FACT SHEET FOR NPDES PERMIT WA0991060

Divert Integrated Food Recovery Facility / Longview

Date of Public Notice: 10/17/2024

Permit Effective Date: xx/xx/xxxx

Purpose of this fact sheet

This fact sheet explains and documents the decisions the Department of Ecology (Ecology) made in drafting the proposed National Pollutant Discharge Elimination System (NPDES) permit for Divert Integrated Food Recovery Facility / Longview (Divert).

This fact sheet complies with Section 173-220-060 of the Washington Administrative Code (WAC), which requires Ecology to prepare a draft permit and accompanying fact sheet for public evaluation before issuing an NPDES permit.

Ecology makes the draft permit and fact sheet available for public review and comment at least thirty (30) days before issuing the final permit. Copies of the fact sheet and draft permit for Divert, NPDES permit WA0991060, are available for public review and comment from October 17, 2024, until November 27, 2024. For more details on preparing and filing comments about these documents, please see Appendix A - Public Involvement Information.

Divert reviewed the draft permit and fact sheet for factual accuracy. Ecology corrected any errors or omissions regarding the facility's location, history, discharges, or receiving water prior to publishing this draft fact sheet for public notice.

After the public comment period closes, Ecology will summarize substantive comments and provide responses to them. Ecology will include the summary and responses to comments in this fact sheet as Appendix E - Response to Comments, and publish it when issuing the final NPDES 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

Divert, Inc. proposes to operate an enclosed unsold food products processing and recovery facility in Longview, WA. The facility will use anaerobic digestion to manufacture biogas, which will then be upgraded to renewable natural gas that will be injected into the Cascade Natural Gas Corporation's existing offsite natural gas pipeline. Divert proposes to discharge pretreated wastewater to the Three Rivers Regional Wastewater Authority (TRRWA) wastewater treatment plant (WWTP) and stormwater to the Mint Farm Phase 1 Wetland Complex and CDID Ditch No. 5.

Wastewater pretreatment will include an air stripper and a moving bed biofilm reactor to remove ammonia in order to meet the local limit requirements for discharging to the TRRWA WWTP. The proposed permit includes limits on the pretreated wastewater discharge for ammonia, biochemical oxygen demand, and total suspended solids. It also includes requirements for additional monitoring to further characterize the discharge to the TRRWA WWTP.

Onsite stormwater is proposed to be discharged to the Mint Farm Phase 1 Wetland Complex and CDIC Ditch No. 5 through two outfalls. Divert proposes to manage the stormwater through catch basin treatment vaults, detention, and flow control of the discharge to meet City of Longview requirements. The proposed permit includes monitoring requirements to further characterize the stormwater discharge and a benchmark with corrective action approach. This includes a requirement for a pollution prevention plan and implementing best management practices to reduce the pollution of stormwater.

The proposed permit includes the requirement for Divert to develop and implement the following:

- Spill plan
- Slug discharge plan
- Solid waste control plan
- Stormwater pollution prevention plan
- Operation and maintenance manual

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I. Introduction

The Federal Clean Water Act (FCWA, 1972, and later amendments in 1977, 1981, and 1987) established water quality goals for the navigable (surface) waters of the United States. One mechanism for achieving the goals of the Clean Water Act is the National Pollutant Discharge Elimination System (NPDES), administered by the federal Environmental Protection Agency (EPA). The EPA authorized the state of Washington to manage the NPDES permit program in our state. Our state legislature accepted the delegation and assigned the power and duty for conducting NPDES permitting and enforcement to Ecology. The Legislature defined Ecology's authority and obligations for the wastewater discharge permit program in 90.48 RCW (Revised Code of Washington).

The following regulations apply to industrial NPDES permits:

- Procedures Ecology follows for issuing NPDES permits (chapter 173-220 WAC)
- Water quality criteria for surface waters (chapter 173-201A WAC)
- Water quality criteria for ground waters (chapter 173-200 WAC)
- Whole effluent toxicity testing and limits (chapter 173-205 WAC)
- Sediment management standards (chapter 173-204 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 an NPDES permit before discharging wastewater to state waters. They also help define the basis for limits on each discharge and for performance requirements imposed by the permit.

In addition to the regulations that apply to industrial NPDES permits, Ecology adopted the State waste discharge program (chapter 173-216 WAC). These rules require any industrial facility owner/operator to obtain a 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 define the basis for limits on each discharge and for other performance requirements imposed by the permit.

Under the NPDES permit program and in response to a complete and accepted permit application, Ecology must prepare a draft permit and accompanying fact sheet, and make them available for public review before final issuance. Ecology must also publish an announcement (public notice) telling people where they can read the draft permit, and where to send their comments, during a period of thirty days (WAC 173-220-050). (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 NPDES permit in response to comment(s). Ecology will summarize the responses to comments and any changes to the permit in Appendix E.

II. Background information

Table 1 - Facility information

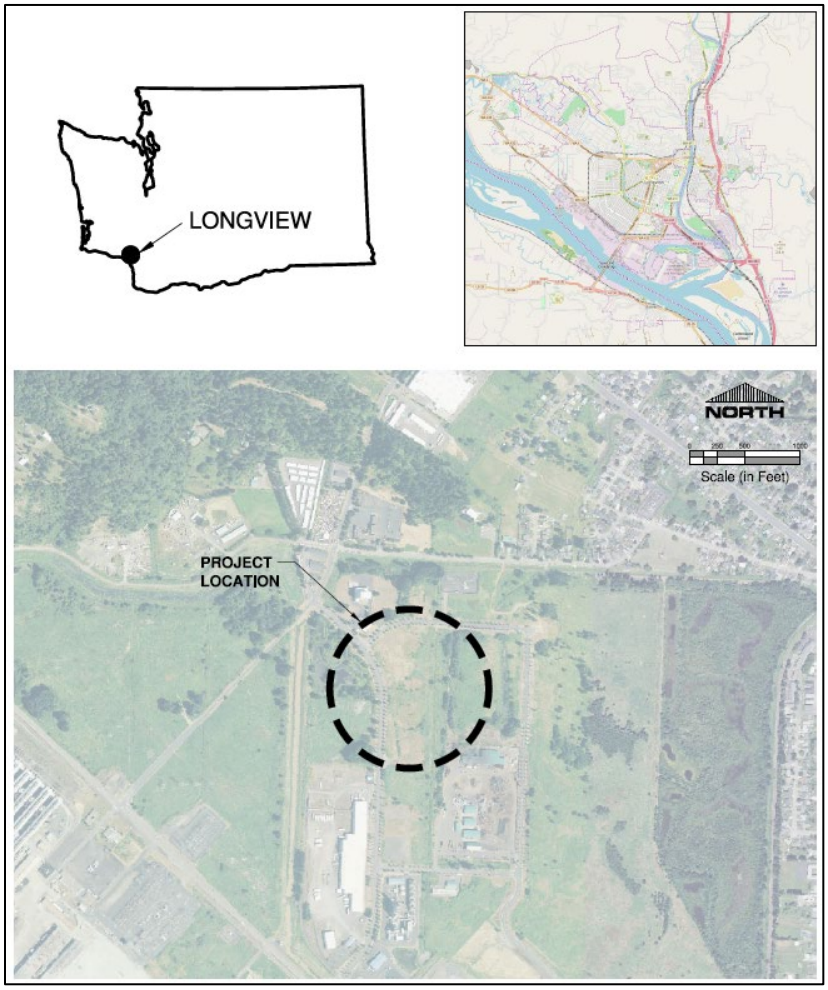
Applicant:	**Divert PNW Dev Co LLC**
Facility name and address	Divert Integrated Food Recovery Facility / Longview
Contact at facility	Name: Tassia Steidley Title: Environmental Engineer Specialist Telephone #: 480-528-0421
Responsible official	Name: Chris Marlette Title: VP, Engineering and Construction Address: 23 Bradford St, 3rd Floor Concord, MA 01742 Telephone #: 774-249-1400
Industrial User Type	Other Significant Industrial User
Industry type	Food waste processing and biogas manufacturing
Type of treatment	Process wastewater: air stripping, MBBR polishing Stormwater: screening, multimedia filtration, sedimentation
Fee category	Facilities Not Otherwise Classified
SIC codes	4953 Refuse systems
NAIC codes	562219 Other nonhazardous waste treatment and disposal
Facility location (NAD83/WGS84 reference datum)	Latitude: 46.143 Longitude: -122.985
Treatment Plant Receiving Discharge	Three Rivers Regional Wastewater Authority (TRRWA) Wastewater Treatment Plant
Discharge waterbody name and location (NAD83/WGS84 reference datum)	TRRWA Wastewater Treatment Plant, Outfall 001A Latitude: 46.145481 Longitude: -122.984811 The Mint Farm Phase 1 Wetland Complex, Outfall 001B Latitude: 46.146444 Longitude: -122.986056 Consolidated Diking Improvement District (CDID) Number 1, Ditch Number 5, Outfall 002B Latitude: 46.144556 Longitude: - 122.985389

Permit status

Application for permit submittal date: February 20, 2024

Date of Ecology acceptance of application letter: July 10, 2024

Figure 1 - Facility location map, obtained from Gibbs & Olson



II.A. Facility description

1. History

Divert, Inc. proposes to operate an enclosed unsold food products processing and recovery facility in Longview, WA. The facility is located at 1500 Prudential Boulevard within the Mint Farm Industrial Complex. The facility will use anaerobic digestion to manufacture biogas, which will then be upgraded to renewable natural gas that will be injected into the Cascade Natural Gas Corporation's existing offsite natural gas pipeline. The facility was constructed in 2024 and is expected to become fully operational by March 2025.

Divert submitted a permit application to Ecology on February 20, 2024. The permit application included the following documents:

- Ecology's Application for a State Waste Discharge Permit to Discharge Industrial Wastewater to a Publicly-Owned Treatment Works (POTW)
- EPA Application Form 1 – General Information
- EPA Application Form 2F – Stormwater Discharges Associated with Industrial Activity

Divert also submitted an engineering report to Ecology on June 3, 2024 and plans and specifications on June 13, 2024. Ecology approved the engineering report on July 8, 2024.

The permit application and engineering report proposed the discharge of pretreated process wastewater to the TRWWA WWTP and stormwater to CDID Ditch No. 5 and the Mint Farm Phase 1 Wetland Complex via the City of Longview MS4. As part of the permit application process, Divert received approval by TRWWA and the City of Longview for the discharges proposed in the application on January 30, 2024.

Divert is considered a new source per 40 CFR 403.3(m) and a minor facility per 40 CFR 122.2.

2. Cooling water intakes

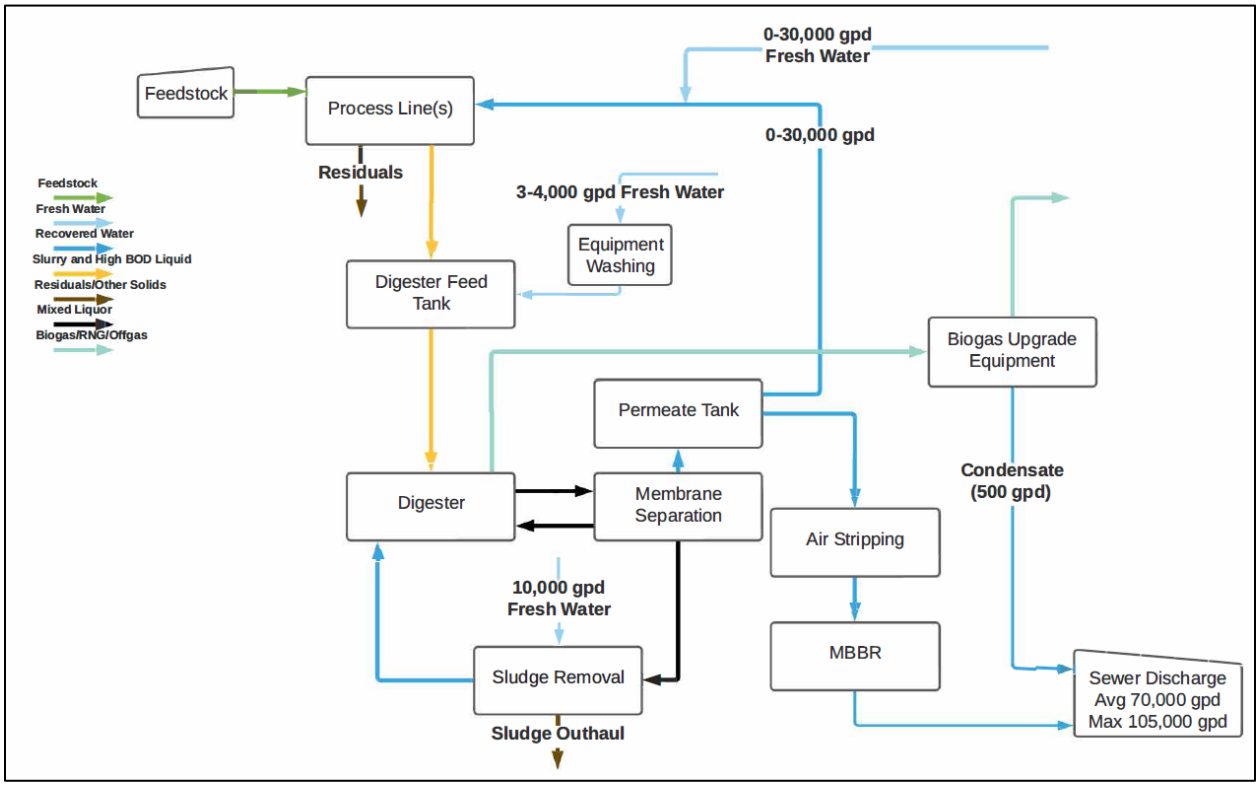
CWA § 316(b) requires the location, design, construction, and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact. Since July 2013, Ecology has required a supplemental application for all applicants using EPA Form 2-C. Divert indicated that no cooling water intake is associated with the facility.

3. Industrial processes

The proposed Divert Integrated Food Recovery Facility is a 66,000 square foot industrial building on approximately 12 acres of land, with 6,000 square feet dedicated to office spaces. Feedstock in the form of unsold food waste will be trucked into the facility where it will be de-packaged and placed into bins. Two feedstock processing lines with the capacity to process 101,000 tons per year will then receive the food waste where it will be sent through a masher/pulper and diluted with either recycled effluent water or freshwater supplied by the City of Longview. The bio-slurry along with bin wash water will be fed into a series of two tanks: a polished bio-slurry tank, and a 0.25 million gallon (MG) equalization (EQ) tank. The 0.25 MG EQ tank has the capacity to hold several days of bio-slurry production. The bio-slurry will then be transferred to the 3.5 MG anaerobic digester tank where microorganisms break down organic material in the absence of oxygen. During the breakdown of the organic material, microorganisms release biogas (50-70% methane). Digester mixed liquor will be continuously pumped to two membrane bioreactor (MBR) tanks. The MBR tanks separate

membrane permeate (liquid portion) from the liquor and the remaining anaerobic sludge is either returned back to the anaerobic digester (return anaerobic sludge) or wasted (waste anaerobic sludge) . The membrane permeate will either be re-used in the process or sent for pretreatment and discharge. Waste anaerobic sludge will be sent to a centrifuge for dewatering. The dewatered solids will be collected in a trailer for off-site composting as soil amendment and the separated liquid (centrate) will be returned to the anaerobic digester. Biogas collected from the digester and MBR tanks will be sent to a gas treatment system to upgrade it to renewable natural gas. The facility's annual processing capacity will be 237 billion British thermal units (Btu) per year with an estimated energy recovery of 212 billion Btu per year. There is some expected annual variation with more unsold food products to be processed during the summer months than winter months. A schematic process flow diagram can be found in Figure 2.

Figure 2 - Process flow diagram



Divert proposes to operate 24 hours a day and 7 days a week. On a typical day, there will be anywhere between 13-26 people present (including truck drivers and visitors/vendors).

Divert proposes to use the following raw materials and chemicals in the process described above and the wastewater pretreatment process described in the next section:

- Food waste – 101,000 tons per year
- Flocculent Polymer (for centrifuge dewatering) – 25,000 gallons per year
- Ferrous Chloride (hydrogen sulfide removal) – 150,000 gallons per year
- Caustic soda (pH adjustment in air stripping process) - 165,000 gallons per year
- Sulfuric Acid (air stripping process) – 140,000 gallons per year
- Hydrochloric acid (pH adjustment and periodic membrane backwashing) – 12,000 gallons per year
- Sodium hypochlorite (periodic membrane backwashing) – 2,000 gallons per year

The following are the reported products:

- Renewable Natural Gas – 237 billion Btu per year
- Soil Amendment – 11,000 tons per year
- Ammonium Sulfate (from air stripping) – 500,000 gallons per year

For the discharge of process wastewater to TRWWA WWTP, Divert is a significant industrial user not subject to categorical pretreatment standards. Process wastewater is generated in the form of membrane permeate from the anaerobic MBR system and condensate from the biogas purification system. The peak daily wastewater discharge flow will be 105,000 gallons per day with the maximum average monthly wastewater discharge flow of 100,000 gallons per day.

Stormwater will be generated throughout the site and discharged to the Mint Farm Phase 1 Wetland Complex via the City of Longview's MS4 and to the CDID Ditch No. 5. Pollution generating sources include more than 5,000 square feet of paved parking, loading, and equipment areas. The tank yard containing the EQ tank and anaerobic digester will be uncovered and surrounded by an 11-inch curb to provide secondary containment for the full volume of any tank, excluding the anaerobic digester, plus the volume of precipitation from the 25-year, 24-hour design storm. Stormwater will be drained from the tank yard manually by plant staff after stormwater is verified to not be contaminated. The site is separated into 4 basins with constructed stormwater infrastructure to provide flow control as per Longview Municipal Code.

4. Wastewater pretreatment and stormwater treatment processes

Pretreatment of Process Wastewater

Divert must meet local limits imposed by TRWWA's Pretreatment Policy. In their engineering report, Divert identified that their untreated process wastewater would meet all TRWWA local limits except for ammonia. Divert determined that

pretreatment of the membrane permeate is necessary to meet the pretreatment policy. Ecology approved the engineering report for the proposed pretreatment on July 8, 2024.

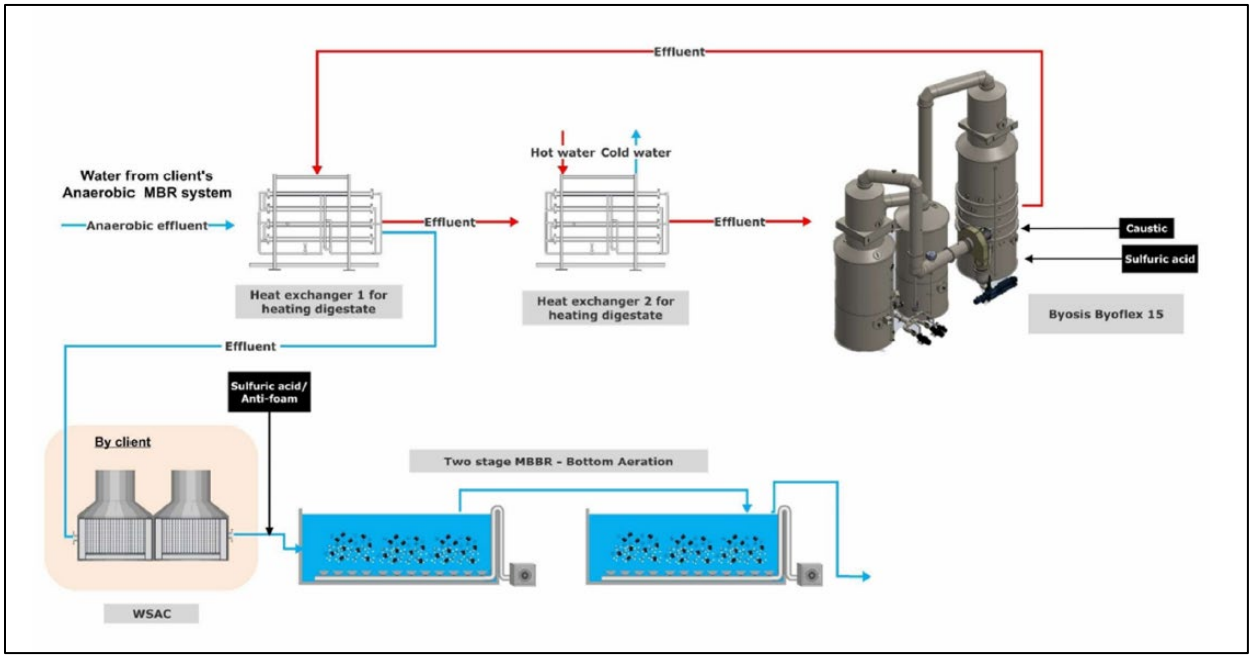
For the pretreatment and discharge of process wastewater to TRWWA, Divert proposes to utilize a two-step ammonia treatment system: air stripping and a two-stage moving bed biofilm reactor (MBBR). Air stripping consists of a stripping tower where air is pumped through the membrane permeate stream followed by a two stage scrubbing process. As the air passes through the permeate in the stripping tower, it removes ammonia from the permeate. The ammonia-rich air stream is then sent through scrubbers to remove the ammonia from the air. The permeate is then sent to the MBBR, which is a biological wastewater treatment process that uses floating media (carriers covered in a biofilm) to treat organic pollutants. The first tank will primarily treat the pollutants contributing to the biochemical oxygen demand (BOD) of the wastewater and the second stage will remove ammonia from the wastewater.

Table 2 includes the pretreatment design criteria for the membrane permeate. Figure 3 includes a basic flow diagram for the proposed pretreatment system (Figure 3 correction: sulfuric acid is replaced with hydrochloric acid at the two-stage MBBR).

Table 2 - Pretreatment Design Criteria

Design Parameter	Design Criteria
Average Daily Flow	70,000 gallons per day (gpd)
Maximum Month Average Daily Flow	100,000 gpd
Peak Daily Flow	105,000 gpd
Total Suspended Solids (TSS)	<350 milligrams per liter (mg/L)
Biochemical Oxygen Demand, 5-day (BOD_5)	<350 mg/L
Ammonia	<44 mg/L
pH	≥ 6.0 and ≤ 9.0 standard units (SU)

Figure 3 - Basic flow diagram of pretreatment system



As shown in Figure 2, membrane permeate that cannot be recycled back into the process lines or anaerobic digester tank will be treated first by an air stripper. The permeate will first pass through two heat exchangers to increase the temperature to as high as 176 degrees Fahrenheit. Caustic will also be added to raise the pH to as high as 10.5 SU. The air stripper efficiency for removing ammonia will be maximized by increasing the system temperature, permeate pH, and volume of stripping air utilized. Operating at the maximum of these parameters, the air stripper is expected to achieve 95-98% ammonia removal. A byproduct of the air stripping process is ammonium sulfate that is scrubbed from the ammonia rich air. The engineering report submitted for the project included the following design criteria for the air stripping unit:

Table 3 - Air Stripper Design Criteria

Design Parameter	Design Value
Average Daily Flow	70,000 gpd
Maximum Daily Flow	105,000 gpd
Expected Influent Ammonia Concentration	Up to 1,850 mg/L
Hours of Operation	24 hours per day
Number of Sieve Trays Required	4
Maximum Stripping Air Rate	15,300 cubic feet per minute
Membrane Permeate Temperature During Ammonia Stripping	Up to 176 degrees Fahrenheit
pH within the air stripper	Up to 10.5 SU
Volume of Caustic Used Annually	165,000 gallons

Design Parameter	Design Value
Volume of Sulfuric Acid Used Annually	140,000 gallons
Maximum Percent Ammonia Removal	95-98%
Design Effluent Ammonia Concentration	<150 mg/L

Air stripper effluent must be cooled before it can be fed to the next step in the pretreatment process. This will occur in two steps. The air stripper effluent will first be pumped through one of the heat exchangers to assist in preheating the air stripper feed which in turn cools down the air stripper effluent, then it will be pumped to a wet surface air cooler (WSAC) unit to cool it to 86 degrees Fahrenheit before being fed to the dual MBBR polishing system. The MBBR is designed to treat influent with up to 150 mg/L of ammonia, which is only 89-92% removal of ammonia in the air stripper. This is to allow for operating flexibility and conservatism. Antifoam will be intermittently injected as needed in the MBBR system to eliminate foaming. Hydrochloric acid will be dosed to neutralize the pH as needed for optimizing biological conversion and to meet discharge requirements to TRRWA with a target of 8 SU. The engineering report submitted for the project included the following design criteria for the MBBR units:

Table 4 - MBBR Design Criteria

Design Parameter	Design Value
Average Daily Flow	70,000 gpd
Maximum Daily Flow	105,000 gpd
Hours of Operation	24 hours per day
Expected Influent Ammonia Concentration	<150 mg/L
Inlet Temperature	86 degrees Fahrenheit
Influent pH	Up to 10.5 SU
Operating pH	<8 SU
Dissolved Oxygen	Adjustable between 1-5 mg/L
MBBR 1 Minimum Hydraulic Residence Time	8 hours
MBBR 2 Minimum Hydraulic Residence Time	4.5 hours
MBBR 1 Maximum Volumetric Air Rate	645 normal meter cubed per hour (Nm3/hr)
MBBR 1 Maximum Volumetric Air Rate	337 Nm3/hr
Design Effluent Ammonia Concentration	<44 mg/L
Maximum Effluent TSS Concentration	<350 mg/L
Volume of Hydrochloric Acid Used Annually	12,000 gallons

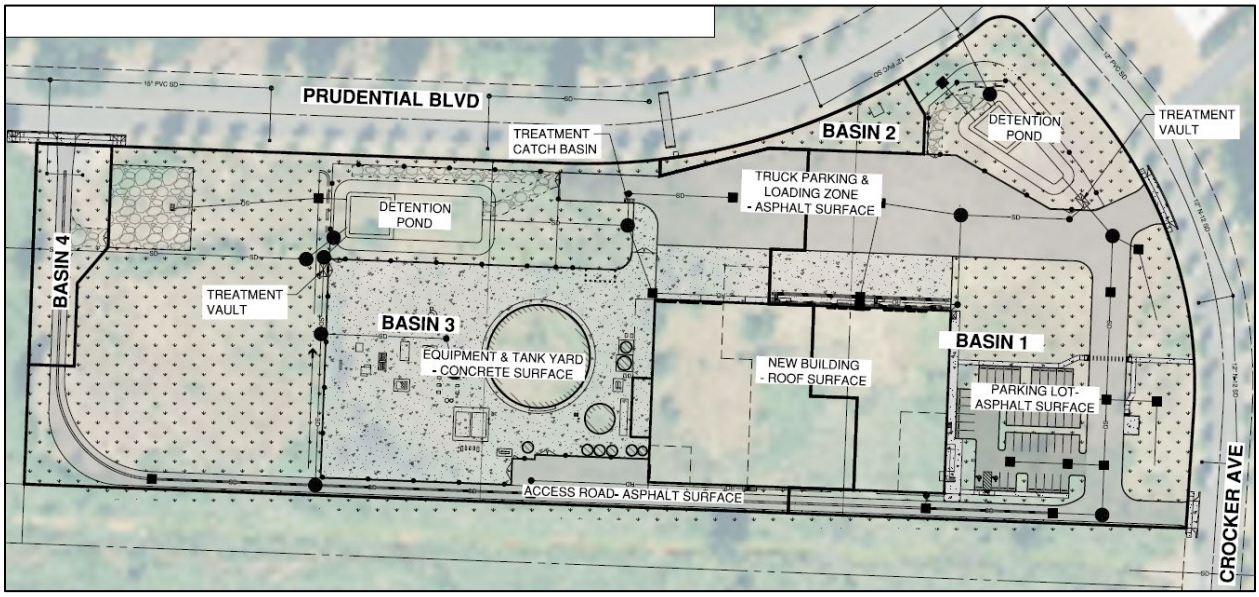
Biogas condensate will also be generated but it will not be sent through pretreatment. The condensate is expected to both be clean and very low flow in comparison to the membrane permeate.

Stormwater treatment

Stormwater will be generated in four basins around the property with varying pollution generating sources and drainage areas as seen in Figure 4. Divert

submitted the Stormwater Technical Information Report as part of the engineering report, detailing the proposed stormwater treatment and flow control.

Figure 4 - Stormwater basins and infrastructure



As per Longview Municipal Code, Divert will be required to provide flow control to stormwater discharges. Divert proposes to construct a network of pipes, catch basins treatment vaults, and detention ponds to ensure that the post-development peak discharge rate is equivalent to the pre-development rate for the 25-year, 24-hour design storm. The facility will be required to develop a stormwater pollution prevention plan which will include best management practices (BMPs) to minimize contamination of stormwater generated at the site. Catch basin and treatment vault StormFilters will provide multimedia filtration and screening treatment for stormwater. The detention ponds will also provide settling prior to discharge via micropools designed with a volume equal to 10% of the calculated 24-hour design storm. Stormwater generated in Basin 1 will drain through the north treatment vault and north detention pond and will be discharged through Outfall 001B to the Mint Farm Phase 1 Wetland Complex. Stormwater generated in Basin 3 will drain through the south treatment vault, treatment catch basins, and the south detention pond and will be discharged through Outfall 002B to CDID Ditch No. 5. Basin 3 includes the tank yard, where plant staff will manually release stormwater from the tank yard via a 12-inch plug valve after verifying that the stormwater is not contaminated. Basins 2 and 4 cannot be routed to the final detention basins due to elevation and will sheet flow to the City of Longview's storm system. This sheet flow volume has been accounted for in the design of the stormwater flow control system.

Divert will employ the following source control best management practices:

- Landscaping and lawn/vegetation management
- Maintenance of stormwater treatment systems
- Preventative maintenance/good housekeeping

5. Solid wastes

Divert will generate approximately 11,000 tons per year of dewatered sludge from the anaerobic digestion system. The sludge will have a typical solids concentration of 20% and is produced by centrifuge dewatering of solids. Flocculent polymer will be utilized in the centrifuge dewatering process with approximately 25,000 gallons of flocculent polymer needed per year. The sludge will be sent off-site as soil amendment. Divert will be required to have a solid waste control plan.

Divert has stated that no sludge will be generated from the pretreatment process.

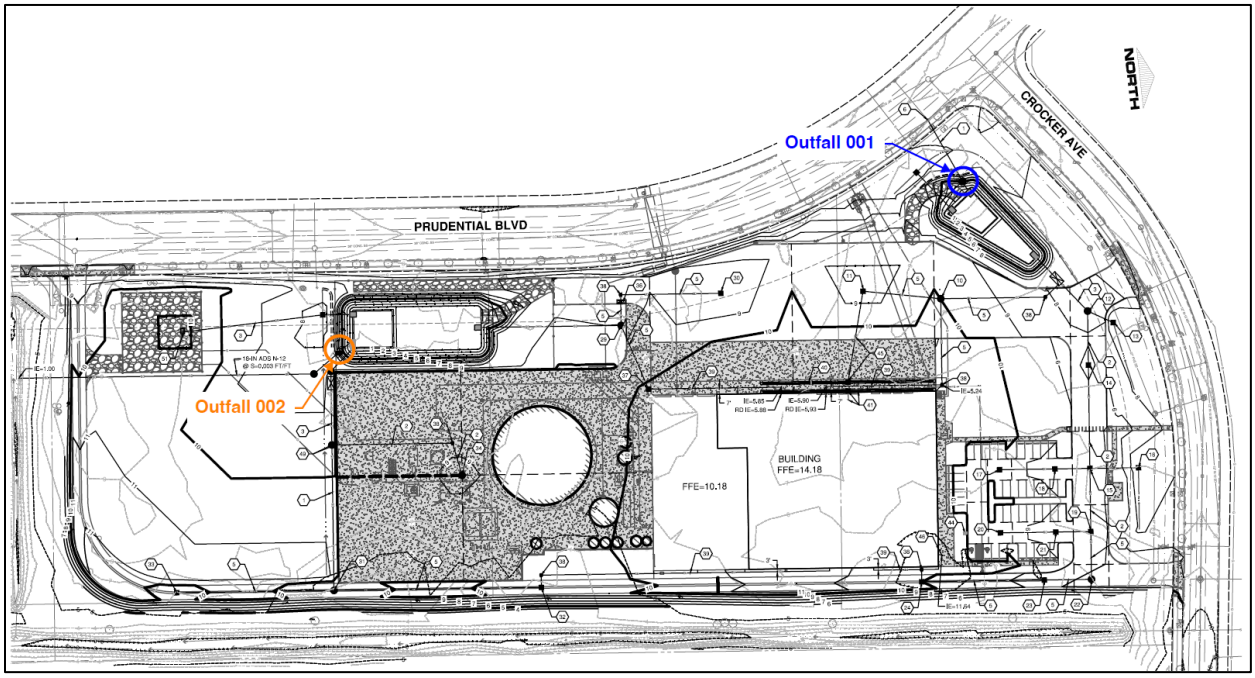
6. Discharge location and outfalls

Effluent from the pretreatment system and biogas condensate will be discharged into an 8-inch ASTM D3034 polyvinyl chloride (PVC) gravity pipeline that will then be tied into the 8-inch PVC gravity pipeline sewer main from the building's restroom and breakroom facilities. A single 8-inch PVC gravity sewer line will lead to a newly constructed 48-inch diameter concrete sewer manhole. Divert's discharge will enter the City of Longview's existing 36-inch gravity concrete sewer main at Prudential Boulevard right of way (ROW) that drains to City of Longview Manhole No. L40-17 and will flow to the Mint Farm Pump Station. The pump station has the hydraulic capacity to handle Divert's discharge. The final destination for Divert's process and domestic wastewater discharges is the TRWWA wastewater treatment plant.

Sampling and flow measurement of process wastewater will occur prior to combining with the domestic wastewater from the facility.

Stormwater will be discharged either through Outfall 001B to the Mint Farm Phase 1 Wetland Complex or through Outfall 002B to CDID Ditch No. 5. Stormwater discharge outfalls can be seen in Figure 5. Note that in the original permit application, Divert identified Outfall 001B as Outfall 001 and Outfall 002B as Outfall 002. Ecology added B to the end of each outfall number to meet the requirements of the Permit and Reporting Information System.

Figure 5 - Stormwater outfalls



II.B. Discharge location to TRRWA WWTP – Outfall 001A

The final destination for Divert's process and domestic wastewater discharges is the TRWWA wastewater treatment plant, a publicly owned treatment works (POTW). Sampling and monitoring of the pretreated wastewater will occur prior to comingling with any other wastewater onsite or offsite. Pretreated wastewater effluent will comingle with domestic wastewater and enter the City of Longview's sewer main at the Prudential Boulevard ROW which discharges to the Mint Farm Pump Station in the East Longview Sewer Service Area (ELSSA). Divert's facility is anticipated to increase the annual average daily flow from the ELSSA by approximately 1.4 percent and the maximum monthly average daily flow by approximately 0.8 percent. This minor increase is not expected to adversely impact the ability of the City's sewer conveyance system to convey flow to the regional treatment plant.

The current capacity of the TRRWA WWTP is 26 million gallons per day (MGD) for the maximum month design flow as established in their NPDES discharge permit (WA0037788). Based on the expected flows included in Divert's application and the flows reported by TRRWA from the past two years, Ecology does not expect the additional flow from Divert to adversely impact the capacity of the treatment plant. See Section III.C and Appendix D for more information.

TRRWA maintains the Three Rivers Regional Wastewater Authority Discharge Pretreatment Policy to meet Special Condition S6 of NPDES Permit No. WA003778. This policy is applicable to all users that discharge to the POTW and is to ensure that TRRWA complies with all applicable state and federal wastewater treatment

laws. The policy also establishes various requirements such as specific prohibitions, pretreatment standards, and local limits to protect the POTW from potential harm (interference, pass through, etc.) and to protect the POTW staff, collection systems staff, and the general public.

II.C. Description of the receiving water – Outfalls 001B and 002B

Divert proposes to discharge stormwater to CDID Ditch No. 5 and the Mint Farm Phase 1 Wetland Complex. The wetland eventually also discharges to CDID Ditch No. 5. Other nearby point source outfalls include several facilities covered under the Industrial Stormwater General Permit, Puget Sound Energy Mint Farm Generating Station, Nippon Dynawave, Solvay Chemicals, Inc., Northwest Alloys, Inc. - Longview, and Weyerhaeuser NR Company. Significant nearby non-point sources of pollutants include urban stormwater runoff. Divert sits within the Mint Farm Wellhead Protection Program area. Section III.F of this fact sheet describes any receiving waterbody impairments.

The ambient background data used for this permit includes the following from the Receiving Water Study for Solvay Chemicals (Windward Environmental LLC, 2022):

Table 5 - Ambient background data

Parameter	Value
Temperature (highest annual 1-DMax)	19.5 °C
pH (Maximum)	8 standard units (SU)
pH (Minimum)	6.6 SU
Dissolved Oxygen (90th percentile) [a]	7.3 mg/L
Conductivity (90th percentile) [a]	384 µmhos/cm
Total Ammonia-N (90th percentile) [a]	0.33 mg/L
Turbidity (Average)	37 NTU
Hardness (Minimum) [b]	83.2 mg/L as CaCO3
Calcium (90th percentile) [a]	33.5 mg/L
Chloride (90th percentile) [a]	14.8
Iron (90th percentile) [a]	14.7 mg/L
Magnesium (90th percentile) [a]	15.2 mg/L
Total Suspended Solids (TSS) (90th percentile) [a]	33.3 mg/L

Footnote:

a The geometric mean of the receiving water values at the time of critical condition is multiplied by a factor of 1.74 to estimate the 90th.

b The minimum used is the minimum hardness value during wet weather months when there is expected rainfall to occur.

II.D. Wastewater and stormwater characterization

Divert reported the expected concentration of pollutants in the proposed discharge in the permit application. The tabulated data represents the quality of the pretreated

wastewater effluent based on data from existing analogous Divert facilities and performance expectations and guarantees provided by the pretreatment technology supplier. The wastewater effluent is characterized as follows:

Table 6 - Pretreated wastewater characterization

Parameter	Units	Basis for expected concentration	Average value	Maximum value
Biochemical Oxygen Demand (BOD_5)	mg/L	Performance guarantee	150	350
Total Suspended Solids (TSS)	mg/L	Performance guarantee	300	350
Chemical Oxygen Demand (COD)	mg/L	Performance guarantee	500	1100
Total Dissolved Solids (TDS)	mg/L	Analogous facility	4770	4900
Ammonia as N	mg/L	Performance guarantee	30	44
Nitrate/nitrite	µg/L	Performance guarantee	50,000	100,000
Total Kjeldahl Nitrogen	µg/L	Performance guarantee	30,000	44,000
Ortho-phosphate-P as P	µg/L	Analogous facility	27,000	44,000
Total Phosphorous as P	µg/L	Analogous facility	-	47,000
Total Oil and Grease	mg/L	Analogous facility	2.8	4.6
Calcium	µg/L	Analogous facility	328,970	645,000
Chloride	µg/L	Analogous facility	1,454,000	1,820,000
Magnesium	µg/L	Analogous facility	65,800	83,000
Potassium	µg/L	Analogous facility	1,309,000	1,388,000
Sodium	µg/L	Analogous facility	522,600	605,600
Barium (total)	µg/L	Analogous facility	70	178
Copper (total)	µg/L	Analogous facility	140	370
Lead (total)	µg/L	Analogous facility	23	70
Molybdenum (total	µg/L	Analogous facility	10	30

Parameter	Units	Basis for expected concentration	Average value	Maximum value
Nickel (total)	µg/L	Analogous facility	7	20
Selenium (total)	µg/L	Analogous facility	23	70
Silver (total)	µg/L	Analogous facility	7	20
Zinc (total)	µg/L	Analogous facility	580	1,430

Table 7 - Pretreated wastewater characterization - pH

Parameter	Units	Basis for expected concentration	Minimum value	Maximum value
pH	SU	Performance guarantee	7	8.5

Divert claims that the metals detected in the analogous facility effluent are present due to their presence in food products.

Divert reported the expected concentration of pollutants in the proposed stormwater discharge in the permit application. The tabulated data represents the quality of the stormwater based on data from existing facilities covered under the Industrial Stormwater General Permit that are either unclassified or have a similar SIC code, and from literature. Divert reported the same characterization information for Outfalls 1 and 2. The stormwater is characterized as follows:

Table 8 - Stormwater characterization

Parameter	Units	Basis for expected concentration	Average value	Maximum value
Oil and Grease	mg/L	Note 1	5.0	46.8
Biochemical Oxygen Demand (BOD_5)	mg/L	Note 1	15	90
Total Suspended Solids (TSS)	mg/L	Note 2	27	88
Total Phosphorous	mg/L	Note 1	0.1	0.18
Total Kjeldahl Nitrogen (TKN)	mg/L	Note 3	-	-
Total Nitrogen	mg/L	Note 1	0.3	2.4

Table 9 - Stormwater characterization - pH

Parameter	Units	Basis for expected concentration	Minimum value	Maximum value
pH	SU	Note 4	5.2	9.71

Notes:

1- Data source for oil and grease, BOD_5, total phosphorous, and total nitrogen is the Fact Sheet for the 2010-2015 Industrial Stormwater General Permit, which contains stormwater characterization tables by industrial groups. Data was taken from Table 24: Effluent Characterization for Uncategorized Facilities- Data from 26 facilities.

2- Data source for TSS is the Fact Sheet for the 2020 Industrial Stormwater General Permit, which contains statistical summaries of data submitted by facilities covered by from 2015-2018. Data was taken from Table 4: Effluent Limitations Applicable to Non-Hazardous Waste Landfills.

3- Data source for TKN is the Fact sheet EnviroAtlas, which was led by EPA, July 2020. According to the document, the only known source for TKN at Divert would be small traces of vehicle exhaust in the parking lot. Divert does not expect to find TKN in the stormwater discharge.

4- Data source for pH is Appendix C of the Fact Sheet for the 2020 Industrial Stormwater General Permit which contains statistical summaries of data submitted by facilities covered from 2015-2018. Data was taken from Table C-20: Summary Statistics for DMR Results from 2015 through 2018 for the Treatment Works and Landfills Category (SIC Codes 4952 and 4953).

Divert stated that because there is no established COD:BOD ratio, Divert cannot provide an accurate number for expected COD in the stormwater.

II.E. State environmental policy act (SEPA) compliance

To meet the intent of SEPA, new discharges must undergo SEPA review during the permitting process. The facility filed a SEPA checklist with the City of Longview on August 10, 2022, and the City of Longview issued a final determination of non-significance for the project on November 8, 2022.

III. Proposed permit limits

Federal and state regulations require that Ecology base limits in an NPDES permit on:

- Technology: Technology-based limits are based upon the treatment methods available to treat specific pollutants. Technology-based limits are set by the EPA and published as a regulation, or Ecology develops the limit on a case-by-case basis (40 CFR 125.3, and chapter 173-220 WAC). Discharges must treat wastewater using all known, available, reasonable methods of prevention, control, and treatment (AKART).
- Water Quality: Water quality-based limits are calculated so that the effluent will comply with the Surface Water Quality Standards (chapter 173-201A WAC), Ground Water Standards (chapter 173-

200 WAC), Sediment Quality Standards (chapter 173-204 WAC), or the Federal Water Quality Criteria Applicable to Washington (40 CFR 131.45).

- Effects of the pollutants on the publicly-owned treatment works (POTW). Wastewater must not interfere with the operations 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, 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, are not listed in regulation, and do not have a reasonable potential to cause a water quality violation.

Ecology does not usually develop limits for pollutants not reported in the permit application but may be present in the discharge. The permit does not authorize 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 [40 CFR 122.42(a)]. Until Ecology modifies the permit to reflect additional discharge of pollutants, a permitted facility could be violating its permit.

III.A. Design criteria

Under WAC 173-216-110(4) and WAC 173-220-150(1)(g), flows and waste loadings must not exceed approved design criteria. Ecology approved this facility's engineering report in July 2024. Some design criteria are presented in Section II.A. The table below includes design criteria from the referenced report relevant to the permit.

Table 10 - Design criteria for pretreated wastewater

Parameter	Design quantity
Maximum Daily Flow	105,000 gallons per day

Ecology uses the flow data submitted in the application to set permit fees. This flow data is reflected in the engineering report as the design criteria. Divert must report to Ecology when actual flows exceed the values reported on the permit application.

III.B. Technology-based effluent limits

Ecology must ensure that facilities provide all known, available, and reasonable methods of prevention, control, and treatment (AKART) when it issues a permit.

Technology-based effluent limits and AKART requirements for the discharge of pretreated wastewater and stormwater are described further in the sections below.

1. Pretreated process wastewater – Outfall 001A

No existing federal categorical limits apply to Divert; therefore, only the general pretreatment standards apply to the discharge from Divert to TRRWA, a publicly owned treatment works. Pretreatment standards applicable to Divert are found in 40 CFR Part 403 and chapter 173-216 WAC.

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 Divert wastewater facility titled Divert Inc. Integrated Food Recovery Facility Longview, Washington Wastewater Engineering Report, approval dated July 8, 2024, and prepared by Gibbs & Olson. Ecology determined the facility meets the minimum requirements demonstrating compliance with the AKART standard and federal effluent guidelines if Divert operates the treatment and disposal system as described in the approved engineering report and any subsequent Ecology approved reports. Divert designed the pretreatment system to meet the local limits imposed by TRRWA (see Section III.C). Divert reported the expected pretreated wastewater effluent concentrations for ammonia BOD_5, and TSS in the permit application as performance expectations and guarantees provided by the pretreatment technology supplier. These design values are incorporated into the proposed permit as technology based effluent limits for the pretreated wastewater.

Table 11 - Technology-based limits, pretreated wastewater

Parameter	Maximum daily limit
Ammonia as N	44 mg/L
Biochemical Oxygen Demand (BOD_5)	350 mg/L
Total Suspended Solids (TSS)	350 mg/L

Table 12 - Technology-based limits, pretreated wastewater, pH

Parameter	Daily minimum	Daily maximum
pH	5.0 standard units	11.0 standard units

2. Stormwater – Outfalls 001B and 002B

EPA interpreted the Clean Water Act to allow best management practices (BMPs) to take the place of numeric effluent limitations under certain circumstances. 40 CFR 122.44(k) provides that permits may include BMPs to control or abate the discharges of pollutants when "[a]uthorized under section 402(p) of the CWA for the control of stormwater discharges" or when "[n]umeric effluent limitations are infeasible." EPA's authority to impose non-numeric technology-based effluent limits has been upheld in multiple court cases, including *Citizens Coal Council v. United States Environmental Protection Agency*, 447 F3d 879, 895-96 (6th Cir. 2006) and *Waterkeeper Alliance, Inc. v. EPA*, 399 F.3d 486, 502 (2d Cir. 2005). Additionally, the U.S. Court of Appeals for the Sixth Circuit cited in the Citizens Coal court *Natural Res. Def. Council, Inc. v. EPA*, 673 F.2d 400, 403 (D.C.Cir.1982), noting that "section 502(11) [of the CWA] defines 'effluent limitation' as 'any restriction' on the amounts of pollutants discharged, not just a numerical restriction."

Stormwater discharges can be highly intermittent and are usually characterized by very high flows occurring over relatively short time intervals. The source, nature, and extent of pollutants in stormwater also varies. This is in contrast to process wastewater discharges from a particular industrial or commercial facility where effluent is more predictable and can be more effectively analyzed to develop numeric effluent limitations.

The proposed permit includes technology based effluent limitations for stormwater discharge expressed as specific pollution prevention requirements for minimizing the pollutant levels in stormwater discharges. These requirements represent AKART and the best technology available and economically practicable and achievable controls.

Ecology has determined that the combination of pollution prevention approaches and structural management practices required by these limits are the most practical and environmentally sound way to control the discharge of pollutants in stormwater runoff.

In order to evaluate the effectiveness of BMPs in stormwater discharges, Ecology implements benchmarks with associated corrective action requirements for a selected set of parameters. These representative parameters are pH, turbidity, total zinc, total copper, and oil and grease. Ecology selected these parameters to reasonably indicate the overall effectiveness of the facility's BMPs to reduce and prevent stormwater discharges that could cause a violation of water quality

standards. These benchmarks and associated corrective action requirements are implemented as non-numeric technology based effluent limits.

Using best professional judgment, the proposed permit includes benchmarks and associated corrective action requirements for turbidity, total zinc, total copper, and oil and grease. An exceedance of a benchmark requires corrective actions. The benchmark values selected are based on the ISGP benchmarks for western Washington.

Table 13 - Benchmarks, stormwater

Parameter	Units	Benchmark Value
Turbidity	Nephelometric turbidity unit (NTU)	25
Oil Sheen	Yes/No	No visible oil sheen
Copper, total	µg/L	14
Zinc, total	µg/L	117

Table 14 - Benchmarks, stormwater - pH

Parameter	Daily minimum benchmark	Daily maximum benchmark
pH	5.0 standard units	9.0 standard units

Since benchmark values are not numeric effluent limits, discharges that exceed a benchmark value are not considered a permit violation or a violation of water quality standards. Rather, a benchmark exceedance triggers corrective action. Corrective action is implemented through three levels of responses: Level 1, 2, and 3. Each level is dependent on the number of times a benchmark for a single parameter has been exceeded. The levels require escalating corrective action.

- Level 1 corrective actions include reviewing the facility's stormwater pollution prevention plan (SWPPP) and consideration of operational source control BMPs.
- Level 2 corrective actions include reviewing the facility's SWPPP and consideration of structural source control BMPs.
- Level 3 corrective actions include reviewing the facility's SWPPP and consideration of treatment BMPs.

III.C. Effluent limits based on local limits – Outfall 001A

To protect TRRWA's wastewater treatment plant and the City of Longview's sewer collection system 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 TRRWA and codified in ordinance. Ecology's pretreatment program delegation agreement with EPA includes language in which Ecology agreed to enforce limits adopted by non-

delegated programs (local limits). Applicable limits for this discharge include the following:

Table 15 - Limits based on Local Limits - pH

Parameter	Daily minimum	Daily maximum
pH	6.0 standard units	9.0 standard units

Ecology reviewed the expected hydraulic loading rates and expected organic and solids loading rates from Divert to TRRWA wastewater treatment plant. Based on the expected flows and expected maximum loading rates included in Divert's application and the flows and loading at TRRWA from the past two years, Ecology has determined that additional limits for flow, BOD_5, and TSS are not necessary at this time to protect the receiving treatment plant. See Appendix D for the calculations. Divert designed their pretreatment system to meet TRRWA's local limits for ammonia, BOD_5, and TSS. These performance expectations and guarantees are incorporated into the proposed permit as technology based effluent limits that also meet the local limits.

III.D. Surface water quality-based effluent limits – Outfalls 001B and 002B

The Washington State surface water quality standards (chapter 173-201A WAC) are designed to protect existing water quality and preserve the beneficial uses of Washington's surface waters. Waste discharge permits must include conditions that ensure the discharge will meet the surface water quality standards (WAC 173-201A-510). Water quality-based effluent limits may be based on an individual waste load allocation or on a waste load allocation developed during a basin wide total maximum daily load study (TMDL).

1. Numeric criteria for the protection of aquatic life and recreation

Numeric water quality criteria are listed in the water quality standards for surface waters (chapter 173-201A WAC). They specify the maximum levels of pollutants allowed in receiving water to protect aquatic life and recreation in and on the water. Ecology uses numerical criteria along with chemical and physical data for the wastewater and receiving water to derive the effluent limits in the discharge permit. When surface water quality based limits are more stringent or potentially more stringent than technology-based limits, the discharge must meet the water quality-based limits.

2. Numeric criteria for the protection of human health

Numeric criteria for the protection of human health are promulgated in Chapter 173-201A WAC and 40 CFR 131.45. These criteria are designed to protect human health from exposure to pollutants linked to cancer and other diseases, based on consuming fish and shellfish and drinking contaminated surface waters.

The water quality standards also include radionuclide criteria to protect humans from the effects of radioactive substances.

3. Narrative criteria

Narrative water quality criteria (e.g., WAC 173-201A-240(1)) limit the toxic, radioactive, or other deleterious material concentrations that the facility may discharge to levels below those which have the potential to:

- Adversely affect designated water uses.
- Cause acute or chronic toxicity to biota.
- Impair aesthetic values.
- Adversely affect human health.

Narrative criteria protect the specific designated uses of all fresh waters (WAC 173-201A-200) and of all marine waters (WAC 173-201A-210) in the state of Washington.

4. Antidegradation

The purpose of Washington's Antidegradation Policy (WAC 173-201A-300 through -330) is to:

- Restore and maintain the highest possible quality of the surface waters of Washington.
- Describe situations under which water quality may be lowered from its current condition.
- Apply to human activities that are likely to have an impact on the water quality of surface water.
- Ensure that all human activities likely to contribute to a lowering of water quality, at a minimum, apply all known, available, and reasonable methods of prevention, control, and treatment (AKART).
- Apply three tiers of protection (described below) for surface waters of the state.

Tier I: ensures existing and designated uses are maintained and protected and applies to all waters and all sources of pollutions.

Tier II: ensures that waters of a higher quality than the criteria assigned are not degraded unless such lowering of water quality is necessary and in the overriding public interest. Tier II applies only to a specific list of polluting activities.

Tier III: prevents the degradation of waters formally listed as "outstanding resource waters," and applies to all sources of pollution.

A facility must prepare a Tier II analysis when all three of the following conditions are met:

- The facility is planning a new or expanded action.
- Ecology regulates or authorizes the action.
- The action has the potential to cause measurable degradation to existing water quality at a point outside the source area, after allowing for mixing (if applicable).

Facility specific requirements – As discussed below, Ecology conservatively determined that this facility must meet Tier II requirements based on uncertainty around the third bullet in the list above. A Tier II analysis focuses on evaluating feasible alternatives that would eliminate or significantly reduce the level of degradation. The analysis also includes a review of the benefits and costs associated with the lowering of water quality. New discharges and facility expansions are prohibited from lowering water quality without providing overriding public benefits.

Divert submitted a Tier II Analysis for the proposed discharge of stormwater to CDID Ditch No. 5 and to the Mint Farm Phase 1 Wetland Complex. Divert made the conservative determination that while there is no direct evidence that the stormwater to be discharged will degrade the water quality within the receiving water, there is a potential for degradation. Divert elected to perform an analysis to assist in an overriding public interest (OPI) determination. Divert included the following information to be considered by Ecology to make the OPI determination:

- Economic benefits in the form of 28-34 new onsite jobs and 22 transport jobs.
- Diversion of approximately 100,000 tons of unsold food products per year from being landfilled. This contributes toward organic waste reduction mandates set forth in Washington's Organics Management Laws (HB2301 enacted in early 2024 and HB1799 enacted in 2022). It also contributes toward greenhouse gas emission reduction goals in Washington's Climate Commitment Act that went into effect on January 1, 2023.
- Use of innovative pollution control and management approaches for stormwater such as micropools in stormwater detention ponds. The City of Longview requested the use of micropools for improved sediment removal in stormwater discharged from the area. This treatment feature has not typically been included in detention pond design and can be considered an innovative sediment removal control approach.

- Beyond stormwater treatment, Divert will also use and demonstrate innovative pollution control and management approaches related to organic waste by utilizing food product analytics to help large food waste generators identify sources and causes of unsold food and eliminate it. For example, data that originates from Divert will help food retailers become more efficient at sourcing, purchasing, and managing food products, which in turn lowers the consumer cost of goods. It can also help them recognize and target missed opportunities for food donation and improve their donation targets with local food banks, which in turn helps communities address food insecurity.
- Prevention/remediation of environmental or public health threats through the estimated energy recovery of 212 billion Btu per year from unsold food waste and reduction of greenhouse gas emissions by diverting organic waste from landfills and recovering it as RNG and soil amendments.
- Specific stormwater pollution prevention measures such as flow control, filters, and detention. Divert will also utilize ongoing operational source control for potential stormwater pollution through a site-specific Stormwater Pollution Prevention Plan and Spill Prevention, Containment and Countermeasure Plan. These plans will be continuously monitored for effectiveness and updated as necessary to assist in minimizing the potential for stormwater discharged from the facility to adversely impact water quality in the receiving water.

Based on this, Divert claims that receiving water quality degradation, if any, is anticipated to be minimal and the completed facility has demonstrated OPI in the unlikely event that the discharge of stormwater from the completed project will lower water quality. The full Tier II Anti-Degradation Analysis conducted by Divert and Gibbs & Olson can be found in Appendix F. Ecology's denial of the discharge of stormwater would mean that the facility would not be able to operate. TRRWA's pretreatment policy and the proposed permit prohibit the discharge of stormwater to TRRWA's WWTP. Ecology has therefore determined that there is overriding public interest in allowing the discharge of stormwater to CDID Ditch No. 5 and the Mint Farm Phase 1 Wetland Complex.

5. Mixing zones

A mixing zone is the defined area in the receiving water surrounding the discharge port(s), where wastewater mixes with receiving water. Within mixing zones the pollutant concentrations may exceed water quality numeric standards, so long as the discharge doesn't interfere with designated uses of the receiving water body (for example, recreation, water supply, and aquatic life and wildlife habitat, etc.) The pollutant concentrations outside of the mixing zones must meet water quality numeric standards.

State and federal rules allow mixing zones because the concentrations and effects of most pollutants diminish rapidly after discharge, due to dilution. Ecology defines mixing zone sizes to limit the amount of time any exposure to the end-of-pipe discharge could harm water quality, plants, or fish.

The state's water quality standards allow Ecology to authorize mixing zones for the facility's permitted wastewater discharges only if those discharges already receive all known, available, and reasonable methods of prevention, control, and treatment (AKART). Mixing zones typically require compliance with water quality criteria within a specified distance from the point of discharge and must not use more than 25% of the available width of the water body for dilution (WAC 173-201A-400 (7)(a)(ii-iii)).

Ecology uses modeling to estimate the amount of mixing within the mixing zone. Through modeling Ecology determines the potential for violating the water quality standards at the edge of the mixing zone and derives any necessary effluent limits. Steady-state models are the most frequently used tools for conducting mixing zone analyses. Ecology chooses values for each effluent and for receiving water variables that correspond to the time period when the most critical condition is likely to occur. Each critical condition parameter, by itself, has a low probability of occurrence and the resulting dilution factor is conservative. The term "reasonable worst-case" applies to these values.

The mixing zone analysis produces a numerical value called a dilution factor (DF). A dilution factor represents the amount of mixing of effluent and receiving water that occurs at the boundary of the mixing zone. For example, a dilution factor of 4 means the effluent is 25% and the receiving water is 75% of the total volume of water at the boundary of the mixing zone. Ecology uses dilution factors with the water quality criteria to calculate reasonable potentials and effluent limits. Water quality standards include both aquatic life-based criteria and human health-based criteria. The former are applied at both the acute and chronic mixing zone boundaries; the latter are applied only at the chronic boundary. The concentration of pollutants at the boundaries of any of these mixing zones may not exceed the numerical criteria for that zone.

Each aquatic life acute criterion is based on the assumption that organisms are not exposed to that concentration for more than one hour and more often than one exposure in three years. Each aquatic life chronic criterion is based on the assumption that organisms are not exposed to that concentration for more than four consecutive days and more often than once in three years.

The two types of human health-based water quality criteria distinguish between those pollutants linked to non-cancer effects (non-carcinogenic) and those linked to cancer effects (carcinogenic). The human health-based water quality criteria incorporate several exposure and risk assumptions. These assumptions include:

- A 70-year lifetime of daily exposures.
- An ingestion rate for fish or shellfish measured in kg/day.
- An ingestion rate of two and four tenths (2.4) liters/day for drinking water (increased from two liters/day in the 2016 Water Quality Standards update).
- A one-in-one-million cancer risk for carcinogenic chemicals.

This permit does not authorize a mixing zone. The Permittee may submit a mixing zone study, for Ecology's consideration, to evaluate whether or not a mixing zone is warranted for the discharge. If considering conducting and submitting a study the Permittee should discuss the applicable requirements with Ecology.

III.E. Designated uses and surface water quality criteria – Outfalls 001B and 002B

Applicable designated uses and surface water quality criteria are defined in chapter 173-201A WAC. The table included below summarizes the criteria applicable to this facility's discharge.

1. Freshwater aquatic life uses and associated criteria

Aquatic life uses are designated based on the presence of, or the intent to provide protection for the key uses. All indigenous fish and non-fish aquatic species must be protected in waters of the state in addition to the key species. The aquatic life uses for this receiving water are identified below.

Table 16 - Salmonid spawning, rearing, and migration

Criteria	Value
Temperature – Highest 7-DAD MAX	17.5°C (63.5°F)
Dissolved oxygen – Lowest 1-Day minimum	8.0 mg/L
Turbidity	5 NTU over background when the background is 50 NTU or less; or A 10 percent increase in turbidity when the background turbidity is more than 50 NTU.
Total dissolved gas	Total dissolved gas must not exceed 110 percent of saturation at any point of sample collection.
pH	The pH must measure within the range of 6.5 to 8.5 with a human-caused variation within the above range of less than 0.5 units.

2. Recreational use and criteria

The recreational use for this receiving water is primary contact recreation. *E.coli* organism levels must not exceed a geometric mean value of 100 CFU or MPN per 100 mL, with not more than 10 percent of all samples (or any single sample when less than ten sample points exist) obtained within the averaging period exceeding 320 CFU or MPN per 100 mL.

3. Water supply uses
The water supply uses are domestic, agricultural, industrial, and stock watering.

4. Miscellaneous freshwater uses
The miscellaneous freshwater uses are wildlife habitat, harvesting, commerce and navigation, boating, and aesthetics.

III.F. Water quality impairments – Outfalls 001B and 002B

CDID Ditch No. 5 is listed on the current 303(d) and is impaired for dissolved oxygen as part of the Longview Ditches (Listing ID: 7787). Ecology has not developed a Total Maximum Daily Load (TMDL) to date for CDID Ditch No. 5. Divert's proposed stormwater discharge to CDID Ditch No. 5 is not expected to contribute to oxygen depletion in the water. Further discussion can be found in Section III.H. Evaluation of surface water quality-based effluent limits for numeric criteria.

III.G. Evaluation of surface water quality-based effluent limits for narrative criteria – Outfalls 001B and 002B

Ecology must consider the narrative criteria described in WAC 173-201A-260 when it determines permit limits and conditions. Narrative water quality criteria limit the toxic, radioactive, or other deleterious material concentrations that the facility may discharge which have the potential to adversely affect designated uses, cause acute or chronic toxicity to biota, impair aesthetic values, or adversely affect human health.

Ecology considers narrative criteria when it evaluates the characteristics of the wastewater and when it implements all known, available, and reasonable methods of treatment and prevention (AKART) as described above in the technology-based limits section. When Ecology determines if a facility is meeting AKART it considers the pollutants in the wastewater and the adequacy of the treatment to prevent the violation of narrative criteria.

In addition, Ecology considers the toxicity of the wastewater discharge by requiring whole effluent toxicity (WET) testing when there is a reasonable potential for the discharge to contain toxics. Ecology's analysis of the need for WET testing for this discharge is described later in the fact sheet.

III.H. Evaluation of surface water quality-based effluent limits for numeric criteria – Outfalls 001B and 002B

1. Mixing zones and dilution factors
Ecology has not authorized a mixing zone in the permit.

2. Dissolved oxygen: BOD_5 and ammonia effects
Natural decomposition of organic material in wastewater effluent impacts dissolved oxygen in the receiving water at distances far outside of the regulated mixing zone. The 5-day Biochemical Oxygen Demand (BOD_5) of an effluent sample indicates the amount of biodegradable material in the wastewater and

estimates the magnitude of oxygen consumption the wastewater will generate in the receiving water. The amount of ammonia-based nitrogen in the wastewater also provides an indication of oxygen demand in the receiving water.

CDID Ditch No. 5 is listed on the current 303(d) and is impaired for dissolved oxygen as part of the Longview Ditches. Low dissolved oxygen impairments are typically seasonal with greater impacts observed during the summer months, while stormwater discharges in Washington commonly occur from October through April. Low dissolved oxygen impairments are typically attributed to:

- Heavy loading of nutrients (e.g., nitrogen or phosphorus) that cause excessive algae and plant growth, the decay of which depletes oxygen levels in the summertime (eutrophication), or
- Excessive discharges of wastewater or other substances with high biochemical oxygen demand, which has a “far field” effect. This means that the demand for oxygen doesn’t occur directly where the effluent or runoff water is discharged, rather it occurs somewhere downstream where decomposition finally occurs. This can make it difficult to show a direct relationship between the discharge of oxygen demanding substance and a low dissolved oxygen problem without site-specific water quality monitoring.

Because of this, numeric water quality based effluent limits for BOD_5 are not applicable to stormwater only discharges to 303(d) listed waterbodies for dissolved oxygen.

3. pH

Extremes in pH are toxic to fish and unsuitable for groundwater used as a drinking water source. Rainfall is typically slightly acidic as it hits the ground, but buffers quickly, achieving near neutral pH. Stormwater discharges with significantly higher or lower pH values strongly indicate that the stormwater has been contaminated. The proposed permit includes benchmarks with associated corrective actions for pH to address this potential.

Ecology predicts no violation of the pH criteria under critical conditions for the discharge of stormwater. The proposed permit includes monitoring for parameters related to the mixing of pH in the receiving water as a result of stormwater discharges.

4. Turbidity

Because there has been no discharge of stormwater at the facility, the proposed permit includes requirements for Divert to conduct periodic sampling of the stormwater for turbidity. Ecology may modify the proposed permit if reasonable potential to exceed the surface water quality criteria for turbidity is found after monitoring is completed. The proposed permit includes benchmarks with

associated corrective action requirements for turbidity as a technology based effluent limit.

5. Toxic pollutants

Federal regulations (40 CFR 122.44) require Ecology to place limits in NPDES permits on toxic chemicals in an effluent whenever there is a reasonable potential for those chemicals to exceed the surface water quality criteria. Ecology does not exempt facilities with technology-based effluent limits from meeting the surface water quality standards.

Because there has been no discharge of stormwater at the facility, the proposed permit includes requirements for Divert to conduct additional sampling of the stormwater for toxic pollutants commonly associated with industrial stormwater (metals, pesticides, etc.). Since water quality criteria for toxic pollutants such as copper and zinc are hardness based, the proposed permit also includes additional monitoring for hardness. Ecology may modify the proposed permit if reasonable potential to exceed the surface water quality criteria for toxic pollutants is found after monitoring is completed.

As discussed above, Ecology evaluated technology based effluent limits through the use of benchmarks with associated corrective action requirements for copper and zinc, two common stormwater toxic pollutants. Ecology also evaluated if the calculated technology based effluent limits would be protective of the receiving water. To do this, Ecology conservatively calculated acute aquatic life water quality criteria for copper and zinc using the minimum hardness measured in CDID Ditch No. 5 during wet weather months. According to the Receiving Water Study for Solvay Chemicals (Windward Environmental LLC, 2022), hardness in CDID Ditch No. 5 varies throughout the year. During the wet-weather months, the hardness varied in the ditch between 83.2 and 99.2 mg/L as $CaCO_3$. Conservatively using 83.2 mg/L as $CaCO_3$ as the hardness, Ecology calculated the following acute aquatic life water quality criteria for CDID Ditch No. 5:

Table 17 - Hardness based acute aquatic life criteria for CDID Ditch No. 5

Parameter	Units	Acute Aquatic Life Criteria with hardness of 83.2 mg/L $CaCO_3$
Copper, total	µg/L	14.3
Zinc, total	µg/L	97.9

Discharges with copper and zinc concentrations below the conservatively calculated acute aquatic life criteria in the table above are not expected to cause or contribute to an exceedance of the water quality criteria. Therefore, on the basis of best professional judgement, the following benchmarks and associated corrective action requirements are implemented as non-numeric water quality based effluent limits in the proposed permit.

Table 18 - Benchmarks, stormwater

Parameter	Units	Benchmark Value
Copper, total	µg/L	14.3
Zinc, total	µg/L	97.9

Since benchmark values are not numeric effluent limits, discharges that exceed a benchmark value are not considered a permit violation or a violation of water quality standards. Rather, a benchmark exceedance triggers corrective action. Corrective action is implemented through three levels of responses: Level 1, 2, and 3. Each level is dependent on the number of times a benchmark for a single parameter has been exceeded. The levels require escalating corrective action.

- Level 1 corrective actions include reviewing the facility's stormwater pollution prevention plan (SWPPP) and consideration of operational source control BMPs.
- Level 2 corrective actions include reviewing the facility's SWPPP and consideration of structural source control BMPs.
- Level 3 corrective actions include reviewing the facility's SWPPP and consideration of treatment BMPs.

6. Temperature

The state temperature standards (WAC 173-201A, WAC 173-201A-200, WAC 173-201A-600, and WAC 173-201A-602) include multiple elements:

- Annual summer maximum threshold criteria (June 15 to September 15)
- Supplemental spawning and rearing season criteria (September 15 to June 15)
- Incremental warming restrictions
- Guidelines on preventing acute lethality and barriers to migration of salmonids

Ecology evaluates each criterion independently to determine reasonable potential and derive permit limits.

a. Annual summer maximum and supplementary spawning/rearing criteria

Each water body has an annual maximum temperature criterion [WAC 173-201A-200(1)(c), and WAC 173-201A-602, Table 602]. These threshold criteria (e.g., 12, 16, 17.5, 20°C) protect specific categories of aquatic life by controlling the effect of human actions on summer temperatures.

Some waters have an additional threshold criterion to protect the spawning and incubation of salmonids (9°C for char and 13°C for salmon and trout) [WAC 173-201A-602, Table 602]. These criteria apply during specific date-windows.

The threshold criteria apply at the edge of the chronic mixing zone (when authorized). Criteria for most fresh waters are expressed as the highest 7-Day average of daily maximum temperature (7-DADMax). The 7-DADMax temperature is the arithmetic average of seven consecutive measures of daily maximum temperatures. Criteria for some fresh waters are expressed as the highest 1-Day annual maximum temperature (1-DMax).

b. Incremental warming criteria

The water quality standards limit the amount of warming human sources can cause under specific situations [WAC 173-201A-200(1)(c)(i)-(ii)]. The incremental warming criteria apply at the edge of the chronic mixing zone (when authorized).

At locations and times when background temperatures are cooler than the assigned threshold criterion, point sources are permitted to warm the water by only a defined increment. These increments are permitted only to the extent doing so does not cause temperatures to exceed either the annual maximum or supplemental spawning criteria.

c. Guidelines to prevent acute lethality or barriers to migration of salmonids. These site-level considerations do not override the temperature criteria listed above.
   i. Instantaneous lethality to passing fish: The upper 99th percentile daily maximum effluent temperature must not exceed 33°C, unless a dilution analysis indicates ambient temperatures will not exceed 33°C two seconds after discharge.
   ii. General lethality and migration blockage: The temperature at the edge of a chronic mixing zone must not exceed either a 1DMax of 23°C or a 7DADMax of 22°C. When adjacent downstream temperatures are 3°C or more cooler, the 1DMax at the edge of the chronic mixing zone must not exceed 22°C.
   iii. Lethality to incubating fish: The temperature must not exceed 17.5°C at locations where eggs are incubating.

Reasonable potential analysis

Divert only discharges treated stormwater to surface water. Ecology has determined that temperature is not a significant stormwater pollutant parameter. Therefore, the proposed permit does not include a temperature limit, and it does not require the facility to monitor temperature in the stormwater discharges. Ecology may elect to develop procedures and guidance for regulating the effects of stormwater to comply with temperature water quality criteria in the future.

III.I. Human health – Outfalls 001B and 002B

Washington's water quality standards include numeric human health-based criteria for priority pollutants that Ecology must consider when writing NPDES permits.

Ecology determined the applicant's stormwater discharge is unlikely to contain chemicals regulated to protect human health. Stormwater discharges are highly intermittent and highly variable in discharge volumes, durations, and pollutant concentrations, both between storms and during a single storm event. Therefore, evaluating reasonable potential and deriving numeric effluent limits for human health criteria is infeasible. Based on the authority of 40 CFR 122.44(k)(3)32, the proposed permit requires the implementation of BMPs within the Stormwater Pollution Prevention Plan (SWPPP) to control or abate human health pollutants present in these discharges (See Section V.I. Stormwater pollution prevention plan).

III.J. Sediment quality – Outfalls 001B and 002B

The aquatic sediment standards (chapter 173-204 WAC) protect aquatic biota and human health. Under these standards Ecology may require a facility to evaluate the potential for its discharge to cause a violation of sediment standards (WAC 173-204-400). You can obtain additional information about sediments at the Aquatic Lands Cleanup Unit website[1].

Through a review of the discharger characteristics and of the effluent characteristics, Ecology determined that this discharge has no reasonable potential to violate the sediment management standards.

III.K. Groundwater quality limits

The groundwater quality standards (chapter 173-200 WAC) protect beneficial uses of groundwater. Permits issued by Ecology must not allow violations of those standards (WAC 173-200-100).

Divert does not discharge wastewater to the ground. No permit limits are required to protect groundwater.

III.L. Whole effluent toxicity

The water quality standards for surface waters forbid discharge of effluent that has the potential to cause toxic effects in the receiving waters. Many toxic pollutants cannot be measured by commonly available detection methods. However, laboratory tests can measure toxicity directly by exposing living organisms to the wastewater and measuring their responses. These tests measure the aggregate toxicity of the whole effluent, so this approach is called whole effluent toxicity (WET) testing. Some WET tests measure acute toxicity and other WET tests measure chronic toxicity.

Ecology does not typically assign WET testing to stormwater only discharges, such as those to Outfalls 001B and 002B. Stormwater discharges are intermittent and

[1] https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Sediment-cleanups

variable, making the logistics of WET testing complicated and limits the usefulness of test results. Therefore, this permit does not require WET testing. Ecology may require WET testing in the future if it receives information indicating that toxicity may be present in this effluent or if EPA approves new WET testing.

WET testing does not apply to Divert's process wastewater discharge to TRRWA as it is not a direct discharge to surface water. Whole effluent toxicity analysis and requirements are applied to TRRWA through NPDES Permit No. WA0037788.

III.M. Final Limits

Ecology applies the most stringent of technology based, water quality, and local limits to each parameter of concern. The following are the most stringent of the above discussed limits and are applied to the proposed permit for the discharge of pretreated wastewater to TRRWA.

Table 19 - Final limits for pretreated wastewater to TRRWA – Outfall 001A

Parameter	Basis of limit	Proposed limit
Ammonia as N	Technology	44 mg/L
Biochemical Oxygen Demand (BOD_5)	Technology	350 mg/L
Total Suspended Solids (TSS)	Technology	350 mg/L

Table 20 - Final limits for pretreated wastewater to TRRWA, pH – Outfall 001A

Parameter	Basis of limit	Daily minimum	Daily maximum
pH	Local	6.0 standard units	9.0 standard units

For the discharge of stormwater, the following benchmarks and associated corrective action requirements are implemented as non-numeric technology or water quality based effluent limits. Benchmark values are not numeric effluent limitations, and discharges that exceed a benchmark value are not considered a permit violation or a violation of water quality standards. See Sections III.B Technology-based effluent limits and III.D Surface water quality-based effluent limits – Outfalls 001B and 002B for more information on the corrective action requirements.

Table 21 - Final benchmarks for stormwater discharge – Outfalls 001B and 002B

Parameter	Basis of benchmark	Benchmark Value
Turbidity	Technology	25 NTU
Oil Sheen	Technology	No visible oil sheen
Copper, total	Technology	14 µg/L
Zinc, total	Water quality	97.9 µg/L

Table 22 - Final benchmarks for stormwater discharge, pH – Outfalls 001B and 002B

Parameter	Basis of benchmark	Daily minimum benchmark	Daily maximum benchmark
pH	Technology	5.0 standard units	9.0 standard units

IV. Monitoring requirements

Ecology requires monitoring, recording, and reporting (WAC 173-216-110, WAC 173-220-210, and 40 CFR 122.41) to verify that the treatment process is functioning 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.

IV.A. Wastewater and stormwater monitoring

The monitoring schedule is detailed in the proposed permit under Special Condition S2. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, and significance of pollutants.

The proposed permit requires additional monitoring to further characterize the facility's wastewater. These pollutants could have a significant impact on the receiving POTW.

According to EPA Form 2F for the discharge of stormwater to surface waters, a new discharger must complete and submit sampling and analysis data for pollutants and parameters in Tables A through C of the form. Table A includes some conventional and nonconventional pollutants commonly found in stormwater. Divert included estimates for the pollutants and parameters required by Table A in their permit application. Table B is for the pollutants that are limited in a federal effluent limitation guideline for which the facility is subject and all pollutants listed in the facility's NPDES permit for its process wastewater. Table C is for conventional, nonconventional, and toxic pollutants which are commonly referred to as the priority pollutants, and other hazardous substances. The proposed permit includes additional monitoring of stormwater within the first 24 months of the permit term to meet the requirements of EPA Form 2F and to further characterize the facility's stormwater.

IV.B. 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).

V. Other permit conditions

V.A. Reporting and record keeping

Ecology based Special Condition S3 on its authority to specify any appropriate reporting and record keeping requirements to prevent and control waste discharges (WAC 173-216-110, CFR 403.12(e),(g), and (h), and WAC 173-220-210).

V.B. 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 discharge of designated dangerous wastes not authorized by this permit (chapter 173-303 WAC). These requirements are included in Special Condition S5 of the proposed permit.

V.C. Non routine and unanticipated wastewater

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

The permit authorizes the discharge of non-routine and unanticipated wastewater under certain conditions (Special Condition S10). The facility must characterize these waste waters for pollutants and examine the opportunities for reuse. Depending on the nature and extent of pollutants in this wastewater and on any opportunities for reuse, Ecology may:

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

V.D. 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 (Special Condition S11).

V.E. Slug discharge plan

Ecology determined that Divert 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)] (Special Condition S12).

V.F. Solid waste control plan

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

This proposed permit requires this facility to develop a solid waste control plan to prevent solid waste from causing pollution of waters of the state (Special Condition S7). The facility must submit the plan to Ecology for approval (RCW 90.48.080). Refer to the Ecology guidance document, Developing a Solid Waste Control Plan[2].

V.G. Operation and maintenance manual

Ecology requires dischargers to take all reasonable steps to properly operate and maintain their wastewater treatment system including stormwater in accordance with state and federal regulations [WAC 173-240-080, WAC 173-216-110, 40 CFR 122.41(e), and WAC 173-220-150 (1)(g)]. The facility must prepare an operation and maintenance 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 (Special Condition S4).

V.H. 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 for pretreated wastewater (Special Condition S6).

V.I. Stormwater pollution prevention plan (SWPPP)

In accordance with 40 CFR 122.44(k) and 40 CFR 122.44(s), the proposed permit includes requirements for the development and implementation of a SWPPP along with BMPs to minimize or prevent the discharge of pollutants to waters of the state. BMPs constitute Best Conventional Pollutant Control Technology (BCT) and Best Available Technology Economically Achievable (BAT) for stormwater discharges. Ecology has determined that Divert must develop a SWPPP and implement adequate BMPs in order to meet the requirements of "all known, available, and reasonable methods of prevention, control, and treatment" (AKART). A SWPPP requires a facility to implement actions necessary to manage stormwater to comply with the state's requirement under chapter 90.48 RCW to protect the beneficial uses of waters of the state.

The SWPPP must identify potential sources of stormwater contamination from industrial activities and identify how it plans to manage those sources of contamination to prevent or minimize contamination of stormwater. Divert must

[2] https://apps.ecology.wa.gov/publications/documents/0710024.pdf

continuously review and revise the SWPPP as necessary to assure that stormwater discharges do not degrade water quality. It must retain the SWPPP on-site or within reasonable access to the site and available for review by Ecology.

1. Best Management Practices (BMPs)

BMPs are the actions identified in the SWPPP to manage, prevent contamination of, and treat stormwater. BMPs include 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 also include treatment systems, operating procedures, and practices used to control plant site runoff, spillage or leaks, sludge or waste disposal, and drainage from raw material storage. Divert must ensure that its SWPPP includes the operational and structural source control BMPs listed as “applicable” in Ecology’s stormwater management manuals. Many of these “applicable” BMPs are sector-specific or activity-specific, and are not required at facilities engaged in other industrial sectors or activities.

2. Ecology-approved Stormwater Management Manuals

Consistent with RCW 90.48.555 (5) and (6), the proposed permit requires the facility to implement BMPs contained in the Stormwater Management Manual for Western Washington (Ecology, 2024), or any revisions thereof, or practices that are demonstrably equivalent to practices contained in stormwater technical manuals approved by Ecology. This should ensure that BMPs will prevent violations of state water quality standards and satisfy the state AKART requirements and the federal technology-based treatment requirements under 40 CFR part 125.3. The SWPPP must document that the BMPs selected provide an equivalent level of pollution prevention, compared to the applicable Stormwater Management Manuals, including: The technical basis for the selection for all stormwater BMPs (scientific, technical studies, and/or modeling) which support the performance claims for the BMPs selected.

3. Operational source control BMPs

Operational source control BMPs include a schedule of activities, prohibition of practices, maintenance procedures, employee training, good housekeeping, and other managerial practices to prevent or reduce the pollution of waters of the state. These activities do not require construction of pollution control devices but are very important components of a successful SWPPP. Employee training, for instance, is critical to achieving timely and consistent spill response. Pollution prevention is likely to fail if the employees do not understand the importance and objectives of BMPs. Prohibitions might include eliminating outdoor repair work on equipment and certainly would include the elimination of intentional draining of crankcase oil on the ground. Good housekeeping and maintenance schedules help prevent incidents that could result in the release of pollutants. Operational BMPs represent a cost-effective way to control pollutants and protect the

environment. The SWPPP must identify all the operational BMPs and how and where they are implemented. For example, the SWPPP must identify what training will consist of, when training will take place, and who is responsible to assure that employee training happens.

4. Structural source control BMPs

Structural source control BMPs include physical, structural, or mechanical devices or facilities intended to prevent pollutants from entering stormwater. Examples of source control BMPs include erosion control practices, maintenance of stormwater facilities (e.g., cleaning out sediment traps), construction of roofs over storage and working areas, and direction of equipment wash water and similar discharges to the sanitary sewer or a dead end sump. Structural source control BMPs likely include a capital investment but are cost effective compared to cleaning up pollutants after they have entered stormwater.

5. Treatment BMPs

Operational and structural source control BMPs are designed to prevent pollutants from entering stormwater. However, even with an aggressive and successful program, stormwater may still require treatment to achieve compliance with water quality standards. Treatment BMPs remove pollutants from stormwater. Examples of treatment BMPs are detention ponds, oil/water separators, biofiltration, and constructed wetlands.

6. Volume/flow control BMPs

Ecology recognizes the need to include specific BMP requirements for stormwater runoff quantity control to protect beneficial water uses, including fish habitat. New facilities and existing facilities undergoing redevelopment must implement the requirements for peak runoff rate and volume control identified in the Western Washington SWMM or the Eastern Washington SWMM as applicable to their development. Controlling the rate and volume of stormwater discharge maintains the health of the watershed. Existing facilities should identify control measures that they can implement over time to reduce the impact of uncontrolled release of stormwater.

V.J. General conditions

Ecology bases the standardized General Conditions on state and federal law and regulations. They are included in all individual industrial NPDES permits issued by Ecology.

VI. Permit issuance procedures

VI.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.

Ecology may also modify this permit to impose numerical limits, if necessary to comply with water quality standards for surface waters, with sediment quality standards, or with water quality standards for groundwaters, after obtaining new information from sources such as inspections, effluent monitoring, outfall studies, and effluent mixing studies.

Ecology may modify this permit to comply with new or amended state or federal regulations.

VI.B. Proposed permit issuance

This proposed permit includes all statutory requirements for Ecology to authorize a wastewater discharge. The permit includes limits and conditions to protect human health and aquatic life, and the beneficial uses of waters of the state of Washington. Ecology proposes to issue this permit for a term of five years.

VII. References for text and appendices

Ecology. (2010). *Water Quality Program Guidance Manual: Procedures to Implement the State's Temperature Standards through NPDES Permits, Publication 06-10-100.* Retrieved from https://apps.ecology.wa.gov/publications/summarypages/0610100.html

Ecology. (2011). *Water Quality Program Guidance Manual: Supplemental Guidance on Implementing Tier II Antidegradation, Publication 11-10-073.* Retrieved from https://apps.ecology.wa.gov/publications/summarypages/1110073.html

Ecology. (2016). *Laboratory Guidance and Whole Effluent Toxicity Test Review Criteria (Publication 95-80).* Retrieved from https://apps.ecology.wa.gov/publications/SummaryPages/9580.html

Ecology. (2018). *Water Quality Program Permit Writer's Manual, Publication 92-109.* Retrieved from https://apps.ecology.wa.gov/publications/summarypages/92109.html

Ecology. (2024). *Stormwater Management Manual for Eastern Washington, Publication 18-10-044.* Retrieved from https://fortress.wa.gov/ecy/ezshare/wq/Permits/Flare/2019SWMMEW/2019SWMMEW.htm

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Ecololgy. (2019). *Developing a Solid Waste Control Plan, Publication 07-10-024.* Retrieved from https://apps.ecology.wa.gov/publications/SummaryPages/0710024.html

USEPA. (1985). *Water Quality Assessment: A Screening Procedure for Toxic and Conventional Pollutants in Surface and Ground Water. Part 2, EPA/600/6-85/002B.*

USEPA. (1988). *Technical Guidance on Supplementary Stream Design Conditions for Steady State Modeling.*

USEPA. (1991). *Technical Support Document for Water Quality-Based Toxics Control (EPA/505/2-90-001).* Washington, DC. Retrieved from https://www3.epa.gov/npdes/pubs/owm0264.pdf

USEPA Region 10. (2021). *Columbia and Lower Snake Rivers Temperature Total Maximum Daily Load.* Seattle, WA.

Windward Environmental LLC. (2022). *2021-2022 Surface Water Survey Data Report - Final, Prepared for Solvay Chemicals Incorporated.* Seattle.

Washington State and Ecology website general reference links:

Laws and Regulations[3]

Permit and Wastewater Related Information[4]

[3] http://leg.wa.gov/LawsAndAgencyRules/Pages/default.aspx
[4] https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Water-quality-permits-guidance

Appendix A – Public Involvement Information

Ecology proposes to issue a permit to Divert Integrated Food Recovery Facility / Longview. The permit includes wastewater discharge limits and other conditions. This fact sheet describes the facility and Ecology's reasons for requiring permit conditions.

Ecology placed a Public Notice of Application on July 16, 2024 and July 23, 2024, 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 in The Daily News to inform the public and to invite comment on the proposed draft National Pollutant Discharge Elimination System 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 NPDES permit.
- Explains the next step(s) in the permitting process.

Frequently Asked Questions about Effective Public Commenting[5]

You may obtain further information from Ecology by telephone, 360-280-2325, or by writing to the address listed below.

Water Quality Permit Coordinator
Department of Ecology
Industrial Section, Solid Waste Management Program
PO Box 47600
Olympia, WA 98504-7600

The primary author of this permit and fact sheet is Sarah Penfield.

[5] https://apps.ecology.wa.gov/publications/SummaryPages/0307023.html

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 as defined in WAC 371-08-305 and -335. "Notice of appeal" is defined in WAC 371-08-340.
- Serve a copy of your appeal and this permit on Ecology on the Department of Ecology mail, in person, or by email (see addresses below).
- You must also comply with other applicable requirements in chapter 43.21B RCW and chapter 371-08 WAC.

Filing with the PCHB

For the most current information regarding filing with the PCHB:
visit https://eluho.wa.gov/[6] or call 360-664-9160.

Service on Ecology

Street Address:

Department of Ecology
Attn: Appeals Processing Desk
300 Desmond Drive SE
Lacey, WA 98503

Mailing Address:

Department of Ecology
Attn: Appeals Processing Desk
PO Box 47608
Olympia, WA 98504-7608

E-Mail Address:

ecologyappeals@ecy.wa.gov

[6] https://eluho.wa.gov/

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 RCW 90.48.520, 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 months' 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.

BOD_5 – 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 BOD_5 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 level – or method detection limit means the minimum concentration of an analyte (substance) that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results as determined by the procedure given in 40 CFR part 136, Appendix B.

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 WAC 173-240-130.

Enterococci – A subgroup of fecal streptococci that includes *S. faecalis*, *S. faecium*, *S. gallinarum*, and *S. avium*. The enterococci are differentiated from other streptococci by their ability to grow in 6.5% sodium chloride, at pH 9.6, and at 10°C and 45°C.

E. coli – A bacterium in the family Enterobacteriaceae named Escherichia coli and is a common inhabitant of the intestinal tract of warm-blooded animals, and its presence in water samples is an indication of fecal pollution and the possible presence of enteric pathogens.

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 calculated as the average measurement of the pollutant over the 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 limit (MDL) – See Detection level.

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) – Section 402 of the Clean Water Act, 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 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:

- Exceeds 0.5 % of treatment plant design capacity criteria and discharges <25,000 gallons per day or;
- 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 (ML) – The term ‘‘minimum level’’ refers to either the sample concentration equivalent to the lowest calibration point in a method or a multiple of the method detection limit (DL), whichever is higher. Minimum levels may be obtained in several ways: They may be published in a method; they may be based on the lowest acceptable calibration point used by a laboratory; or they may be calculated by multiplying the DL in a method, or the DL determined by a laboratory, by a factor of 3. For the purposes of NPDES compliance monitoring, EPA considers the following terms to be synonymous: ‘‘quantitation limit,’’ ‘‘reporting limit,’’ and ‘‘minimum level’’.

Reasonable potential – A reasonable potential to cause or contribute to 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) –

- All industrial users subject to Categorical Pretreatment Standards under 40 CFR Chapter I, Subchapter N and 40 CFR 403.6 and;
- 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 the second paragraph 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 – Technical Calculations

Simple Mixing

Ecology uses simple mixing calculations to assess the impacts of certain conservative pollutants, such as the expected increase in fecal coliform bacteria at the edge of the chronic mixing zone boundary. Simple mixing uses a mass balance approach to proportionally distribute a pollutant load from a discharge into the authorized mixing zone. The approach assumes no decay or generation of the pollutant of concern within the mixing zone. The predicted concentration at the edge of a mixing zone (C_{mz}) is based on the following calculation:

$C_{mz} = C_a + [(C_e – C_a)/DF]$

C_a = ambient concentration

C_e = effluent concentration

DF = dilution factor

Reasonable Potential Analysis

Ecology uses spreadsheet tools to determine reasonable potential (to cause or contribute to violations of the aquatic life and human health water quality numeric standards) and to calculate effluent limits. The process and formulas for determining reasonable potential and effluent limits in these spreadsheets come from the *Technical Support Document for Water Quality-based Toxics Control*, (EPA 505/2-90-001) (USEPA, 1991). The adjustment for autocorrelation is from EPA (1996a), and EPA (1996b).

Loading Capacity Calculations at Three Rivers Regional Wastewater Authority

Three Rivers Regional Wastewater Authority (TRRWA) has specified design criteria for the treatment plant included in their NPDES discharge permit (WA0037788). The design criteria are included below, for reference.

Table 23 - TRRWA design criteria, NPDES Permit No. WA0037788

Parameter	Design Criteria
Maximum Month Design Flow	26 million gallons per day (MGD)
$CBOD_5$ Influent Loading for Maximum Month	26,000 lbs/day
BOD_5 Influent Loading for Maximum Month	31,200 lbs/day
TSS Influent Loading for Maximum Month	32,100 lbs/day

Ecology must ensure that Divert's discharge will not cause excessive loading to the treatment plant. TRRWA discharge data was reviewed for July 2022 through June 2024. Ecology calculated the approximate total loading to the facility based on Divert's reported maximum discharge concentrations and performance guarantees. The flow rate used is based on the maximum flow rate reported by Divert. The expected

combined loading to TRRWA is included in the tables below using the 99th, 95th, and 90th percentiles of TRRWA influent data. Because TRRWA does not sample for BOD_5 in the influent and Divert did not report data for $CBOD_5$, Ecology conservatively compared Divert's BOD_5 data to TRRWA's $CBOD_5$ influent data.

Table 24 - TRRWA loading data, July 2022-June 2024

Percentile	Flow (MGD)	$CBOD_5$ (lbs/day)	TSS (lbs/day)
99th	25.65	17,360.7	23,855.0
95th	17.15	13,547.4	16,315.8
90th	12.20	12,321.4	14,242.5

Table 25 - Divert reported loading to TRRWA

Flow (MGD)	BOD_5 (lbs/day)	TSS (lbs/day)
0.105	306.5	306.5

Table 26 - TRRWA and Divert combined data to compare with design criteria

Percentile	Combined Flow (MGD)	Combined $CBOD_5$ (lbs/day)	Combined TSS (lbs/day)
99th	25.76	17,667.2	24,161.5
95th	17.26	13,853.9	16,622.2
90th	12.31	12,627.9	14,549.0

Appendix E – Response to Comments

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

Appendix F – Tier II Antidegradation Analysis

GIBBS & OLSON
CIVIL ENGINEERS • LAND SURVEYORS

Memorandum

To: Sarah Penfield – Washington Department of Ecology

From: Rich Gushman, PE – Gibbs & Olson, Inc. *RG*

Date: July 26, 2024

Re: Divert Longview – Industrial Stormwater Permit – Tier II Anti-Degradation Analysis

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This memorandum is a Tier II Antidegradation analysis to assist the Washington Department of Ecology (Ecology) with consideration of a "Necessary and Overriding Public Interest (OPI) Determination." The determination is in accordance with WAC 173-201A-320(4) for the Divert Longview Integrated Food Waste Recovery Project's Industrial Stormwater Permit for project site stormwater. The Permit anticipates that stormwater will be discharged to Consolidated Diking Improvement District No. 1 of Cowlitz County, Washington's Ditch 5 and to the Mint Farm Wetland Facility.

Site stormwater will be collected, treated, partially detained and discharged at predevelopment to the above referenced water bodies in accordance with Ecology's current Stormwater Management Manual for Western Washington (SWMMWW) and City of Longview Municipal Code 17.80 requirements. These requirements are outlined in the project stormwater report entitled Stormwater Technical Information Report, Divert, Inc. – Integrated Food Recovery Facility, Longview, Washington, prepared by Gibbs & Olson, May 2023, Revised August 2023 and Finalized January 2024. The Report was submitted to the City of Longview and to Ecology as part of Divert's Industrial Stormwater Permit application package.

The receiving water bodies utilized for stormwater conveyance and flood control and are not involved with any recreational, residential or agricultural activity. Therefore, the proposed discharge of treated stormwater will not have an adverse impact to these types of human activity.

The proposed discharge rate will not exceed current rate of discharge from the site because all stormwater will be discharged at controlled rate equal to the pre-development rate per state and city requirements.

There is no direct evidence that treated stormwater to be discharged from the site will degrade water quality within the receiving water bodies listed above. Nevertheless, Divert has elected to perform the analysis summarized herein so a determination can be made that the project has an OPI in the event that receiving water quality could be slightly degraded by the treated stormwater to be discharged from the completed facility.

WAC 173-201A-320(4)(a)

(i) Economic Benefits:

- The completed project will provide new jobs consisting of between 28-34 onsite jobs and 22 transport jobs.
- Diversion of approximately 100,000 tons per year of food waste from being landfilled.

(ii) Providing/Contributing to Necessary Social Services:

- The completed project will directly contribute to providing necessary social services through the property taxes that will be paid by Divert. Property taxes will support Public Education, City Public Services, Port of Longview Operations, Veterans Services, Mental Health Services, Mosquito Control and Noxious Weed Control.

(iii) Use/Demonstration of Innovative Pollution Control & Management Approach:

- Stormwater treatment will be provided by Contech Stormfilters with cartridge filters that are approved by Ecology for basic treatment and are on Ecology's General Use Level Designation (GULD) List.
- Each stormwater detention pond includes a micropool for improved sediment removal as requested by the City of Longview. Each micropool settling area is equal to 10% of the calculated 24-hour water quality storm volume for each pond. This treatment feature has not typically been included in detention pond design and therefore can be considered an innovative sediment removal control approach.

Beyond stormwater treatment, the completed project will also use and demonstrate innovative pollution control and management approach related to food waste as noted below:

- Utilizing food product analytics to help large food waste generators identify sources and causes of unsold food and eliminate it. For example, data that originates from this facility will help food retailers become more efficient at sourcing, purchasing, and managing food products, which in turn lowers the consumer cost of goods. It can also help them recognize and target missed opportunities for food donation and improve their donation targets with local food banks, which in turn helps communities address food insecurity.
- Improving insight into what food products go unsold, allowing food industry retailers and other large food waste generators to focus on reducing the amount of unsold food and associated food and food packaging waste and putting less strain on natural resources critical to the food supply chain.

(iv) Prevention/Remediation of Environmental or Public Health Threats:

The completed project will help remediate the environmental impact of climate change through direct reduction in GHG emissions as follows:

- Estimated energy recovery of 212 billion British thermal units (Btu) per year from the organic slurry created from unsold food.
- Reduction in greenhouse gas (GHG) emissions by diverting organic waste from landfills and recovering it as RNG and soil amendments.

- Reduction in greenhouse gas (GHG) emissions associated with transporting unsold food from Divert customers' distribution centers instead of transporting unsold food from each individual store to landfills.
- Increasing the RNG supply will help in reducing the need for fossil fuel based natural gas that is critical in supporting the region's hard-to-electrify industrial manufacturing economy.
- Contribution toward organic waste reduction mandates set forth in Washington state HB2301 enacted in early 2024 and Washington state HB1799 enacted in 2022 and contribution toward GHG emission reduction goals in Washington state's Climate Commitment Act that went into effect on January 1, 2023.

WAC 173-201A-320(4)(b)

(i) Stormwater Pollution Prevention Measures:

The completed project will include an approximately 66,000 square foot building with parking and loading areas and a concrete tank and equipment yard. A total of 4.67 acres of landscaping will be interspersed throughout the site. Access to the site will be provided by two driveway connections along Crocker Ave and one driveway connection from Prudential Blvd as well as an access road that extends through the site. Paved/concrete surface area will be 5.25 acres with impervious stormwater pond area totaling 0.51 acres. Total impervious area on the site will be 7.26 acres.

Stormwater treatment and flow control will be provided by two separate facilities to be constructed onsite. Catch basins, area drains, and trench drains throughout the site will collect stormwater runoff with storm pipes conveying runoff to the stormwater facilities.

The north stormwater facility will treat runoff from pollution generating surfaces through an 8-foot by 11-foot Contech Stormfilter, or equal, treatment vault with 17 low-drop cartridges prior to discharge to a detention pond. The detention pond will include a flow control structure discharging to the 12-in storm line in Prudential Blvd which in turn discharges to the Mint Farm Phase 1 wetland complex northwest of the site (south of the intersection of 38th Avenue and Prudential Boulevard). The wetland is a compensatory artificial wetland constructed during development of the Mint Farm Industrial Park Phase 1. Since the wetland is not a unique or rare natural wetland providing a high level of ecological function it can reasonably be assumed to be a category 3 or 4 wetland. Additionally, the Washington Department of Fish & Wildlife's Priority Habitats and Species (PHS) map does not identify the wetland as priority habitat for species listed as sensitive, candidate, threatened or endangered.

Wetland protection requirements were determined by the flowchart in SWMMWW Figure I-3.5 (see Attachment No. 1). Per this flowchart, wetland protection requirements include General Protection and Protection from Pollutants. General protection requirements outlined in SWMMWW Section I-C.2 of the SWMMWW (see Attachment No. 1) are met.

The north detention pond will provide additional sediment removal prior to discharge to the City's storm system and wetland through the inclusion of a micropool settling area equal to 10% of the calculated 24-hour water quality storm volume for the pond as required by the City of Longview.

The south stormwater facility will treat runoff from pollution generating surfaces through three separate Contech Stormfilter units as follows:

- Runoff from Basins 3.05 to 3.09 (POC3) comprising the access road, equipment yard, a portion of the building and landscaping south of the equipment yard will pass through an 8-foot by 11-foot Contech Stormfilter, or equal, treatment vault with a total of eighteen low-drop cartridges.
- Runoff from Basin 3.03 (POC2), comprising the south portion of the loading zone, will pass through a Contech 3-Cartridge Steel Stormfilter, or equal, catch basin with a total of three 18" cartridges.
- Runoff from Basin 3.10 (POC4) which is the gravelled natural gas interconnect area, will pass through a Contech 1-Cartridge Steel Stormfilter, or equal, catch basin with one 18" cartridge.

The south detention pond will provide additional sediment removal prior to discharge to Ditch 5 through the inclusion of a micropool settling area equal to 10% of the calculated 24-hour water quality storm volume for the pond as required by the City of Longview.

Divert will utilize ongoing operational source control for potential stormwater pollution contaminants. Specific SWMMWW BMPs that will be utilized are:

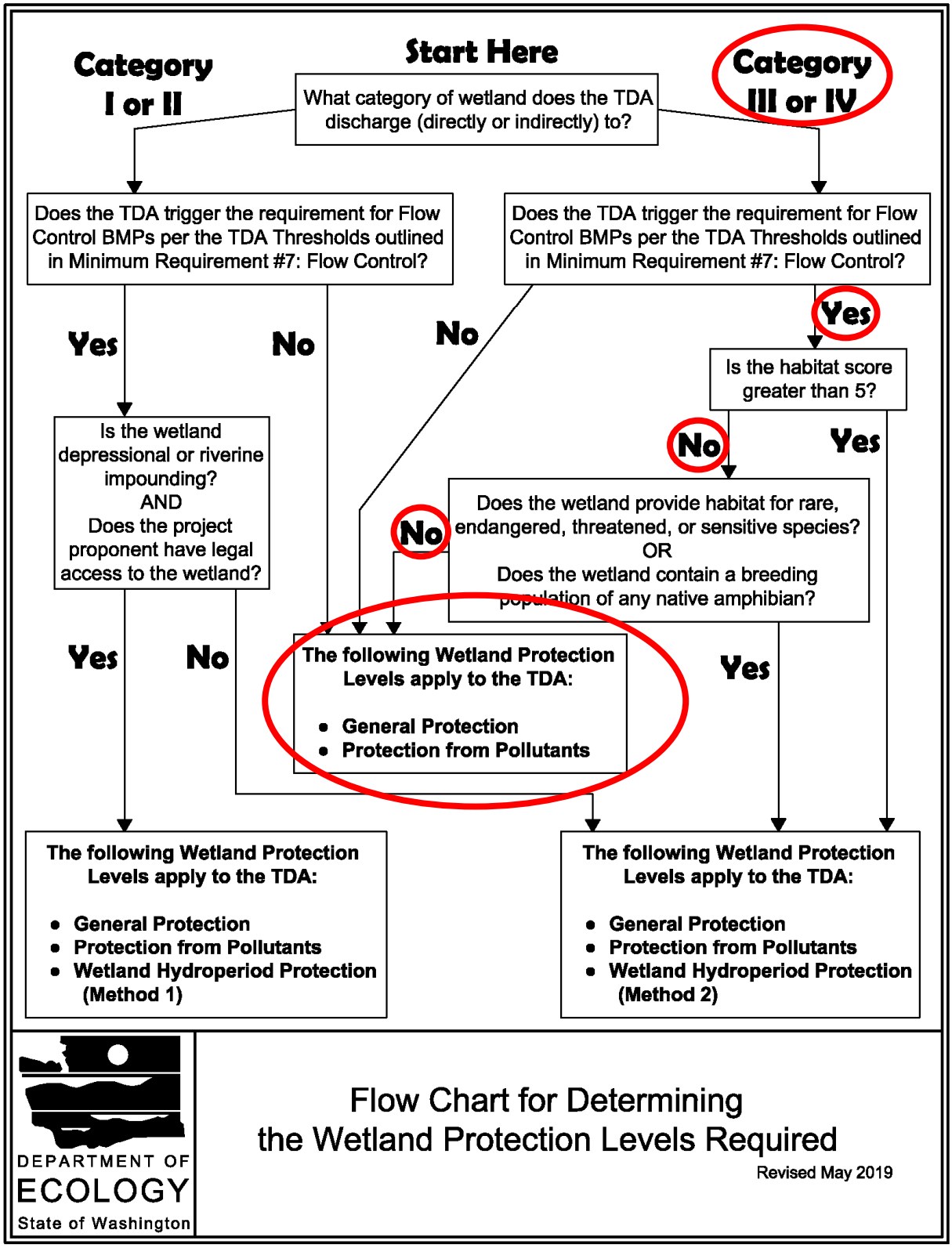
- S411 BMPs for Landscaping and Lawn/Vegetation Management
- S417 BMPs for Maintenance of Stormwater Treatment Systems
- S454 BMPs for Preventive Maintenance/Good Housekeeping

Additionally, the City of Longview has required that a normally closed valve be installed in the discharge pipeline from the single stormwater catch basin in the concrete surfaced tank yard. As such, stormwater runoff within the tank yard area will be detained within the tank yard and will be visually inspected for contamination prior to periodically being discharged by facility staff to the south stormwater treatment vault and detention pond.

The permitted facility will be required to have and constantly monitor a site-specific stormwater pollution prevention plan and a spill prevention, containment and countermeasures plan under the NPDES permit to be issued. Having to have, monitor and update these plans over time will also assist in minimizing the potential of treated stormwater discharged from the facility will adversely impact water quality of the receiving water bodies.

Pollution controls for treatment, detention and controlled discharge of stormwater from the completed project are appropriate and in accordance with Ecology SWMMWW and City of Longview requirements and utilize current known, available and reasonable methods of prevention, control and treatment. As such, receiving water quality degradation, if any, is anticipated to be minimal and the completed facility has a demonstrated OPI in the unlikely event that lower water quality results from stormwater discharge from the completed project.

Figure I-3.5: Flow Chart for Determining Wetland Protection Level Requirements



a. Legal access to the wetland,

b. Wetland field monitoring data (See I-C.5 Wetland Hydroperiod Data Collection and Evaluation Procedures).

I-C.2 General Protection

All wetlands (Categories I, II, III and IV) must receive the following general protection:

1. Consult regulations issued under federal and state laws that regulate the discharge of pollutants to surface waters, including the Construction Stormwater General NPDES Permit.
2. Maintain the wetland buffer required by local and/or state regulations.
3. Retain areas of native vegetation connecting the wetland and its buffer with nearby wetlands and other contiguous areas of native vegetation.
4. Avoid compaction of soil and introduction of invasive plant or animal species in the wetland and its buffer.
5. Take measures to avoid general physical impacts (e.g., littering and vegetation destruction). Examples are protecting existing buffer zones; discouraging access, especially by vehicles, by planting outside the wetland, and encouragement of stewardship and signage by landowners.
6. Any stormwater management practices, such as Runoff Treatment or Flow Control BMP implementation, must be done outside of the wetland buffer boundary, except limited circumstances where the wetland and/or buffer may be used for additional Runoff Treatment and/or Flow Control of stormwater (See I-C.6 Compensatory Mitigation of Wetlands)
7. Discharge from a BMP or project site should be dispersed using a method to diffuse the flow before entering the wetland buffer.
8. Consider fences to restrict human access, but make sure it doesn't interfere with wildlife movement. They should be used when wildlife passage is not a major issue and the potential for intrusive impacts is high. When wildlife movement and intrusion are both issues, the circumstances will have to be weighed to make a decision about fencing. Check with the local and/or state agencies to determine if fencing would be allowed.

I-C.3 Protection from Pollutants

All wetlands (Categories I, II, III and IV) must receive the following protection from pollutants:

1. Provide Construction Stormwater BMPs as directed in I-3.4.2 MR2: Construction Stormwater Pollution Prevention Plan (SWPPP) to prevent sediment and other pollutants from entering the wetland.
2. Provide Source Control BMPs as directed in I-3.4.3 MR3: Source Control of Pollution. Refer to Volume IV and local jurisdiction requirements.
3. Provide On-Site Stormwater Management and use LID principles as much as practicable for the site, as directed in I-3.4.5 MR5: On-Site Stormwater Management. LID principles and