienced analyst. For all detected substances which are determined to be pollutants, additional sampling and appropriate testing shall be conducted to determine concentration and variability, and to evaluate trends.

C. Reporting of Monitoring Results

The Permittee shall include a summary of monitoring results in the Annual Pretreatment Report.

D. Local Limit Development

As sufficient data becomes available, the Permittee shall, in consultation with Ecology, reevaluate their local limits in order to prevent pass through or interference at the Budd Inlet plant and the satellite plants. Upon determination by Ecology that any pollutant present causes pass through or interference, or exceeds established sludge standards, the Permittee shall establish new local limits or revise existing local limits as required by 40 CFR 403.5. In addition, Ecology may require revision or establishment of local limits for any pollutant discharged from the POTW that has a reasonable potential to exceed the Water Quality Standards, Sediment Standards, or established effluent limits, or causes whole effluent toxicity. The determination by Ecology shall be in the form of an Administrative Order.

Ecology may modify this permit to incorporate additional requirements relating to the establishment and enforcement of local limits for pollutants of concern. Any permit modification is subject to formal due process procedures pursuant to state and federal law and regulation.

**S7. RESIDUAL SOLIDS**

Residual solids include screenings, grit, scum, primary sludge, waste activated sludge, and other solid waste. The Permittee shall store and handle all residual solids in such a manner so as to prevent their entry into state ground or surface waters. The Permittee shall not discharge leachate from residual solids to state surface or ground waters.

**S8. ACUTE TOXICITY**

**A. Testing Requirements**

The Permittee shall test final effluent once in the last summer and once in the last winter prior to submission of the application for permit renewal (**March 1, 2016**). The two species listed below shall be used on each sample and the results submitted to Ecology as a part of the permit renewal application process. The Permittee shall conduct acute toxicity testing on a series of five concentrations of effluent and a control in order to be able to determine appropriate point estimates and an NOEC. The percent survival in 100 percent effluent shall also be reported.

Acute toxicity tests shall be conducted with the following species and protocols:

- 1) Fathead minnow, *Pimephales promelas* (96-hour static-renewal test, method: EPA/600/4-90/027F)
- 2) Daphnid, *Ceriodaphnia dubia*, *Daphnia pulex*, or *Daphnia magna* (48 hour static test, method: EPA/600/4-90/027F).

**B. Sampling and Reporting Requirements**

1. All reports for effluent characterization or compliance monitoring shall be submitted in accordance with the most recent version of Department of Ecology Publication # WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria* in regards to format and content. Reports shall contain bench sheets and reference toxicant results for test methods. If the lab provides the toxicity test data on floppy disk for electronic entry into Ecology's database, then the Permittee shall send the disk to Ecology along with the test report, bench sheets, and reference toxicant results.
2. Testing shall be conducted on 24-hour composite effluent samples. Samples taken for toxicity testing shall be cooled to 4 degrees Celsius while being collected and shall be sent to the lab immediately upon completion. The lab shall begin the toxicity testing as soon as possible but no later than 36 hours after sampling was ended.
3. All samples and test solutions for toxicity testing shall have water quality measurements as specified in Department of Ecology Publication # WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria* or most recent version thereof.

4. All toxicity tests shall meet quality assurance criteria and test conditions in the most recent versions of the EPA manual listed in subsection A. and the Department of Ecology Publication # WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. If test results are determined to be invalid or anomalous by Ecology, testing shall be repeated with freshly collected effluent.
5. Control water and dilution water shall be laboratory water meeting the requirements of the EPA manual listed in subsection A or pristine natural water of sufficient quality for good control performance.
6. The whole effluent toxicity tests shall be run on an unmodified sample of final effluent.
7. The Permittee may choose to conduct a full dilution series test during compliance monitoring in order to determine dose response. In this case, the series must have a minimum of five effluent concentrations and a control. The series of concentrations must include the ACEC.
8. All whole effluent toxicity tests, effluent screening tests, and rapid screening tests that involve hypothesis testing and do not comply with the acute statistical power standard of 29 percent as defined in WAC 173-205-020 must be repeated on a fresh sample with an increased number of replicates to increase the power.

## S9. CHRONIC TOXICITY

### A. Testing Requirements

The Permittee shall test final effluent once in the last summer and once in the last winter prior to submission of the application for permit renewal (**March 1, 2016**). All of the chronic toxicity tests listed below shall be conducted on each sample. The results of this chronic toxicity testing shall be submitted to Ecology as a part of the permit renewal application process.

The Permittee shall conduct chronic toxicity testing on a series of at least five concentrations of effluent and a control in order to be able to determine appropriate point estimates and an NOEC. This series of dilutions shall include the acute critical effluent concentration (ACEC). The ACEC equals 5.46 percent effluent. The Permittee shall compare the ACEC to the control using hypothesis testing at the 0.05 level of significance as described in Appendix H, EPA/600/4-89/001.

Chronic toxicity tests shall be conducted with the following species and the most recent version of the following protocols:

Saltwater Chronic Toxicity Test Species		Method
Topsmelt	<i>Atherinops affinis</i>	EPA/600/R-95/136
Mysid shrimp	<i>Holmesimysis costata</i> or <i>Mysidopsis bahia</i>	EPA/600/R-95/136 or EPA/600/4-91/003
Pacific oyster/ Mussel	<i>Crassostrea giga</i> <i>Mytilus sp.</i>	EPA/600/R-95/136

The Permittee shall use the West Coast mysid (*Holmesimysis costata*) for toxicity testing unless the lab cannot obtain a sufficient quantity of a West Coast species in good condition in which case the East Coast mysid (*Mysidopsis bahia*) may be substituted.

The Pacific oyster and mussel tests shall be run in accordance with EPA/600/R-95/136 and the bivalve development test conditions in the Department of Ecology Publication # WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria* or most recent version thereof. The lab shall use whichever one of the two species that will give a valid result in each particular test.

**B. Sampling and Reporting Requirements**

1. All reports for effluent characterization or compliance monitoring shall be submitted in accordance with the most recent version of Department of Ecology Publication # WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria* in regards to format and content. Reports shall contain bench sheets and reference toxicant results for test methods. If the lab provides the toxicity test data on floppy disk for electronic entry into Ecology's database, then the Permittee shall send the disk to Ecology along with the test report, bench sheets, and reference toxicant results.
2. Testing shall be conducted on 24-hour composite effluent samples. Samples taken for toxicity testing shall be cooled to 4 degrees Celsius while being collected and shall be sent to the lab immediately upon completion. The lab shall begin the toxicity testing as soon as possible but no later than 36 hours after sampling was ended.
3. All samples and test solutions for toxicity testing shall have water quality measurements as specified in Department of Ecology Publication # WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria* or most recent version thereof.
4. All toxicity tests shall meet quality assurance criteria and test conditions in the most recent versions of the EPA manual listed in subsection A. and the Department of Ecology Publication # WQ-R-95-80, *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria*. If test results are determined to be invalid or anomalous by Ecology, testing shall be repeated with freshly collected effluent.
5. Control water and dilution water shall be laboratory water meeting the requirements of the EPA manual listed in subsection A or pristine natural water of sufficient quality for good control performance.
6. The whole effluent toxicity tests shall be run on an unmodified sample of final effluent.
7. The Permittee may choose to conduct a full dilution series test in order to determine dose response. In this case, the series must have a minimum of five effluent concentrations and a control. The series of concentrations must include the ACEC and the CCEC. The ACEC and CCEC may either substitute for the effluent concentration that is closest to it in the dilution series or be an extra effluent concentration.

8. All whole effluent toxicity tests that involve hypothesis testing and do not comply with the chronic statistical power standard of 39 percent as defined in WAC 173-205-020 must be repeated on a fresh sample with an increased number of replicates to increase the power.

#### **S10. COMBINED SEWER OVERFLOWS**

##### **A. Discharge Locations**

The following is a list of combined sewer overflows (CSOs), which are occasional point sources of pollutants as a result of precipitation events. Discharges from these sites are prohibited except as a result of and during precipitation events. No authorization is given by this permit for discharge from a CSO that causes adverse impacts that threaten characteristic uses of the receiving water as identified in the Water Quality Standards, Chapter 173-201A WAC.

DISCHARGE NO.	LOCATION	RECEIVING WATER
002	Fiddlehead Outfall	Budd Inlet
003 <sup>a</sup>	State and Chestnut Streets	Budd Inlet
004 <sup>a</sup>	Water Street Pump Station	Budd Inlet
<sup>a</sup> Contained in the city of Olympia collection system (not operated by the Permittee).		

##### **B. Technology-based Requirements for CSOs**

The Permittee shall comply with the following technology-based requirements:

1. The Permittee shall implement proper operation and maintenance programs for the sewer system and all CSO outfalls to reduce the magnitude, frequency, and duration of CSOs. The program shall consider regular sewer inspections; sewer, catch basin, and regulator cleaning; equipment and sewer collection system repair or replacement, where necessary; and disconnection of illegal connections.
2. The Permittee shall implement procedures that will maximize use of the collection system for wastewater storage that can be accommodated by the storage capacity of the collection system in order to reduce the magnitude, frequency, and duration of CSOs.
3. The Permittee shall review and modify, as appropriate, its existing pretreatment program to minimize CSO impacts from the discharges from nondomestic users.
4. The Permittee shall operate the POTW treatment plant at maximum treatable flow during all wet weather flow conditions to reduce the magnitude, frequency, and duration of CSOs. The Permittee shall deliver all flows to the treatment plant within the constraints of the treatment capacity of the POTW.
5. Dry weather overflows from CSOs outfalls are prohibited. Each dry weather overflow must be reported to the permitting authority as soon as the Permittee becomes aware of the overflow. When the Permittee detects a dry weather overflow, the Permittee shall begin corrective action immediately. The Permittee shall inspect the dry weather overflow each subsequent day until the overflow has been eliminated.

6. The Permittee shall implement measures to control solid and floatable materials in CSOs.
7. The Permittee shall implement a pollution prevention program focused on reducing the impact of CSOs on receiving waters.
8. The Permittee shall implement a public notification process to inform citizens of when and where CSOs occur. The process must include (a) a mechanism to alert persons of the occurrence of CSOs and (b) a system to determine the nature and duration of conditions that are potentially harmful for users of receiving waters due to CSOs.
9. The Permittee shall monitor CSO outfalls to characterize CSO impacts and the efficacy of CSO controls. This shall include collection of data that will be used to evaluate the efficacy of the technology-based controls. These data shall include:
  - a. Total number of CSO events and frequency and duration of CSOs for a representative number of events
  - b. Locations and designated uses of receiving water bodies
  - c. Water quality impacts directly related to CSOs (e.g., beach closings, floatables wash-up episodes, fish kills).

C. Water Quality-based Requirements for CSOs

The Permittee shall not discharge any pollutant at a level that causes or contributes to a receiving water excursion above numeric or narrative criteria developed and adopted as part of state of Washington water quality standards.

D. Combined Sewer Overflow Report

By **May 15, 2012**, and **annually** thereafter, the Permittee shall submit a CSO Report to Ecology for review and approval, which complies with the requirements of WAC 173-245-090(1). The Permittee shall submit in this report, documentation that demonstrates implementation of each of the nine minimum controls (as listed in S10.B.1 to 9).

E. Emergency Bypass Maintenance (Outfall 002)

The Permittee shall be allowed one four-hour period every six months to discharge fully treated and disinfected secondary effluent through Outfall 002 for the purpose of exercising the associated pumping equipment. The Permittee shall notify Ecology at least ten days in advance of conducting this activity, as required by S5.F.1.

## **S11. OUTFALL EVALUATION**

The Permittee shall inspect, once during the permit cycle, the submerged portion of the North outfall line and diffuser to document its integrity and continued function. If conditions allow for a photographic verification, it shall be included in the report. The inspection report shall be submitted to Ecology with the application for permit renewal by **March 1, 2015**.

## **S12. CONTRIBUTING JURISDICTIONS**

### **A. Pretreatment Requirements**

1. Each contributing jurisdiction shall ensure that within their jurisdiction, non-domestic wastes shall not be discharged to the sewerage system except in accordance with the requirements of Special Condition S6 pretreatment, including the requirements for such sources to receive a discharge permit.
2. Contributing jurisdictions shall strictly enforce their sewer ordinances and not allow connection to the sanitary sewers of nonpolluted waters including, but not limited to: stormwater, ground water, rain water, condensate, deionized water, non-contact cooling water, and drainage from street, yards, and roofs, unless the Permittee can show that these wastes require and are provided treatment by the POTW.
3. Contributing jurisdictions shall submit to the LOTT Wastewater Facility, the necessary information from their collection system to comply with the pretreatment requirements of Special Condition S6 of this permit.

### **B. Reporting**

1. Unauthorized discharges such as collection system overflows or treatment plant bypasses shall be reported to the LOTT Wastewater facility. LOTT is responsible for immediately notifying Ecology and Thurston County Health per S3.E.
2. Unauthorized discharges to the collection system including discharges which are unpermitted or otherwise do not comply with pretreatment requirements shall be immediately reported to the LOTT wastewater facility. LOTT is responsible for notifying Ecology. (See Condition S6. of this permit.)
3. If LOTT is unavailable then it is the responsibility of the contributing jurisdiction to notify Ecology's Southwest Regional Office, Water Quality Inspector at the 24-hour Emergency Spill Response Number, (360) 407-6300.

### **C. Prevention of Facility Overloading**

Contributing jurisdictions shall submit to the LOTT Wastewater Facility the necessary information from their collections system to comply with the reporting requirements of Special Condition S4.

### **D. Operation and Maintenance Program**

1. Contributing jurisdictions shall institute an adequate operation and maintenance program for their entire sewerage system. This program shall, at a minimum, include:
  - a. An analysis of the collection system identifying and prioritizing problem areas.
  - b. A systematic method and schedule for resolving priority problems including, but not limited to, pump station upgrades and repair, line

surcharges, existing or potential overflows and bypasses, illegal sewer connections, and leaking service laterals.

c. A plan for preventative and routine maintenance.

2. Maintenance records shall be maintained on the collections system and pumping stations. Such records shall clearly show the frequency and type of maintenance performed. These maintenance records shall be available for inspection at all times.

E. Electrical Power Failure

Contributing jurisdictions are responsible to maintain adequate safeguards to prevent the discharge of untreated wastes or wastes not treated in accordance with the requirements of this permit during electrical power failure at the treatment plant and/or lift stations either by means of alternate power sources, standby generator, or retention of inadequately treated wastes.



## RECLAIMED WATER CONDITIONS

Beginning on the effective date of this permit and lasting through its expiration date, all Class A reclaimed water produced at the Budd Inlet plant by the Permittee for reclamation under this permit shall comply with the Special Conditions (S) and General Conditions (G) as well as the Reclaimed Water Conditions (R) of this permit.

### R1. RECLAIMED WATER LIMITATIONS

All discharges and activities authorized by this permit shall be consistent with the terms and conditions of this permit. The discharge of any of the following pollutants more frequently than, or at a concentration in excess of, that authorized by this permit shall constitute a violation of the terms and conditions of this permit.

The production and use of reclaimed water shall be in compliance with all specific conditions and requirements of the Washington State Water Reclamation and Reuse Standards, 1997, and is subject to the requirements listed below:

Beginning on the effective date and lasting through the expiration date of this permit, the Permittee is authorized to distribute Class A reclaimed water produced at the Budd Inlet plant to public and private entities for commercial and industrial uses and/or to apply reclaimed water to land for irrigation at agronomic rates at locations listed in Condition R4. The distribution and use of reclaimed water is subject to the following treatment and water quality limitations:

Reclaimed Water Limitations: Outfall #005		
<u>Parameter</u>	<u>Average Monthly</u> <sup>a</sup>	
Flow	1.5 MGD	Budd Inlet Plant Class A Effluent
Oxidized Wastewater – Secondary Effluent <sup>c</sup>		
<u>Parameter</u>	<u>Average Monthly</u> <sup>a</sup>	<u>Average Weekly</u> <sup>b</sup>
Dissolved Oxygen	Shall be measurably present in secondary effluent at all times	
Disinfected - Reclaimed Water		
Turbidity	<u>Average Monthly</u> <sup>a</sup> 2 NTU	<u>Sample Maximum</u> <sup>c</sup> 5 NTU
Total Nitrate (as N) <sup>d</sup>	<u>Average Monthly</u> <sup>a</sup> 10 mg/L	
Total Coliform	<u>7-day Median</u> <sup>e</sup> 2.2 MPN/ 100 ml	<u>Sample Maximum</u> <sup>f</sup> 23 MPN/100 ml
pH	Shall be between 6.0 and 9.0 standard units at all times	
Distribution System		
Chlorine Residual	Detectable <sup>g</sup>	

<b>Reclaimed Water Limitations: Outfall #005</b>	
<sup>a</sup>	The average monthly effluent limitation is defined as the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
<sup>b</sup>	The average weekly effluent limitation is defined as the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.
<sup>c</sup>	The sample maximum is defined as the value not to be exceeded by any single sample. When continuous monitoring is used, excursions of the sample maximum that last less than 5 minutes are not considered permit violations, as long as the excursion is not greater than 10 times the sample maximum and the excursions in any 24 hour period do not exceed 30 minutes total.
<sup>d</sup>	The Total Nitrate limit only applies from April 1 <sup>st</sup> through October 31 <sup>st</sup> and any other time when the Reclaimed Water is used for irrigation or infiltration.
<sup>e</sup>	The median number of total coliform organisms in the reclaimed water after disinfection does not exceed 2.2 per 100 milliliters, as determined from the bacteriological results of the last 7 days for which analyses have been completed.
<sup>f</sup>	The number of total coliform organisms shall not exceed 23 per 100 milliliters in any single sample.
<sup>g</sup>	A detectable amount of chlorine residual shall be maintained in the reclaimed water during conveyance to the use area, or the storage pond if reclaimed water is not directly piped to the use area.

## **R2. RECLAIMED WATER MONITORING REQUIREMENTS**

### **A. Class A Reclaimed Water Monitoring**

During the production of Class A reclaimed water, the Permittee shall monitor the reclaimed water according to the following schedule (This is in addition to sampling listed in S2):

<b>Parameter</b>	<b>Units</b>	<b>Sample Point<sup>a</sup></b>	<b>Sampling Frequency</b>	<b>Sample Type</b>
Flow	MGD	Reclaimed water from distribution pumps	Continuous	Recording meter
pH	Standard Units	Disinfected reclaimed water	Daily	Grab <sup>b</sup>
Dissolved Oxygen	mg/L	Secondary effluent	Daily	Grab <sup>b</sup>

Parameter	Units	Sample Point <sup>a</sup>	Sampling Frequency	Sample Type
		Disinfected reclaimed water	Daily	Grab <sup>b</sup>
Temperature	Celsius	Disinfected reclaimed water	Daily	Grab <sup>b</sup>
Turbidity	NTU	Secondary effluent <sup>a</sup>	Daily	Grab <sup>b</sup>
	NTU	Filter Effluent	Continuous	Recording meter <sup>c</sup>
Coagulant	Lbs.	Coagulant feed	Daily	Metered usage
Coagulant Aid	Lbs.	Coagulant feed	Daily	Metered usage
Total Nitrate (as N)	mg/L	Disinfected reclaimed water	Weekly <sup>e</sup>	24-hour composite
Total Coliform <sup>d</sup>	No. of org. per 100 ml	Disinfected reclaimed water	Daily	Grab <sup>b</sup>
Total Chlorine Residual	mg/L	Water Reuse Distribution Line	Daily (when in use)	Grab <sup>b</sup>
<sup>a</sup> Secondary effluent shall be taken before coagulated and filtered. Disinfected reclaimed water samples shall be taken before distribution system.				
<sup>b</sup> Grab samples shall be taken at the same time daily when wastewater characteristics are the most demanding on the treatment facilities and disinfection processes.				
<sup>c</sup> Effluent turbidity analysis must be performed by a continuous recording turbidimeter. For each day, the Permittee must report the average value and the maximum value that exceeds five minutes. "Continuous" means uninterrupted except for brief periods of time for calibration, for power failure, or for unanticipated equipment repair or maintenance. The Permittee must sample every four hours when continuous monitoring is not possible.				
<sup>d</sup> As an alternate method, total coliform bacteria may be monitored using the ONPUG-MUG test (also called Autoanalysis Colilert System) per latest edition of standard methods.				
<sup>e</sup> May be calculated from final effluent monitoring (Condition S2)				

**B. Reuse Instrumentation Calibration**

Monitoring devices shall be installed, calibrated and maintained to ensure that the accuracy of the measurements are consistent with the accepted industry standard for that type of device. Frequency of calibration shall be in conformance with the manufacturer's recommendations. Calibration records shall be maintained for at least three years.

The Permittee shall also verify the accuracy of on-line turbidimeters at a minimum frequency of at least once every two weeks.

### **R3. REPORTING AND RECORDKEEPING REQUIREMENTS**

The Permittee shall maintain records and report to the Departments of Ecology and Health in accordance with Special Condition S3, and the following conditions. All records shall be retained for a minimum of three years. The falsification of information submitted to the Departments shall constitute a violation of the terms of this permit.

#### **A. Submittal Reporting**

Monitoring results shall be submitted monthly. Monitoring data obtained during the previous month shall be summarized and reported on a form provided, or otherwise approved, by the Departments of Health and Ecology, and be received no later than the 15th day of the month following the completed reporting period, unless otherwise specified in this permit.

Monitoring Report forms must be submitted monthly whether or not the facility is reclaiming and distributing reclaimed water. If the reclamation facility was not operating during a given monitoring period, submit the form as required with the words "no reclamation or reuse" entered in place of the reclaimed water monitoring results.

Reclaimed water monitoring reports shall be submitted to the following addresses:

1. Department of Ecology, Municipal Permit Coordinator, Southwest Regional Office, P.O. Box 47775, Olympia, Washington 98504-7775
2. Department of Health, Office of Shellfish and Water Protection, 16201 East Indiana Avenue, Suite 1500, Spokane Valley, WA 99216

#### **B. Reclaimed Water Operational Records**

1. Operating records for the reclamation facility shall be maintained at the treatment plant or within a central depository within the Permittee's operating agency. These records shall include: records of all analyses performed, records of operational problems, unit process and equipment breakdowns, and diversions to emergency storage or disposal; and all corrective or preventative action taken
2. Process or equipment failures triggering an alarm that is key to maintaining reliability of reclaimed water quality shall be recorded and maintained as a separate record file. The recorded information shall include the time and cause of failure and corrective action taken.
3. A monthly summary of operating records as specified above shall be submitted with the Discharge Monitoring Report form to the Departments of Ecology and Health at that address listed under R3.A. above.
4. Cross Connection Control Report. An annual cross-connection control report shall be submitted to the Departments of Health by a certified Cross-Control Specialist identifying all devices tested and any cross-connection incidents which occurred in the reuse system. Where end users of the reclaimed water are the utilities or their customers, cross-connection requirements under this permit shall be consistent with or integrated into, existing cross-connection control programs

implemented by the utilities as required by the Department of Health under WAC 246-290.

#### **R4. RECLAIMED WATER DISTRIBUTION AND USE**

The Permittee shall monitor the reclamation facility loading and the following conditions.

##### **A. Water Reuse Summary Plan**

The Permittee shall prepare a water reuse summary plan, which contains a summary description of the proposed water reuse system from the approved Engineering Report (11/2000), as amended. The plan shall be submitted to the Departments of Health and Ecology before distribution of reclaimed water and updated annually. The **annual** updates shall be due **January 31st** each year, and cover the previous calendar year. A copy of the revised plan shall be submitted to the Departments of Ecology and Health. The plan shall contain, but not be limited to, the following:

1. Description of the reuse distribution system;
2. Identification and current list of all water purveyors, uses, users, and location of reuse sites.
3. Evaluation of reuse sites, estimated volume of reclaimed water use at reuse sites, means of application, and for irrigation or surface percolation uses, the application rates, water balance, expected agronomic uptake, potential to impact ground water or surface water at the site, background water quality and hydrogeological information necessary to evaluate potential water quality impacts.
4. Description of any additional treatment provided to the reclaimed water and any additional distribution system.

##### **B. Authorized Uses and Locations**

Beginning on the effective date of this permit and lasting through the expiration date of this permit, the Permittee is authorized to distribute reclaimed water in accordance with the terms and conditions of this permit for authorized uses.

The distribution by the Permittee of reclaimed water that does not meet the treatment, water quality and monitoring requirements established in this permit shall constitute a violation of the terms and conditions of this permit. The use of reclaimed water other than for authorized uses and locations that are listed or will be listed in the next update of a Department of Health and Ecology approved Water Reuse Summary Plan shall constitute a violation of the terms and conditions of this permit. No reclaimed water shall be used or discharged in a drainage basin such that the reclaimed water would cause or contribute to groundwater flooding in the basin.

The Permittee may produce and distribute Class A reclaimed water for the uses listed in the approved engineering report (11/2000), as amended at the locations listed in the approved Water Reuse Summary Plan, and for new locations as described in R4.C.

C. Authorization for New Direct Non-potable Uses of Reclaimed Water

The Permittee may provide reclaimed water for direct beneficial uses at locations not listed in the Water Reuse Summary Plan required by this permit in accordance with the terms and conditions of this permit provided the following conditions are met:

1. Direct beneficial uses and requirements for use are as listed in the Washington State Water Reclamation and Reuse Standards. The class of reclaimed water provided meets or exceeds the minimum requirements for the proposed use. Irrigation uses do not exceed agronomic rates of application.
2. The use area is located within Thurston County or other nearby counties. The water reclamation facility and use areas shall comply with local permitting and land use requirements.
3. The reclaimed water meets all applicable requirements of this permit for the approved class of reclaimed water including source control, treatment, water quality limitations, monitoring, recordkeeping, operation and maintenance, distribution and use.
4. The Permittee lists the new uses in the next annual Water Reuse Summary Plan and a copy of the revised plan is submitted to the Departments of Ecology and Health. The plan is described in R4.A.

D. Revocation of Authorization

Ecology may revoke authorization to provide service if the Permittee fails to comply with any requirement in this permit. Determination to revoke authorization shall be based on the risk to public health and safety or threat to waters of the state. Ecology may revoke the authorization for any or all reclamation facilities and use areas located within a specific geographic area if, due to a geologic or hydrologic condition, the cumulative effect of the reclamation facilities and use areas causes the violation of state water quality standards. Before revoking the authorization, Ecology shall notify the Permittee in writing and provide a reasonable opportunity and time frame to correct the noncompliance.

E. Bypass Prohibited

There shall be no bypassing of untreated or partially treated wastewater from the reclamation plant or any intermediate unit processes to the distribution system or point of use at any time. Diverting flows from the reclaimed water system to the North Outfall does not constitute a bypass provided such diversion does not cause an exceedance of the effluent limitations of Special Condition S1. All reclaimed water being distributed for beneficial use must meet Class A requirements at all times. Water not meeting Class A must be retained for additional treatment by diversion to a bypass storage lagoon or discharged to an authorized wastewater outfall.

The Departments of Ecology and Health shall be notified by telephone within 24 hours of any diversion to a bypass storage lagoon or authorized outfall due to failure of the reclaimed water system.

F. Reliability

The Permittee shall maintain the highest reliability class as described in the Water Reclamation and Reuse Standards which require one of the following features for each of the critical reclamation treatment unit processes of oxidation, coagulation, filtration, and disinfection:

1. Alarms and standby power source
2. Alarms and automatically actuated short-term (24-hour) storage or disposal provisions.
3. Automatically actuated long-term storage or disposal provisions for treated wastewater.

G. Use Area Responsibilities

1. A standard notification sign shall be developed by the Permittee using colors and verbiage approved by the state Department of Health. The signs shall be used in all reclaimed water use areas, consistent with the Water Reclamation and Reuse Standards.
2. Reclaimed water use, including runoff and spray shall be confined to the designated and approved use area.
3. The Permittee shall control industrial and toxic discharges to the sanitary sewer that may affect reclaimed water quality through the approved pretreatment program as listed in Special Condition S6.
4. Where the reclaimed water production, distribution and use areas are under direct control of the Permittee, the Permittee shall maintain control and be responsible for all facilities and activities inherent to the production, distribution and use of the reclaimed water. The Permittee shall ensure that the reuse system operates as approved by the Departments of Health and Ecology.

H. Service and Use Area Contract

Where the reclaimed water additional treatment, distribution system or use area is not under direct control of the Permittee:

1. No reclaimed water shall be distributed by the Permittee or water purveyor without a binding Service and Use Area Contract in place. The contract shall ensure that construction, operation, maintenance, use area responsibilities, and monitoring meet all requirements of the Departments of Health and Ecology. This Service and Use Area contract must be consistent with the requirements of the Water Reclamation and Reuse Standards, 1997.
2. If a standard contract has been approved by the Departments, the Permittee or the water purveyor may certify that the individual contract copies submitted comply with the terms and conditions of the approved standard contract. If no standard contract has been approved, a copy of each Service and Use Area contract must

be submitted to and approved by the Departments of Health and Ecology prior to implementation.

3. The Permittee or the water purveyor shall maintain all contracts for reclaimed water use for the duration of the permit. The Permittee shall inform the Departments of Health and Ecology in writing in the annual update to the Water Reuse Summary Plan of any proposed changes to existing agreements.
4. Unless expressly stated otherwise in an approved contract, the Permittee is responsible for all reuse facilities and activities inherent to the production, distribution and use of the reclaimed water.
5. Each individual Service and Use Area contract shall provide the Permittee and the water purveyor with the authority to regulate distribution, enter and inspect the site and to terminate service of reclaimed water to any customer violating the Washington State Water Reclamation and Reuse Standards. In lieu of specific language in each contract, the Permittee working in conjunction with the contributing jurisdictions, may complete and adopt local ordinances, to include policies and procedures, regulating the distribution and delivery of reclaimed water.

I. Reclaimed Water Ordinance

The Permittee shall complete interlocal agreements with the four contributing jurisdictions, and the contributing jurisdictions shall complete local ordinances to include policies and procedures for the distribution and delivery of reclaimed water. The interlocal agreements and ordinances shall provide the Permittee and jurisdictions with the authority to terminate service of reclaimed water from any jurisdiction or customer violating the Washington State Water Reclamation and Reuse Standards and restrictions outlined in the service and use agreement.

J. Irrigation Use

1. For any irrigation use of reclaimed water, the hydraulic loading rate of reclaimed water shall be determined.
2. Irrigation uses shall conform to all requirements of the Washington State Water Reclamation and Reuse Standards. The Permittee in coordination with contributing jurisdictions shall assure that all customers or authorized personnel using reclaimed water have completed training in the requirements for appropriate use of the water. Users of reclaimed water must ensure that their irrigation systems are in good working order, maintained regularly and kept free of leaks. They must further ensure that their irrigation controllers are set so that reclaimed water is applied appropriately to the landscape, to avoid excessive puddling or runoff of water. Sprinkler heads should be adjusted regularly to avoid application of water to impervious surfaces.

The Permittee or the water purveyor shall maintain all irrigation agreements for lands not owned for the duration of the permit. The Permittee shall inform the Departments of Health and Ecology in writing in the annual update to the Water Reuse Summary Plan of any proposed changes to existing agreements.



K. Wetlands Use

The Permittee or the water purveyor may use reclaimed water for natural wetland enhancement, as long as the following conditions are met and Ecology has granted written approval for the specific wetland to be enhanced:

1. Augmentation of wetland hydrologic regime is not to exceed an additional (above background) average annual hydraulic loading rate of 2 cm/day to Category II wetlands and 3 cm/day to Category III and IV wetlands, unless monitoring can demonstrate that a net ecological benefit can be maintained at a higher rate.
2. Average monthly water level elevations shall not increase by more than 10 cm above the pre-augmentation water level.
3. In Accordance with the Water Reclamation and Reuse Standards, the Permittee shall monitor the vegetation cover, plant diversity, macroinvertebrate biomass, amphibian species, fish biomass and species, bird density and species, threatened/endangered density and species once per year during the 1<sup>st</sup>, 2<sup>nd</sup>, 4<sup>th</sup>, 6<sup>th</sup>, 8<sup>th</sup>, and 10<sup>th</sup> growing season. There shall be no more the 25 percent reduction in parameter measurements over the wetland or 50 percent reduction at any one location in the wetland. The Permittee shall submit a report to Ecology on the results of the biological monitoring-

L. Other Uses of Reclaimed Water

Effluent used for sewage treatment plant purposes within the bounds of the wastewater treatment facility is not required to meet these standards, except in areas where there is potential public exposure as determined by the Departments of Health and Ecology.

The following uses require modification and public notice of this permit.

1. Groundwater recharge via surface percolation or direct injection.
2. Discharge of reclaimed water to surface waters, unless the discharge is covered by the Special Conditions of this permit.
3. The use of reclaimed water subsequent to its discharge to waters of the state.
4. Any reclamation facilities or uses that are not specifically authorized by this permit.
5. Any facilities or uses if determined necessary by the Department of Ecology or Health for public health or environmental protection.

**R5. OPERATION AND MAINTENANCE**

The Permittee shall operate and maintain the Budd Inlet treatment facility in accordance with Special Condition S5 and the following conditions.

A. Reclaimed Water System Maintenance

The Permittee and the water purveyors shall institute an adequate operation and maintenance (O&M) program for the entire reclamation system including all facilities and appurtenances owned and controlled by the Permittee, utilities or end users. Maintenance records shall be maintained by the Permittee, utilities or end user on all major electrical and mechanical components of the reclaimed water system, distribution system, and use areas. Such records shall clearly specify the frequency and type of maintenance recommended by the manufacturer and shall show the frequency and type of maintenance performed. These maintenance records shall be available for inspection at all times.

1. At all times, the reclamation system, distribution and use areas shall be maintained to ensure that all equipment is kept in a reliable operating condition.
2. A chlorine residual of at least 0.5 mg/L shall be maintained in the reclaimed water during conveyance from the reclamation system to the use area unless waived by the Departments of Health and Ecology.
3. Maintenance of a chlorine residual is not required in reclaimed water impoundments and storage ponds. At the discretion of the Departments of Health and Ecology, chlorine residual may not be required in reclaimed water distributed from storage ponds.

B. Operation and Maintenance Manual

Besides the items listed in S5.G, the Operation and Maintenance Manual for the Budd Inlet treatment facility shall include the following reclaimed water information:

1. An alarm condition response plan to ensure that no untreated or inadequately treated wastewater will be delivered to the use areas.
2. A discussion of the cross-connection control and inspection program, including who will be responsible for compliance and testing of cross connection control devices.
3. Operational strategies for the reclaimed water use areas that are under direct control of the Permittee.

C. Electrical Power Failure

The Permittee is responsible for maintaining adequate safeguards to prevent the discharge of untreated wastes or wastes not treated in accordance with the requirements of this permit during electrical power failure at the water reclamation plant and/or sewage lift stations either by means of alternate power sources, standby generator, or retention of inadequately treated wastes. The power supply shall be provided with one of the following reliability features to assure that inadequately treated wastewater is not discharged to distribution or use areas:

1. An alarm and a standby power source

2. An alarm and automatically actuated short-term storage or alternative disposal provisions. All equipment other than pump-back equipment shall be either independent of the normal power supply or provided with a standby power supply.
3. Automatically actuated long-term storage or disposal provisions. All equipment other than pump-back equipment shall be either independent of the normal power supply or provided with a standby power supply.

## **GENERAL CONDITIONS**

### **G1. SIGNATORY REQUIREMENTS**

All applications, reports, or information submitted to Ecology shall be signed and certified.

- A. All permit applications shall be signed by either a principal executive officer or a ranking elected official.
- B. All reports required by this permit and other information requested by Ecology shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
  - 1. The authorization is made in writing by a person described above and submitted to Ecology.
  - 2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)
- C. Changes to authorization. If an authorization under paragraph B.2 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph B.2 above must be submitted to Ecology prior to or together with any reports, information, or applications to be signed by an authorized representative.
- D. Certification. Any person signing a document under this section shall make the following certification:

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

### **G2. RIGHT OF INSPECTION AND ENTRY**

The Permittee shall allow an authorized representative of Ecology, upon the presentation of credentials and such other documents as may be required by law:

- A. To enter upon the premises where a discharge is located or where any records must be kept under the terms and conditions of this permit.

- B. To have access to and copy - at reasonable times and at reasonable cost - any records required to be kept under the terms and conditions of this permit.
- C. To inspect - at reasonable times - any facilities, equipment (including monitoring and control equipment), practices, methods, or operations regulated or required under this permit.
- D. To sample or monitor - at reasonable times - any substances or parameters at any location for purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act.

### **G3. PERMIT ACTIONS**

This permit may be modified, revoked and reissued, or terminated either at the request of any interested person (including the permittee) or upon Ecology's initiative. However, the permit may only be modified, revoked and reissued, or terminated for the reasons specified in 40 CFR 122.62, 122.64 or WAC 173-220-150 according to the procedures of 40 CFR 124.5.

- A. The following are causes for terminating this permit during its term, or for denying a permit renewal application:
  - 1. Violation of any permit term or condition.
  - 2. Obtaining a permit by misrepresentation or failure to disclose all relevant facts.
  - 3. A material change in quantity or type of waste disposal.
  - 4. A determination that the permitted activity endangers human health or the environment, or contributes to water quality standards violations and can only be regulated to acceptable levels by permit modification or termination [40 CFR Part 122.64(3)].
  - 5. A change in any condition that requires either a temporary or permanent reduction, or elimination of any discharge or sludge use or disposal practice controlled by the permit [40 CFR Part 122.64(4)].
  - 6. Nonpayment of fees assessed pursuant to RCW 90.48.465.
  - 7. Failure or refusal of the permittee to allow entry as required in RCW 90.48.090.
- B. The following are causes for modification but not revocation and reissuance except when the permittee requests or agrees:
  - 1. A material change in the condition of the waters of the state.
  - 2. New information not available at the time of permit issuance that would have justified the application of different permit conditions.
  - 3. Material and substantial alterations or additions to the permitted facility or activities which occurred after this permit issuance.

4. Promulgation of new or amended standards or regulations having a direct bearing upon permit conditions, or requiring permit revision.
5. The Permittee has requested a modification based on other rationale meeting the criteria of 40 CFR Part 122.62.
6. Ecology has determined that good cause exists for modification of a compliance schedule, and the modification will not violate statutory deadlines.
7. Incorporation of an approved local pretreatment program into a municipality's permit.

C. The following are causes for modification or alternatively revocation and reissuance:

1. Cause exists for termination for reasons listed in A1 through A7 of this section, and Ecology determines that modification or revocation and reissuance is appropriate.
2. Ecology has received notification of a proposed transfer of the permit. A permit may also be modified to reflect a transfer after the effective date of an automatic transfer (General Condition G8) but will not be revoked and reissued after the effective date of the transfer except upon the request of the new permittee.

#### **G4. REPORTING A CAUSE FOR MODIFICATION**

The Permittee shall submit a new application, or a supplement to the previous application, along with required engineering plans and reports whenever a material change to the facility or in the quantity or type of discharge is anticipated which is not specifically authorized by this permit. This application shall be submitted at least 60 days prior to any proposed changes. The filing of a request by the Permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not relieve the Permittee of the duty to comply with the existing permit until it is modified or reissued.

#### **G5. PLAN REVIEW REQUIRED**

Prior to constructing or modifying any wastewater control facilities, an engineering report and detailed plans and specifications shall be submitted to Ecology for approval in accordance with Chapter 173-240 WAC. Engineering reports, plans, and specifications shall be submitted at least 180 days prior to the planned start of construction unless a shorter time is approved by Ecology. Facilities shall be constructed and operated in accordance with the approved plans.

#### **G6. COMPLIANCE WITH OTHER LAWS AND STATUTES**

Nothing in this permit shall be construed as excusing the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

#### **G7. DUTY TO REAPPLY**

The Permittee shall apply for permit renewal by **March 1, 2016**.

**G8. TRANSFER OF THIS PERMIT**

In the event of any change in control or ownership of facilities from which the authorized discharge emanate, the Permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to Ecology.

**A. Transfers by Modification**

Except as provided in paragraph (B) below, this permit may be transferred by the Permittee to a new owner or operator only if this permit has been modified or revoked and reissued under 40 CFR 122.62(b)(2), or a minor modification made under 40 CFR 122.63(d), to identify the new Permittee and incorporate such other requirements as may be necessary under the Clean Water Act.

**B. Automatic Transfers**

This permit may be automatically transferred to a new Permittee if:

1. The Permittee notifies Ecology at least 30 days in advance of the proposed transfer date.
2. The notice includes a written agreement between the existing and new Permittees containing a specific date transfer of permit responsibility, coverage, and liability between them.
3. Ecology does not notify the existing Permittee and the proposed new Permittee of its intent to modify or revoke and reissue this permit. A modification under this subparagraph may also be minor modification under 40 CFR 122.63. If this notice is not received, the transfer is effective on the date specified in the written agreement.

**G9. REDUCED PRODUCTION FOR COMPLIANCE**

The Permittee, in order to maintain compliance with its permit, shall control production and/or all discharges upon reduction, loss, failure, or bypass of the treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost, or fails.

**G10. REMOVED SUBSTANCES**

Collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall not be resuspended or reintroduced to the final effluent stream for discharge to state waters.

**G11. DUTY TO PROVIDE INFORMATION**

The Permittee shall submit to Ecology, within a reasonable time, all information which Ecology may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee shall also

submit to Ecology upon request, copies of records required to be kept by this permit [40 CFR 122.41(h)].

**G12. OTHER REQUIREMENTS OF 40 CFR**

All other requirements of 40 CFR 122.41 and 122.42 are incorporated in this permit by reference.

**G13. ADDITIONAL MONITORING**

Ecology may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

**G14. PAYMENT OF FEES**

The Permittee shall submit payment of fees associated with this permit as assessed by Ecology.

**G15. PENALTIES FOR VIOLATING PERMIT CONDITIONS**

Any person who is found guilty of willfully violating the terms and conditions of this permit shall be deemed guilty of a crime, and upon conviction thereof shall be punished by a fine of up to \$10,000 and costs of prosecution, or by imprisonment in the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit shall incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to \$10,000 for every such violation. Each and every such violation shall be a separate and distinct offense, and in case of a continuing violation, every day's continuance shall be deemed to be a separate and distinct violation.

**G16. UPSET**

Definition – “Upset” means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations 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, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of the following paragraph are met.

A Permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that: 1) an upset occurred and that the Permittee can identify the cause(s) of the upset; 2) the permitted facility was being properly operated at the time of the upset; 3) the Permittee submitted notice of the upset as required in Condition S3.E; and 4) the Permittee complied with any remedial measures required under S5 of this permit.

In any enforcement proceeding the Permittee seeking to establish the occurrence of an upset has the burden of proof.



**G17. PROPERTY RIGHTS**

This permit does not convey any property rights of any sort, or any exclusive privilege.

**G18. DUTY TO COMPLY**

The Permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

**G19. TOXIC POLLUTANTS**

The Permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

**G20. PENALTIES FOR TAMPERING**

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than two years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this Condition, punishment shall be a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four years, or by both.

**G21. REPORTING PLANNED CHANGES**

The Permittee shall, as soon as possible, give notice to Ecology of planned physical alterations or additions to the permitted facility, production increases, or process modification which will result in: 1) the permitted facility being determined to be a new source pursuant to 40 CFR 122.29(b); 2) a significant change in the nature or an increase in quantity of pollutants discharged; or 3) a significant change in the Permittee's sludge use or disposal practices. Following such notice, this permit may be modified, or revoked and reissued pursuant to 40 CFR 122.62(a) to specify and limit any pollutants not previously limited. Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by this permit constitutes a violation of the terms and conditions of this permit.

**G22. REPORTING ANTICIPATED NON-COMPLIANCE**

The Permittee shall give advance notice to Ecology by submission of a new application or supplement thereto at least 180 days prior to commencement of such discharges, of any facility expansions, production increases, or other planned changes, such as process modifications, in the permitted facility or activity which may result in noncompliance with permit limits or conditions. Any maintenance of facilities, which might necessitate unavoidable interruption of operation and degradation of effluent quality, shall be scheduled during noncritical water quality periods and carried out in a manner approved by Ecology.

**G23. REPORTING OTHER INFORMATION**

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application, or in any report to Ecology, it shall promptly submit such facts or information.

**G24. REPORTING REQUIREMENTS APPLICABLE TO EXISTING MANUFACTURING, COMMERCIAL, MINING, AND SILVICULTURAL DISCHARGERS**

The Permittee belonging to the categories of existing manufacturing, commercial, mining, or silviculture must notify Ecology as soon as they know or have reason to believe:

- A. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following “notification levels:”
  - 1. One hundred micrograms per liter (100 µg/l).
  - 2. Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony.
  - 3. Five times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7).
  - 4. The level established by the Director in accordance with 40 CFR 122.44(f).
- B. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in this permit, if that discharge will exceed the highest of the following “notification levels:”
  - 1. Five hundred micrograms per liter (500µg/L).
  - 2. One milligram per liter (1 mg/L).
  - 3. Ten times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR 122.21(g)(7).
  - 4. The level established by the Director in accordance with 40 CFR 122.44(f).

**G25. COMPLIANCE SCHEDULES**

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

## APPENDIX A

### EFFLUENT CHARACTERIZATION FOR POLLUTANTS THIS LIST INCLUDES EPA REQUIRED POLLUTANTS (PRIORITY POLLUTANTS) AND SOME ECOLOGY PRIORITY TOXIC CHEMICALS (PBTs)

The following table specifies analytical methods and levels to be used for effluent characterization in NPDES and State waste discharge permits. This appendix specifies effluent characterization requirements of the Department of Ecology unless other methods are specified in the body of this permit.

This permit specifies the compounds and groups of compounds to be analyzed. Ecology may require additional pollutants to be analyzed within a group. The objective of this appendix is to reduce the number of analytical “non-detects” in permit-required monitoring and to measure effluent concentrations near or below criteria values where possible at a reasonable cost. If a Permittee knows that an alternate, less sensitive method (higher DL and QL) from 40 CFR Part 136 is sufficient to produce measurable results in their effluent, that method may be used for analysis.

Pollutant & CAS No. (if available)	Recommended Analytical Protocol	Detection (DL) <sup>1</sup> µg/L unless specified	Quantitation Level (QL) <sup>2</sup> µg/L unless specified
<b>CONVENTIONALS</b>			
Biochemical Oxygen Demand	SM5210-B		2 mg/L
Chemical Oxygen Demand	SM5220-D		10 mg/L
Total Organic Carbon	SM5310-B/C/D		1 mg/L
Total Suspended Solids	SM2540-D		5 mg/L
Total Ammonia (as N)	SM4500-NH3- GH		0.3 mg/L
Flow	Calibrated device		
Dissolved oxygen	4500-OC/OG		0.2 mg/L
Temperature (max. 7-day avg.)	Analog recorder or Use micro-recording devices known as thermistors		0.2° C
pH	SM4500-H <sup>+</sup> B	N/A	N/A
<b>NONCONVENTIONALS</b>			
Total Alkalinity	SM2320-B		5 mg/L as CaCo3
Chlorine, Total Residual	4500 Cl G		50.0
Color	SM2120 B/C/E		10 color unit
Fecal Coliform	SM 9221D/E,9222	N/A	N/A
Fluoride (16984-48-8)	SM4500-F E	25	100
Nitrate-Nitrite (as N)	4500-NO3- E/F/H		100
Nitrogen, Total Kjeldahl (as N)	4500-NH3-C/E/FG		300
Ortho-Phosphate (PO <sub>4</sub> as P)	4500- PE/PF	3	10
Phosphorus, Total (as P)	4500-PE/PF	3	10
Oil and Grease (HEM)	1664A	1,400	5,000
Salinity	SM2520-B		3 PSS
Settleable Solids	SM2540 -F		100
Sulfate (as mg/L SO <sub>4</sub> )	SM4110-B		200
Sulfide (as mg/L S)	4500-S <sup>2</sup> F/D/E/G		200
Sulfite (as mg/L SO <sub>3</sub> )	SM4500-SO3B		2000
Total dissolved solids	SM2540 C		20 mg/L

<b>Pollutant &amp; CAS No. (if available)</b>	<b>Recommended Analytical Protocol</b>	<b>Detection (DL)<sup>1</sup> µg/L unless specified</b>	<b>Quantitation Level (QL)<sup>2</sup> µg/L unless specified</b>
Total Hardness	2340B		200 as CaCO <sub>3</sub>
Aluminum, Total (7429-90-5)	200.8	2.0	10
Barium Total (7440-39-3)	200.8	0.5	2.0
Boron Total (7440-42-8)	200.8	2.0	10.0
Cobalt, Total (7440-48-4)	200.8	0.05	0.25
Iron, Total (7439-89-6)	200.7	12.5	50
Magnesium, Total (7439-95-4)	200.7	10	50
Molybdenum, Total (7439-98-7)	200.8	0.1	0.5
Manganese, Total (7439-96-5)	200.8	0.1	0.5
Tin, Total (7440-31-5)	200.8	0.3	1.5
<b>METALS, CYANIDE &amp; TOTAL PHENOLS</b>			
Antimony, Total (7440-36-0)	200.8	0.3	1.0
Arsenic, Total (7440-38-2)	200.8	0.1	0.5
Beryllium, Total (7440-41-7)	200.8	0.1	0.5
Cadmium, Total (7440-43-9)	200.8	0.05	0.25
Chromium (hex) dissolved (18540-29-9)	SM3500-Cr EC	0.3	1.2
Chromium, Total (7440-47-3)	200.8	0.2	1.0
Copper, Total (7440-50-8)	200.8	0.4	2.0
Lead, Total (7439-92-1)	200.8	0.1	0.5
Mercury, Total (7439-97-6)	1631E	0.0002	0.0005
Nickel, Total (7440-02-0)	200.8	0.1	0.5
Selenium, Total (7782-49-2)	200.8	1.0	1.0
Silver, Total (7440-22-4)	200.8	0.04	0.2
Thallium, Total (7440-28-0)	200.8	0.09	0.36
Zinc, Total (7440-66-6)	200.8	0.5	2.5
Cyanide, Total (57-12-5)	335.4	2	10
Cyanide, Weak Acid Dissociable	SM4500-CN I	2	10
Phenols, Total	EPA 420.1		50
<b>DIOXIN</b>			
2,3,7,8-Tetra-Chlorodibenzo-P-Dioxin (176-40-16)	1613B	1.3 pg/L	5 pg/L
<b>VOLATILE COMPOUNDS</b>			
Acrolein (107-02-8)	624	5	10
Acrylonitrile (107-13-1)	624	1.0	2.0
Benzene (71-43-2)	624	1.0	2.0
Bromoform (75-25-2)	624	1.0	2.0
Carbon tetrachloride (56-23-5)	624/601 or SM6230B	1.0	2.0
Chlorobenzene (108-90-7)	624	1.0	2.0
Chloroethane (75-00-3)	624/601	1.0	2.0
2-Chloroethylvinyl Ether (110-75-8)	624	1.0	2.0
Chloroform (67-66-3)	624 or SM6210B	1.0	2.0
Dibromochloromethane (124-48-1)	624	1.0	2.0
1,2-Dichlorobenzene (95-50-1)	624	1.9	7.6
1,3-Dichlorobenzene (541-73-1)	624	1.9	7.6

<b>Pollutant &amp; CAS No. (if available)</b>	<b>Recommended Analytical Protocol</b>	<b>Detection (DL)<sup>1</sup> µg/L unless specified</b>	<b>Quantitation Level (QL)<sup>2</sup> µg/L unless specified</b>
1,4-Dichlorobenzene (106-46-7)	624	4.4	17.6
Dichlorobromomethane (75-27-4)	624	1.0	2.0
1,1-Dichloroethane (75-34-3)	624	1.0	2.0
1,2-Dichloroethane (107-06-2)	624	1.0	2.0
1,1-Dichloroethylene (75-35-4)	624	1.0	2.0
1,2-Dichloropropane (78-87-5)	624	1.0	2.0
1,3-dichloropropylene (mixed isomers) (542-75-6)	624	1.0	2.0
Ethylbenzene (100-41-4)	624	1.0	2.0
Methyl bromide (74-83-9) (Bromomethane)	624/601	5.0	10.0
Methyl chloride (74-87-3) (Chloromethane)	624	1.0	2.0
Methylene chloride (75-09-2)	624	5.0	10.0
1,1,2,2-Tetrachloroethane (79-34-5)	624	1.9	2.0
Tetrachloroethylene (127-18-4)	624	1.0	2.0
Toulene (108-88-3)	624	1.0	2.0
1,2-Trans-Dichloroethylene (156-60-5) (Ethylene dichloride)	624	1.0	2.0
1,1,1-Trichloroethane (71-55-6)	624	1.0	2.0
1,1,2-Trichloroethane (79-00-5)	624	1.0	2.0
Trichloroethylene (79-01-6)	624	1.0	2.0
Vinyl chloride (75-01-4)	624/SM6200B	1.0	2.0
<b>ACID COMPOUNDS</b>			
2-Chlorophenol (95-57-8)	625	1.0	2.0
2,4-Dichlorophenol (120-83-2)	625	0.5	1.0
2,4-Dimethylphenol (105-67-9)	625	0.5	1.0
4,6-dinitro-o-cresol (534-52-1) (2-methyl-4,6,-dinitrophenol)	625/1625B	1.0	2.0
2,4 dinitrophenol (51-28-5)	625	1.0	2.0
2-Nitrophenol (88-75-5)	625	0.5	1.0
4-nitrophenol (100-02-7)	625	0.5	1.0
Parachlorometa cresol (59-50-7) (4-chloro-3-methylphenol)	625	1.0	2.0
Pentachlorophenol (87-86-5)	625	0.5	1.0
Phenol (108-95-2)	625	2.0	4.0
2,4,6-Trichlorophenol (88-06-2)	625	2.0	4.0
<b>BASE/NEUTRAL COMPOUNDS (compounds in bold are Ecology PBTs)</b>			
Acenaphthene (83-32-9)	625	0.2	0.4
Acenaphthylene (208-96-8)	625	0.3	0.6
Anthracene (120-12-7)	625	0.3	0.6
Benzidine (92-87-5)	625	12	24
Benzyl butyl phthalate (85-68-7)	625	0.3	0.6
Benzo(a)anthracene (56-55-3)	625	0.3	0.6
<b>Benzo(j)fluoranthene (205-82-3)</b>	625	0.5	1.0
<b>Benzo(r,s,t)pentaphene (189-55-9)</b>	625	0.5	1.0

<b>Pollutant &amp; CAS No. (if available)</b>	<b>Recommended Analytical Protocol</b>	<b>Detection (DL)<sup>1</sup> µg/L unless specified</b>	<b>Quantitation Level (QL)<sup>2</sup> µg/L unless specified</b>
Benzo(a)pyrene (50-32-8)	610/625	0.5	1.0
3,4-benzofluoranthene (Benzo(b)fluoranthene) (205-99-2)	610/625	0.8	1.6
11,12-benzofluoranthene (Benzo(k)fluoranthene) (207-08-9)	610/625	0.8	1.6
Benzo(ghi)Perylene (191-24-2)	610/625	0.5	1.0
Bis(2-chloroethoxy)methane (111-91-1)	625	5.3	21.2
Bis(2-chloroethyl)ether (111-44-4)	611/625	0.3	1.0
Bis(2-chloroisopropyl)ether (39638-32-9)	625	0.3	0.6
Bis(2-ethylhexyl)phthalate (117-81-7)	625	0.1	0.5
4-Bromophenyl phenyl ether (101-55-3)	625	0.2	0.4
2-Chloronaphthalene (91-58-7)	625	0.3	0.6
4-Chlorophenyl phenyl ether (7005-72-3)	625	0.3	0.5
Chrysene (218-01-9)	610/625	0.3	0.6
<b>Dibenzo (a,j)acridine (224-42-0)</b>	610M/625M	2.5	10.0
<b>Dibenzo (a,h)acridine (226-36-8)</b>	610M/625M	2.5	10.0
Dibenzo(a-h)anthracene (53-70-3)(1,2,5,6-dibenzanthracene)	625	0.8	1.6
Dibenzo(a,e)pyrene (192-65-4)	610M/625M	2.5	10.0
Dibenzo(a,h)pyrene (189-64-0)	625M	2.5	10.0
3,3-Dichlorobenzidine (91-94-1)	605/625	0.5	1.0
Diethyl phthalate (84-66-2)	625	1.9	7.6
Dimethyl phthalate (131-11-3)	625	1.6	6.4
Di-n-butyl phthalate (84-74-2)	625	0.5	1.0
2,4-dinitrotoluene (121-14-2)	609/625	0.2	0.4
2,6-dinitrotoluene (606-20-2)	609/625	0.2	0.4
Di-n-octyl phthalate (117-84-0)	625	0.3	0.6
1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	1625B	5.0	20
Fluoranthene (206-44-0)	625	0.3	0.6
Fluorene (86-73-7)	625	0.3	0.6
Hexachlorobenzene (118-74-1)	612/625	0.3	0.6
Hexachlorobutadiene (87-68-3)	625	0.5	1.0
Hexachlorocyclopentadiene (77-47-4)	1625B/625	0.5	1.0
Hexachloroethane (67-72-1)	625	0.5	1.0
Indeno(1,2,3-cd)Pyrene (193-39-5)	610/625	0.5	1.0
Isophorone (78-59-1)	625	0.5	1.0
<b>3-Methyl cholanthrene (56-49-5)</b>	625	2.0	8.0
Naphthalene (91-20-3)	625	0.3	0.6
Nitrobenzene (98-95-3)	625	0.5	1.0

<b>Pollutant &amp; CAS No. (if available)</b>	<b>Recommended Analytical Protocol</b>	<b>Detection (DL)<sup>1</sup> µg/L unless specified</b>	<b>Quantitation Level (QL)<sup>2</sup> µg/L unless specified</b>
N-Nitrosodimethylamine (62-75-9)	607/625	2.0	4.0
N-Nitrosodi-n-propylamine (621-64-7)	607/625	0.5	1.0
N-Nitrosodiphenylamine (86-30-6)	625	0.5	1.0
<b>Perylene (198-55-0)</b>	625	1.9	7.6
Phenanthrene (85-01-8)	625	0.3	0.6
Pyrene (129-00-0)	625	0.3	0.6
1,2,4-Trichlorobenzene (120-82-1)	625	0.3	0.6
<b>PESTICIDES/PCBs</b>			
Aldrin (309-00-2)	608	0.025	0.05
alpha-BHC (319-84-6)	608	0.025	0.05
beta-BHC (319-85-7)	608	0.025	0.05
gamma-BHC (58-89-9)	608	0.025	0.05
delta-BHC (319-86-8)	608	0.025	0.05
Chlordane (57-74-9)	608	0.025	0.05
4,4'-DDT (50-29-3)	608	0.025	0.05
4,4'-DDE (72-55-9)	608	0.025	0.05 <sup>10</sup>
4,4' DDD (72-54-8)	608	0.025	0.05
Dieldrin (60-57-1)	608	0.025	0.05
alpha-Endosulfan (959-98-8)	608	0.025	0.05
beta-Endosulfan (33213-65-9)	608	0.025	0.05
Endosulfan Sulfate (1031-07-8)	608	0.025	0.05
Endrin (72-20-8)	608	0.025	0.05
Endrin Aldehyde (7421-93-4)	608	0.025	0.05
Heptachlor (76-44-8)	608	0.025	0.05
Heptachlor Epoxide (1024-57-3)	608	0.025	0.05
PCB-1242 (53469-21-9)	608	0.25	0.5
PCB-1254 (11097-69-1)	608	0.25	0.5
PCB-1221 (11104-28-2)	608	0.25	0.5
PCB-1232 (11141-16-5)	608	0.25	0.5
PCB-1248 (12672-29-6)	608	0.25	0.5
PCB-1260 (11096-82-5)	608	0.13	0.5
PCB-1016 (12674-11-2)	608	0.13	0.5
Toxaphene (8001-35-2)	608	0.24	0.5

1. Detection level (DL) or detection limit means the minimum concentration of an analyte (substance) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero as determined by the procedure given in 40 CFR part 136, Appendix B.
2. Quantitation Level (QL) is equivalent to EPA's Minimum Level (ML) which is defined in 40 CFR Part 136 as the minimum level at which the entire GC/MS system must give recognizable mass spectra (background corrected) and acceptable calibration points. These levels were published as proposed in the Federal Register on March 28, 1997.