

TECHNICAL MEMORANDUM

To: Ian McAllister, Ashleigh Crompton, Mike Champion,
Mark Zan and Ryan Schucroft (Woodfibre LNG) **Date:** 10 Oct 2025

From: Holly Pelletier and Robert Goldblatt (Lorax) **Project #:** A633-9

Subject: PE-111578 Weekly Discharge and Compliance Report #84 for September 28 –
October 4

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 Services Ltd. (Lorax) provides water quality database management and WDA compliance reporting services to Woodfibre LNG.

This technical memorandum (Report #84) was prepared by Lorax and summarizes WDA monitoring conducted for the period of September 28 – October 4. 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 #84 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 E 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 construction of water management infrastructure commenced in early 2024. 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, 2025, 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) at the West Sedimentation Pond is used to clarify all non-contaminated contact water prior to re-use at site or discharge at SP-W-OUT. Water collected in the East Sediment Pond is periodically transferred to the West Sedimentation Pond to allow treatment by the 2700GPM system. The fully built 2700GPM TSS settling system will have the installed capacity to clarify 14,700 m³/day of contact water and will consist of six parallel treatment trains, each with an installed capacity of 2450 m³/day. Only one train will be operated during dry conditions or when contact water flows are below approximately 2450 m³/day, whereas at higher flows, additional trains will be activated as needed to match the influent volumes. Treatment trains 1, 2, 3 and 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

Variable weather conditions were observed during the September 28 – October 4 monitoring period, with precipitation recorded each day except on October 4. The total precipitation amount during the monitoring period was 126 mm. 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
2025-09-28	14.4	17.4	12.8	Rain
2025-09-29	48.4	16.7	12.2	Rain
2025-09-30	10.8	15.6	11.5	Rain
2025-10-01	13.8	13.8	11.3	Rain
2025-10-02	38.2	14.3	10.6	Rain
2025-10-03	0.4	14.3	9.0	Mix of sun and cloud
2025-10-04	0	17.4	10	Mix of sun and cloud

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

From September 28 – October 4, the East Sedimentation Pond received water from the MOF Sump and 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. A total of 3,155 m³ from the East Sedimentation Pond was transferred to the West Sedimentation Pond from September 28 – October 4 (Appendix B, Table B-5).

Routine operation of the East WWTP continued during the monitoring period (September 28 – October 4). Concrete contact water and water from the 36T contaminated baker tanks 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 (September 28 – October 4). Daily water volumes processed by the East WWTP are provided in Appendix B (Table B-5).

From September 28 – October 4, the West Sedimentation Pond received water from the Area 4200 Sump, the East Sedimentation Pond as well as recirculated effluent from the 2700GPM TSS settling system (Appendix A, Figure 3). West Sedimentation Pond effluent was clarified through the 2700 GPM system each day during the monitoring period (September 28 – October 4), except on October 4 when the 2700GPM system was not operated, and recirculated back to the pond or intermittently discharged to Howe Sound. A total of 8,556 m³ of clarified effluent was intermittently discharged to Howe Sound from station SP-W-OUT on September 29 (10:43 AM to 7:51 PM and 9:50 PM to 11:59 PM), September 30 (12:00 AM to 1:10 AM and 2:00 PM to 11:59 PM), October 1 (12:00 AM to 12:20 AM), October 2 (11:07 AM to 11:59 AM) and October 3 (12:00 AM to 1:20 PM). Clarified effluent was not reclaimed for construction use from September 28 – October 4. Daily clarified effluent volumes from the TSS settling system that were recirculated to the West Sedimentation Pond or discharged to Howe Sound, and volumes of water reclaimed for construction use are provided in Appendix C (Table C-6).

2. Monitoring Summary

The locations of PE-111578 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 PE-111578 and supplementary monitoring stations are currently being monitored:

- Non-contact diversion ditch outlet monitoring stations (OUT-01, OUT-02 and OUT-06). East Creek water has been temporarily diverted to OUT-11 since 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, COMB-WWTP-E-IN, WWTP-E-OUT, SP-W-IN, 2700GPM-IN, and 2700GPM-OUT).
- Supplementary contact water stations at the outlet of each sampling train. These samples are identified as W2700T#-OUT (with # equal to the train number).
- Effluent compliance stations (SP-E-OUT and SP-W-OUT). As described in Section 1.1, when there is surplus water, West Sedimentation Pond clarified effluent from the individual 2700GPM trains is directed to SP-W-OUT for discharge. As of September 26, a manifold is being implemented that combines effluent from the individual trains into a single discharge line configured with a new SP-W-OUT sampling port. Prior to September 26, the SP-W-OUT monitoring station was not safe to access and the SP-W-OUT station was monitored at the outlet of the individual 2700GPM TSS settling trains.
- 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 approximately 10 m from the location of the SP-W-OUT station. At times when only one 2700GPM treatment train is operated, the 2700GPM-OUT sample has been collected at the outlet of that train. Monitoring of the individual 2700GPM settling system treatment trains is supplemental to the PE-111578 monitoring requirements and is conducted at the discretion of field staff. As previously discussed, since September 26, a manifold is being implemented that combines effluent from the individual trains into a single discharge line configured with a new SP-W-OUT sampling port.

Water quality was monitored at stations OUT-01, OUT-02, OUT-06, IDZ-E1, IDZ-E2, IDZ-W1, IDZ-W2, WQR1, WQR2, SP-E-IN, WWTP-E-IN, COMB-WWTP-E-IN, WWTP-E-OUT, SP-W-IN, SP-W-OUT, 2700GPM-IN, and 2700GPM-OUT (at the combined stream sampling port) during the monitoring period (September 28 – October 4). Sampling dates and parameters tested are summarized in Table 2.

Overall, the PE-111578 monitoring requirements that were applicable during the monitoring period (September 28 – October 4) were met. The initial high frequency monitoring requirements outlined in effluent permit PE-111578 for the sedimentation ponds, 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 catchment effluent compliance station (SP-E-OUT) as there was no discharge to Howe Sound from the East Sedimentation Pond during the monitoring period (September 28 – October 4). Daily field parameters were not collected at the west catchment effluent compliance station (SP-W-OUT) on September 28, October 1 and October 4 as there was no discharge to Howe Sound on those days at the time of monitoring.

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 September 28 – October 4.

Table 2:
Summary of PE-111578 Monitoring Samples Collected September 28 – October 4.

Sampling Date	Sample	Description	Parameters Tested	Monitoring Frequency
September 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
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	2700GPM-OUT	2700GPM TSS settling system at the combined effluent sampling port of Train 1 and Train 2		
September 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, Physical & General Parameters, Total, Dissolved and Speciated Metals, and Methylmercury.	D, M ₂ , W
	SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at the manifold that combines effluent from the individual 2700GPM trains into a single discharge line configured with a new SP-W-OUT sampling port	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	D, M, 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 combined effluent stream sampling port (Train 1 and Train 2)	Field Parameters.	P
	OUT-01	Non-contact water diversion ditch outlet	Field, Physical & General Parameters, Total and Dissolved Metals, and Methylmercury.	M
	OUT-02	Non-contact water diversion ditch outlet		
September 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
	SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at the manifold that combines effluent from the individual 2700GPM trains into a single discharge line configured with a new SP-W-OUT sampling port	Field Parameters.	D
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	2700GPM-OUT	2700GPM TSS settling system at the combined effluent stream sampling port (Train 1 and Train 2)		
	IDZ-E1-0.5	Howe Sound IDZ station E1; 0.5 m below surface	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, Methylmercury and Chronic Toxicity.	Q
	IDZ-E2-0.5	Howe Sound IDZ station E2; 0.5 m below surface		
	IDZ-W1-0.5	Howe Sound IDZ station W1; 0.5 m below surface		
	IDZ-W2-0.5	Howe Sound IDZ station W2; 0.5 m below surface		
	WQR1-0.5	Reference site 1; 0.5 m below surface		
	WQR2-0.5	Reference site 2; 0.5 m below surface		
October 1, 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
October 2, 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
	SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at the manifold that combines effluent from the individual 2700GPM trains into a single discharge line configured with a new SP-W-OUT sampling port	Field Parameters.	D
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	2700GPM-OUT	2700GPM TSS settling system at the combined effluent stream sampling port (Train 1 and Train 2)		
October 3, 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
	SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at the manifold that combines effluent from the individual 2700GPM trains into a single discharge line configured with a new SP-W-OUT sampling port	Field Parameters.	D
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	OUT-06	Non-contact water diversion ditch outlet	Field, Physical & General Parameters, Total and Dissolved Metals, and Methylmercury.	M
October 4, 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		
	COMB-WWTP-E-IN	Combined East WWTP influent from the concrete contact water treatment stream and the East Sedimentation Pond, collected from the heated frac tank	Field and Physical Parameters, Total and Dissolved Metals, and Methylmercury.	P
	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.
M₂ – bi-monthly monitoring for physical parameters at WWTP and sedimentation pond stations.
W – weekly 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.
Q – quarterly chronic toxicity testing conducted in the marine water sample collected at 0.5 m below the water surface.

3. Water Quality Results

3.1 Screening and Reporting Overview

Water quality and flow monitoring results are screened against operational minimum discharge objectives (MDOs) for the East WWTP, and PE-111578 discharge limits for sedimentation pond and 2700GPM TSS settling system stations. Monitoring results are also screened against Canadian (Canadian Council of Ministers of the Environment, CCME), Federal (Environment and Climate Change Canada, ECCC) 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.

The values used for screening are listed in the water quality tables provided in the appendices. Results above a screening value are highlighted in the tables. Samples collected from sedimentation pond effluent that is discharged to Howe Sound (monitored at stations SP-E-OUT and SP-W-OUT) are evaluated for non-compliance to PE-111578 discharge limits. Exceedances in contact water that remains on-site and is not discharged (e.g., WWTP influent and effluent, sedimentation pond influent, TSS settling system influent, and TSS settling system effluent that is recirculated) are screened for comparison purposes only, and exceedances in these samples do not represent non-compliance to the PE-111578 conditions.

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 WQG to support the interpretation of methylmercury results.

A summary of reported and pending results is provided in Section 3.2. Results for effluents from East WWTP, 2700GPM TSS settling system, and East and West Sedimentation Ponds are discussed in Section 3.3 and Section 3.4. The water quality monitored at non-contact water diversion ditch outlets and in the receiving environment is described in Section 3.5, Section 3.6 and Section 3.7. Sediment samples are collected annually at stations IDZ-E-SED and IDZ-W-SED, and the sediment results are discussed in Section 3.7 when they are reported.

3.2 Summary of Reported Results

Analytical results and associated field measurements included in this weekly report (Report #84) are listed below in Table 3, with additional field measurements presented in Table B-2 (Appendix B) and Table C-5 (Appendix C). 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 September 20 (hexavalent chromium and methylmercury);
- SP-E-IN, WWTP-E-IN and WWTP-E-OUT collected September 27 (dioxins and furans);
- 2700GPM-IN and 2700GPM-OUT (SP-W-OUT) collected September 27 (dioxins and furans);
- SP-W-IN collected September 29 (methylmercury);
- 2700GPM-IN and SP-W-OUT collected September 29 (methylmercury, dioxins and furans);
- OUT-01 and OUT-02 collected September 29 (field and all analytical parameters);
- IDZ-E1, IDZ-E2, IDZ-W1, IDZ-W2, WQR1 and WQR2 collected September 30 at 0.5 m below surface (field and all analytical parameters, chronic toxicity);
- OUT-06 collected October 3 (field and all analytical parameters);
- SP-E-IN, WWTP-E-IN, COMB-WWTP-E-IN and WWTP-E-OUT collected October 4 (all analytical parameters).

Table 3:
Summary of Analytical Results and Associated Field Measurements Included in Weekly Discharge and Compliance Report #84.

Sample	Description	Sampling Date	Parameters Reported
SW-02	Lower Reach of Mill Creek (upstream of the third bridge)	September 6, 2025	Methylmercury.
SW-03	Mill Creek Estuary		
SW-07	Upstream Mill Creek (at the diversion inlet)		
SW-01	Lower Reach of Woodfibre Creek (near the mouth)	September 7, 2025	Methylmercury.
SW-04	Lower Reach of East Creek (near the outlet to the outfall culvert)		
SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	September 14, 2025	Dioxins and Furans.
2700GPM-IN	2700GPM TSS settling system at the influent meter box		
2700GPM-OUT (SP-W-OUT)	2700GPM TSS settling system at the effluent meter box of Train 2		
2700GPM-OUT (SP-W-OUT)	2700GPM TSS settling system at the effluent meter box of Train 2	September 15, 2025	Dioxins and Furans.
SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	September 27, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, VOCs, and Methylmercury.
WWTP-E-IN	East WWTP at the influent meter box		
WWTP-E-OUT	East WWTP at the effluent meter box		
COMB-WWTP-E-IN	Combined East WWTP influent from the concrete contact water treatment stream and the East Sedimentation Pond, collected from the heated frac tank		Field and Physical Parameters, Total and Dissolved Metals, Hexavalent Chromium, and Methylmercury.
SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond		Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium and Methylmercury.
SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at the manifold that combines effluent from the individual 2700GPM trains into a single discharge line configured with a new SP-W-OUT sampling port		Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, VOCs, and Methylmercury.
2700GPM-IN	2700GPM TSS settling system at the influent meter box		
SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	September 29, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, and Hexavalent Chromium.
SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at the manifold that combines effluent from the individual 2700GPM trains into a single discharge line configured with a new SP-W-OUT sampling port		Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, and VOCs.
2700GPM-IN	2700GPM TSS settling system at the influent meter box		

3.3 East Catchment

The east catchment water quality monitoring results for stations at the East WWTP, East Sedimentation Pond, and the authorized discharge location (SP-E-OUT) 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 CCME, ECCC and BC WQGs for the protection of marine water aquatic life. East WWTP monitoring results for parameters without discharge limits are screened against operational MDOs, which are equivalent to the PE-111578 discharge limits and the lowest of the CCME, ECCC and BC WQGs for the protection of marine water aquatic life.

Samples collected from sedimentation pond effluent that is discharged to Howe Sound (monitored at station SP-E-OUT) are evaluated for non-compliance to PE-111578 discharge limits. Exceedances in contact water that remains on-site and is not discharged (*e.g.*, WWTP influent and effluent, and sedimentation pond influent) are highlighted for comparison purposes only, and do not represent non-compliance to the PE-111578 conditions.

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. East catchment monitoring results included in this weekly report and exceedances of screening values in effluents from the East WWTP and East Sedimentation Pond are summarized below.

Daily effluent volumes for the East WWTP and from SP-E-OUT are listed in Appendix B, Table B-5. There were no discharges to Howe Sound from the SP-E-OUT authorized discharge location during the monitoring period (September 28 – October 4), therefore, water quality samples and field measurements were not collected at this station.

Field measurements of influent and effluent quality for the East Sedimentation Pond and the East WWTP were collected September 28 – October 4, as outlined in Section 2, and are tabulated in Appendix B, Table B-4. Analytical samples collected September 27 (stations SP-E-IN, WWTP-E-IN, COMB-WWTP-E-IN and WWTP-E-OUT as discussed in Report #83) were available at the time of reporting. Screening results for east catchment contact water quality are tabulated in Table B-1 and Table B-2 of Appendix B.

Analytical results for East WWTP effluent (WWTP-E-OUT) collected September 27 (as discussed in Report #83) met MDOs. 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 September 28 – October 4 monitoring period.

3.4 West Catchment

The west catchment water quality monitoring results for stations at the West Sedimentation Pond, the 2700GPM TSS settling system, and the authorized discharge location (SP-W-OUT) are discussed in this section. 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. 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 CCME, ECCC and BC WQGs for the protection of marine water aquatic life.

Samples collected from sedimentation pond effluent that is discharged to Howe Sound (monitored at station SP-W-OUT) are evaluated for non-compliance to PE-111578 discharge limits. Exceedances in contact water that remains on-site and is not discharged (e.g., sedimentation pond influent, TSS settling system influent, and TSS settling system effluent that is recirculated) are highlighted for comparison purposes only, and do not represent non-compliance to the PE-111578 conditions.

The screened water quality results for analytical samples and field parameters are presented in Appendix C. West catchment monitoring results included in this weekly report and exceedances of screening values in effluents from the 2700GPM TSS settling system and West Sedimentation Pond are summarized below.

During the monitoring period (September 28 – October 4), implementation of the 2700GPM TSS settling system continued (Section 1.1 and Section 1.2). West Sedimentation Pond water was directed to the 2700GPM TSS settling system each day during the monitoring period (September 28 – October 4) except on October 4 when the 2700GPM system was not operated. Clarified effluent was recirculated to the pond or discharged to Howe Sound (refer to Section 1.2). A total of 8,556 m³ of clarified effluent from the 2700GPM TSS Settling System was intermittently discharged to Howe Sound from the west catchment discharge location (SP-W-OUT) from September 29 to October 3. Daily clarified effluent discharge volumes from SP-W-OUT and the 2700GPM TSS settling system are summarized in Appendix C, Table C-6.

Field measurements of influent and effluent quality for the West Sedimentation Pond and the 2700GPM TSS settling system were collected September 28 – October 4, as outlined in Section 2, and are tabulated in Appendix C, Table C- 5. Analytical samples collected September 27 (as discussed in Report #83) and September 29 (stations SP-W-IN, SP-W-OUT and 2700GPM-IN) were available at the time of reporting. 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 (September 28 – October 4), field measurements collected at stations SP-W-OUT and 2700GPM-OUT and available analytical results for station SP-W-OUT collected on September 29 met PE- 111578 discharge limits and WQGs except for dissolved oxygen

(4.98 mg/L), which was below the lower limit of the WQG (≥ 8 mg/L) on September 28 at 2700GPM-OUT. 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. Clarified effluent from the 2700GPM system was recirculated to the West Sedimentation Pond on September 28.

Analytical results from the SP-W-OUT monitoring and duplicate samples collected September 27 (as discussed in Report #83) are tabulated in Appendix C, Table C- 2 and Table C-3 and met PE- 111578 discharge limits and WQGs except for total mercury (0.00406 $\mu\text{g/L}$) and methylmercury (ranging from 0.000135 to 0.000156 $\mu\text{g/L}$). The WQG exceedances are summarized in Table 4 and are tracked in Table 5.

Table 4:
Summary of Parameters Exceeding WQGs in Effluent Discharged from SP-W-OUT for Field and Analytical Results Available at the Time of Reporting

Parameter	Units	WQG ¹	N	N >WQG	Commentary
Total Mercury	$\mu\text{g/L}$	0.0026	1	1	Total mercury measured at station SP-W-OUT on September 27 (0.00406 $\mu\text{g/L}$), 1.6 times the calculated sample specific long-term BC WQG (0.0026 $\mu\text{g/L}$). The discharge event was short-term (intermittent discharge from September 26 to 27), low volume (total discharge of 1,258 m ³) and the total mercury concentrations were within 10 times the long-term WQG, therefore the on-site QEP has determined there was low risk of an adverse impact to the receiving environment.
Methylmercury	$\mu\text{g/L}$	0.0001	2	1	Methylmercury measured in the monitoring and duplicate samples at station SP-W-OUT on September 27 ranged from 0.000135 to 0.000156 $\mu\text{g/L}$, 1.4 to 1.6 times the WQG (0.0001 $\mu\text{g/L}$). The discharge event was short-term (intermittent discharge from September 26 to 27), low volume (total discharge of 1,258 m ³) and the methylmercury concentrations were within 10 times the long-term WQG, therefore the on-site QEP has determined there was low risk of an adverse impact to the receiving environment.

N = number of samples.

¹ The lowest value from the BC, Canadian (CCME) and Federal (ECCC) water quality guidelines (WQGs).

Dioxin and furan results were reported for West Sedimentation Pond influent and 2700GPM TSS settling system influent and effluent samples (stations SP-W-IN, 2700GPM-IN and 2700GPM-OUT, respectively) collected September 14 and for 2700GPM TSS settling system effluent collected September 15 (as discussed in Report #82). As described in Report #82, station SP-W-OUT was not safe to access for water quality monitoring at the time of sampling, therefore monitoring of effluent discharged to Howe Sound was conducted at station 2700GPM-OUT as a proxy for the SP-W-OUT monitoring station on September 14 and 15. The lower and upper bound

PCDD/F TEQ concentrations in the clarified effluent collected at station 2700GPM-OUT and discharged to Howe Sound at SP-W-OUT ranged from 0 to 0.0072 pg/L and 1.11 to 1.31 pg/L, respectively. Results are tabulated in Appendix C, Table C-4.

3.5 Non-Contact Water Diversion Ditch Outlets

Non-contact water diversion ditch samples are screened against CCME, ECCC and BC WQGs for the protection of freshwater aquatic life; however, there were no analytical results for non-contact diversion ditch outlet stations available at the time of reporting.

3.6 Freshwater and Estuarine Water Receiving Environment

Freshwater and estuarine water receiving environment samples are screened against CCME, ECCC 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. The analytical results, field parameters, and WQGs are summarized in Appendix D (freshwater) and Appendix E (estuarine water).

Methylmercury results were available at the time of reporting for freshwater and estuarine water samples collected at Mill Creek estuary, mid-stream and background stations (SW-03, SW-02 and SW-07, respectively) on September 6 (as discussed in Report #80), as well as near the mouth of Woodfibre Creek and East Creek (stations SW-01 and SW-04, respectively) on September 7 (as discussed in Report #81). For all samples, methylmercury concentrations ranged from <0.000020 to 0.000046 µg/L and were less than the BC WQG of 0.0001 µg/L. The corresponding total mercury results also met WQGs. Results are tabulated in Appendix D, Table D-1 (freshwater) and Appendix E, Table E-1 (estuarine water).

3.7 Marine Water Receiving Environment

Marine water receiving environment samples are screened against CCME, ECCC 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 are 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.

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

3.8 Quality Control

This section presents the results of the quality control (QC) evaluation for the PE-111578 weekly report (Table 5). 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 5. Any items flagged for follow-up are carried forward to future reports until they are closed.

Table 5:
Weekly Report QC Evaluations and Ongoing Items

QC Procedure	Observation	Investigation/Resolution
Reporting Period (September 28 – October 4, Report #84)		
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 the 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). Since July the SP-W-OUT monitoring station has not been safe to access, and West Sedimentation Pond effluent was monitored at the outlet of the individual 2700GPM TSS settling train that was operating at the time of monitoring. As of September 26, a new SP-W-OUT monitoring station is being implemented to monitor the combined pond effluent in situations when multiple TSS settling trains are operating concurrently. This item remains open.
Report #84: Discharge Water Quality Exceeds WQGs	Discharge at SP-W-OUT was above WQGs on September 27.	Total mercury (0.00406 µg/L) and methylmercury (ranging from 0.000135 to 0.000156 µg/L) were above the WQGs in analytical samples collected September 27. The discharge of clarified effluent from the West Sedimentation Pond was short-term in duration (intermittent discharge from September 26 to 27), low volume (total discharge of 1,258 m³) and the total mercury and methylmercury concentrations were within 10 times the long-term WQG; therefore, the on-site QEP has determined the total and methyl mercury concentrations presented low risk of adverse impact to the receiving environment. This item is closed.
Report #84: Pending Data	Analytical results not reported.	Field parameters and analytical results for non-contact water diversion ditches and marine receiving environment samples collected September 29, 30 and October 3 were not included with Report #84. Analytical results for contact water and treated water samples collected October 4 as well as methylmercury, dioxins and furans results for contact water and treated water samples collected September 29 were not included with Report #84. 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.	The treatment effectiveness for T-Cu has been inconsistent from January to October. Several modifications to the treatment process have been implemented in 2025 to improve T-Cu removal. The HSMT metal removal media was replaced on June 5. A modification to how the treatment reagents are added was implemented late July. BCER has been notified that additional filtration will be implemented to remove fine particles at the outlet of the treatment plant. High-frequency monitoring at multiple treatment stages is on-going to the evaluate the effectiveness of these changes. Total copper concentrations in WWTP- E- OUT samples collected August 8, 14, 20 met the MDO (0.0043 mg/L). Samples collected on August 26 (0.00448 mg/L), September 5 (0.0117 mg/L), September 10 (0.0100 mg/L), and September 20 (0.0169 mg/L) were above the MDO. 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 BC WQGs in site contact waters since late April through late September. The highest values were observed in June, with total mercury and total methyl mercury up to 22.4 times above their respective WQGs in sedimentation pond water (effluent was discharged June 1 and 6, the highest mercury values in June were observed in effluent that was recirculated and not discharged). From July to September the concentrations of total mercury and total methyl mercury ranged from 1.4 to 6.4 times the WQGs; during this time effluent has been generally recirculated and was infrequently discharged (on August 15 and 16, and September 14, 15, 16, 26 and 27). Literature review suggests microbially mediated mercury methylation processes can occur in the water column and bottom sediments of sumps and ponds and that these processes are significantly accelerated during warmer temperatures. The concentration of methylmercury is expected to generally decline with the onset of cooler rainy season temperatures and increased stormwater flows that are anticipated reduce rate of methylmercury formation and release to contact water. BCER has been notified that additional filtration will be added to the East WWTP treatment train and this is expected to also reduce the concentration of total mercury and total methylmercury in WWTP effluent. Further evaluation will be conducted after additional data are collected. This item remains open.
Report #81: Pending Data	Analytical results not reported.	Methylmercury results for freshwater receiving environment samples collected September 7 are discussed in Section 3.6 of Report #84. This item is closed.
Report #82: Pending Data	Analytical results not reported.	Dioxins and furans results for contact water and treated water samples collected September 14 and 15 are discussed in Section 3.4 of Report #84. Hexavalent chromium and methylmercury results for contact water and treated water samples collected September 20 were not included with Report #84. The pending results will be included in future weekly reports when available. This item remains open.
Report #83: WWTP Performance Evaluation	Total lead and total zinc above the MDO.	The total lead and total zinc concentrations were 0.00429 and 0.0156 mg/L, respectively, in samples collected at WWTP-E-OUT on September 20 and were above the MDOs (0.0035 and 0.0133 mg/L, respectively). The WWTP treatment performance for total lead and zinc continues to be reviewed. This item remains open.
Report #83: Pending Data	Analytical results not reported.	Available analytical results for contact water and treated water samples collected September 27 are discussed in Sections 3.3 and 3.4 of Report #84. Dioxins and furans results were not included with Report #84. The pending results will be included in future weekly reports when available. This item remains open.
Report #83: Data QC	Fluoride above the WQG and baseline ranges.	A review conducted by the laboratory for the original fluoride result presented in Report #83 for the sample collected at IDZ-W2 at 2 m above the seafloor on September 15 (2.4 mg/L and above the WQG of 1.5 mg/L) determined the original value was incorrect due to a lab error. The revised fluoride concentration for the sample is 1.0 mg/L and below the WQG. The review also concluded that the originally reported results for all anions (sulfate, nitrate, nitrite, chloride, fluoride) for all marine water receiving environment samples collected September 15 and presented in Report #83 were erroneous due to a lab error. Report #83 will be reissued as version vS1 with the revised anion results. This item remains open.
Report #83: Data QC	Poor correlation with field turbidity and TSS.	Field turbidity (0.96 NTU) in the September 15 IDZ-W1 (2 m above seafloor) sample shows poor correlation with the measured TSS value (10.7 mg/L) and with lab turbidity (5.89 NTU, not included in the WDA weekly report and used for field turbidity QC evaluation). The TSS concentration and the lab turbidity values are being verified by the laboratory. This item remains open.
Report #83: Data QC	Raised detection limits for hexavalent chromium above WQG.	Raised detection limits (<0.00500 and <0.0100 mg/L) were reported by the laboratory for samples collected September 12 (IDZ-E1 and IDZ-E2, at 2 m above the seafloor) and September 13 (WQR1 and WQR1, at 2 m below surface and 2 m above the seafloor, respectively) due to sample matrix effects. The raised detection limits reported for hexavalent chromium were above the long- term WQG (0.0015 mg/L). However, hexavalent chromium is a component of the total chromium parameter. The total chromium concentration for these samples is <0.0005 mg/L, therefore the hexavalent chromium WQG is met in these samples. Nonetheless, a reanalysis has been requested with the laboratory to determine why detection limits were not achieved for these samples. 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.

4. 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.



Holly Pelletier, B.Sc., GIT.
Environmental Geoscientist



Robert Goldblatt, RPBio.
Aquatic Biologist

Appendix A: Figures and Site Images



World Imagery: District of Squamish. Additional imagery provided by McDermott International captured September 30th, 2025.

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: Oct 10, 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:



PROJECT:

Woodfibre LNG Project Construction Phase

TITLE: Site Layout and Water Quality Monitoring Stations for PE-111578 (October 4, 2025)

PROJECT #: A633-9

FIGURE: 1

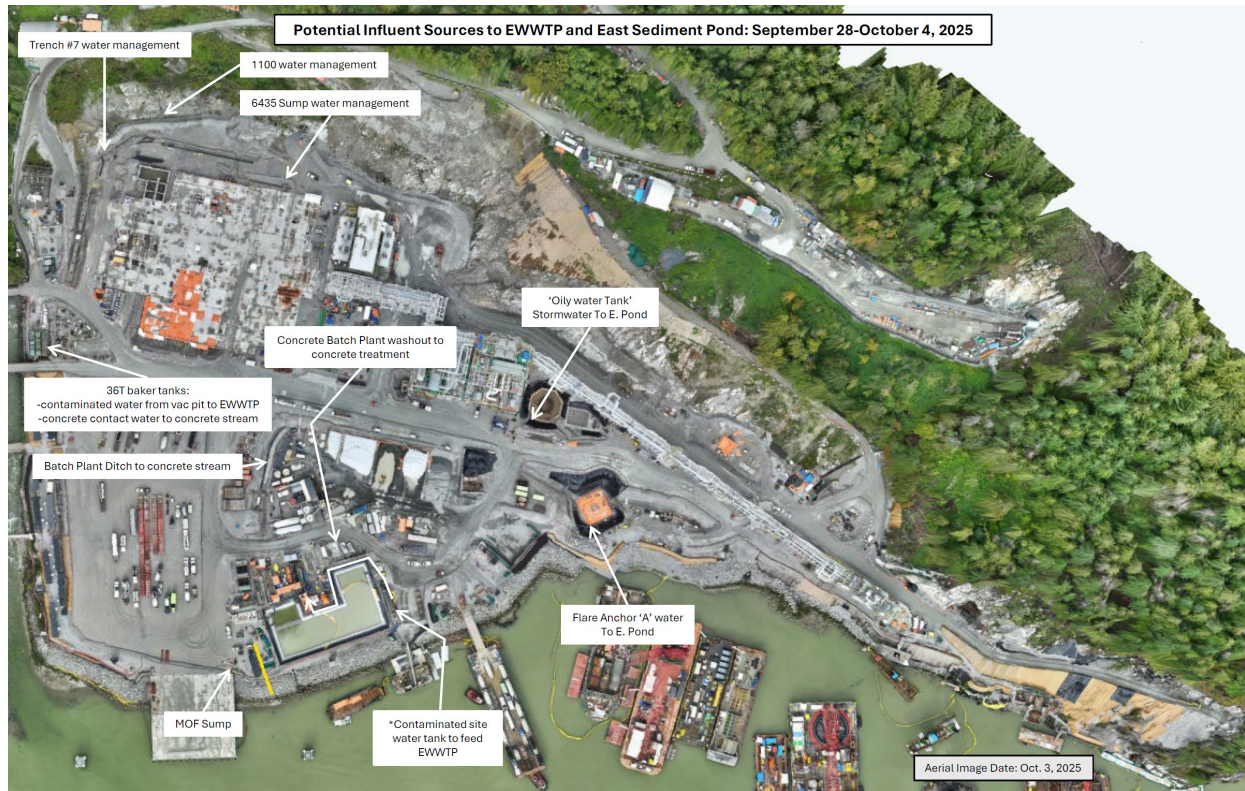


Figure 2: East Catchment contact water management facilities (September 28 – October 4).



Figure 3: West Catchment contact water management facilities (September 28 – October 4).



Figure 4: Aerial view of the East Sedimentation Pond (October 3, 2025). The East WWTP is located on the left side of the pond.



Figure 5: Aerial view of the West Sedimentation Pond (October 3, 2025).

Appendix B:
East Catchment Monitoring Results

Table B-1:
East WWTP Influent and Effluent Analytical Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline ¹		PE-111578 Discharge Limit	Station	Station	Station
					WWTP-E-IN	COMB-WWTP-E-IN	WWTP-E-OUT
					Influent	Influent	Effluent
		WWTP-E-IN	COMB-WWTP-E-IN		WWTP-E-OUT		
VA25C5668-002	VA25C5668-005	VA25C5668-010					
Long Term	Short Term	2025-09-27 8:25	2025-09-27 9:23	2025-09-27 16:00			
General Parameters							
pH - Field	pH units	- ²	-	5.5 - 9.0	9.11	9.06	6.24
Specific Conductivity - Field	µS/cm	-	-	-	1657	1858	1865
Temperature - Field	°C	-	-	-	15.9	15.7	16.1
Salinity - Field	ppt	-	-	-	0.84	0.95	0.95
Turbidity - Field	NTU	-	-	-	15.91	129.04	6.84
TSS	mg/L	-	-	25 or 75 ⁶	11	150	<3.0
Dissolved Oxygen - Field	mg/L	≥8	-	-	9.58	9.52	5.56
Total Hardness	mg/L	-	-	-	107	97.7	12.7
Dissolved Hardness	mg/L	-	-	-	115	54.8	10.9
Anions and Nutrients							
Sulphate	mg/L	-	-	-	379	-	508
Chloride	mg/L	-	-	-	20.3	-	18.8
Fluoride	mg/L	-	1.5	-	0.115	-	<0.200
Ammonia (N-NH ₃)	mg/L	0.17-14 ³	1.1-92 ³	-	<0.0050	-	0.0119
Nitrite (N-NO ₂)	mg/L	-	-	-	<0.0050	-	<0.0100
Nitrate (N-NO ₃)	mg/L	3.7	339	-	0.0565	-	<0.0500
Total Organic Carbon (TOC)	mg/L	-	-	-	3.26	-	0.86
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	2.68	-	1.21
Total Metals							
Aluminum, total (T-Al)	mg/L	-	-	-	0.426	5.04	0.305
Antimony, total (T-Sb)	mg/L	-	0.27 ⁴	-	0.00043	0.00086	0.0009
Arsenic, total (T-As)	mg/L	0.0125	-	-	0.00068	0.00188	0.00104
Barium, total (T-Ba)	mg/L	-	-	-	0.0228	0.074	0.00372
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000020	0.000073	<0.000040
Boron, total (T-B)	mg/L	1.2	-	-	0.196	0.073	<0.020
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000500	<0.0000500	<0.0000300
Chromium, total (T-Cr)	mg/L	-	-	-	<0.00050	0.0189	0.0014
Cobalt, total (T-Co)	mg/L	-	-	-	0.00013	0.00168	<0.00020
Copper, total (T-Cu)	mg/L	- ²	- ²	0.0043	0.00426	0.00732	0.00296
Iron, total (T-Fe)	mg/L	-	-	-	0.418	5.0	0.164
Lead, total (T-Pb)	mg/L	- ²	- ²	0.0035	0.00264	0.00253	0.000219
Manganese, total (T-Mn)	mg/L	-	-	-	0.0633	0.186	0.0089
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0277	0.124	0.0943
Nickel, total (T-Ni)	mg/L	0.0083	-	-	0.00123	0.00223	<0.00100
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000078	0.000784	0.000615
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000010	<0.000020	<0.000020
Thallium, total (T-Tl)	mg/L	-	-	-	<0.000010	<0.000020	<0.000020
Uranium, total (T-U)	mg/L	-	-	-	0.036	0.0113	0.00285
Vanadium, total (T-V)	mg/L	- ²	-	0.0081	0.0014	0.00925	0.00174
Zinc, total (T-Zn)	mg/L	- ²	- ²	0.0133	0.0113	0.0256	0.0073
Hexavalent Chromium, total	mg/L	0.0015	-	-	0.00053	0.00396	0.0013
Dissolved Metals							
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	0.0000468	<0.0000250	<0.0000250
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00176	0.00095	0.00096
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.02	<0.020	<0.020
Lead, dissolved (D-Pb)	mg/L	-	-	-	0.000158	<0.000100	<0.000100
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0566	0.00376	0.00331
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00050	<0.00100	<0.00100
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.144	0.198	0.0625
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00089	0.0021	0.00118
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0047	<0.0020	0.0046
Polycyclic Aromatic Hydrocarbons (PAHs)							
Acenaphthene	mg/L	0.006	-	-	<0.000010	-	<0.000010
Acridine	mg/L	-	-	-	<0.000010	-	<0.000010
Anthracene	mg/L	-	-	-	<0.000010	-	<0.000010
Benz(a)anthracene	mg/L	-	-	-	<0.000010	-	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	-	<0.0000050	-	<0.0000050
Chrysene	mg/L	0.0001	-	-	<0.000010	-	<0.000010
Fluoranthene	mg/L	-	-	-	<0.000010	-	<0.000010
Fluorene	mg/L	0.012	-	-	<0.000010	-	<0.000010
1-methylnaphthalene	mg/L	0.001	-	-	<0.000010	-	<0.000010
2-methylnaphthalene	mg/L	0.001	-	-	<0.000010	-	<0.000010
Naphthalene	mg/L	0.001	-	-	<0.000050	-	<0.000050
Phenanthrene	mg/L	-	-	-	<0.000020	-	<0.000020
Pyrene	mg/L	-	-	-	<0.000010	-	<0.000010
Quinoline	mg/L	-	-	-	<0.000050	-	<0.000050
Volatile Organic Compounds (VOCs)							
Benzene	mg/L	0.11	-	-	<0.00050	-	<0.00050
Ethylbenzene	mg/L	0.25	-	-	<0.00050	-	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	-	<0.00050	-	<0.00050
Styrene	mg/L	-	-	-	<0.00050	-	<0.00050
Toluene	mg/L	0.215	-	-	<0.00040	-	<0.00040
Total Xylenes	mg/L	-	-	-	<0.00050	-	<0.00050
Chlorobenzene	mg/L	0.025	-	-	<0.00050	-	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	-	<0.00050	-	<0.00050

Notes:
East catchment influents and East WWTP effluent were not discharged to Howe Sound. Results above screening values are only highlighted for comparative purposes.
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 (September 28 – October 4).
¹ The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs for marine waters.
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 Sedimentation Pond Influent and Effluent Analytical Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline ¹		PE-111578 Discharge Limit	Station SP-E-IN
					Effluent
					SP-E-IN
		VA25C5668-001			
					2025-09-27 11:00
General Parameters					
pH - Field	pH units	- ²	-	5.5 - 9.0	6.97
Specific Conductivity - Field	µS/cm	-	-	-	2053
Temperature - Field	°C	-	-	-	16.3
Salinity - Field	ppt	-	-	-	1.05
Turbidity - Field	NTU	-	-	-	8.42
TSS	mg/L	-	-	25 or 75 ⁶	8.2
Dissolved Oxygen - Field	mg/L	≥8	-	-	8.5
Total Hardness	mg/L	-	-	-	18
Dissolved Hardness	mg/L	-	-	-	15.5
Anions and Nutrients					
Sulphate	mg/L	-	-	-	461
Chloride	mg/L	-	-	-	22.8
Fluoride	mg/L	-	1.5	-	<0.200
Ammonia (N-NH ₃)	mg/L	14 ³	92 ³	-	0.0103
Nitrite (N-NO ₂)	mg/L	-	-	-	<0.0100
Nitrate (N-NO ₃)	mg/L	3.7	339	-	<0.0500
Total Organic Carbon (TOC)	mg/L	-	-	-	1.21
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	1.11
Total Metals					
Aluminum, total (T-Al)	mg/L	-	-	-	0.447
Antimony, total (T-Sb)	mg/L	-	0.27 ⁴	-	0.00093
Arsenic, total (T-As)	mg/L	0.0125	-	-	0.00139
Barium, total (T-Ba)	mg/L	-	-	-	0.00728
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000040
Boron, total (T-B)	mg/L	1.2	-	-	0.029
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	0.0000167
Chromium, total (T-Cr)	mg/L	-	-	-	0.00118
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00020
Copper, total (T-Cu)	mg/L	- ²	- ²	0.0043	<0.00100
Iron, total (T-Fe)	mg/L	-	-	-	0.254
Lead, total (T-Pb)	mg/L	- ²	- ²	0.0035	0.000686
Manganese, total (T-Mn)	mg/L	-	-	-	0.0118
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0649
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00100
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000378
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000020
Thallium, total (T-Tl)	mg/L	-	-	-	<0.000020
Uranium, total (T-U)	mg/L	-	-	-	0.0102
Vanadium, total (T-V)	mg/L	- ²	-	0.0081	0.00262
Zinc, total (T-Zn)	mg/L	- ²	- ²	0.0133	<0.0060
Hexavalent Chromium, total	mg/L	0.0015	-	-	0.00074
Dissolved Metals					
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000100
Copper, dissolved (D-Cu)	mg/L	-	-	-	<0.00040
Iron, dissolved (D-Fe)	mg/L	-	-	-	<0.020
Lead, dissolved (D-Pb)	mg/L	-	-	-	<0.000100
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.00298
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00100
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.0771
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00196
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	-	-	-	<0.000050
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:
East catchment influents and effluents were not discharged to Howe Sound. Results above screening values are only highlighted for comparative purposes.
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 (September 28 – October 4).
¹ The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs for marine waters.
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	0.00089-0.016 ^{3,4}
Station	Water Type	Sample ID	Lab ID	Sampling Date		
Influent						
SP-E-IN	Influent	SP-E-IN	VA25C5668-001	2025-09-27	<u>0.00113</u>	<u>0.0330</u>
WWTP-E-IN	Influent	WWTP-E-IN	VA25C5668-002	2025-09-27	<u>0.000231</u>	<u>0.00205</u>
COMB-WWTP-E-IN	Influent	COMB-WWTP-E-IN	VA25C5668-005	2025-09-27	<u>0.000340</u>	<u>0.148</u>
Effluent						
WWTP-E-OUT	Effluent	WWTP-E-OUT	VA25C5668-010	2025-09-27	0.000055	0.00232

Notes:
East catchment influents and effluent were not discharged to Howe Sound. Results above screening values are only highlighted for comparative purposes.
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.

Table B-4:
East Catchment Field Measurements Collected During the Monitoring Period (September 28 – October 4).

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	2025-09-28 11:51	16.6	9.34	0.99	2.98	5.2	6.6	1942	No
SP-E-IN	Influent	2025-09-29 13:50	16.2	9.83	0.36	355.42	268.1	7.6	741	No
SP-E-IN	Influent	2025-09-30 10:34	15.8	9.57	0.63	47.72	38.6	6.6	1259	No
SP-E-IN	Influent	2025-10-01 16:39	14.8	9.67	0.44	233.35	177.0	6.8	882	No
SP-E-IN	Influent	2025-10-02 11:04	14.1	10.25	0.32	166.48	127.2	8.5	644	No
SP-E-IN	Influent	2025-10-03 11:37	15.6	9.91	0.56	4.81	6.6	7.4	1118	No
SP-E-IN	Influent	2025-10-04 9:39	14.8	10.11	0.60	1.15	3.9	6.3	1197	No
WWTP-E-IN	Influent	2025-09-28 11:10	16.9	9.36	0.82	42.24	34.5	8.2	1622	No
WWTP-E-IN	Influent	2025-09-29 13:39	16.6	9.65	0.66	197.01	149.9	7.2	1308	No
WWTP-E-IN	Influent	2025-09-30 10:25	16.1	9.26	0.54	131.61	101.2	6.7	1080	No
WWTP-E-IN	Influent	2025-10-01 15:59	15.2	9.46	0.55	31.32	26.4	7.5	1106	No
WWTP-E-IN	Influent	2025-10-02 10:57	14.3	10.00	0.35	197.03	149.9	7.6	703	No
WWTP-E-IN	Influent	2025-10-03 11:46	14.5	9.73	0.42	47.86	38.7	7.2	844	No
WWTP-E-IN	Influent	2025-10-04 9:02	14.2	9.56	0.51	27.53	23.5	8.0	1028	No
Effluent ⁵										
WWTP-E-OUT	Effluent	2025-09-28 11:12	16.4	9.03	0.99	1.48	4.1	6.7	1926	No
WWTP-E-OUT	Effluent	2025-09-29 13:42	16.3	9.86	0.80	14.34	13.7	7.1	1583	No
WWTP-E-OUT	Effluent	2025-09-30 10:30	15.9	9.53	0.73	2.21	4.6	6.3	1443	No
WWTP-E-OUT	Effluent	2025-10-01 16:32	14.9	9.85	0.56	1.69	4.3	6.6	1130	No
WWTP-E-OUT	Effluent	2025-10-02 10:10	14.3	8.58	0.50	1.55	4.2	7.0	1003	No
WWTP-E-OUT	Effluent	2025-10-03 11:43	14.5	9.97	0.79	0.78	3.6	7.6	1565	No
WWTP-E-OUT	Effluent	2025-10-04 16:11	16.0	8.16	0.59	0.44	3.3	7.4	1174	No

Notes:
The east catchment did not discharge to Howe Sound during the monitoring period (September 28 – October 4). Results above screening values are highlighted for comparative purposes.
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 (September 28 – October 4), 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.

Table B-5:
East Catchment Daily Discharge Volumes for the Monitoring Period (September 28 – October 4).

	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				
2025-09-28	0	0	476	0
2025-09-29	0	725	369	0
2025-09-30	0	1,106	556	0
2025-10-01	0	0	459	0
2025-10-02	0	0	369	0
2025-10-03	0	1,324	232	0
2025-10-04	0	0	473	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 m³/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 2700GPM TSS Settling System Influent and Effluent Analytical Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline ¹		PE-111578 Discharge Limit	Station 2700GPM-IN	Station 2700GPM-IN
					Influent	Influent
					W2700-IN ⁷	W2700-IN ⁷
					VA25C5672-002 2025-09-27 12:45	VA25C5781-002 2025-09-29 13:00
General Parameters						
pH - Field	pH units	- ²	-	5.5 - 9.0	7.40	- ⁷
Specific Conductivity - Field	µS/cm	-	-	-	2009	- ⁷
Temperature - Field	°C	-	-	-	16.5	- ⁷
Salinity - Field	ppt	-	-	-	1.03	- ⁷
Turbidity - Field	NTU	-	-	-	25.03	- ⁷
TSS	mg/L	-	-	25 or 75 ⁶	23	164
Dissolved Oxygen - Field	mg/L	≥8	-	-	9.63	- ⁷
Total Hardness	mg/L	-	-	-	46.5	92
Dissolved Hardness	mg/L	-	-	-	39.5	59.8
Anions and Nutrients						
Sulphate	mg/L	-	-	-	506	373
Chloride	mg/L	-	-	-	24.5	17.2
Fluoride	mg/L	-	1.5	-	<0.200	<0.100
Ammonia (N-NH ₃)	mg/L	3.4-5.3 ³	23-58 ³	-	<0.0050	0.0141
Nitrite (N-NO ₂)	mg/L	-	-	-	<0.0100	0.0057
Nitrate (N-NO ₃)	mg/L	3.7	339	-	<0.0500	0.55
Total Organic Carbon (TOC)	mg/L	-	-	-	3.7	4.56
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	2.86	2.36
Total Metals						
Aluminum, total (T-Al)	mg/L	-	-	-	1.42	10.2
Antimony, total (T-Sb)	mg/L	-	0.27 ⁴	-	0.001	0.00112
Arsenic, total (T-As)	mg/L	0.0125	-	-	0.00276	0.00309
Barium, total (T-Ba)	mg/L	-	-	-	0.0162	0.0852
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000040	0.000179
Boron, total (T-B)	mg/L	1.2	-	-	0.024	0.031
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000300	0.0000967
Chromium, total (T-Cr)	mg/L	-	-	-	0.00112	0.00345
Cobalt, total (T-Co)	mg/L	-	-	-	0.00045	0.00302
Copper, total (T-Cu)	mg/L	- ²	- ²	0.0043	0.00446	0.00932
Iron, total (T-Fe)	mg/L	-	-	-	1.3	8.73
Lead, total (T-Pb)	mg/L	- ²	- ²	0.0035	0.000972	0.00657
Manganese, total (T-Mn)	mg/L	-	-	-	0.0581	0.346
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0595	0.0525
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00100	0.00209
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000305	0.000274
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000020	0.000026
Thallium, total (T-Tl)	mg/L	-	-	-	0.000053	0.000053
Uranium, total (T-U)	mg/L	-	-	-	0.0101	0.0105
Vanadium, total (T-V)	mg/L	- ²	-	0.0081	0.00341	0.015
Zinc, total (T-Zn)	mg/L	- ²	- ²	0.0133	0.0193	0.0485
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050	0.00051
Dissolved Metals						
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000150	<0.0000200
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00189	0.00123
Iron, dissolved (D-Fe)	mg/L	-	-	-	<0.020	<0.020
Lead, dissolved (D-Pb)	mg/L	-	-	-	<0.000100	<0.000100
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0155	0.0239
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00100	<0.00100
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.139	0.126
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00152	0.00171
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0035	0.0020
Polycyclic Aromatic Hydrocarbons (PAHs)						
Acenaphthene	mg/L	0.006	-	-	<0.000010	<0.000010
Acridine	mg/L	-	-	-	<0.000010	<0.000010
Anthracene	mg/L	-	-	-	<0.000010	<0.000010
Benz(a)anthracene	mg/L	-	-	-	<0.000010	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	-	<0.0000050	0.0000092
Chrysene	mg/L	0.0001	-	-	<0.000010	<0.000010
Fluoranthene	mg/L	-	-	-	<0.000010	0.000019
Fluorene	mg/L	0.012	-	-	<0.000010	<0.000010
1-methylnaphthalene	mg/L	0.001	-	-	<0.000010	<0.000010
2-methylnaphthalene	mg/L	0.001	-	-	<0.000010	<0.000010
Naphthalene	mg/L	0.001	-	-	<0.000050	<0.000050
Phenanthrene	mg/L	-	-	-	<0.000020	<0.000020
Pyrene	mg/L	-	-	-	<0.000010	0.000024
Quinoline	mg/L	-	-	-	<0.000050	<0.000050
Volatile Organic Compounds (VOCs)						
Benzene	mg/L	0.11	-	-	<0.00050	<0.00050
Ethylbenzene	mg/L	0.25	-	-	<0.00050	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	-	<0.00050	<0.00050
Styrene	mg/L	-	-	-	<0.00050	<0.00050
Toluene	mg/L	0.215	-	-	<0.00040	<0.00040
Total Xylenes	mg/L	-	-	-	<0.00050	<0.00050
Chlorobenzene	mg/L	0.025	-	-	<0.00050	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	-	<0.00050	<0.00050

Notes:
West catchment influents were not discharged to Howe Sound. Influent results above screening values are only highlighted for comparative purposes.
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 intermittently discharged during the monitoring period (September 28 – October 4) from September 29 to October 3.
¹ The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs for marine waters.
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 Field measurements were collected at station W2700GPM-IN several hours prior to collecting the analytical sample on September 29. Field measurements for W2700GPM-IN on September 29 are presented in Table C-5.

Table C-2:
West Sedimentation Pond Influent and Effluent Analytical Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline ¹		PE-111578 Discharge Limit	Station SP-W-IN	Station SP-W-IN	Station SP-W-OUT	Station SP-W-OUT	Station SP-W-OUT
					Influent	Influent	Effluent	Effluent	Effluent
					SP-W-IN	SP-W-IN	SP-W-OUT	SP-W-OUT-DUP	SP-W-OUT
		VA25C5672-001	VA25C5781-001		VA25C5672-004	VA25C5672-005	VA25C5781-004		
		Long Term	Short Term		2025-09-27 13:45	2025-09-29 10:33	2025-09-27 13:00	2025-09-27 13:00	2025-09-29 11:07
General Parameters									
pH - Field	pH units	- ²	-	5.5 - 9.0	7.34	7.37	7.38	-	7.75
Specific Conductivity - Field	µS/cm	-	-	-	1935	1449	2039	-	1788
Temperature - Field	°C	-	-	-	16.3	16.0	16.6	-	16.5
Salinity - Field	ppt	-	-	-	0.99	0.73	1.05	-	0.91
Turbidity - Field	NTU	-	-	-	74.06	59.1	5.7	-	5.52
TSS	mg/L	-	-	25 or 75 ⁶	56.6	154	4.2	3.2	<3.0
Dissolved Oxygen - Field	mg/L	≥8	-	-	9.33	9.45	9.72	-	8.97
Total Hardness	mg/L	-	-	-	59.6	81.7	41.5	41	38.6
Dissolved Hardness	mg/L	-	-	-	46	55.2	37.4	37.2	34.5
Anions and Nutrients									
Sulphate	mg/L	-	-	-	492	384	509	519	438
Chloride	mg/L	-	-	-	23.8	16.9	24.6	25	21.2
Fluoride	mg/L	-	1.5	-	<0.200	<0.100	<0.200	<0.200	<0.200
Ammonia (N-NH ₃)	mg/L	3.4-8.7 ³	23-58 ³	-	0.0136	0.0112	<0.0050	<0.0050	0.0052
Nitrite (N-NO ₂)	mg/L	-	-	-	<0.0100	0.0058	<0.0100	<0.0100	<0.0100
Nitrate (N-NO ₃)	mg/L	3.7	339	-	0.0662	0.518	<0.0500	<0.0500	<0.0500
Total Organic Carbon (TOC)	mg/L	-	-	-	3.35	5.29	3.38	3.29	2.61
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	2.69	2.88	2.78	2.64	2.09
Total Metals									
Aluminum, total (T-Al)	mg/L	-	-	-	3.98	8.68	0.116	0.112	0.164
Antimony, total (T-Sb)	mg/L	-	0.27 ⁴	-	0.00104	0.00113	0.00102	0.00101	0.00102
Arsenic, total (T-As)	mg/L	0.0125	-	-	0.00287	0.00281	0.00276	0.00275	0.00228
Barium, total (T-Ba)	mg/L	-	-	-	0.0371	0.0717	0.00447	0.0043	0.00308
Beryllium, total (T-Be)	mg/L	0.1	-	-	0.000062	0.00014	<0.000040	<0.000040	<0.000040
Boron, total (T-B)	mg/L	1.2	-	-	0.022	0.03	<0.020	<0.020	<0.020
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000450	0.0000903	<0.0000200	<0.0000200	<0.0000100
Chromium, total (T-Cr)	mg/L	-	-	-	0.00147	0.00325	<0.00100	<0.00100	<0.00100
Cobalt, total (T-Co)	mg/L	-	-	-	0.00126	0.00261	<0.00020	<0.00020	<0.00020
Copper, total (T-Cu)	mg/L	- ²	- ²	0.0043	0.00386	0.00783	0.00226	0.00216	0.00201
Iron, total (T-Fe)	mg/L	-	-	-	3.57	7.76	0.081	0.082	0.119
Lead, total (T-Pb)	mg/L	- ²	- ²	0.0035	0.00239	0.00574	0.000229	0.000232	0.000295
Manganese, total (T-Mn)	mg/L	-	-	-	0.143	0.296	0.0151	0.0145	0.0172
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0574	0.0549	0.061	0.06	0.0531
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00100	0.00197	<0.00100	<0.00100	<0.00100
Selenium, total (T-Se)	mg/L	0.002	-	-	0.0003	0.000324	0.000312	0.000315	0.000282
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000020	0.000021	<0.000020	<0.000020	<0.000020
Thallium, total (T-Tl)	mg/L	-	-	-	0.00006	0.000052	0.00005	0.000052	0.000052
Uranium, total (T-U)	mg/L	-	-	-	0.0102	0.00997	0.00965	0.00962	0.009
Vanadium, total (T-V)	mg/L	- ²	-	0.0081	0.00706	0.0131	0.00169	0.00161	0.00143
Zinc, total (T-Zn)	mg/L	- ²	- ²	0.0133	0.0217	0.0421	<0.0060	<0.0060	<0.0060
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050	0.00063	<0.00050	<0.00050	<0.00050
Dissolved Metals									
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000200	<0.0000200	<0.0000150	<0.0000150	<0.0000150
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00087	0.0009	0.00198	0.00204	0.00176
Iron, dissolved (D-Fe)	mg/L	-	-	-	<0.020	<0.020	<0.020	<0.020	<0.020
Lead, dissolved (D-Pb)	mg/L	-	-	-	<0.000100	<0.000100	<0.000100	0.000103	<0.000100
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.016	0.0204	0.0104	0.0106	0.0126
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.139	0.126	0.13	0.133	0.108
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00142	0.00189	0.00124	0.00126	0.00118
Zinc, dissolved (D-Zn)	mg/L	-	-	-	<0.0020	<0.0020	0.0035	0.0035	0.0032
Polycyclic Aromatic Hydrocarbons (PAHs)									
Acenaphthene	mg/L	0.006	-	-	-	-	<0.000010	<0.000010	<0.000010
Acridine	mg/L	-	-	-	-	-	<0.000010	<0.000010	<0.000010
Anthracene	mg/L	-	-	-	-	-	<0.000010	<0.000010	<0.000010
Benz(a)anthracene	mg/L	-	-	-	-	-	<0.000010	<0.000010	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	-	-	-	<0.0000050	<0.0000050	<0.0000050
Chrysene	mg/L	0.0001	-	-	-	-	<0.000010	<0.000010	<0.000010
Fluoranthene	mg/L	-	-	-	-	-	<0.000010	<0.000010	<0.000010
Fluorene	mg/L	0.012	-	-	-	-	<0.000010	<0.000010	<0.000010
1-methylnaphthalene	mg/L	0.001	-	-	-	-	<0.000010	<0.000010	<0.000010
2-methylnaphthalene	mg/L	0.001	-	-	-	-	<0.000010	<0.000010	<0.000010
Naphthalene	mg/L	0.001	-	-	-	-	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	-	-	-	-	-	<0.000020	<0.000020	<0.000020
Pyrene	mg/L	-	-	-	-	-	<0.000010	<0.000010	<0.000010
Quinoline	mg/L	-	-	-	-	-	<0.000050	<0.000050	<0.000050
Volatile Organic Compounds (VOCs)									
Benzene	mg/L	0.11	-	-	-	-	<0.00050	<0.00050	<0.00050
Ethylbenzene	mg/L	0.25	-	-	-	-	<0.00050	<0.00050	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	-	-	-	<0.00050	<0.00050	<0.00050
Styrene	mg/L	-	-	-	-	-	<0.00050	<0.00050	<0.00050
Toluene	mg/L	0.215	-	-	-	-	<0.00040	<0.00040	<0.00040
Total Xylenes	mg/L	-	-	-	-	-	<0.00050	<0.00050	<0.00050
Chlorobenzene	mg/L	0.025	-	-	-	-	<0.00050	<0.00050	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	-	-	-	<0.00050	<0.00050	<0.00050

Notes:

West catchment influents were not discharged to Howe Sound. Influent results above screening values are only highlighted for comparative purposes.

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 intermittently discharged during the monitoring period (September 28 – October 4) from September 29 to October 3.

¹ The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs for marine waters.

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-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	0.0026-0.0039 ^{3,4}
Station	Water Type	Sample ID	Lab ID	Sampling Date		
Influent						
SP-W-IN	Influent	SP-W-IN	VA25C5672-001	2025-09-27	<u>0.000193</u>	<u>0.00746</u>
2700GPM-IN	Influent	2700GPM-IN	VA25C5672-002	2025-09-27	<u>0.000189</u>	<u>0.00686</u>
Effluent						
SP-W-OUT	Effluent	SP-W-OUT	VA25C5672-004	2025-09-27	<u>0.000156</u> ⁵	<u>0.00406</u> ⁵
SP-W-OUT	Effluent	SP-W-OUT-DUP	VA25C5672-005	2025-09-27	<u>0.000135</u> ⁵	- ⁵

Notes:
West catchment influents were not discharged to Howe Sound. Results above screening values are only highlighted for comparative purposes.
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 As described in Section 1.1, when there is surplus water, West Sedimentation Pond clarified effluent from the individual 2700GPM trains is directed to SP-W-OUT for discharge. 2700GPM clarified effluent from Train 1 and Train 2 was intermittently discharged to Howe Sound at the authorized discharge location (SP-W-OUT) on September 27. Total mercury was not tested in the duplicate sample collected at SP-W-OUT on September 27.

Table C-4:
West Catchment Dioxin and Furan Toxicity Equivalency Quantity (TEQ) Results Received at the Time of Reporting.

Parameter					Lower Bound PCDD/F TEQ	Upper Bound PCDD/F TEQ
Unit					pg/L	pg/L
Station	Water Type	Sample ID	Lab ID	Sampling Date		
Influent						
SP-W-IN	Influent	SP-W-IN	VA25C4117-001	2025-09-14	0.0215	2.10
2700GPM-IN	Influent	W2700-IN	VA25C4117-002	2025-09-14	0.0117	1.24
Effluent						
2700GPM-OUT (SP-W-OUT)	Effluent	W2700-T2-OUT	VA25C4117-003	2025-09-14	0	1.31
2700GPM-OUT (SP-W-OUT)	Effluent	W2700-T2-OUT-DUP	VA25C4117-004	2025-09-14	0.00723	1.11
2700GPM-OUT (SP-W-OUT)	Effluent	W2700-T2-OUT	VA25C4119-001	2025-09-15	0.000834	1.05
2700GPM-OUT (SP-W-OUT)	Effluent	W2700-T2-OUT-DUP	VA25C4119-002	2025-09-15	0.000456	1.15

Notes:
PCDD = polychlorinated dibenzodioxins (dioxins)
PCDF = polychlorinated dibenzofurans (furans)
TEQ = toxic equivalency
Lower bound PCDD/F TEQ is the sum of the toxic equivalency results for the individual PCDD/F parameters. Non-detectable parameters are assigned a value of zero (0).
Upper bound PCDD/F TEQ is the sum of the toxic equivalency results for the individual PCDD/F parameters. Non-detectable parameters are assigned the value of the detection limit.

Table C-5:
West Catchment Field Measurements Collected During the Monitoring Period (September 28 – October 4).

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	2025-09-28 10:26	16.7	9.68	0.99	25.64	22.1	7.5	1929	No
SP-W-IN	Influent	2025-09-29 10:33	16.0	9.45	0.73	59.1	47.1	7.4	1449	No
SP-W-IN	Influent	2025-09-30 11:04	15.7	9.17	0.53	120.1	92.6	7.4	1068	No
SP-W-IN	Influent	2025-10-01 16:57	14.9	9.25	0.33	75.79	59.5	7.1	667	No
SP-W-IN	Influent	2025-10-02 9:32	14.2	9.67	0.39	94.15	73.2	7.8	799	No
SP-W-IN	Influent	2025-10-03 11:55	14.6	10.08	0.28	58.68	46.8	7.6	581	No
SP-W-IN	Influent	2025-10-04 12:53	16.0	9.54	0.22	22.55	19.8	7.3	452	No
2700GPM-IN	Influent	2025-09-28 10:34	16.8	10.16	1.05	30.99	26.1	7.5	2045	No
2700GPM-IN	Influent	2025-09-29 10:03	16.3	9.21	0.75	103.55	80.2	7.7	1487	No
2700GPM-IN	Influent	2025-09-30 10:58	15.8	8.91	0.59	86.19	67.3	7.5	1177	No
2700GPM-IN	Influent	2025-10-02 9:25	14.4	9.67	0.42	69.36	54.7	7.8	855	No
2700GPM-IN	Influent	2025-10-03 10:16	14.2	9.95	0.34	80.92	63.4	6.7	686	No
Effluent ⁵										
SP-W-OUT	Effluent	2025-09-29 11:07	16.5	8.97	0.91	5.52	7.1	7.8	1788	No
SP-W-OUT	Effluent	2025-09-29 12:19	16.5	9.67	0.81	4.19	6.1	7.7	1595	No
SP-W-OUT	Effluent	2025-09-30 15:09	15.9	9.89	0.58	0.37	3.3	7.8	1166	No
SP-W-OUT	Effluent	2025-10-02 11:20	14.4	9.30	0.46	1.23	3.9	7.8	919	No
SP-W-OUT	Effluent	2025-10-03 10:25	14.2	11.41	0.34	1.32	4.0	7.6	699	No
SP-W-OUT	Effluent	2025-10-03 15:45	14.5	11.39	0.32	2.12	4.6	7.5	663	No
2700GPM-OUT	Effluent	2025-09-28 10:48	16.3	4.98 ⁷	1.00	4.63	6.5	7.7	1959	No
2700GPM-OUT	Effluent	2025-09-29 9:51	16.3	9.10	0.98	4.48	6.3	7.6	1917	No
2700GPM-OUT	Effluent	2025-09-30 10:54	15.9	9.32	0.62	3.42	5.6	7.8	1235	No
2700GPM-OUT	Effluent	2025-10-02 9:18	14.4	9.79	0.53	2.86	5.1	7.7	1065	No

Notes:
West catchment influents for September 28 – October 4, and effluent from September 28 and October 4 were not discharged to Howe Sound. Results above screening values are only highlighted for comparative purposes.
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 As described in Section 1.1, when there is surplus water, West Sedimentation Pond clarified effluent from the individual 2700GPM trains is directed to SP-W-OUT for discharge. 2700GPM clarified effluent from Train 1 and Train 2 was intermittently discharged to Howe Sound at the authorized discharge location (SP-W-OUT) on September 29, 30 and October 1, 2 and 3. Daily field measurements for SP-W-OUT were not collected on October 1 as there was no discharge at the time of monitoring. On September 28 and October 4, 2700GPM clarified effluent was directed to the West Sedimentation Pond and there was no discharge at the authorized discharge location (SP-W-OUT); 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 station 2700GPM-OUT of the combined effluent from Trains 1 and 2 and was directed to the West Sedimentation Pond. There was no discharge from the pond to Howe Sound on September 28.

Table C-6:
West Catchment Daily Discharge Volumes for the Monitoring Period (September 28 – October 4).

	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	m ³
PE-111578 Discharge Limit	-	-	-	120	- ²
Date					
2025-09-28	0	71	0	0	0
2025-09-29	0	2,409	0	0	1,935
2025-09-30	0	2,193	0	0	1,856
2025-10-01	0	47	0	0	47
2025-10-02	0	2,429	0	0	2,146
2025-10-03	0	2,635	0	0	2,571
2025-10-04	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 m³/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 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. Daily discharge volumes from station 2700GPM-OUT are a sum of all active treatment trains.

Appendix D:
Freshwater Receiving Environment Results

Table D-1:
Freshwater 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	0.0019-0.020 ^{3,4}
Station	Description	Sample ID	Lab ID	Sampling Date		
SW-01	Woodfibre Creek Lower Reach	SW-01	VA25C3147-001	2025-09-07	<0.000020	0.00174
SW-02	Lower Freshwater Reach of Mill Creek (upstream of the third bridge)	SW-02	VA25C3080-001	2025-09-06	0.000027	<0.00050
SW-07	Upstream Mill Creek (at the diversion inlet)	SW-07	VA25C3080-003	2025-09-06	<0.000020	<0.00050
SW-04	East Creek Lower Reach	SW-04	VA25C3147-002	2025-09-07	0.000023	<0.00050

Notes:

Results **underlined in bold italics** exceed the applicable long-term water quality guideline for the protection of freshwater 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 = 0.026 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.

Appendix E:
Estuarine Water Receiving Environment Results

Table E-2:
Estuarine 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	0.0013 ^{3,4}
Station	Description	Sample ID	Lab ID	Sampling Date		
SW-03	Mill Creek Estuary	SW-03	VA25C3080-002	2025-09-06	0.000046	0.00060

Notes:

Results **underlined in bold italics** exceed the applicable long-term water quality guideline for the protection of freshwater 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 = 0.026 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.