TECHNICAL MEMORANDUM

To:	**Ian McAllister, Ashleigh Crompton, Mike Champion, Mark Zan and Ryan Schucroft (Woodfibre LNG)**	**Date: 30 Sep 2025**
From:	**Cheng Kuang and Patrick Mueller (Lorax)**	**Project #: A633-9**
Subject:	**PE-111578 Weekly Discharge and Compliance Report #79 for August 24 – 30 (Version S1)**	

Version S1 of this report (Report #79) replaces version S, issued on September 5, 2025. Refer to Table 4 for a description of the revisions.

Waste Discharge Authorization (WDA) Effluent Permit PE-111578 was issued by the British Columbia Energy Regulator (BCER) to Woodfibre LNG on February 9, 2024. The associated WDA discharge and compliance monitoring program is conducted by on-site Environmental Monitors (Roe Environmental) that are sub-contracted to the civil works contractor (LB LNG). Analytical samples are submitted by Roe Environmental to ALS Environmental in Burnaby, BC, for testing. Lorax Environmental provides water quality database management and WDA compliance reporting services to Woodfibre LNG.

This technical memorandum (Report #79) was prepared by Lorax Environmental and summarizes WDA monitoring conducted for the period of August 24 – 30. Monitoring data and pending results from prior monitoring periods available at the time of reporting are tabulated and included as appendices to this memorandum. Report #79 has been prepared to meet the requirements specified in Condition 4.2 of PE-111578:

> "The Permittee shall summarize the results of the discharge and compliance monitoring program in a report that shall be submitted to the BCER weekly over the term of this permit. Reports must include suitable tabulated data. The table must include any applicable regulatory limits/guidelines e.g. permit limits, BC Water Quality Guidelines etc. Any exceedances of respective regulatory limits/guidelines must be clearly highlighted. Any missed sampling events/missing data must be identified with an explanation provided. Reporting frequency may be reduced upon a history of compliance and by written confirmation from the BCER. These reports shall be submitted to Waste.Management@bc-er.ca. A copy of the reports shall be provided to each First Nation consulted with regarding this subject permit, and also made publicly available on the Woodfibre LNG Environmental Reporting webpage."

Site layout and water management figures, and site images are included in Appendix A. Monitoring results are tabulated in Appendix B through Appendix D for contact water, treated water and receiving environment samples.

1. Current Conditions

1.1 Water Management Infrastructure

The Construction Phase of the Woodfibre LNG Export Facility commenced in October 2023. Shoring works along the foreshore areas were initiated in December 2023, and in early 2024 construction of water management infrastructure commenced. Land-based construction occurs within two water management areas east and west of Mill Creek, referred to as the east and west catchments, respectively. Non-contact water is intercepted and diverted around the construction areas to Howe Sound and Mill Creek. Stormwater runoff collected within the east and west catchment areas (7.12 and 5.92 ha, respectively) is managed as site contact water and is conveyed to the East Wastewater Treatment Plant (WWTP) for treatment or to the East and West Sedimentation Ponds for settling of suspended particulate. Intermittent discharge to Howe Sound from the East and West Sedimentation Ponds commenced April and October 2024, respectively.

Non-contact water from the slopes above and outside the Woodfibre LNG construction area is intercepted by diversion ditches and conveyed to Howe Sound or Mill Creek. Diversion ditches for the west catchment convey water to Mill Creek at station OUT-06, or to Howe Sound at station OUT-02 (Appendix A, Figure 1). During heavy precipitation non-contact water is also conveyed to Howe Sound via station OUT-01. East of Mill Creek, non-contact water is intercepted and diverted around the east catchment along pre-existing road ditches that flow to East Creek or Mill Creek. To facilitate the replacement of the East Creek discharge culvert at OUT-12 (station SW-04), the lower reach of East Creek was temporarily diverted to an adjacent culvert, OUT-11, on September 17, 2024.

The East WWTP was commissioned April 2024 and the West WWTP was commissioned August 2024. Operation of the West WWTP was subsequently suspended September 25, 2024 for a temporary reconfiguration to conduct pilot-scale evaluations of alternative treatment processes. The evaluations were completed April 2025 and did not yield improved treatment outcomes; therefore, the original treatment process has been maintained. Lower than expected volumes of contaminated contact water have been encountered during construction, therefore operation of the West WWTP remains suspended and all site waters that require treatment are directed to the East WWTP with treated effluent discharged to the East Sedimentation Pond.

The water conveyance ditches described in PE- 111578 were designed to transport non-contaminated contact water (*i.e.*, stormwater) to the East and West Sedimentation Ponds and will be constructed following completion of site preparation activities (*e.g.*, site grading, bedrock excavation) along the ditch lines. Until the ditches are operational, contact waters within the catchments are managed to remain on site using a system of berms, sumps, temporary ditches and baker tanks for intermediate storage, and are then directed to the East WWTP for treatment, or the East and West Sedimentation Ponds prior to re-use or discharge.

Discharge from the East and West Sedimentation Ponds is controlled using pumps. Prior to water management upgrades that commenced implementation during the week of June 22 – 28, water stored in the ponds was pumped to a TSS settling system for clarification and then discharged through the authorized outfall structures associated with each pond. Some of the TSS clarified water was recirculated back to the ponds or was re-used for construction (*e.g.*, dust suppression), and this will continue with the revised configuration. Each sedimentation pond has an associated authorized discharge location (stations SP-E-OUT and SP-W-OUT) with an initial dilution zone (IDZ) where discharged water mixes with Howe Sound surface waters. The IDZ is defined in PE-111578 and extends in a 150 m radius from each point of discharge into Howe Sound.

A flocculant-based TSS settling system (2700GPM) is being implemented at West Sedimentation Pond to clarify all non-contaminated construction contact water prior to re-use at site or discharge at SP-W-OUT. The fully built 2700GPM TSS settling system will have the installed capacity to clarify 14,700 m^3/day of contact water and will consist of six parallel treatment trains, each with an installed capacity of 2,450 m^3/day. The number of active trains will be matched to contact water flows. Only one train will be operated during dry conditions or when contact water flows are below approximately 2450 m^3/day, whereas at higher flows additional trains will be activated as needed to match the influent volumes. The individual treatment trains are being commissioned in stages. Train 1, Train 2, Train 3 and Train 4 have been commissioned, and preparations are underway to commission the remaining two treatment trains.

The construction phase water management layout and monitoring stations are shown in Appendix A, Figure 1. Contact water collection and dewatering locations and photographs of the sedimentation ponds are shown in Appendix A, Figure 2 through Figure 5.

1.2 Weather and Water Management

Generally warm and sunny weather conditions were observed during the August 24 – 30 monitoring period, with no precipitation recorded. The daily weather conditions are summarized in Table 1.

Table 1: Summary of Certified Project Area (CPA) Daily Weather Conditions.

Date	Precipitation (mm)	Max. Temp (°C)	Min. Temp (°C)	Weather Description
2025-08-24	0	28.3	17.3	sunny
2025-08-25	0	26.4	15.5	sunny
2025-08-26	0	25.9	15.4	sunny
2025-08-27	0	24.7	15.9	sunny
2025-08-28	0	24.9	15.9	sunny
2025-08-29	0	25	16.7	sunny
2025-08-30	0	24	15.3	sunny

Note: Data retrieved from the Woodfibre on-site weather station operated by Stantec.

From August 24 – 30, the East Sedimentation Pond received recirculated effluent from the East WWTP (Appendix A, Figure 2). There was no discharge to Howe Sound from station SP-E-OUT during the monitoring period. No water from the East Sedimentation Pond was transferred to the West Sedimentation Pond from August 24 – 30 (Appendix B, Table B-5).

Routine operation of the East WWTP continued during the monitoring period (August 24 – 30). Concrete contact water was periodically directed to the East WWTP for treatment, as well as water stored in the East Sedimentation Pond (Appendix A, Figure 2 and Figure 3). East WWTP treated effluent was discharged to the East Sedimentation Pond each day during the monitoring period (August 24 – 30). Daily water volumes processed by the East WWTP are provided in Appendix B (Table B-5).

From August 24 – 30, the West Sedimentation Pond received recirculated effluent from the 2700GPM TSS settling system (Appendix A, Figure 3). Implementation of the 2700GPM TSS settling system continued with pilot testing of Train 2, and West Sedimentation Pond effluent was clarified through the system on August 25 and recirculated back to the pond. There was no discharge to Howe Sound from station SP-W-OUT during the monitoring period. Clarified effluent was not reclaimed for construction use from August 24 – 30. Daily clarified effluent volumes from the TSS settling system and volumes of reclaimed water are provided in Appendix C (Table C-5).

2. Monitoring Summary

The locations of compliance and supplementary monitoring stations are shown on Figure 1. Monitoring is conducted by the on-site Environmental Monitors (Roe Environmental). Analytical samples are submitted by Roe Environmental to ALS Environmental in Burnaby, BC, for testing.

The following compliance and supplementary monitoring stations are currently being monitored:

- Non-contact diversion ditch outlet monitoring stations (OUT-01, OUT-02, OUT-06, and OUT-11). East Creek water was temporarily diverted to OUT-11 on September 17, 2024, and is monitored at the inlet to temporary diversion (station SW-04), therefore OUT-11 is not currently monitored.
- Creek water monitoring stations for Woodfibre, Mill and East Creek (SW-01, SW-02, SW-03, SW-04, SW-07).
- Contact water monitoring locations (SP-E-IN, WWTP-E-IN, WWTP-E-OUT, SP-W-IN, 2700GPM-IN, and 2700GPM-OUT).
- Effluent compliance stations (SP-E-OUT and SP-W-OUT).
- Howe Sound reference and IDZ monitoring stations (WQR1, WQR2, IDZ-E1, IDZ-E2, IDZ-W1, and IDZ-W2).

The influent culverts for East and West Sedimentation Ponds are not operational and the associated influent stations defined in PE-111578 (SP-E-IN-1, SP-E-IN-2, SP-W-IN-1 and SP-W-IN-2) have

been replaced with temporary influent monitoring stations SP-E-IN and SP-W-IN (East and West Sedimentation Pond, respectively) located in-pond, at the influent end of each pond.

A flocculant-based TSS settling system (2700GPM) is used at the West Sedimentation Pond as described in Section 1.1. Influent and effluent are monitored at stations 2700GPM-IN and 2700GPM-OUT, respectively. The 2700GPM-OUT station represents the combined discharge from all six individual treatment trains and is at the same location as the SP-W-OUT station. At times when only one 2700GPM treatment train is operated the 2700GPM-OUT sample will be collected at the outlet of that train. Refer to Section 1.1 for a description of the 2700GPM system. Monitoring of the 2700GPM settling system is supplemental to the PE-111578 monitoring requirements and is conducted at the discretion of field staff.

Water quality was monitored at stations SP-E-IN, WWTP-E-IN, WWTP-E-OUT, SP-W-IN, 2700GPM-IN, and 2700GPM-OUT (at the outlet of Train 2) during the monitoring period (August 24 – 30). Sampling dates and parameters tested are summarized in Table 2.

Overall, the PE-111578 monitoring requirements that were applicable during the monitoring period (August 24 – 30) were met. The initial high frequency monitoring requirements outlined in effluent permit PE-111578 for the sedimentation pond, WWTP and IDZ stations have been met. On June 25, 2025, BCER approved the implementation of low-frequency (*i.e.*, bi-monthly and monthly) monitoring requirements specified in PE-111578 for all parameters, except for metals, hexavalent chromium and methylmercury which continue to be monitored weekly at sedimentation pond and WWTP stations.

Daily field parameters and a weekly analytical sample were not collected at the east and west catchment effluent stations (SP-E-OUT and SP-W-OUT, respectively) as there was no discharge to Howe Sound from the East and West Sedimentation Ponds during the monitoring period (August 24 – 30). Daily field parameters and a weekly analytical sample were not collected at the influent and effluent stations of the West WWTP (WWTP-W-IN and WWTP-W-OUT, respectively) as it was not operational during the monitoring period.

The PE-111578 monitoring requirements for the month of August were met. Field parameters and analytical samples were not collected from non-contact water diversion ditch outlets as the ditches were dry at the time monitoring was conducted.

Table 2: Summary of PE-111578 Monitoring Samples Collected August 24 – 30.

Sampling Date	Sample	Description	Parameters Tested	Monitoring Frequency
August 24, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
August 25, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field, Physical & General Parameters, Total, Dissolved and Speciated Metals, and Methylmercury.	D, M_2, W
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	P
	2700GPM-OUT	2700GPM TSS settling system at the effluent meter box		
August 26, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field, Physical & General Parameters, Total, Dissolved and Speciated Metals, and Methylmercury.	D, M_2, W
	WWTP-E-IN	East WWTP at the influent meter box	Field, Physical & General Parameters, Total, Dissolved and Speciated Metals, and Methylmercury.	D, M_2, W
	WWTP-E-OUT	East WWTP at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
August 27, 2025	SP-E-IN	East Sedimentation Pond monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
August 28, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
August 29, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
August 30, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D

Notes: Monitoring frequency requirements under PE-111578 are indicated as follows:
D – daily monitoring of field parameters at WWTP and sedimentation pond influent and effluent stations.
M – monthly monitoring for all parameters at WWTP, sedimentation pond and receiving environment stations. Monthly monitoring for General parameters except ammonia, nitrate and nitrite (i.e., nitrogen species) are monitored weekly during blasting season.
M_2 – bi-monthly monitoring for physical parameters at WWTP and sedimentation pond stations.
W – high frequency monitoring for metals, chromium speciation and methylmercury at WWTP and sedimentation pond influent and effluent stations, effective June 25, 2025.
P – periodic monitoring for targeted parameters that is supplementary to PE-111578 requirements.

3. Water Quality Results

3.1 Screening and Reporting Overview

Water quality and flow monitoring results are screened against field quality control (QC) criteria, benchmark values, operational minimum discharge objectives (MDOs) that the WWTPs are currently being operated to meet, PE-111578 discharge limits, as well as Canadian, Federal and BC water quality guidelines (WQGs). All water quality data are recorded in the Woodfibre LNG environmental monitoring database. However, for brevity, a sub-set of the results are presented in the weekly report appendices. Results are reported for parameters with a freshwater, estuarine or marine water quality guideline for the protection of aquatic life, parameters with a discharge limit, parameters of potential concern (*i.e.,* dioxins and furans) as well as other parameters that are relevant for water quality interpretation.

Canadian, Federal and BC WQGs are not specified for dioxins and furans. The general term "dioxins and furans" refers to a total of 210 polychlorinated dibenzo-*p*-dioxin (PCDD) and polychlorinated dibenzofuran (PCDF) compounds. A sub-set of 17 of the most toxic PCDDs and PCDFs are typically evaluated for toxicity by converting the individual parameter concentrations to toxic equivalent (TEQ) values that are summed and evaluated as a single PCDD/F TEQ parameter. To address uncertainties for results reported as not detected, two PCDD/F TEQ values are reported. A "lower-bound PCDD/F TEQ" is calculated assuming a concentration of zero for results reported as not detected, therefore, if all 17 of the individual compounds in the sub-set are not detected the lower-bound PCDD/F TEQ will equal zero. An "upper-bound PCDD/F TEQ" is calculated assuming a concentration equal to the detection limit for results reported as not detected. These two parameters span the range of possible TEQs if one or more of the PCDDs and PCDFs are reported as not detected.

The BC WQG for total mercury is a sample-specific calculated value that is based on the concentration of methylmercury in a sample. Although an approved BC WQG for the protection of aquatic life for methylmercury has not been explicitly established, the BC Ambient Water Quality Guidelines for Mercury Overview Report indicates the total mercury WQG is derived from a methylmercury concentration threshold of 0.0001 µg/L (0.1 ng/L) that is set at a concentration that protects fish from mercury bioaccumulation to levels that could harm wildlife that consumes fish. Therefore, if methylmercury results are reported, the 0.0001 µg/L value is presented as a methylmercury WQG to support the interpretation of total mercury and methylmercury results.

3.2 Summary of Reported Results

Field measurements and analytical results included in this weekly report (Report #79) are listed below in Table 3. Testing for methylmercury, dioxins, furans and toxicity may require four weeks or longer to complete. Analytical results not reported will be included in future weekly reports. Reporting of results is pending for the following samples and parameters:

- SP-E-IN, WWTP-E-IN and WWTP-E-OUT collected August 14 (dioxins and furans)
- SP-W-IN, SP-W-OUT and 2700GPM-IN collected August 15 (dioxins and furans)
- 2700GPM-OUT collected August 16 (dioxins and furans)
- IDZ-W1 and IDZ-W2 collected August 16 (dioxins and furans)
- WQR2 collected August 17 (dioxins and furans)
- 2700GPM-IN and 2700 GMP-OUT collected August 25 (dioxins and furans)
- WWTP-E-OUT collected August 26 (methylmercury)

Table 3: Summary of Analytical Results Included in Weekly Discharge and Compliance Report #79.

Sample	Description	Sampling Date	Parameters Reported
IDZ-E1-0.5	Howe Sound IDZ station E1; 0.5 m below surface	August 11, 2025	Methylmercury.
IDZ-E1-2m	Howe Sound IDZ station E1; 2 m below surface		
IDZ-E1-SF	Howe Sound IDZ station E1; 2 m above the seafloor		
IDZ-E2-0.5	Howe Sound IDZ station E2; 0.5 m below surface		
IDZ-E2-2m	Howe Sound IDZ station E2; 2 m below surface		
IDZ-E2-SF	Howe Sound IDZ station E2; 2 m above the seafloor		
WQR1-0.5	Reference site 1; 0.5 m below surface		
WQR1-2m	Reference site 1; 2 m below surface		
WQR1-SF	Reference site 1; 2 m above the seafloor		
SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	August 20, 2025	Methylmercury.
WWTP-E-IN	East WWTP at the influent meter box		
WWTP-E-OUT	East WWTP at the effluent meter box		
SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	August 22, 2025	Methylmercury.
SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	August 25, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, and Methylmercury.
2700GPM-IN	2700 GPM TSS settling system at the influent meter box	August 25, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, VOCs and Methylmercury.
2700GPM-OUT	2700 GPM TSS settling system at the effluent meter box		
SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	August 26, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, and Methylmercury.
WWTP-E-IN	East WWTP at the influent meter box		
WWTP-E-OUT	East WWTP at the effluent meter box	August 26, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium.

3.3 East Catchment

The east catchment water quality monitoring results for stations at the East Sedimentation Pond, East WWTP and the authorized discharge location are discussed in this section. Results for the sedimentation pond and authorized discharge location are screened against PE-111578 discharge limits. Parameters without a discharge limit are screened against Canadian, Federal and BC WQGs for the protection of marine water aquatic life. East WWTP monitoring results are screened against operational MDOs which are equivalent to the PE-111578 discharge limits and the lowest applicable WQGs for parameters without discharge limits. The screened water quality results for analytical samples available at the time of reporting and for field parameters collected during the monitoring period are presented in Appendix B. Exceedances of PE-111578 discharge limits and WQGs in samples of effluent discharged to Howe Sound and results received for methylmercury, dioxins and furans are summarized below.

There were no discharges from the SP-E-OUT authorized discharge location during the monitoring period (August 24 – 30). East WWTP treated effluent volumes and discharge volumes from SP-E-OUT are listed in Appendix B, Table B-5.

Field measurements were collected August 24 – 30 at multiple influent and effluent locations, as outlined in Section 2, and are tabulated in Appendix B, Table B-4. Analytical samples collected August 26 (stations SP-E-IN, WWTP-E-IN, and WWTP-E-OUT) were available at the time of reporting. Screening results for east catchment contact water quality are summarized in Table B-1 and Table B-2 of Appendix B.

Dissolved oxygen (5.17 – 7.28 mg/L) was below the lower limit of the MDO (≥8 mg/L) in East WWTP effluent (WWTP-E-OUT) in daily field measurements collected during the monitoring period (August 24 – 30) (Appendix B, Table B-4). Total copper (0.00448 mg/L) and total mercury (0.0000513 mg/L) concentrations were above the MDOs (0.0043 mg/L and 0.000016 mg/L, respectively) in East WWTP effluent collected August 26 (Appendix B, Table B-2). The depletion of dissolved oxygen was also observed in contact water during dry conditions in 2024 and is speculated to be induced by warm temperatures and limited freshwater inputs (*i.e.*, from rain) to the contact water management system during dry conditions. East WWTP treated effluent was directed to the East Sedimentation Pond and there was no discharge to Howe Sound from the authorized discharge location (SP-E-OUT) during the August 24 – 30 monitoring period. Copper and mercury parameters are tracked in Table 4.

Methylmercury results were available for East Sedimentation Pond influent (SP-E-IN) and East WWTP influent and effluent (WWTP-E-IN and WWTP-E-OUT, respectively) collected August 20 (as discussed in Report #78), as well as influent samples (SP-E-IN and WWTP-E-IN) collected August 26. The methylmercury concentration was 0.0005 µg/L in the WWTP-E-OUT sample collected August 20 (Appendix B, Table B-3), which is above the WQG (0.0001 µg/L).

East WWTP effluent was directed to the East Sedimentation Pond and there was no discharge from the pond to Howe Sound on August 20. The total mercury concentration is also listed in Appendix B, Table B-3 and is above the MDO (as discussed in Report #78). Mercury parameters are tracked in Table 4.

3.4 West Catchment

The west catchment water quality monitoring results for stations at the West Sedimentation Pond, the 2700GPM TSS settling system, the West WWTP monitoring stations, and the authorized discharge location are discussed in this section. Results for sedimentation pond and TSS settling system influent and effluent stations are screened against PE-111578 discharge limits. Parameters without a discharge limit are screened against Canadian, Federal and BC WQGs for the protection of marine water aquatic life. The screened water quality results for analytical samples and field parameters are presented in Appendix C. Operation of the West WWTP is suspended (refer to Section 1.1) and monitoring results are therefore not available for the stations at this facility. Exceedances of PE-111578 discharge limits and WQGs in samples of effluent discharged to Howe Sound and results received for methylmercury, dioxins and furans are summarized below.

During the monitoring period (August 24 – 30), implementation of the 2700GPM TSS settling system continued (Section 1.1 and Section 1.2). West Sedimentation Pond effluent was directed to the 2700GPM TSS settling system on August 25, and clarified effluent was recirculated to the pond (refer to Section 1.2). There were no discharges to Howe Sound from the west catchment discharge location (SP-W-OUT) during the monitoring period. Daily clarified effluent and discharge volumes from SP-W-OUT are summarized in Appendix C, Table C-5.

Field measurements were collected August 24 – 30 at multiple influent and effluent locations, as outlined in Section 2, and are tabulated in Appendix C, Table C-4. Analytical samples collected August 25 (stations 2700GPM-IN and 2700GPM-OUT) were available at the time of reporting. The 2700GPM-OUT sample was collected at the outlet of Train 2, as noted in Section 2. Screening results for west catchment contact water quality are tabulated in Table C-1 and Table C-2 of Appendix C.

During the monitoring period (August 24 – 30), field measurements at station 2700GMP-OUT on August 25 met PE-111578 discharge limits and WQGs except for dissolved oxygen (6.71 mg/L), which was below the lower limit of the WQG (≥8 mg/L). Clarified effluent from the 2700GPM system was recirculated to the West Sedimentation Pond on August 25.

Methylmercury results were available for West Sedimentation Pond influent (SP-W-IN) collected August 22 and August 25, as well as for 2700GPM TSS settling system influent and effluent (2700GPM-IN and 2700GPM-OUT, respectively) collected August 25. The methylmercury concentration was 0.000282 µg/L in the 2700GPM-OUT sample collected August 25

(Appendix C, Table C-3), which is above the WQG (0.0001 µg/L). Clarified effluent from the 2700GPM system was recirculated to the West Sedimentation Pond and there was no discharge from the pond to Howe Sound on August 25. The total mercury concentration is also listed in Appendix C, Table C-3 and is above the WQG. Mercury parameters are tracked in Table 4.

3.5 Non-Contact Water Diversion Ditch Outlets

Non-contact water diversion ditch samples are screened against Canadian, Federal and BC WQGs for the protection of freshwater aquatic life.

East Creek was temporarily diverted to OUT-11 on September 17, 2024, to facilitate replacement of the OUT-12 culvert through which East Creek previously discharged. Only East Creek water is flowing through the OUT-11 culvert. East Creek is monitored at freshwater receiving environment station SW-04 and station OUT-11 is not monitored while the diversion is in place.

There were no analytical results for non-contact diversion ditch outlet stations at the time of reporting.

3.6 Freshwater and Estuarine Water Receiving Environment

Freshwater and estuarine water receiving environment samples are screened against Canadian, Federal and BC WQGs for the protection of freshwater and estuarine aquatic life. Parameter concentrations above a WQG value, but within the range of values observed in the baseline monitoring program are considered to represent the natural condition of the water and are not flagged as a possible indicator of project influence.

Analytical results were not available at the time of reporting for freshwater and estuarine water receiving environment stations.

3.7 Marine Water Receiving Environment

Marine water receiving environment samples are screened against Canadian, Federal and BC WQGs for the protection of marine water aquatic life. Parameter concentrations above a WQG value, but within the range of values observed in the baseline monitoring program or reference stations are considered to represent the natural condition of the water and not flagged as a possible indicator of project influence. Similarly, WQG exceedances at marine reference stations are considered to represent background conditions that are not influenced by the project. It is expected that samples collected within the IDZ (*i.e.,* mixing zone) defined in PE-111578 for the authorized discharge locations may have parameter concentrations above baseline or background (*i.e.,* reference station) concentrations due to project influence. The analytical results, field parameters and WQGs are summarized in Appendix D.

Methylmercury analytical results were available at the time of reporting for marine samples collected from 0.5 and 2 m below the water surface and 2 m above the seafloor on August 11 at IDZ-E1, IDZ-E2 and marine reference station WQR1 (as discussed in Report #77). For all samples, methylmercury concentrations ranged from <0.000020 to <0.00016 µg/L. Methylmercury results met the WQG except in the sample collected at 2 m above the seafloor at station IDZ-E1 (reported as <0.00016 µg/L). A laboratory re-analysis has been requested to achieve a lower detection limit for the reported result. This item is tracked in Table 4. The corresponding total mercury results for all samples were <0.005 µg/L and met WQGs (Appendix D, Table D-1).

4. Quality Control

This section presents the results of the quality control (QC) evaluation for the PE-111578 weekly report (Table 4). The evaluation includes a review of field and lab QC, completeness of the weekly report (*e.g.*, pending data), completeness of the monitoring program, confirmation of recordkeeping, evaluation of compliance and review of water management activities. Items flagged for follow-up in Section 3 are also tracked in Table 4. Any items flagged for follow-up are carried forward to future reports until they are closed.

Table 4: Weekly Report QC Evaluations and Ongoing Items

QC Procedure	Observation	Investigation/Resolution
Reporting Period (August 24 – 30, Report #79)		
Report #79 Revision to Version S1	Total mercury result revised by the laboratory	A review conducted by the laboratory for the August 26 East WWTP effluent (WWTP-E-OUT) original total mercury result presented in Report #79 (0.00165 mg/L, Table B-2) determined the original value was incorrect due to a lab error. Report #79 has been reissued as version S1 (*i.e.*, this report), and Table B-2 of this report has been updated to show the revised total mercury concentration (0.0000513 mg/L). This item is closed.
Authorized Works and Monitoring Program Evaluation	The authorized works and monitoring stations have not been established as described in PE-111578.	The PE-111578 authorized works for water management have been constructed, except for some of the conveyance ditches which require completion of site grading prior to installation. Sumps, pumps and hoses are used for temporary conveyance until the ditches are completed. The lower reach of East Creek has been temporarily diverted through OUT-11 outfall since September 17, 2024, to facilitate replacement of the East Creek outfall culvert (OUT-12). All monitoring stations have been established except at SP-E-IN-1, SP-E-IN-2, SP-W-IN-1 and SP-W-IN-2 where substitute stations are established in lieu of those listed in PE-111578 (refer to Section 2). This item remains open.
Report #79: Modified Detection Limit	Methylmercury detection limit was above the WQG	Methylmercury was reported as <0.00016 µg/L for August 11 marine sample collected at 2 m above the seafloor at station IDZ-E1. The detection limit (<0.00016 µg/L) for the reported value is above the WQG for methylmercury (0.0001 µg/L). The lab reported there were analytical interferences during testing that resulted in a raised detection limit for this sample. A laboratory re-analysis has been requested to achieve a detection limit below or equal to the WQG.
Report #79: Pending Data	Analytical results not reported.	Dioxins and furans results for contact water and treated water samples collected August 25, and methylmercury results for the WWTP-E-OUT sample collected August 26 are not included with Report #79. The pending results will be included in future weekly reports when available. This item remains open.
Ongoing Items from Previous Weekly Reports		
Report #62: WWTP Performance Evaluation	Total copper above the MDO.	This item was first noted in Report #46 (January 8 sample). From January 8 onwards the WWTP-E-OUT total copper concentrations were 0.00809, 0.00595, 0.00895, 0.00518, 0.00542, 0.00525, 0.00450, 0.00734, 0.00464, 0.00462, and 0.00573 mg/L in samples collected at WWTP-E-OUT on January 8, 14, 24, 28, February 24, March 8, 17, April 24, May 10, June 3, and June 9, respectively, and ranged from 0.00613 to 0.0108 mg/L in four replicate samples collected on February 15 which are above the MDO (0.0043 mg./L). The HSMT metal removal media was replaced on June 5 and the fresh media was expected to improve copper removal; however, the total copper result for WWTP-E-OUT collected June 9 (0.00573 mg/L) following the media replacement was above the MDO. Follow-up samples collected June 19, 23, July 2, 10, 13 and 21 returned total copper concentrations of 0.00264, 0.00263, 0.00181, 0.00185, 0.00215 and 0.00174 mg/L, respectively, and met the MDO. A detailed process evaluation was conducted on July 13 and a modification to how the treatment reagents are added was developed to improve copper removal. BCER was notified of the planned modification on July 21, and it was subsequently implemented. A sample collected July 28 returned a total copper concentration of 0.00797 mg/L and was above the MDO (0.0043 mg/L). Evaluation of the concrete contact water treatment circuit is ongoing to identify additional measures to improve the consistency of copper removal. Total copper concentrations in WWTP-E-OUT samples collected August 8, 14, 20 and 26 ranged from 0.00206 to 0.00448 mg/L and met the MDO (0.0043 mg/L), except in the August 26 sample (0.00448 mg/L). The WWTP treatment performance for total copper continues to be reviewed. This item remains open.
Report #67: WQG Evaluation	Total mercury and methylmercury above WQG.	In general, there has been an increased incidence of total mercury and methylmercury concentrations above the WQGs in site contact waters since late April. Since late April, site conditions have been drier and warmer than through the winter months. Total methylmercury results in contact water from SP-E-OUT, SP-W-OUT, WWTP-E-OUT and 2700GPM-OUT from May 3 to August 25 have been generally above the WQG (0.0001 µg/L) ranging from 0.000089 to 0.00194 µg/L with the highest value observed at WWTP-E-OUT on July 13 (0.00194 µg/L). Possible project related sources have been evaluated, and upstream contact water monitoring data indicate methylmercury is elevated in the hydrovac sump. Excess water from this sump is directed to the East WWTP. Literature review suggests microbially mediated mercury methylation processes can occur in the bottom sediments and water column sumps and ponds and that these processes are significantly accelerated during warmer temperatures. Further data evaluation will be conducted after additional data are collected. This item remains open.
Report #77: Potential Project Influence	Total aluminum at East Creek above WQG and the baseline concentration range.	Total aluminum concentration (1.10 mg/L) observed at the East Creek station (SW-04) on August 5 was 3.1 times greater than the WQG and 4.2 times greater than the maximum concentration observed in the pre-construction baseline monitoring program (0.264 mg/L). The total aluminum value has been confirmed by the laboratory. Site staff indicate there were no LNG facility construction activities on August 5 in the vicinity of East Creek. Other potential influences to East Creek water quality at station SW-04 were reviewed, which identified an upstream source outside of the WLNG construction facility area. Therefore, the observed total aluminum concentration is not attributed to influence from construction of the LNG facility. This item is closed.
Report #77: Pending Data	Analytical results not reported.	Methylmercury results for marine receiving environment samples collected August 11 are discussed in Sections 3.7 of Report #79. Dioxins and furans results for contact water and treated water samples collected August 14, 15, and 16 and for marine receiving environment samples collected August 16 are not included with Report #79. The pending results will be included in future weekly reports when available. This item remains open.
Report #78: WWTP Performance Evaluation	Hexavalent chromium above the MDO.	The WWTP-E-OUT hexavalent chromium concentration was 0.00216 mg/L in the sample collected August 20 which is above the MDO (0.0015 mg/L). The WWTP operator (NCS) reviewed possible causes and identified an adjustment of the concrete contact water treatment circuit to improve hexavalent chromium removal. The WWTP-E-OUT effluent sample collected August 26 returned <0.0005 mg/L for hexavalent chromium indicating the adjustment was effective. This item is closed.
Report #78: Pending Data	Analytical results not reported.	Methylmercury results for contact water and treated water samples collected August 20 and 22 are discussed in Sections 3.3 and 3.4 of Report #79. Dioxins and furans results for marine receiving environment samples collected August 17 are not included with Report #79. The pending results will be included in future weekly reports when available. This item remains open.

Notes:

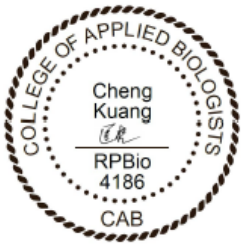
Result QA/QC screening includes the evaluation of field and lab QC results, comparison of total and dissolved metal results and review for modified detection limits.
Pending data are outstanding results from monitoring samples reported in the current or previous weekly reports.
Authorized works and monitoring program evaluation is an assessment of the completeness of the authorized works and monitoring program compared to PE-111578 specified or implied requirements.
WWTP performance evaluation is an assessment of WWTP effluent quality compared to operational MDOs.
Data QC indicates an evaluation of data trends or inter-parameter relationships that suggest a test result may not be representative of water quality at the time of monitoring.
Non-compliant discharge indicates exceedance of a discharge limit or a discharge that bypasses the sedimentation pond discharge location.
Potential project influence is an assessment that water quality at creek and Howe Sound baseline stations are above the baseline concentration range and may indicate project influence at these stations.

5. Closure

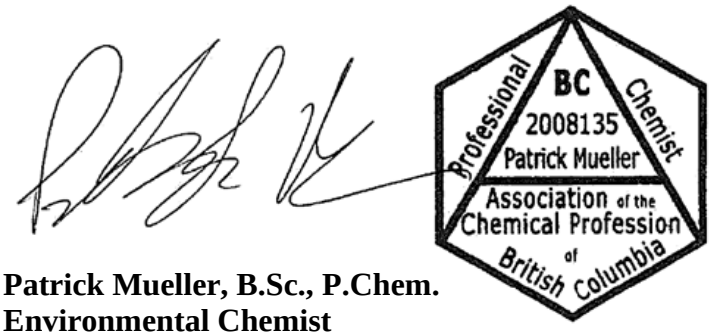
This weekly report is a desktop review by Lorax of the PE-111578 discharge and compliance monitoring program records, reports and results provided by Woodfibre LNG and prime contractor McDermott International and their sub-contractors. The records reviewed and analyzed by Lorax include ALS Environmental laboratory test reports and site reports (from Roe Environmental, LB LNG, McDermott and Woodfibre LNG). Verbal or electronic communications between Lorax, and Roe Environmental, LB LNG, McDermott, and Woodfibre LNG staff are conducted as needed to confirm the information presented in this report.

Regards,

LORAX ENVIRONMENTAL SERVICES LTD.



Cheng Kuang, M.Sc., RPBio.
Environmental Scientist



Patrick Mueller, B.Sc., P.Chem.
Environmental Chemist

Appendix A: Figures and Site Images

LEGEND

- Freshwater Monitoring Station
- Marine Water Monitoring Station
- Clean Water Diversion Discharge Station
- Sedimentation Pond Monitoring Stations (Water Quality)
- Wastewater Treatment Plant (WWTP)
- Certified Project Area
- Watercourse
- East Creek Temporary Diversion
- Non-Contact Ditch
- Culvert / Outfall / Pipeline
- Bathymetry Contour (Major: 50m)
- Bathymetry Contour (Minor: 10m)

DATE SAVED:	Sep 05, 2025
DRAWN BY:	DM
REVIEWED:	PM
VERSION:	1

Coordinate System: NAD 1983 UTM Zone 10N
Projection: Transverse Mercator
Datum: North American 1983
Units: Metre

1:6,000

0 100 200 Metres

CLIENT: Woodfibre LNG

LORAX ENVIRONMENTAL

PROJECT: **Woodfibre LNG Project Construction Phase**

TITLE: Site Layout and Water Quality Monitoring Stations for PE-111578 (August 30, 2025)

PROJECT #: A633-9

FIGURE: 1

P:\@202506\Woodfibre\Drafting Figures\APRX\WLNG Weekly Report Figure\WLNG Weekly Report.aprx Figure 1 - Monitoring and Compliance Locations

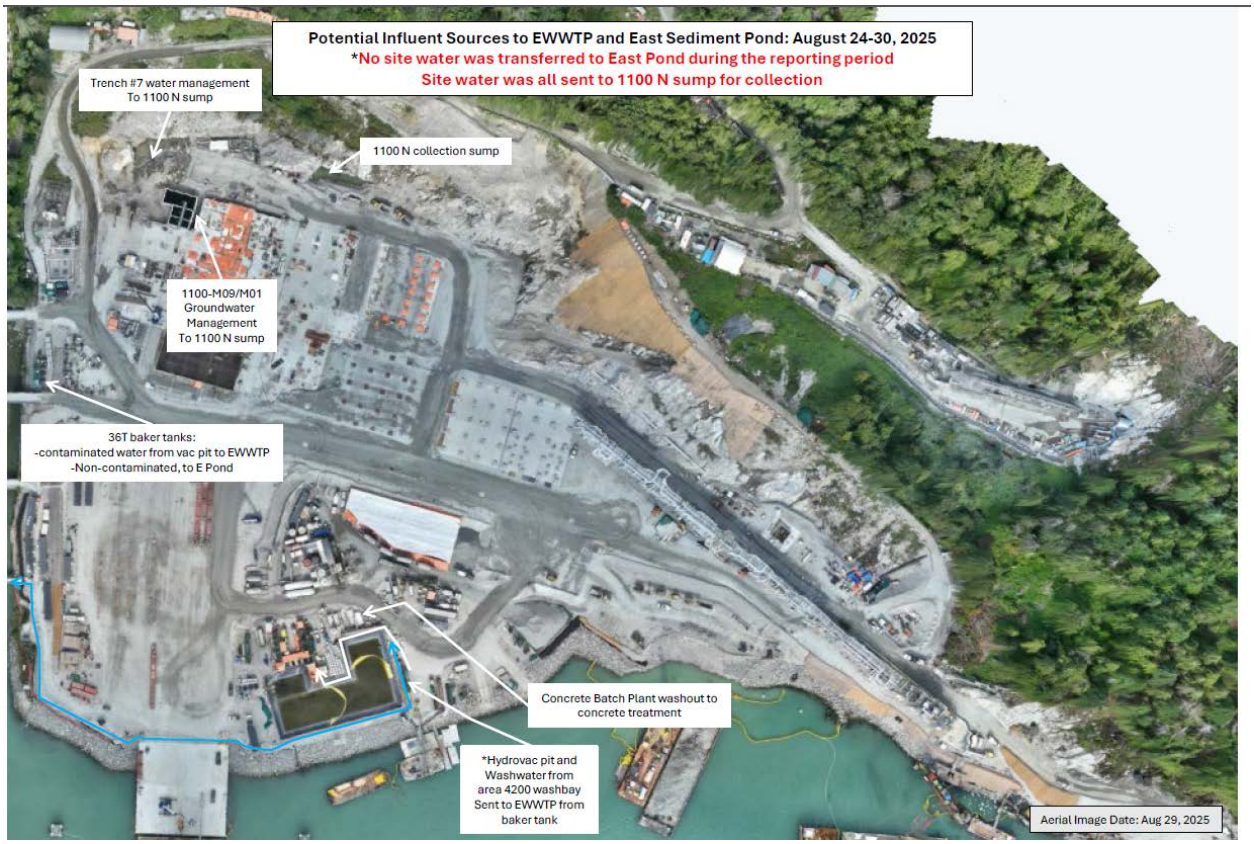


Figure 2: East Catchment contact water management facilities (August 24 – 30).

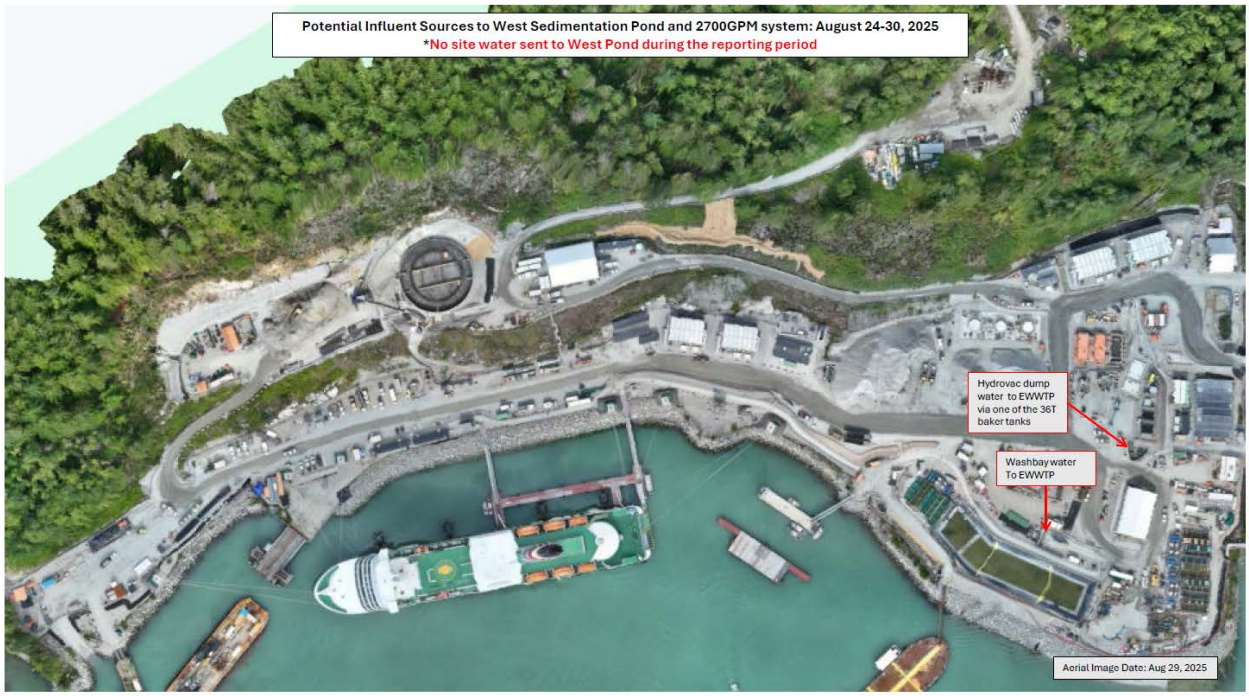


Figure 3: West Catchment contact water management facilities (August 24 – 30).

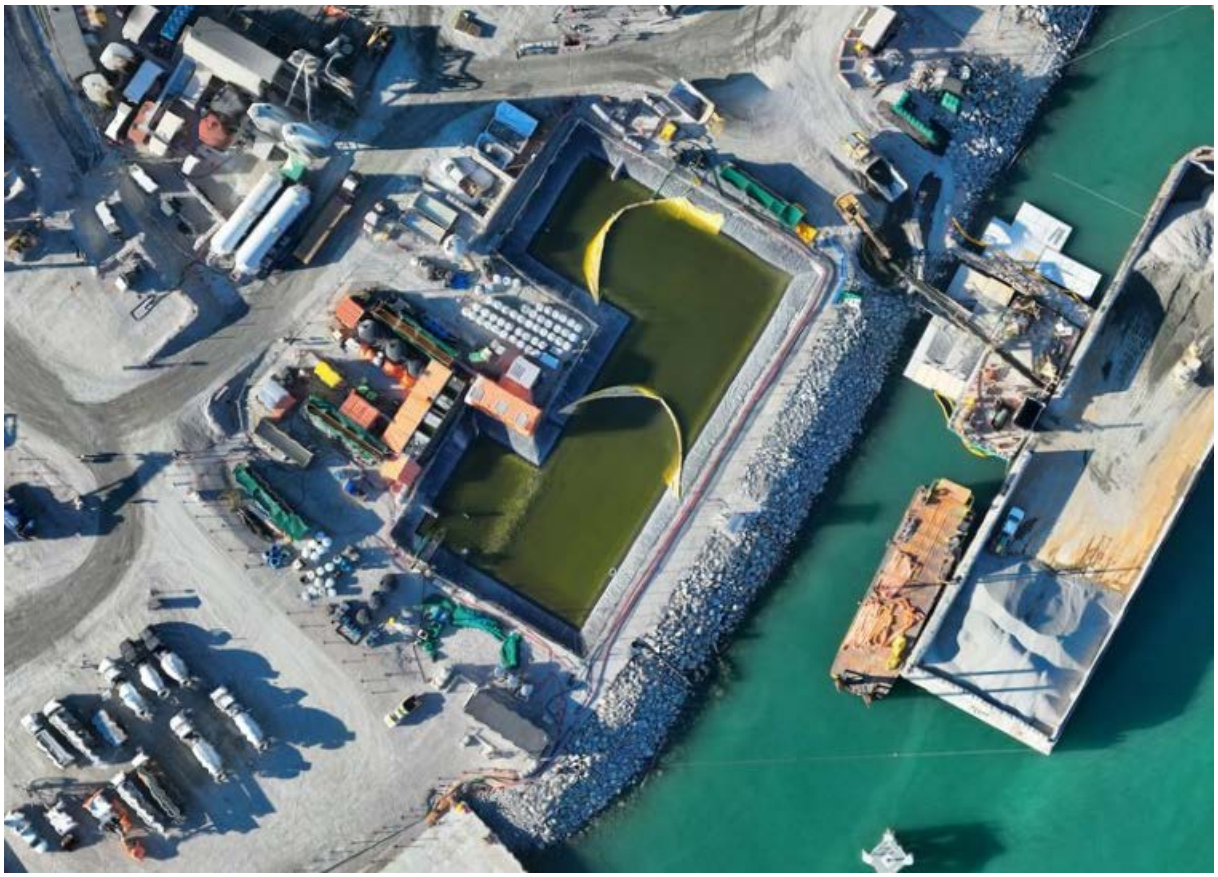


Figure 4: Aerial view of the East Sedimentation Pond (August 22, 2025). The East WWTP is located on the left side of the pond.

Figure 5: Aerial view of the West Sedimentation Pond (August 22, 2025).

Appendix B: East Catchment Monitoring Results

Table B-1: East Catchment Contact Water Influent Analytical Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline [1]		PE-111578 Discharge Limit	Station SP-E-IN Influent	Station WWTP-E-IN Influent
					SP-E-IN	WWTP-E-IN
					VA25C1737-001	VA25C1737-002
		Long Term	Short Term		2025-08-26 09:49	2025-08-26 09:14
General Parameters						
pH - Field	pH units	- [2]	-	5.5 - 9.0	6.6	6.9
Specific Conductivity - Field	µS/cm	-	-	-	1986	1833
Temperature - Field	°C	-	-	-	23.8	23.2
Salinity - Field	ppt	-	-	-	1.01	0.93
Turbidity - Field	NTU	-	-	-	2.26	2.16
TSS	mg/L	-	-	25 or 75 [6]	3	<3.0
Dissolved Oxygen - Field	mg/L	≥8	-	-	***7.93***	8.67
Anions and Nutrients						
Sulphate	mg/L	-	-	-	453	453
Chloride	mg/L	-	-	-	12.6	12.4
Fluoride	mg/L	-	1.5	-	<0.200	<0.200
Ammonia (N-NH_3)	mg/L	9.4-14 [3]	62-92 [3]	-	0.0251	0.0142
Nitrite (N-NO_2)	mg/L	-	-	-	<0.0100	<0.0100
Nitrate (N-NO_3)	mg/L	3.7	339	-	0.126	0.101
Total Metals						
Aluminum, total (T-Al)	mg/L	-	-	-	0.152	0.0988
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00104	0.00106
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00131	0.00125
Barium, total (T-Ba)	mg/L	-	-	-	0.00221	0.00344
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000040	<0.000040
Boron, total (T-B)	mg/L	1.2	-	-	0.071	0.071
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000250	<0.0000300
Chromium, total (T-Cr)	mg/L	-	-	-	0.00183	0.00203
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00020	<0.00020
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00121	0.00173
Iron, total (T-Fe)	mg/L	-	-	-	0.173	0.197
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.000123	0.000187
Manganese, total (T-Mn)	mg/L	-	-	-	0.00558	0.00677
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	***0.0000294***	***0.0000382***
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0729	0.0747
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00100	<0.00100
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000432	0.00031
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000020	<0.000020
Thallium, total (T-Tl)	mg/L	-	-	-	0.000023	0.000022
Uranium, total (T-U)	mg/L	-	-	-	0.0143	0.0137
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.0023	0.00222
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	<0.0060	0.0161
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050	<0.00050
Dissolved Metals						
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000250	<0.0000300
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00104	0.00123
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.1	0.111
Lead, dissolved (D-Pb)	mg/L	-	-	-	<0.000100	<0.000100
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.00477	0.00578
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00100	<0.00100
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.0723	0.0666
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.0021	0.00195
Zinc, dissolved (D-Zn)	mg/L	-	-	-	<0.0020	0.009
Polycyclic Aromatic Hydrocarbons (PAHs)						
Acenaphthene	mg/L	0.006	-	-	-	-
Acridine	mg/L	-	-	-	-	-
Anthracene	mg/L	-	-	-	-	-
Benz(a)anthracene	mg/L	-	-	-	-	-
Benzo(a)pyrene	mg/L	0.00001	-	-	-	-
Chrysene	mg/L	0.0001	-	-	-	-
Fluoranthene	mg/L	-	-	-	-	-
Fluorene	mg/L	0.012	-	-	-	-
1-methylnaphthalene	mg/L	0.001	-	-	-	-
2-methylnaphthalene	mg/L	0.001	-	-	-	-
Naphthalene	mg/L	0.001	-	-	-	-
Phenanthrene	mg/L	-	-	-	-	-
Pyrene	mg/L	-	-	-	-	-
Quinoline	mg/L	-	-	-	-	-
Volatile Organic Compounds (VOCs)						
Benzene	mg/L	0.11	-	-	-	-
Ethylbenzene	mg/L	0.25	-	-	-	-
Methyl-tert-butyl-ether	mg/L	5	0.44	-	-	-
Styrene	mg/L	-	-	-	-	-
Toluene	mg/L	0.215	-	-	-	-
Total Xylenes	mg/L	-	-	-	-	-
Chlorobenzene	mg/L	0.025	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.042	-	-	-	-

Notes:
Non-detect results are screened using the detection limit value.
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text exceed the PE-111578 East Sedimentation Pond Discharge Limit.
The East Catchment did not discharge during the monitoring period (August 24 – 30).
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] The WQG was not evaluated for parameters with discharge limits.
[3] The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.
[4] The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.
[5] When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.

Table B-2: East Catchment Effluent Analytical Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline [1]		PE-111578 Discharge Limit	Station WWTP-E-OUT
					Effluent
					WWTP-E-OUT
					VA25C1737-006
		Long Term	Short Term		2025-08-26 15:23
General Parameters					
pH - Field	pH units	- [2]	-	5.5 - 9.0	6.4
Specific Conductivity - Field	µS/cm	-	-	-	2110
Temperature - Field	°C	-	-	-	24.6
Salinity - Field	ppt	-	-	-	1.08
Turbidity - Field	NTU	-	-	-	3.98
TSS	mg/L	-	-	25 or 75 [6]	<3.0
Dissolved Oxygen - Field	mg/L	≥8	-	-	***6.78***
Anions and Nutrients					
Sulphate	mg/L	-	-	-	539
Chloride	mg/L	-	-	-	12.4
Fluoride	mg/L	-	1.5	-	<0.200
Ammonia (N-NH_3)	mg/L	9.4 [3]	62 [3]	-	0.0373
Nitrite (N-NO_2)	mg/L	-	-	-	<0.0100
Nitrate (N-NO_3)	mg/L	3.7	339	-	0.124
Total Metals					
Aluminum, total (T-Al)	mg/L	-	-	-	0.098
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00111
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00125
Barium, total (T-Ba)	mg/L	-	-	-	0.00238
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000040
Boron, total (T-B)	mg/L	1.2	-	-	0.07
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000350
Chromium, total (T-Cr)	mg/L	-	-	-	0.00402
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00020
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00448
Iron, total (T-Fe)	mg/L	-	-	-	0.449
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.000362
Manganese, total (T-Mn)	mg/L	-	-	-	0.00623
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	***0.0000513***
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0944
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00100
Selenium, total (T-Se)	mg/L	0.002	-	-	0.00057
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000020
Thallium, total (T-Tl)	mg/L	-	-	-	0.000026
Uranium, total (T-U)	mg/L	-	-	-	0.0102
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.00266
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	0.007
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050
Dissolved Metals					
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000300
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.0015
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.234
Lead, dissolved (D-Pb)	mg/L	-	-	-	0.000115
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.00521
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00100
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.0767
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00207
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0023
Polycyclic Aromatic Hydrocarbons (PAHs)					
Acenaphthene	mg/L	0.006	-	-	-
Acridine	mg/L	-	-	-	-
Anthracene	mg/L	-	-	-	-
Benz(a)anthracene	mg/L	-	-	-	-
Benzo(a)pyrene	mg/L	0.00001	-	-	-
Chrysene	mg/L	0.0001	-	-	-
Fluoranthene	mg/L	-	-	-	-
Fluorene	mg/L	0.012	-	-	-
1-methylnaphthalene	mg/L	0.001	-	-	-
2-methylnaphthalene	mg/L	0.001	-	-	-
Naphthalene	mg/L	0.001	-	-	-
Phenanthrene	mg/L	-	-	-	-
Pyrene	mg/L	-	-	-	-
Quinoline	mg/L	-	-	-	-
Volatile Organic Compounds (VOCs)					
Benzene	mg/L	0.11	-	-	-
Ethylbenzene	mg/L	0.25	-	-	-
Methyl-tert-butyl-ether	mg/L	5	0.44	-	-
Styrene	mg/L	-	-	-	-
Toluene	mg/L	0.215	-	-	-
Total Xylenes	mg/L	-	-	-	-
Chlorobenzene	mg/L	0.025	-	-	-
1,2-Dichlorobenzene	mg/L	0.042	-	-	-

Notes:
Non-detect results are screened using the detection limit value.
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text exceeded the PE-111578 East Sedimentation Pond Discharge Limit.
The East Catchment did not discharge during the monitoring period (August 24 – 30).
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] The WQG was not evaluated for parameters with discharge limits.
[3] The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.
[4] The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.
[5] When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.

Table B-3: East Catchment Methylmercury and Corresponding Total Mercury Results Received at the Time of Reporting.

Parameter					**Total Methylmercury**	**Total Mercury**
Unit					**µg/L**	**µg/L**
Lowest Applicable Guideline[1]					0.0001 [2]	0.00089-0.0076 [3,4]
Station	**Water Type**	**Sample ID**	**Lab ID**	**Sampling Date**		
Influent						
SP-E-IN	Influent	SP-E-IN	VA25C1095-001	2025-08-20	***0.000793***	***0.00706***
SP-E-IN	Influent	SP-E-IN	VA25C1737-001	2025-08-26	***0.000752***	***0.0294***
WWTP-E-IN	Influent	WWTP-E-IN	VA25C1095-002	2025-08-20	***0.000582***	***0.00692***
WWTP-E-IN	Influent	WWTP-E-IN	VA25C1737-002	2025-08-26	***0.000501***	***0.0382***
Effluent						
WWTP-E-OUT	Effluent	WWTP-E-OUT	VA25C1095-006	2025-08-20	***0.0005*** [5]	***0.0345*** [5]

Notes:
Non-detect results are screened using the detection limit value.
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine aquatic life.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] From BC Ambient Water Quality Guidelines for Mercury Overview Report. The methylmercury concentration threshold of 0.0001 µg/L (0.1 ng/L) is indicated as a WQG for the protection of wildlife and is set at a concentration that protects fish from mercury bioaccumulation to a level that may harm wildlife that consume fish.
[3] CCME guideline for total mercury = 0.016 µg/L.
[4] When MeHg ≤ 0.5% of total Hg, BC WQG = 0.02 µg/L. When MeHg > 0.5% of total Hg, BC WQG = 0.0001/(MeHg/Total Hg). Detection limit values are used to calculate the WQG for result reported as not detected.
[5] East WWTP effluent was directed to the East Sedimentation Pond and there was no discharge from the pond to Howe Sound on August 20.

Table B-4: East Catchment Field Measurements Collected During the Monitoring Period (August 24 – 30).

Parameter			**Temp.**	**Dissolved Oxygen (DO)**	**Salinity**	**Turbidity**	**Estimated TSS [3]**	**pH**	**Specific Conductivity**	**Visibility of Sheen**
Unit			**°C**	**mg/L**	**ppt**	**NTU**	**mg/L**	**s.u.**	**µS/cm**	
PE-111578 Discharge Limit			-	-	-	-	25 or 75 [6]	5.5 - 9.0	-	-
Lowest Applicable Guideline [1]			-	≥8	-	-	- [2]	- [2]	-	-
Station ID	**Water Type**	**Date**								
Influent [4]										
SP-E-IN	Influent	2025-08-24 10:34	23.0	8.72	0.87	2.81	5.1	7	1718	No
SP-E-IN	Influent	2025-08-25 10:33	23.7	8.52	0.96	3.64	5.7	7	1887	No
SP-E-IN	Influent	2025-08-26 09:49	23.8	***7.93***	1.01	2.26	4.7	6.6	1986	No
SP-E-IN	Influent	2025-08-27 13:38	24.8	8.3	1.07	2.78	5.1	7.0	2099	No
SP-E-IN	Influent	2025-08-28 13:02	24.6	8.38	1.13	3.21	5.4	6.9	2217	No
SP-E-IN	Influent	2025-08-29 12:42	25.1	8.56	1.18	2.37	4.8	7.0	2305	No
SP-E-IN	Influent	2025-08-30 11:26	24.4	8.17	1.24	6.01	7.5	6.9	2407	No
WWTP-E-IN	Influent	2025-08-24 10:45	23.3	9.45	0.76	1.22	3.9	7.1	1506	No
WWTP-E-IN	Influent	2025-08-25 15:02	25.7	9.44	0.9	2.6	4.9	7.1	1780	No
WWTP-E-IN	Influent	2025-08-26 09:14	23.2	8.67	0.93	2.16	4.6	6.9	1833	No
WWTP-E-IN	Influent	2025-08-27 13:46	25.4	9.35	1.01	2.55	4.9	7.1	1996	No
WWTP-E-IN	Influent	2025-08-28 13:06	25.1	9.12	1.06	2.42	4.8	7.1	2088	No
WWTP-E-IN	Influent	2025-08-29 12:49	25.1	9.32	1.11	2.92	5.2	7	2181	No
WWTP-E-IN	Influent	2025-08-30 11:19	23.7	8.94	1.16	2.67	5.0	7.2	2257	No
Effluent [5]										
WWTP-E-OUT	Effluent	2025-08-24 10:42	22.6	***7.28*** [7]	1.09	5.53	7.1	6.4	2126	No
WWTP-E-OUT	Effluent	2025-08-25 15:07	24.5	***5.93*** [7]	0.95	1.38	4.0	6.6	1870	No
WWTP-E-OUT	Effluent	2025-08-26 15:23	24.6	***6.78*** [7]	1.08	3.98	6.0	6.4	2110	No
WWTP-E-OUT	Effluent	2025-08-27 13:43	24.7	***6.87*** [7]	1.09	3.13	5.3	6.6	2138	No
WWTP-E-OUT	Effluent	2025-08-28 13:04	24.4	***5.17*** [7]	1.15	2.18	4.6	6.6	2242	No
WWTP-E-OUT	Effluent	2025-08-29 12:47	24.4	***6.69*** [7]	1.21	3.43	5.6	6.4	2355	No
WWTP-E-OUT	Effluent	2025-08-30 11:22	24.1	***6.37*** [7]	1.27	2.03	4.5	6.6	2476	No
WWTP-E-OUT	Effluent	2025-08-24 10:42	22.6	***7.28*** [7]	1.09	5.53	7.1	6.4	2126	No

Notes:
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text exceed the PE-111578 East Sedimentation Pond Discharge Limit.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] The WQG was not evaluated for parameters with discharge limits.
[3] TSS concentration is estimated from field turbidity measurements using a site-specific relationship TSS = 0.7458 * [turbidity as NTU] + 3.
[4] Daily field measurements for station SP-E-IN were collected from cell 1 of the East Sedimentation Pond.
[5] There was no discharge at the authorized discharge location (SP-E-OUT) during the monitoring period (August 24 – 30), therefore daily field measurements for SP-E-OUT were not collected on those days.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.
[7] East WWTP treated effluent is directed to the East Sedimentation Pond and there was no discharge from the pond to Howe Sound during the monitoring period (August 24 – 30).

Table B-5: East Catchment Daily Discharge Volumes for the Monitoring Period (August 24 – 30).

	East Sedimentation Pond Effluent	Transfer to West Sedimentation Pond	East WWTP Treated Effluent (Station WWTP-E-OUT)[2]	Discharge to Howe Sound (Station SP-E-OUT)
Unit	**m^3**	**m^3**	**m^3**	**m^3**
PE-111578 Discharge Limit	-	-	1100	- [1]
Date				
2025-08-24	0	0	522	0
2025-08-25	0	0	736	0
2025-08-26	0	0	649	0
2025-08-27	0	0	617	0
2025-08-28	0	0	463	0
2025-08-29	0	0	683	0
2025-08-30	0	0	689	0

Notes:
Results in orange text exceed the PE-111578 East Sedimentation Pond Discharge Limit.
[1] As noted in PE-111578 Condition 2.1.4, the annual average authorized discharge rate from the East Sedimentation Pond to Howe Sound was set to 650 m^3/day for the purpose of calculating discharge fees as required by the Permit and Approval Fees and Charges Regulation. Therefore, the annual average authorized discharge rate is not evaluated as a discharge limit.
[2] East WWTP treated effluent was recirculated to the East Sedimentation Pond.

Appendix C: West Catchment Monitoring Results

Table C-1: West Catchment Contact Water Influent Analytical Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline [1]		PE-111578 Discharge Limit	Station SP-W-IN Influent 2700GPM-IN VA25C1590-001 2025-08-25 09:15	Station 2700GPM-IN Influent 2700GPM-IN VA25C1590-002 2025-08-25 10:14
		Long Term	Short Term			
General Parameters						
pH - Field	pH units	- [2]	-	5.5 - 9.0	8.1	8.3
Specific Conductivity - Field	µS/cm	-	-	-	1787	1769
Temperature - Field	°C	-	-	-	22.9	23.7
Salinity - Field	ppt	-	-	-	0.91	0.9
Turbidity - Field	NTU	-	-	-	5.2	5.98
TSS	mg/L	-	-	25 or 75 [6]	7.3	4.9
Dissolved Oxygen - Field	mg/L	≥8	-	-	***7.39***	***7.35***
Anions and Nutrients						
Sulphate	mg/L	-	-	-	525	524
Chloride	mg/L	-	-	-	25	25.4
Fluoride	mg/L	-	1.5	-	0.24	0.261
Ammonia (N-NH_3)	mg/L	0.27 [3]	1.8 [3]	-	0.167	0.165
Nitrite (N-NO_2)	mg/L	-	-	-	<0.0100	<0.0100
Nitrate (N-NO_3)	mg/L	3.7	339	-	<0.0500	<0.0500
Total Metals						
Aluminum, total (T-Al)	mg/L	-	-	-	0.243	0.28
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00108	0.00107
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00509	0.00549
Barium, total (T-Ba)	mg/L	-	-	-	0.00848	0.0116
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000040	<0.000040
Boron, total (T-B)	mg/L	1.2	-	-	<0.020	0.02
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000350	<0.0000350
Chromium, total (T-Cr)	mg/L	-	-	-	<0.00100	<0.00100
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00020	<0.00020
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00148	0.0021
Iron, total (T-Fe)	mg/L	-	-	-	0.293	0.296
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.000353	0.000397
Manganese, total (T-Mn)	mg/L	-	-	-	0.0365	0.0346
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	0.0000034	0.00000344
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0718	0.0742
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00100	<0.00100
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000253	0.000374
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000020	<0.000020
Thallium, total (T-Tl)	mg/L	-	-	-	0.000098	0.000075
Uranium, total (T-U)	mg/L	-	-	-	0.0145	0.0145
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.00463	0.00495
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	<0.0060	<0.0060
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050	<0.00050
Dissolved Metals						
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000200	<0.0000250
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.0008	0.0012
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.036	0.054
Lead, dissolved (D-Pb)	mg/L	-	-	-	<0.000100	<0.000100
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.026	0.0251
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00100	<0.00100
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.16	0.168
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00411	0.00444
Zinc, dissolved (D-Zn)	mg/L	-	-	-	<0.0020	<0.0020
Polycyclic Aromatic Hydrocarbons (PAHs)						
Acenaphthene	mg/L	0.006	-	-	-	<0.000010
Acridine	mg/L	-	-	-	-	<0.000010
Anthracene	mg/L	-	-	-	-	<0.000010
Benz(a)anthracene	mg/L	-	-	-	-	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	-	-	<0.0000050
Chrysene	mg/L	0.0001	-	-	-	<0.000010
Fluoranthene	mg/L	-	-	-	-	<0.000010
Fluorene	mg/L	0.012	-	-	-	<0.000010
1-methylnaphthalene	mg/L	0.001	-	-	-	<0.000010
2-methylnaphthalene	mg/L	0.001	-	-	-	<0.000010
Naphthalene	mg/L	0.001	-	-	-	<0.000050
Phenanthrene	mg/L	-	-	-	-	<0.000020
Pyrene	mg/L	-	-	-	-	<0.000010
Quinoline	mg/L	-	-	-	-	0.000102
Volatile Organic Compounds (VOCs)						
Benzene	mg/L	0.11	-	-	-	<0.00050
Ethylbenzene	mg/L	0.25	-	-	-	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	-	-	<0.00050
Styrene	mg/L	-	-	-	-	<0.00050
Toluene	mg/L	0.215	-	-	-	<0.00040
Total Xylenes	mg/L	-	-	-	-	<0.00050
Chlorobenzene	mg/L	0.025	-	-	-	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	-	-	<0.00050

Notes:
Non-detect results are screened using the detection limit value.
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text exceed the PE-111578 West Sedimentation Pond Discharge Limit.
The West Catchment did not discharge during the monitoring period (August 24 – 30).
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] The WQG was not evaluated for parameters with discharge limits.
[3] The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.
[4] The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.
[5] When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.

Table C-2: West Catchment Contact Water Effluent Analytical Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline [1]		PE-111578 Discharge Limit	Station 2700GPM-OUT Effluent W2700T2-OUT[7] VA25C1590-003
		Long Term	Short Term		2025-08-25 09:53
General Parameters					
pH - Field	pH units	- [2]	-	5.5 - 9.0	7.7
Specific Conductivity - Field	µS/cm	-	-	-	1777
Temperature - Field	°C	-	-	-	23
Salinity - Field	ppt	-	-	-	0.9
Turbidity - Field	NTU	-	-	-	3.98
TSS	mg/L	-	-	25 or 75 [6]	4.9
Dissolved Oxygen - Field	mg/L	≥8	-	-	***6.71***
Anions and Nutrients					
Sulphate	mg/L	-	-	-	522
Chloride	mg/L	-	-	-	25.4
Fluoride	mg/L	-	1.5	-	0.244
Ammonia (N-NH_3)	mg/L	0.27 [3]	1.8 [3]	-	0.144
Nitrite (N-NO_2)	mg/L	-	-	-	<0.0100
Nitrate (N-NO_3)	mg/L	3.7	339	-	<0.0500
Total Metals					
Aluminum, total (T-Al)	mg/L	-	-	-	0.265
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00107
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00552
Barium, total (T-Ba)	mg/L	-	-	-	0.00918
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000040
Boron, total (T-B)	mg/L	1.2	-	-	<0.020
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000400
Chromium, total (T-Cr)	mg/L	-	-	-	<0.00100
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00020
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00133
Iron, total (T-Fe)	mg/L	-	-	-	0.163
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.000262
Manganese, total (T-Mn)	mg/L	-	-	-	0.0342
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	0.00000261
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0714
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00100
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000351
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000020
Thallium, total (T-Tl)	mg/L	-	-	-	0.000102
Uranium, total (T-U)	mg/L	-	-	-	0.0142
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.00417
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	<0.0060
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050
Dissolved Metals					
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000250
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00078
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.05
Lead, dissolved (D-Pb)	mg/L	-	-	-	<0.000100
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0276
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00100
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.154
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00352
Zinc, dissolved (D-Zn)	mg/L	-	-	-	<0.0020
Polycyclic Aromatic Hydrocarbons (PAHs)					
Acenaphthene	mg/L	0.006	-	-	<0.000010
Acridine	mg/L	-	-	-	<0.000010
Anthracene	mg/L	-	-	-	<0.000010
Benz(a)anthracene	mg/L	-	-	-	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	-	<0.0000050
Chrysene	mg/L	0.0001	-	-	<0.000010
Fluoranthene	mg/L	-	-	-	<0.000010
Fluorene	mg/L	0.012	-	-	<0.000010
1-methylnaphthalene	mg/L	0.001	-	-	<0.000010
2-methylnaphthalene	mg/L	0.001	-	-	<0.000010
Naphthalene	mg/L	0.001	-	-	<0.000050
Phenanthrene	mg/L	-	-	-	<0.000020
Pyrene	mg/L	-	-	-	<0.000010
Quinoline	mg/L	-	-	-	0.000079
Volatile Organic Compounds (VOCs)					
Benzene	mg/L	0.11	-	-	<0.00050
Ethylbenzene	mg/L	0.25	-	-	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	-	<0.00050
Styrene	mg/L	-	-	-	<0.00050
Toluene	mg/L	0.215	-	-	<0.00040
Total Xylenes	mg/L	-	-	-	<0.00050
Chlorobenzene	mg/L	0.025	-	-	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	-	<0.00050

Notes:
Non-detect results are screened using the detection limit value.
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text exceed the PE-111578 West Sedimentation Pond Discharge Limit.
The West Catchment did not discharge during the monitoring period (August 24 – 30).
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] The WQG was not evaluated for parameters with discharge limits.
[3] The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.
[4] The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.
[5] When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.
[7] 2700GPM clarified effluent was collected at the outlet of Train 2 (W2700-T2-OUT).

Table C-3: West Catchment Methylmercury and Corresponding Total Mercury Results Received at the Time of Reporting.

Parameter					**Total Methylmercury**	**Total Mercury**
Unit					**µg/L**	**µg/L**
Lowest Applicable Guideline[1]					0.0001 [2]	0.00048-0.00093 [3,4]
Station	**Water Type**	**Sample ID**	**Lab ID**	**Sampling Date**		
Influent						
SP-W-IN	Influent	SP-W-IN	VA25C1385-001	2025-08-22	***0.000682***	***0.0033***
SP-W-IN	Influent	SP-W-IN	VA25C1590-001	2025-08-25	***0.000414***	***0.0034***
2700GPM-IN	Influent	2700GPM-IN	VA25C1590-002	2025-08-25	***0.00041***	***0.00344***
Effluent						
2700GPM-OUT	Effluent	W2700T2-OUT	VA25C1590-003	2025-08-25	***0.000282*** [5]	***0.00261*** [5]

Notes:
Non-detect results are screened using the detection limit value.
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine aquatic life.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] From BC Ambient Water Quality Guidelines for Mercury Overview Report. The methylmercury concentration threshold of 0.0001 µg/L (0.1 ng/L) is indicated as a WQG for the protection of wildlife and is set at a concentration that protects fish from mercury bioaccumulation to a level that may harm wildlife that consume fish.
[3] CCME guideline for total mercury = 0.016 µg/L.
[4] When MeHg ≤ 0.5% of total Hg, BC WQG = 0.02 µg/L. When MeHg > 0.5% of total Hg, BC WQG = 0.0001/(MeHg/Total Hg). Detection limit values are used to calculate the WQG for result reported as not detected.
[5] 2700GPM clarified effluent was collected at the outlet of Train 2 (W2700-T2-OUT) and directed to the West Sedimentation Pond; and there was no discharge from the pond to Howe Sound on August 25.

Table C-4: West Catchment Field Measurements Collected During the Monitoring Period (August 24 – 30).

Parameter			**Temperature**	**Dissolved Oxygen (DO)**	**Salinity**	**Turbidity**	**Estimated TSS [3]**	**pH**	**Specific Conductivity**	**Visibility of Sheen**
Unit			**°C**	**mg/L**	**ppt**	**NTU**	**mg/L**	**s.u.**	**µS/cm**	
PE-111578 Discharge Limit			-	-	-	-	25 or 75 [6]	5.5 - 9.0	-	-
Lowest Applicable Guideline [1]			-	≥8	-	-	- [2]	- [2]	-	-
Station ID	**Water Type**	**Date**								
Influent [4]										
SP-W-IN	Influent	2025-08-24 10:18	22.3	8.27	0.88	2.54	4.9	8.7	1733	No
SP-W-IN	Influent	2025-08-25 09:15	22.9	***7.39***	0.91	5.2	6.9	8.1	1787	No
SP-W-IN	Influent	2025-08-26 10:24	23.9	8.49	0.91	2.56	4.9	7.1	1789	No
SP-W-IN	Influent	2025-08-27 10:10	23.3	9.57	0.92	3.22	5.4	7.4	1817	No
SP-W-IN	Influent	2025-08-28 10:00	23.1	9.79	0.9	3.92	5.9	7.8	1769	No
SP-W-IN	Influent	2025-08-29 12:27	24.6	9.9	0.91	3.02	5.3	8	1796	No
SP-W-IN	Influent	2025-08-30 12:15	23.7	9.24	0.9	3.96	6.0	8.3	1778	No
2700GPM-IN	Influent	2025-08-25 10:14	23.7	***7.35***	0.9	5.98	7.5	8.3	1769	No
Effluent [5]										
2700GPM-OUT	Effluent	2025-08-25 09:53	23	***6.71*** [7]	0.9	3.98	6.0	7.7	1777	No

Notes:
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text exceed the PE-111578 West Sedimentation Pond Discharge Limit.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] The WQG was not evaluated for parameters with discharge limits.
[3] TSS concentration is estimated from field turbidity measurements using a site-specific relationship TSS = 0.7458 * [turbidity as NTU] + 3.
[4] Daily field measurements for station SP-W-IN were collected from cell 1 of the West Sedimentation Pond.
[5] 2700GPM clarified effluent was directed to the West Sedimentation Pond and there was no discharge at the authorized discharge location (SP-W-OUT) during the monitoring period (August 24 – 30), therefore daily field measurements for SP-W-OUT were not collected on those days.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.
[7] 2700GPM clarified effluent was collected at the outlet of Train 2 (W2700-T2-OUT) and directed to the West Sedimentation Pond; and there was no discharge from the pond to Howe Sound on August 25.

Table C-5: West Catchment Daily Discharge Volumes for the Monitoring Period (August 24 – 30).

	West Sedimentation Pond Effluent	West TSS Settling System (2700GPM) Clarified Effluent (Station 2700GPM-OUT)[3]	Water Reclaimed for Construction Purposes (Station 2700GPM-OUT)	West WWTP Treated Effluent [1] (Station WWTP-W-OUT)	Discharge to Howe Sound (Station SP-W-OUT)
Unit	**m^3**		**m^3**	**m^3**	**m^3**
PE-111578 Discharge Limit	-		-	120	- [2]
Date					
2025-08-24	0	0	0	0	0
2025-08-25	0	302	0	0	0
2025-08-26	0	0	0	0	0
2025-08-27	0	0	0	0	0
2025-08-28	0	0	0	0	0
2025-08-29	0	0	0	0	0
2025-08-30	0	0	0	0	0

Notes:
Results in orange text exceed the PE-111578 West Sedimentation Pond Discharge Limit.
[1] The West WWTP is not being operated, therefore discharges are not expected from this facility.
[2] As noted in PE-111578 Condition 2.2.4, the annual average authorized discharge rate from the West Sedimentation Pond to Howe Sound was set to 310 m^3/day for the purpose of calculating discharge fees as required by the Permit and Approval Fees and Charges Regulation. Therefore, the annual average authorized discharge rate is not evaluated as a discharge limit.
[3] Commissioning and pilot testing of a larger TSS settling system (2700GPM) continued during the monitoring period (August 24 – 30). Clarified effluent from the 2700GPM TSS settling system is recirculated to the West Sedimentation Pond, discharged to Howe Sound or reclaimed for construction purposes based on operational considerations.

Appendix D: Marine Water Receiving Environment Results

Table D-1: Marine Water Methylmercury and Corresponding Total Mercury Results Received at the Time of Reporting.

Parameter					**Total Methylmercury**	**Total Mercury**
Unit					**µg/L**	**µg/L**
Lowest Applicable Guideline[1]					0.0001 [2]	0.017-0.025 [3,4]
Station	**Position in Water Column**	**Sample ID**	**Lab ID**	**Sampling Date**		
Station IDZ-E1						
IDZ-E1	0.5 m Below Surface	IDZ-E1-0.5	VA25B9934-001	2025-08-11	0.000029	<0.005
IDZ-E1	2 m Below Surface	IDZ-E1-2m	VA25B9934-002	2025-08-11	<0.00002	<0.005
IDZ-E1	2 m Above Seafloor	IDZ-E1-SF	VA25B9934-003	2025-08-11	***<0.00016***	<0.005
Station IDZ-E2						
IDZ-E2	0.5 m Below Surface	IDZ-E2-0.5	VA25B9934-004	2025-08-11	0.000022	<0.005
IDZ-E2	2 m Below Surface	IDZ-E2-2m	VA25B9934-005	2025-08-11	<0.00002	<0.005
IDZ-E2	2 m Above Seafloor	IDZ-E2-SF	VA25B9934-006	2025-08-11	<0.00002	<0.005
Reference Station WQR1						
WQR1	0.5 m Below Surface	WQR1-0.5	VA25B9934-007	2025-08-11	<0.00002	<0.005
WQR1	2 m Below Surface	WQR1-2m	VA25B9934-008	2025-08-11	<0.0001	<0.005
WQR1	2 m Above Seafloor	WQR1-SF	VA25B9934-009	2025-08-11	0.000021	<0.005

Notes:
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine aquatic life.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] From BC Ambient Water Quality Guidelines for Mercury Overview Report. The methylmercury concentration threshold of 0.0001 µg/L (0.1 ng/L) is indicated as a WQG for the protection of wildlife and is set at a concentration that protects fish from mercury bioaccumulation to a level that may harm wildlife that consume fish.
[3] CCME guideline for total mercury = 0.016 µg/L.
[4] When MeHg ≤ 0.5% of total Hg, BC WQG = 0.02 µg/L. When MeHg > 0.5% of total Hg, BC WQG = 0.0001/(MeHg/Total Hg). Detection limit values are used to calculate the WQG for result reported as not detected.
Non-detect results are screened using the detection limit value.