FACT SHEET FOR COWLITZ COUNTY HEADQUARTERS LANDFILL STATE WASTE DISCHARGE PERMIT ST 6248

Purpose of this Fact Sheet

This fact sheet explains and documents the decisions the Department of Ecology (Ecology) made in drafting the proposed State Waste Discharge permit for Cowlitz County Headquarters Landfill that will allow discharge of wastewater to Three Rivers Regional Waste Treatment Plant.

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

Ecology makes the draft permit and fact sheet available for public review and comment at least 30 days before it issues the final permit to the facility operator. Copies of the fact sheet and draft permit for Cowlitz County Headquarters Landfill, State Waste Discharge permit number ST 6248, are available for public review and comment. For more details on preparing and filing comments about these documents, please see **Appendix A - Public Involvement Information**.

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

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

Summary

Cowlitz County purchased the Weyerhaeuser Headquarters Landfill in 2014. Cowlitz County Public Works Department began discharging leachate wastewater from the Headquarters Landfill via pipeline to the Kelso sewer system, where the leachate is treated at the Three Rivers Regional Wastewater Treatment Plant. This is a new permit for this facility.

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I. INTRODUCTION

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

Ecology adopted rules describing how it exercises its authority:

- State waste discharge program (chapter 173-216 WAC)
- Submission of plans and reports for construction of wastewater facilities (chapter 173-240 WAC)

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

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

II. BACKGROUND INFORMATION

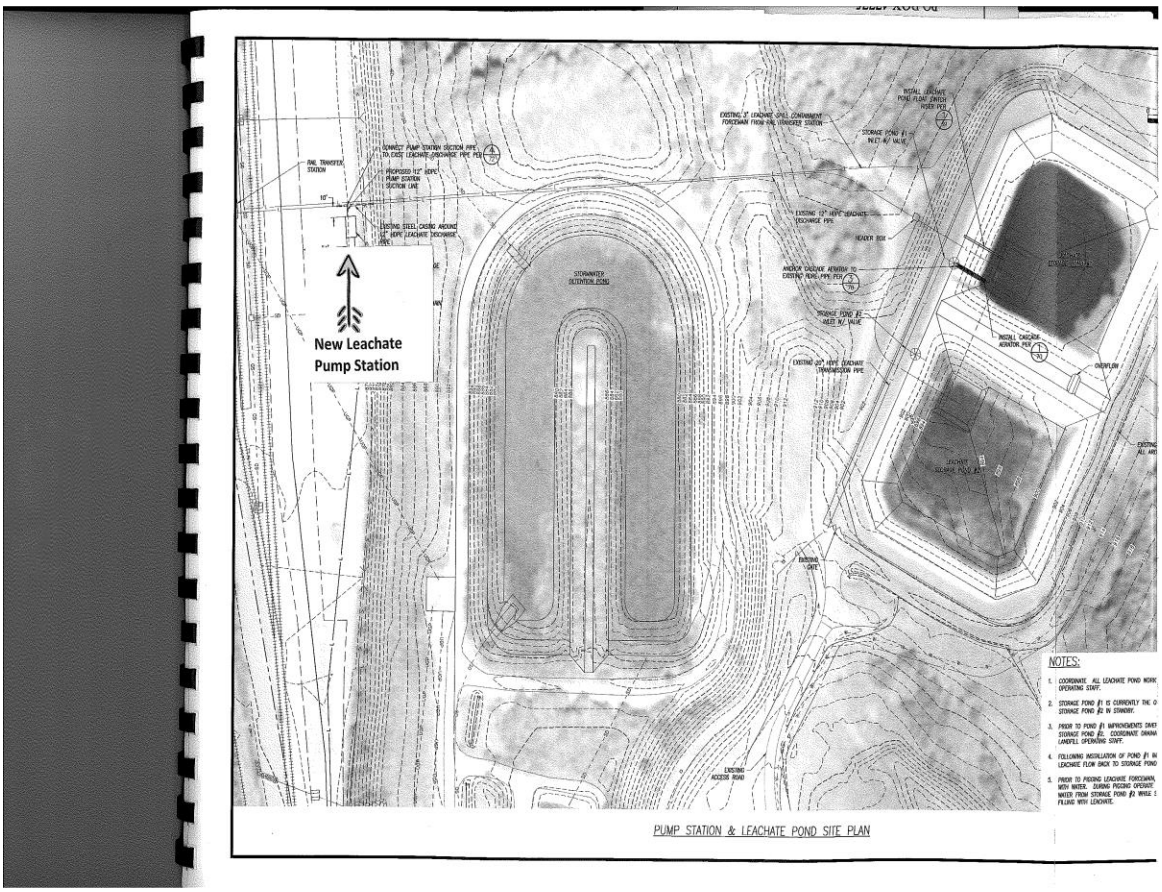
Table 1 General Facility Information

Facility Information	
Applicant	Cowlitz County Public Works Department
Facility Name and Address	Cowlitz County Headquarters Landfill 3434 South Silver Lake Road Castle Rock, WA 98611
Contact at Facility	Name: Ron Williams Telephone #: 360 577-3030
Responsible Official	Name: Ron Williams Title: Solid Waste Manager, Cowlitz County Public Works Department Address: 1600 13th Avenue S., Kelso, WA 98626 Telephone #: 360 577-3030

Facility Information	
Industrial User Type	Other Significant Industrial User
Industry Type	Solid Waste Landfill
Type of Treatment by Industry	Settling Ponds
SIC Codes	4953 Refuse Systems
NAIC Codes	562212 Operating Solid Waste Landfill
Facility Location: headworks pump station at landfill	Latitude: 46.25142 Longitude: -122.7790
Treatment Plant Receiving Discharge	Three Rivers Regional Wastewater Treatment Plant
Discharge Location: end of leachate pipeline at Kelso sewer system:	Latitude: 46.12978 Longitude: -122.9008
Permit Status	
Issuance OR Renewal Date of Previous Permit	First permit for this Cowlitz County faciltiy
Application for Permit Submittal Date	November 5, 2013
Date of Ecology Acceptance of Application, including engineering report approval	June 23, 2014
Inspection Status	
Date of Last Sampling Inspection	None conducted
Date of Last Non-sampling Inspection Date	February 1, 2014

Figure 1 Facility Location Map

Overview of Cowlitz County Headquarters Landfill near Silver Lake



A. Facility Description

History

Th Cowlitz County Headquarters Landfill (CCHQLF) was formerly owned and operated by Weyerhaeuser, Inc. as an industrial solid waste landfill, used for disposal of forest products manufacturing wastes. Under Weyerhaeuser's discharge permit, the landfill leachate was loaded into tank railcars at the landfill, transported to Weyerhaeuser's Longview pulp mill, treated in the pulp mill's wastewater treatment system along with wastewater generated at the mill, then discharged to the Columbia River. On March 11, 2014, the landfill was purchased by Cowlitz County, and the landfill was re-permitted to accept municipal solid waste, in addition to industrial solid waste.

After conducting extensive studies, Cowlitz County chose to construct an underground pipeline to transport leachate directly to the Kelso sewer system, and to have the leachate treated at the Three Rivers Regional Wastewater Authority (TRRWA). The County submitted a state waste discharge application and an engineering report (Wallis Engineering, February 2014), both of which were approved on June 23, 2014. The pipeline and pump stations were completed by the end of 2014, and CCHQLF began discharging through the pipeline to TRRWA in February 2015. This is a new permit.

To a significant extent, the new discharge to TRRWA from the CCHQLF will replace the current discharge from the Cowlitz County Landfill, permit No. ST 6074. From engineering report: "Currently, the Three Rivers WWTP treats wastewater from the Tennant Way Landfill, owned by the County. Final closure of the Tennant Way Landfill is planned to occur in 2014, after which the volume of leachate from this landfill will begin decreasing, and eventually be eliminated. Leachate from the Headquarters Landfill will begin discharging to TRRWA wastewater collection and treatment facilities in late 2014, after the Headquarters Landfill is acquired and the leachate pump station and pipeline are constructed."

The system consists of a pump station at the head of the 16 mile long pipeline. Leachate generated from the solid waste cells at Headquarters landfill is captured and collected in two ponds. This leachate is pumped into the pipeline via a new pump station, located approximately 800 feet southwest of the ponds. The pump station consists of two multistage centrifugal pumps, each rated at 300 gpm. The operational plan includes keeping the ponds low, so that leachate may be stored in the event of a power outage. The pipeline consists of eight inch diameter HDPE pipe that terminates at an existing manhole connected to the Kelso Interceptor sewage pipeline, which discharges into the Kelso Main Pump Station. Leachate then flows to TRRWA for treatment and discharge to the Columbia River.

Industrial Process(s)

CCHQLF is a 300+ acre site in Cowlitz County, just south of Silver Lake. Solids waste input to the landfill is estimated at 750,000 tons per year. The landfill is classified as a Significant Industrial User, because the wastewater discharge- leachate from the landfill- will be greater than 25,000 gallons per day and the organic loading is estimated at greater than 5% of the design capacity for TRRWA. Initial wastewater loading is estimated at 100,000 gallons per day (gpd), increasing to 200,000 gpd. This increase is will accompany the concurrent decrease from the nearly-closed Cowlitz County Landfill, so the net increase to the treatment plant should be minimal. For maximums, the engineering report estimates of up to 432,000 gallons per day (gpd)- the pump station capacity- and maximum monthly average of 155,000 gpd. The leachate is liquid produced by the decomposition and dewatering of solid waste, and rainfall that percolates through the solid waste. Therefore more leachate is produced during wet weather, and less in summer and early fall.

Wastewater from this facility is limited to leachate from an active industrial and municipal solid waste landfill. No manufacturing occurs at the facility. CCHQLF operates Monday through Friday, from 6:30 am to 6 pm. The facility has twelve staff members, with seven starting at 6:30 and 3 starting at 9:30 am.

Wastewater sampling and flow measurement is conducted at the landfill pump station.

Potable water is used at the landfill office and for dust control on roads. Sanitary wastewater is disposed via an onsite septic system and drain field, approved by Cowlitz County.

The landfill had a closed loop, landfill gas scrubber system. Shutdown of this system was approved by Southwest Clean Air Agency on March 19, 2018. The scrubber ceased operation on April 24, 2018.

Materials stored onsite include diesel, motor oil, hydraulic oil, grease, transmission oil, and antifreeze.

Wastewater Pretreatment

Leachate is collected in lined ponds, then pumped as needed into the pipeline for transport to the Longview/Kelso sewer system, then treatment by TRRWTA.

On behalf of Cowlitz County, Wallis Engineering submitted an engineering report for the pipeline discharge of leachate to the Kelso sewer system, and an analysis of the leachate impact upon Three Rivers Wastewater Treatment Plant (Wallis Engineering, 2014). The final report was received March 4, 2014 and approved June 23, 2014. The analysis included the assumptions of a peak flow rate of 432,000 gpd, the station's capacity, and an average flow rate of 200,000 gpd, the estimated future average flow. However, Ecology now understands that the actual pumping capacity is 450 gallons per minute, which is 648,000 gallons per day.

Solid Wastes

Some solid waste is expected to be generated from solids that settle out in the leachate collection ponds, and from periodic cleaning of the pipeline. The permit will require a solid waste control plan and an Operations and Maintenance Manual that will address these issues, among others.

B. Discharge Location to the City of Kelso Sewer System and Treatment by Three Rivers Wastewater Authority

From the landfill pump station, leachate is transported through the pipeline to an existing manhole on the east side of 13th Avenue S., just south of Walnut Street, in the parking lot of the Cowlitz County Public Works Department office at 1600 13th Avenue South, Kelso, WA 98626. The leachate pipeline connects to the Kelso Interceptor sewage pipeline, which discharges into the Kelso Main Pump Station. The wastewater volume is measured and samples collected at the pump station at CCHQLF.

C. Wastewater Characterization

Cowlitz County reported the estimated potential concentration of pollutants in the permit application and engineering report, and in data provided by Ron Williams (Williams, 2019). The tabulated data represents the quality of the effluent as reported by Williams, 2019, with additional data estimated from the engineering report. The effluent is characterized as follows below in Table 2. For most conventional pollutants, this effluent is similar to typical domestic sewage, such as BOD and TSS. Ammonia nitrogen is higher than domestic, perhaps as much as an order of magnitude. Salts- such as calcium and barium- are also elevated compared to typical domestic wastewater. However, these concentrations should be easily assimilated and treated by Three Rivers POTW. Heavy metals are fairly typical of domestic wastewater, and very similar to previous discharges from the Cowlitz County Landfill. This discharge will largely replace the discharge from the previous landfill. The effluent is characterized as follows:

Table 2 Wastewater Characterization (2018 Monitoring Data -Williams, 2019)

Parameter	Units	# of Samples	Average Value	Maximum Value
Biochemical Oxygen Demand (BOD_5)	mg/L	11	109	300

Table 2 Wastewater Characterization (2018 Monitoring Data -Williams, 2019)

Parameter	Units	# of Samples	Average Value	Maximum Value
Total Suspended Solids (TSS)	mg/L	12	18	23
Total Dissolved Solids	mg/L	12	7462	10200
Ammonia-N as N	mg/L	58*	136	261
Nitrate+nitrite-N as N	mg/L	58*	1.0	1.5
Total oil and grease	mg/L	12	4.5	15
Arsenic (total)	µg/L	2	34	35
Barium (total)	µg/L	2	540	580
Cadmium (total)	µg/L	2	0.80	0.83
Chromium (total)	µg/L	2	200	209
Copper (total)	µg/L	2	158	186
Lead (total)	µg/L	2	49	52.6
Mercury (total)	µg/L	2	0.27	0.39
Nickel (total)	µg/L	2	161	190
Selenium (total)	µg/L	1	-	33.7
Silver (total)	µg/L	1	-	0.36
Zinc (total)	µg/L	2	244	337
Cyanide	mg/L	12	0.065	0.78
Phenols, total	mg/L	12	0.30	1.6
Antimony	µg/L	1	-	4.12
Cobalt	µg/L	1	-	22.5
pH	Std units	12	7.9	Range: 6.4-8.3

*Ammonia and nitrate data is from previous monitoring by Weyerhaeuser, and was submitted with the permit application.

D. Summary of Compliance with Previous Permit Issued

This is the first permit for Cowlitz County as owner of this facility and therefore this proposed permit has no compliance history. The previous permit was issued to Weyerhaeuser Inc., as the developer and original owner of the landfill. Weyerhaeuser transported the landfill leachate to their Longview pulp mill treatment system. Compared to treatment at the Weyerhaeuser treatment lagoons, processing the leachate at TRRWA should increase the level of treatment and result in decreased pollutant loading to the Columbia River.

E. State Environmental Policy Act (SEPA) Compliance

To meet the intent of SEPA, new discharges must undergo SEPA review during the permitting process. The Cowlitz County Building and Planning Department issued a Determination of Significance for the project in April 2012. The final Environmental Impact Statement was approved July 31, 2013 (EIS, 2013).

III. PROPOSED PERMIT LIMITS

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

- Technology and treatment methods available to treat specific pollutants (technology-based). Technology-based limits are set by the EPA and published as a regulation (40 CFR 400 - 471), or Ecology develops limits on a case-by-case basis (40 CFR 125.3, and RCW 90.48). Dischargers must treat wastewater using all known, available, reasonable methods of prevention, control, and treatment (AKART).

- Effects of the pollutants on the publicly-owned treatment works (POTW). Wastewater must not interfere with the operation of the POTW. Ecology considers local limits in developing permit limits.

- Applicable requirements of other local, state and federal laws.

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

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

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

A. Design Criteria

Under WAC 173-216-110 (4), neither flows nor waste loadings may exceed approved design criteria. Ecology obtained approved design criteria for this facility's treatment plant from the engineering report dated February 2014 prepared by Wallis Engineering.

Table 3 Design Criteria for Cowlitz County Headquarters Landfill Leachate Pump Station

Parameter	Design Quantity
Maximum Daily Flow	0.648 MGD

B. Technology-Based Effluent Limits

Waste discharge permits issued by Ecology specify conditions requiring all available and reasonable methods of prevention, control, and treatment (AKART) of discharges to waters of the state (RCW 90.48).

Existing federal categorical limits for this facility are found under 40 CFR Part 445.3. For pretreatment permits, these regulations refer to the general pretreatment standards found in 40 CFR Part 403. EPA has issued no limits for landfill leachate discharge to sewers, for both existing and new dischargers.

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

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

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

Ecology approved the engineering report for the Cowlitz County Headquarters Landfill wastewater facility titled *Engineering Report- Assessing Impact of Headquarters Landfill Leachate Discharge Upon Three Rivers Wastewater Authority Facilitie*, dated February 2014, and prepared by Wallis Engineering (Wallis Engineering, 2014). Ecology determined the facility meets the minimum requirements demonstrating compliance with the AKART standard and federal effluent guidelines if the Cowlitz County Headquarters Landfill operates the treatment and disposal system as described in the approved engineering report and any subsequent Ecology approved reports.

The following permit limits are necessary to satisfy the requirement for AKART:

Table 4 Technology Based Effluent Limits

Effluent Limits		
Parameter	**Average Monthly**	**Maximum Daily**
Flow	0.648 MGD	0.648 MGD
pH	5.0 standard units	11.0 standard units

C. Effluent Limits Based on Local Limits

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

Applicable effluent limits for this discharge include the following:

Table 5 Limits Based on Local Limits

Effluent Limits		
Parameter	**Average Monthly**	**Maximum Daily**
BOD5	350 mg/L	350 mg/L
TSS	350 mg/L	350 mg/L
Total Nitrogen	44 mg/L	44 mg/L
Temperature		149 degrees F.
Fats, Oils & Grease		100 mg/L
Parameter	**Daily minimum**	**Daily Maximum**
pH	6.0 standard units	9.0 standard units

The pH limit will be the more conservative of technology based and local limits, thus 6.0 to 9.0.

In addition to the discussion in the previous section, applicable effluent limits for this discharge could include a temperature limit at the point of generation. However, the leachate accumulates in the storage ponds until pumped into the pipeline. By the time the leachate gets to the public sewer system, the temperature will be at or near ambient temperature, and should have no potential to adversely impact the POTW. Also, no practical way exists to monitor temperature at the point of discharge to the sewer system, so this limit will not be imposed.

Ecology will require ammonia monitoring. TRRWA has hired a consultant to review their current ammonia limits, and believes the current limits may be modified. Ecology will revisit ammonia limits after TRRWA revises their ammonia limit. Meanwhile, TRRWA is aware of the nitrogen loading from the CCHQLF leachate.

Ecology will require ammonia monitoring. Ammonia has not be tested by CCHQLF since taking over from Weyerhaeuser. After at least two years of monitoring data has been collected, and when TRRWA has revised or finalized their ammonia limits, Ecology will evaluate the data and take appropriate action, including potentially adding an ammonia limit.

Ecology will require a annual priority pollutant scan for selected parameters.

D. Comparison of Effluent Limits with the Previous Permit

This is the first permit for this facility, so no comparison can be made.

IV. MONITORING REQUIREMENTS

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

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

A. Lab Accreditation

Ecology requires that facilities must use a laboratory registered or accredited under the provisions of chapter 173-50 WAC, Accreditation of Environmental Laboratories, to prepare all monitoring data (with the exception of certain parameters). Ecology has not accredited the laboratory at this facility for any tests.

B. Wastewater Monitoring

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

C. Effluent Limits which are Near Detection or Quantitation Levels

The water quality-based effluent concentration limits for some priority pollutants are near the limits of current analytical methods to detect or accurately quantify. The method detection level (MDL) also known as detection level (DL) is the minimum concentration of a pollutant that a laboratory can measure and report with a 99 percent confidence that its concentration is greater than zero (as determined by a specific laboratory method). The quantitation level (QL) is the level at which a laboratory can reliably report concentrations with a specified level of error. Estimated concentrations are the values between the DL and the QL. Ecology requires permitted facilities to report estimated concentrations. When reporting maximum daily effluent concentrations, Ecology requires the facility to report "less than X" where X is the required detection level if the measured effluent concentration falls below the detection level.

V. OTHER PERMIT CONDITIONS

A. Reporting and Recordkeeping

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

B. Operations and Maintenance

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

C. Prohibited Discharges

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

D. Dilution Prohibited

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

E. Spill Plan

This facility stores a quantity of chemicals on-site that have the potential to cause water pollution and/or interference or pass through at the receiving POTW if accidentally released. Ecology can require a facility to develop best management plans to prevent this accidental release [Section 402(a)(1) of the Federal Water Pollution Control Act (FWPCA) and RCW 90.48.080].

The proposed permit requires this facility to develop and implement a plan for preventing the accidental release of pollutants to state waters and for minimizing damages if such a spill occurs.

F. Slug Discharge Plan

Ecology determined that Cowlitz County Headquarters Landfill has the potential for a batch discharge or a spill that could adversely affect the treatment plant, therefore the proposed permit requires a slug discharge control plan [(40 CFR 403.8 (f)(l) (iii)(B)(6) and (f) (2)(vi)].

G. General Conditions

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

VI. PUBLIC NOTIFICATION OF NONCOMPLIANCE

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

VII. PERMIT ISSUANCE PROCEDURES

A. Permit Modifications

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

B. Proposed Permit Issuance

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limits and conditions believed necessary to control toxics. Ecology proposes that the permit be issued for 5 years.

VIII. REFERENCES FOR TEXT AND APPENDICES

Environmental Impact Statement, Cowlitz County Headquarters Landfill, July 31, 2013. http://www.co.cowlitz.wa.us/index.aspx?nid=1604.

Wallis Engineering, February 2014. *Engineering Report- Assessing Impact of Headquarters Landfill Leachate Discharge Upon Three Rivers Wastewater Authority Facilities*. On behalf of Cowlitz County, Washington.

Washington State Department of Ecology.

- Laws and Regulations (https://ecology.wa.gov/About-us/How-we-operate/Laws-rules-rulemaking)
- Permit and Wastewater Related Information (https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Water-quality-permits-guidance)
- January 2015. *Permit Writer's Manual*, Publication Number 92-109 (https://fortress.wa.gov/ecy/publications/SummaryPages/92109.html)
- February 2007. *Focus Sheet on Solid Waste Control Plan, Developing a Solid Waste Control Plan for Industrial Wastewater Discharge Permittees*, Publication Number 07-10-024. https://fortress.wa.gov/ecy/publications/SummaryPages/0710024.html

Williams, Ron, 2019. Emails containing Cowlitz County 2018 monitoring data. 1/4/2019

APPENDIX A--PUBLIC INVOLVEMENT INFORMATION

Ecology proposes to issue a permit to Cowlitz County Headquarters Landfill. The permit includes wastewater discharge limits and other conditions. This fact sheet describes the facility and Ecology's reasons for requiring permit conditions.

Ecology placed a Public Notice of Application on June 12, 2018 and June 19, 2018, in *The Daily News* to inform the public about the submitted application and to invite comment on the issuance of this permit.

Ecology will place a Public Notice of Draft on April 16, 2019, in *The Daily News* to inform the public and to invite comment on the proposed draft State Waste Discharge permit and fact sheet.

The notice:

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

Ecology has published a document entitled *Frequently Asked Questions about Effective Public Commenting*, which is available on our website at:
https://fortress.wa.gov/ecy/publications/SummaryPages/0307023.html.

You may obtain further information from Ecology by telephone, 360-407-6280, or by writing to the address listed below.

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

The primary author of this permit and fact sheet is Don Reif, Environmental Engineer.

APPENDIX B--YOUR RIGHT TO APPEAL

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

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

- File your appeal and a copy of this permit with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.

- Serve a copy of your appeal and this permit on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

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

ADDRESS AND LOCATION INFORMATION

Street Addresses	Mailing Addresses
Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive Southeast Lacey, WA 98503	**Department of Ecology** Attn: Appeals Processing Desk P.O. Box 47608 Olympia, WA 98504-7608
Pollution Control Hearings Board 1111 Israel Road Southwest, Suite 310 Tumwater, WA 98501	**Pollution Control Hearings Board** P.O. Box 40903 Olympia, WA 98504-0903

APPENDIX C--GLOSSARY

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

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

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

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

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

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

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

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

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

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

Background water quality -- The concentrations of chemical, physical, biological or radiological constituents or other characteristics in or of groundwater at a particular point in time upgradient of an activity that has not been affected by that activity, [WAC 173-200-020(3)]. Background water quality for any parameter is statistically defined as the 95% upper tolerance interval with a 95% confidence based on at least eight hydraulically upgradient water quality samples. The eight samples are collected over a period of at least one year, with no more than one sample collected during any month in a single calendar year.

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

BOD5 -- Determining the five-day Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD5 is used in modeling to measure the reduction of dissolved oxygen in receiving waters after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD_5 is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and

- Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water

Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), sludge regulations appearing in 40 CFR Part 507, the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Point of compliance -- The location in the groundwater where the enforcement limit must not be exceeded and a facility must comply with the Ground Water Quality Standards. Ecology determines

this limit on a site-specific basis. Ecology locates the point of compliance in the groundwater as near and directly downgradient from the pollutant source as technically, hydrogeologically, and geographically feasible, unless it approves an alternative point of compliance.

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

a. Exceeds 0.5 % of treatment plant design capacity criteria and discharges <25,000 gallons per day or;

b. Is a member of a group of similar industrial users which, taken together, have the potential to cause pass through or interference at the POTW (e.g. facilities which develop photographic film or paper, and car washes).
Ecology may determine that a discharger initially classified as a potential significant industrial user should be managed as a significant industrial user.

Quantitation level (QL) -- Also known as Minimum Level of Quantitation (ML) – The lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. It is equivalent to the concentration of the lowest calibration standard, assuming that the lab has used all method-specified sample weights, volumes, and cleanup procedures. The QL is calculated by multiplying the MDL by 3.18 and rounding the result to the number nearest to (1,2,or 5) x 10^n, where n is an integer. (64 FR 30417).
ALSO GIVEN AS:
The smallest detectable concentration of analyte greater than the Detection Limit (DL) where the accuracy (precision & bias) achieves the objectives of the intended purpose. (Report of the Federal Advisory Committee on Detection and Quantitation Approaches and Uses in Clean Water Act Programs Submitted to the US Environmental Protection Agency December 2007).

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

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

Sample Maximum -- No sample may exceed this value.

Significant industrial user (SIU) --

1) All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N and;

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

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

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

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

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

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

Soluble BOD_5 -- Determining the soluble fraction of Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of soluble organic material present in an effluent that is utilized by bacteria. Although the soluble BOD_5 test is not specifically described in Standard Methods, filtering the raw sample through at least a 1.2 um filter prior to running the standard BOD_5 test is sufficient to remove the particulate organic fraction.

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

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

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

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

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

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

Total suspended solids (TSS) -- Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory

passages of various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

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

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

APPENDIX D--RESPONSE TO COMMENTS

The Department of Ecology (Ecology) received comments from Ron Williams (RW), Solid Waste Manager at Cowlitz County Public Works, and from Duane Leaf (DL), General Manager of Three Rivers Wastewater Authority (TRWA). Comments were submitted pertaining to both the draft permit and the draft fact sheet. The substantive portions of the comments are as follows:

***Regarding the draft permit**:*

Comments #1:

RW: Page 5 of 30: The Maximum Daily Flow = Duane at TRRWA will confirm the number, but during high rainfall events, we can pump up to 450 GPM which results in 648,000 GPD. This is a rare occurrence, but I wanted to see about changing this.

DL: My review of the request to change the maximum flow to has been completed. I am fine with a maximum daily flow of 648,000 gallons. We recently added another pump to the Kelso Pump Station and we can support the landfill flow at historical high Kelso flows with one of the Kelso pumps out of service.

Ecology Response: Ecology considers the needs of the permittee and the ability of the POTW to handle the flow and pollutant loading. In this case, the permittee may occasionally need the higher flow rate, and TRWA is comfortable that the treatment plant can handle this scenario.

Ecology will increase the permitted maximum daily flow from 432,000 gallons per day to 648,000 gallons per day.

Comments #2:

RW: Page 6 of 30: Monitoring Requirements = pH sampling frequency. We have done this monthly at Tennant Way and would like this to be the same for HQLF. I spoke with Duane and he agreed with me for once a month.

DL: Since pH has not been an issue given the historical data, I am fine with monitoring for it once per month.

Ecology Response: When the draft permit was originally written, Ecology had pH data from the permit application, which preceded landfill operation by Cowlitz County. Later, Cowlitz County provided pH data from more than one year of operation under county ownership, with one sample per month. However, once per month sampling for pH does not characterize possible short term variations.

Ecology believes that one year of weekly pH analyses should give a good data base of variability. After one year, Ecology will review this data and determine if once per month pH testing is justified.

Comments #3:

RW: Units = For BOD, TSS and Ammonia it lists mg/L and lbs/day. We have always only done mg/L. Also, the table on page 5 only lists the maximum daily limits as mg/L. Can we remove lbs/day?

DL: I support the removal of any of the pounds per day requirements.

Ecology Response: This requirement was intended to aid TRWA in tracking pollutant loading from Headquarters Landfill (HQLF). Since TRWA is OK without this reporting, Ecology will remove the pounds per day reporting requirement.

Comments 4:

RW: Ammonia = We did not report this as a monthly parameter at Tennant Way. We did report TDS, O&G, Cyanide and Phenols. I see Cyanide and Phenols annually which is fine. Do we need to test Ammonia?

DL: If ammonia is to be monitored, the limit is 44 ppm, this may be changed based on TRRWA's impending permit, so I suggest we hold off on the ammonia issue until we know more.

Ecology Response: The status of an ammonia limit in the TRWA municipal wastewater discharge permit and pretreatment limits has been an ongoing issue for some time. Until this issue is solidified, Ecology will require monitoring only for ammonia, with no limits for concentration or mass loading.

***Regarding the draft fact sheet**:*

Comments #5:

RW: Page 5 of 23: 5th Paragraph/sentence = The flow measurement will take place at the HQLF pump station. Duane suggested that we sample the leachate at the point of discharge in the manhole at the Cowlitz County Public Works Department office at 1600 – 13th Avenue South, Kelso, WA 98626. We would need to move the auto-sampler from the HQLF pump station, but that should not be a problem.

DL: I fully support moving the sampler to the manhole discharge site at the County Public Works facility while keeping the flow measurement at the landfill site. The TRRWA Board agreed with the joint recommendation by Landfill Staff and TRRWA Staff to use the meter at the landfill for flow monitoring.

Ecology Response: From observing the site at 1600 – 13th Avenue South in Kelso, Ecology concludes that the existing flow meter near the pipe discharge into the manhole does not meet engineering specifications for accurate flow measurement. The site is not currently prepared for a composite sampler at that location. Ecology believes that wastewater sampling and flow measurement at the same location is optimal. After discussing these issues with both parties, the permit will require flow measurement and sampling at the current location at the landfill. TRWA is free to install and operate their own sampler at that site. Ecology will entertain a proposal for changes via submission of an engineering report.

Comment #6:

RW: Page 6 of 23: Under "B" = "county maintenance facility" should read after "parking lot of" continue with "the Cowlitz County Public Works Department office at 1600 – 13th Avenue South, Kelso, WA 98626".

Ecology Response: This change will be made. Thank you.

Comment #7:

RW: Page 8 of 23: Table 3 = change to 0.648 upon approval from Duane at TRRWA.

Ecology Response: Ecology agrees.

Comments #8:

RW: Page 9 of 23: 1st paragraph says "pH less than 5.0 or greater than 11.0". The table on Page 5 of 30 in the Special Conditions says "6.0 to 9.0". Can we have the upper limit be 10.0 instead of 9.0?

DL: The pretreatment policy and local ordinances have a maximum daily pH of 9.0 - so while plant compliance has never been an issue, the requested 10.0 pH would violate our pretreatment standards.

Ecology Response: Higher pH limits, such as up to 10.0, can often be beneficial to maintain pH of secondary municipal treatment systems. However, Ecology cannot override local ordinances without substantial justification. The upper pH limit will remain at 9.0.

Comment #9:

RW: Page 9 of 23: Table 4 = change 0.432 to 0.648 upon approval from Duane at TRRWA.

Ecology Response: This change will be made.

Comment #10:

DL: I would like to let you know that the interaction between the Landfill Staff and TRRWA Staff on this permit process has been cooperative and effective. I wish all of my pretreatment permit processes were like this.

Ecology Response: Ecology concurs.

Thank you to the Cowlitz County Headquarters Landfill and Three Rivers Wastewater Authority for providing comments on this draft permit.