TECHNICAL MEMORANDUM

To:	**Ian McAllister, Ashleigh Crompton, Mike Champion, Mark Zan and Ryan Schucroft (Woodfibre LNG)**	**Date:**	**16 May 2025**
From:	**Holly Pelletier, Cheng Kuang and Patrick Mueller (Lorax)**	**Project #:**	**A633-9**
Subject:	**PE-111578 Weekly Discharge and Compliance Report #63 for May 4 – May 10**		

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

This technical memorandum (Report #63) was prepared by Lorax Environmental and summarizes WDA monitoring conducted for the period of May 4 – May 10. 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 #63 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 G for contact water and treated water samples.

1. Current Conditions

1.1 Water Management Infrastructure

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

The West WWTP was commissioned August and September 2024, but operation of the West WWTP was subsequently suspended September 25, 2024. The suspension was implemented for temporary reconfiguration of the plant to conduct pilot-scale evaluations of alternative treatment processes for improving treatment outcomes. The evaluations were completed April 2025 and alternative processes did not yield improved treatment outcomes; therefore, the approved treatment process is maintained. Lower than expected volumes of contaminated contact water have been encountered during construction, therefore the operation of the West WWTP remains suspended and west catchment waters that require treatment are directed to the East WWTP.

Non-contact water diversion ditches west of Mill Creek have been upgraded and the ditches discharge 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 from the diversion ditches is also conveyed to Howe Sound via station OUT-01. East of Mill Creek, non-contact water is 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 and west catchments 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 for TSS settling prior to discharge.

Flocculant-based TSS settling systems are used at the East and West Sedimentation Ponds to remove TSS from pond effluent. The first West Sedimentation Pond TSS settling system (ESC) was commissioned for use on September 25, 2024, with an 820 m^3/day installed capacity. A second TSS settling system (W500GPM) was commissioned for use on November 28 and provides an additional 2,725 m^3/day installed capacity for clarifying water. A third TSS settling system (E500GPM) was commissioned for use at the East Sedimentation Pond on December 4, 2024, also with 2,725 m^3/day installed capacity. Preparations are underway for the next stages of construction and will include further upgrades to water management in the east and west catchments. The upgrades will consolidate the three TSS settling systems currently on site into a single high capacity system located adjacent to the West Sedimentation Pond and is planned to be commissioned August 2025.

Discharge from the East and West Sedimentation Ponds is controlled using pumps. Water stored in the ponds is pumped to a TSS settling system prior to discharge through the authorized outfall structures adjacent to each pond. Some of the TSS clarified water may be recirculated back to the ponds or used for road dust suppression. Non-contaminated contact water stored in the East Sedimentation Pond is clarified through the E500GPM prior to re-use or discharge to Howe Sound at location SP-E-OUT. The west catchment discharge location, SP-W-OUT, receives the combined clarified effluents from the ESC and W500GPM TSS settling systems. Each of the authorized discharge locations (SP-E-OUT and SP-W-OUT) has 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.

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

A mix of sunny and cloudy conditions were observed during the monitoring period (May 4 – May 10), with a small amount of precipitation recorded on May 7 (4.2 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
2025-05-04	0	17.0	4.5	Mix of Sun and Cloud
2025-05-05	0	18.3	7.0	Mix of Sun and Cloud
2025-05-06	0	22.2	8.5	Mix of Sun and Cloud
2025-05-07	4.2	18.3	10.4	Mix of Sun and Cloud
2025-05-08	0	15.3	8.6	Mix of Sun and Cloud
2025-05-09	0	16.4	8.0	Mix of Sun and Cloud
2025-05-10	0	15.6	10.0	Mix of Sun and Cloud

Note: Data retrieved from the Stantec Woodfibre site weather station.

From May 4 – May 10, the East Sedimentation Pond received non-contaminated contact water from Area 1100 north collection sump and recirculated water from the East WWTP and E500GPM TSS settling system (Appendix A, Figure 2). Non-contaminated contact waters from Area 4100 collection sump were directed to the West Sedimentation Pond, as well as recirculated water from the W500GPM and ESC TSS settling systems (Appendix A, Figure 3).

Routine operation of the East WWTP continued during the monitoring period (May 4 – May 10). Concrete contact waters were 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 (May 4 – May 10). Pond effluent was clarified through the E500GPM TSS settling system and recirculated as influent to the East Sedimentation Pond each day except on May 6 and 7. Effluent was not discharged to Howe Sound (station SP-E-OUT) during the monitoring period. Daily water volumes processed by the East WWTP and the East TSS settling system (E500GPM) are provided in Appendix B (Table B-6).

West Sedimentation Pond effluent was clarified through the W500GPM system and recirculated to the West Sedimentation Pond or used for road dust suppression each day during the monitoring period (May 4 – May 10). The West ESC (150 GPM) TSS settling system was operated May 8 and 9 and clarified effluent was recirculated to the West Sediment Pond. Effluent was not discharged to Howe Sound (station SP-W-OUT) during the monitoring period. Daily clarified effluent volumes from the TSS settling systems are provided in Appendix C (Table C-5).

2. Monitoring Summary

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

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

- Non-contact diversion ditch outlet monitoring stations (OUT-01, OUT-02, OUT-06, and OUT-11). East Creek water was temporarily diverted to OUT-11 on September 17, 2024 and is monitored at the inlet to temporary diversion (station SW-04), therefore OUT-11 is not currently monitored.
- Creek water monitoring stations for Woodfibre, Mill and East Creek (SW-01, SW-02, SW-03, SW-04, SW-07).
- Contact water monitoring locations (SP-E-IN, E500GPM-IN, E500GPM-OUT, WWTP-E-IN, WWTP-E-OUT, SP-W-IN, ESC-W-IN, ESC-W-OUT, W500GPM-IN and W500GPM-OUT).
- Effluent compliance stations (SP-E-OUT and SP-W-OUT).

- Howe Sound reference and IDZ monitoring stations (WQR1, WQR2, IDZ-E1, IDZ-E2, IDZ-W1, and IDZ-W2).

The influent culverts for East and West Sedimentation Ponds are not operational and the associated influent stations defined in PE-111578 (SP-E-IN-1, SP-E-IN-2, SP-W-IN-1 and SP-W-IN-2) have been replaced with temporary influent monitoring stations SP-E-IN and SP-W-IN (East and West Sedimentation Pond, respectively) located in-pond, at the influent end of each pond.

Two flocculant-based TSS settling systems are used at the West Sedimentation Pond (ESC and W500GPM) as described in Section 1.1. Influent and effluent are monitored for each system at stations ESC-W-IN, ESC-W-OUT, W500GPM-IN and W500GPM-OUT. One TSS settling system (E500GPM) is used at the East Sedimentation Pond (Section 1.1). Influent and effluent are monitored at stations E500GPM-IN and E500GPM-OUT, respectively. The TSS settling system stations are supplemental to the PE- 111578 monitoring requirements and are monitored at the discretion of field staff.

Water quality was monitored at stations IDZ-E1, IDZ-E2, IDZ-W1, IDZ-W2, WQR1, WQR2, WWTP-E-IN, WWTP-E-OUT, SP-E-IN, E500GPM-IN, E500GPM-OUT, SP-W-IN, W500GPM-IN, and W500GPM-OUT during the monitoring period (May 4 – May 10). Sampling dates and parameters tested are summarized in Table 2.

Overall, the PE-111578 monitoring requirements that were applicable during the monitoring period (May 4 – May 10) were met. The general parameters bottle for a sample collected at 2 m above the seafloor at marine reference station WQR2 on May 6 leaked during transit to the laboratory; therefore, general parameters could not be tested for this sample. This item is tracked in Table 4.

Daily field parameters and a weekly analytical sample were not collected at the east and west catchment effluent stations (SP-E OUT and SP-W-OUT) during the monitoring period (May 4 – May 10) as there was no discharge to Howe Sound on those days. Daily field parameters and a weekly analytical sample were not collected at the influent and effluent stations of the West WWTP (WWTP-W-IN and WWTP-W-OUT, respectively) as it was not operational during the monitoring period.

Table 2: Summary of PE-111578 Monitoring Samples Collected May 4 – May 10.

Sampling Date	Sample	Description	Parameters Tested	Monitoring Frequency
May 4, 2025	SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	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		
	E500GPM-IN	East Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	E500GPM-OUT	East Sedimentation Pond 500 GPM TSS settling system at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent entering the pond and collected at cell 1	Field Parameters.	D
	W500GPM-IN	West Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	W500GPM-OUT	West Sedimentation Pond 500 GPM TSS settling system at the effluent meter box		
May 5, 2025	SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	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		
	E500GPM-IN	East Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	E500GPM-OUT	East Sedimentation Pond 500 GPM TSS settling system at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent entering the pond and collected at cell 1	Field Parameters.	D
	W500GPM-IN	West Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	W500GPM-OUT	West Sedimentation Pond 500 GPM TSS settling system at the effluent meter box		
	IDZ-W1-0.5	Howe Sound IDZ station W1; 0.5 m below surface	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans	M_5
	IDZ-W1-2m	Howe Sound IDZ station W1; 2 m below surface		
	IDZ-W1-SF	Howe Sound IDZ station W1; 2 m above the seafloor		
	IDZ-W2-0.5	Howe Sound IDZ station W2; 0.5 m below surface		
	IDZ-W2-2m	Howe Sound IDZ station W2; 2 m below surface		
	IDZ-W2-SF	Howe Sound IDZ station W2; 2 m above the seafloor		
May 6, 2025	SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	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 entering the pond and collected at cell 1	Field Parameters.	D
	W500GPM-IN	West Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	W500GPM-OUT	West Sedimentation Pond 500 GPM TSS settling system at the effluent meter box		
	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, VOCs, Methylmercury, Dioxins & Furans	M_5
	IDZ-E1-2m	Howe Sound IDZ station E1; 2 m below surface		
	IDZ-E1-SF	Howe Sound IDZ station E1; 2 m above the seafloor		
	IDZ-E2-0.5	Howe Sound IDZ station E2; 0.5 m below surface		
	IDZ-E2-2m	Howe Sound IDZ station E2; 2 m below surface		
	IDZ-E2-SF	Howe Sound IDZ station E2; 2 m above the seafloor		
	WQR1-0.5	Reference site 1; 0.5 m below surface		
	WQR1-2m	Reference site 1; 2 m below surface		
	WQR1-SF	Reference site 1; 2 m above the seafloor		
	WQR2-0.5	Reference site 2; 0.5 m below surface		
	WQR2-2m	Reference site 2; 2 m below surface		
	WQR2-SF	Reference site 2; 2 m above the seafloor		
May 7, 2025	SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	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		
	E500GPM-IN	East Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	SP-W-IN	West Sedimentation Pond influent entering the pond and collected at cell 1	Field Parameters.	D
	W500GPM-IN	West Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	W500GPM-OUT	West Sedimentation Pond 500 GPM TSS settling system at the effluent meter box		
	IDZ-W1-0.5	Howe Sound IDZ station W1; 0.5 m below surface	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans	M_5
	IDZ-W1-2m	Howe Sound IDZ station W1; 2 m below surface		
	IDZ-W1-SF	Howe Sound IDZ station W1; 2 m above the seafloor		
	IDZ-W2-0.5	Howe Sound IDZ station W2; 0.5 m below surface		
	IDZ-W2-2m	Howe Sound IDZ station W2; 2 m below surface		
	IDZ-W2-SF	Howe Sound IDZ station W2; 2 m above the seafloor		
	WQR2-0.5	Reference site 2; 0.5 m below surface		
	WQR2-2m	Reference site 2; 2 m below surface		
	WQR2-SF	Reference site 2; 2 m above the seafloor		
May 8, 2025	SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	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 entering the pond and collected at cell 1	Field Parameters.	D
	W500GPM-IN	West Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	W500GPM-OUT	West Sedimentation Pond 500 GPM TSS settling system at the effluent meter box		

Table 2 (continued): Summary of PE-111578 Monitoring Samples Collected May 4 – May 10.

Sampling Date	Sample	Description	Parameters Tested	Monitoring Frequency
May 9, 2025	SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	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		
	E500GPM-IN	East Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	E500GPM-OUT	East Sedimentation Pond 500 GPM TSS settling system at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent entering the pond and collected at cell 1	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	D, W_1, W_2
	W500GPM-IN	West Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	W500GPM-OUT	West Sedimentation Pond 500 GPM TSS settling system at the effluent meter box	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	P
	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, VOCs, Methylmercury, Dioxins & Furans	M_5
	IDZ-E1-2m	Howe Sound IDZ station E1; 2 m below surface		
	IDZ-E1-SF	Howe Sound IDZ station E1; 2 m above the seafloor		
	IDZ-E2-0.5	Howe Sound IDZ station E2; 0.5 m below surface		
	IDZ-E2-2m	Howe Sound IDZ station E2; 2 m below surface		
	IDZ-E2-SF	Howe Sound IDZ station E2; 2 m above the seafloor		
	WQR1-0.5	Reference site 1; 0.5 m below surface		
	WQR1-2m	Reference site 1; 2 m below surface		
	WQR1-SF	Reference site 1; 2 m above the seafloor		
May 10, 2025	SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	D, W_1, W_2
	WWTP-E-IN	East WWTP at the influent meter box	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	D, W_1, W_2
	WWTP-E-OUT	East WWTP at the effluent meter box		
	E500GPM-IN	East Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	E500GPM-OUT	East Sedimentation Pond 500 GPM TSS settling system at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent entering the pond and collected at cell 1	Field Parameters.	D
	W500GPM-IN	West Sedimentation Pond 500 GPM TSS settling system at the influent meter box	Field Parameters.	P
	W500GPM-OUT	West Sedimentation Pond 500 GPM TSS settling system at the effluent meter box		

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.
M_5 – spring high frequency (5-in-30) sampling for receiving environment stations.
W_1 – initial high frequency monitoring for physical parameters at WWTP and sedimentation pond influent and effluent stations.
W_2 – initial high frequency monitoring for all parameters at WWTP and sedimentation pond influent and effluent stations.
W_3 – initial high frequency monitoring for physical parameters at IDZ stations.
P – periodic monitoring for targeted parameters that is supplementary to PE-111578 requirements.

3. Water Quality Results

3.1 Screening and Reporting Overview

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

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

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

3.2 Summary of Reported Results

Field measurements and analytical results included in this weekly report (Report #63) are listed below in Table 3. Testing for methylmercury, dioxins and furans typically requires up to four

weeks to complete. Analytical results not reported will be included in future weekly reports. Reporting of results is pending for the following samples and parameters:

- IDZ-E1, IDZ-E2, IDZ-W1, IDZ-W2, WQR1, WQR2 collected March 25 at 0.5 m below surface (chronic toxicity)
- WQR1 and WQR2 collected April 11 (dioxins and furans)
- SW-02, SW-03, and SW-07 collected April 12 (dioxins and furans)
- SW-01 and SW-04 collected April 13 (dioxins and furans)
- IDZ-W1, IDZ-W2, WQR2 collected April 13 (dioxins and furans)
- IDZ-E1, IDZ-E2, WQR1 collected April 14 (dioxins and furans)
- SP-E-IN, SP-E-OUT, SP-W-IN, SP-W-OUT collected April 16 (dioxins and furans)
- WWTP-E-IN and WWTP-E-OUT collected April 19 (dioxins and furans)
- SW-02, SW-03, and SW-07 collected April 20 (dioxins and furans)
- SP-W-IN and SP-W-OUT collected April 21 (dioxins and furans)
- IDZ-W1, IDZ-W2, and WQR2 collected April 21 (methylmercury, dioxins and furans)
- SW-01 and SW-04 collected April 22 (dioxins and furans)
- IDZ-E1, IDZ-E2, and WQR1 collected April 23 (methylmercury, dioxins and furans)
- SP-E-IN, SP-E-OUT, WWTP-E-IN, and WWTP-E-OUT collected April 24 (dioxins and furans)
- SW-02, SW-03, and SW-07 collected April 28 (methylmercury, dioxins and furans)
- SW-01 and SW-04 collected April 29 (methylmercury, dioxins and furans)
- SP-E-IN and SP-W-IN collected May 2 (dioxins and furans)
- WWTP-E-IN and WWTP-E-OUT collected May 3 (dioxins and furans)
- IDZ-W1 and IDZ-W2 collected May 5 (methylmercury, dioxins and furans)
- IDZ-E1, IDZ-E2, WQR1, and WQR2 collected May 6 (field and all analytical parameters)
- IDZ-W1, IDZ-W2, and WQR2 collected May 7 (field and all analytical parameters)
- SP-W-IN and W500GPM-OUT collected May 9 (methylmercury, dioxins and furans)
- IDZ-E1, IDZ-E2 and WQR1 collected May 9 (field and all analytical parameters)
- SP-E-IN, WWTP-E-IN, and WWTP-E-OUT collected May 10 (all analytical parameters)

Table 3: Summary of Analytical Results Included in Weekly Discharge and Compliance Report #63.

Sample	Description	Sampling Date	Parameters Reported
SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	March 24, 2025	Dioxins and Furans.
SP-E-OUT	East Sedimentation Pond clarified effluent discharge to Howe Sound, collected at the manhole adjacent to the outfall		
WWTP-E-IN	East WWTP at the influent meter box		
WWTP-E-OUT	East WWTP at the effluent meter box		
SP-W-IN	West Sedimentation Pond influent entering the pond and collected at cell 1		
SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at sampling port		
SP-W-IN	West Sedimentation Pond influent entering the pond and collected at cell 1	March 31, 2025	Dioxins and Furans.
SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at sampling port		
SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	April 1, 2025	Dioxins and Furans.
SP-E-OUT	East Sedimentation Pond clarified effluent discharge to Howe Sound, collected at the manhole adjacent to the outfall		
WWTP-E-IN	East WWTP at the influent meter box		
WWTP-E-OUT	East WWTP at the effluent meter box		
SW-01	Lower Reach of Woodfibre Creek (near the mouth)	April 2, 2025	Dioxins and Furans.
SW-02	Lower Reach of Mill Creek (upstream of the third bridge)		
SW-03	Mill Creek Estuary		
SW-04	Lower Reach of East Creek (near the outlet to the outfall culvert)		
SW-07	Upstream Mill Creek (at the diversion inlet)		
SW-02	Lower Reach of Mill Creek (upstream of the third bridge)	April 7, 2025	Dioxins and Furans.
SW-03	Mill Creek Estuary		
SW-07	Upstream Mill Creek (at the diversion inlet)		
SW-01	Lower Reach of Woodfibre Creek (near the mouth)	April 8, 2025	Dioxins and Furans.
SW-04	Lower Reach of East Creek (near the outlet to the outfall culvert)		
IDZ-W1-0.5	Howe Sound IDZ station W1; 0.5 m below surface		
IDZ-W1-2m	Howe Sound IDZ station W1; 2 m below surface		
IDZ-W1-SF	Howe Sound IDZ station W1; 2 m above the seafloor		
IDZ-W2-0.5	Howe Sound IDZ station W2; 0.5 m below surface		
IDZ-W2-2m	Howe Sound IDZ station W2; 2 m below surface		
IDZ-W2-SF	Howe Sound IDZ station W2; 2 m above the seafloor		
SP-E-IN	East Sedimentation Pond influent entering the pond and collected at cell 1	April 9, 2025	Dioxins and Furans.
SP-E-OUT	East Sedimentation Pond clarified effluent discharge to Howe Sound, collected at the manhole adjacent to the outfall		
WWTP-E-IN	East WWTP at the influent meter box		
WWTP-E-OUT	East WWTP at the effluent meter box		
SP-W-IN	West Sedimentation Pond influent entering the pond and collected at cell 1		
SP-W-OUT	West Sedimentation Pond clarified effluent discharge to Howe Sound, collected at sampling port		
IDZ-E1-0.5	Howe Sound IDZ station E1; 0.5 m below surface	April 10, 2025	Dioxins and Furans.
IDZ-E1-2m	Howe Sound IDZ station E1; 2 m below surface		
IDZ-E1-SF	Howe Sound IDZ station E1; 2 m above the seafloor		
IDZ-E2-0.5	Howe Sound IDZ station E2; 0.5 m below surface		
IDZ-E2-2m	Howe Sound IDZ station E2; 2 m below surface		
IDZ-E2-SF	Howe Sound IDZ station E2; 2 m above the seafloor		
OUT-01	Non-contact water diversion ditch outlet	April 11, 2025	Methylmercury.
OUT-02	Non-contact water diversion ditch outlet		
OUT-06	Non-contact water diversion ditch outlet		
SW-02	Upper Reach of Mill Creek (upstream of the third bridge)	April 20, 2024	Methylmercury.
SW-03	Mill Creek Estuary		
SW-07	Upstream Mill Creek (at the diversion inlet)		
SW-02	Upper Reach of Mill Creek (upstream of the third bridge)	April 28, 2024	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, and VOCs.
SW-03	Mill Creek Estuary		
SW-07	Upstream Mill Creek (at the diversion inlet)		
SW-01	Lower Reach of Woodfibre Creek (near the mouth)	April 29, 2024	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, and VOCs.
SW-04	Lower Reach of East Creek (near the outlet to the outfall culvert)		
WWTP-E-IN	East WWTP at the influent meter box	May 3, 2024	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, VOCs, and Methylmercury.
WWTP-E-OUT	East WWTP at the effluent meter box		
IDZ-W1-0.5	Howe Sound IDZ station W1; 0.5 m below surface	May 5, 2024	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, and VOCs.
IDZ-W1-2m	Howe Sound IDZ station W1; 2 m below surface		
IDZ-W1-SF	Howe Sound IDZ station W1; 2 m above the seafloor		
IDZ-W2-0.5	Howe Sound IDZ station W2; 0.5 m below surface		
IDZ-W2-2m	Howe Sound IDZ station W2; 2 m below surface		
IDZ-W2-SF	Howe Sound IDZ station W2; 2 m above the seafloor		
SP-W-IN	West Sedimentation Pond influent entering the pond and collected at cell 1	May 9, 2024	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, and VOCs.
W500GPM-OUT	West Sedimentation Pond 500 GPM TSS settling system at the effluent meter box		

3.3 East Catchment

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

During the monitoring period (May 4 – May 10), the TSS settling system (E500GPM) was operated each day except May 6 and 7 and produced clarified East Sedimentation Pond effluent that was recirculated to the pond. The east catchment did not discharge during the monitoring period. Daily clarified effluent volumes, East WWTP treated effluent volumes, and discharge volumes from the east catchment are listed in Appendix B, Table B-6.

Field measurements were collected May 4 – May 10 at multiple influent and effluent locations, as outlined in Section 2, and are tabulated in Appendix B, Table B-5. Analytical samples collected on May 3 (stations WWTP-E-IN and WWTP-E-OUT, as discussed in Report #62) were available at the time of reporting. Screening results for east catchment contact water quality are summarized in Table B-1 and Table B-2 of Appendix B.

Dissolved oxygen was below the lower limit of the MDO in East WWTP effluent (WWTP-E-OUT) collected May 4 and May 6. East WWTP treated effluent is directed to the East Sedimentation Pond and there was no discharge to Howe Sound on those days.

Methylmercury results were available for East WWTP influent and effluent (WWTP-E-IN and WWTP-E-OUT, respectively) collected May 3 (as discussed in Report #62). Methylmercury and total mercury were above the MDO in East WWTP effluent (WWTP-E-OUT) collected May 3 (Appendix B, Table B-3). East WWTP treated effluent is directed to the East Sedimentation Pond and there was no discharge to Howe Sound on that day.

Dioxin and furan results were reported for East WWTP influent and effluent as well as East Sedimentation Pond influent (station SP-E-IN) and effluent (station SP-E-OUT) collected on March 24, April 1, and April 9 (as discussed in Reports #57, #58, and #59, respectively). The lower and upper bound PCDD/F TEQ concentrations in effluent discharged at SP-E-OUT on March 24,

April 1, and April 9 ranged from 0.00218 to 0.0293 pg/L and from 0.880 to 2.95 pg/L, respectively. Results are tabulated in Appendix B, Table B-4.

3.4 West Catchment

The west catchment water quality monitoring results for stations at the West Sedimentation Pond, the TSS settling systems (ESC and W500GPM) and West WWTP monitoring stations, and the authorized discharge location are discussed in this section. Results for sedimentation pond and TSS settling system influent and effluent stations are screened against PE-111578 discharge limits. Parameters without a discharge limit are screened against Canadian, Federal and BC WQGs for the protection of marine water aquatic life. The screened water quality results for analytical samples and field parameters are presented in Appendix C. Operation of the West WWTP is currently suspended (refer to Section 1.1) and monitoring results are therefore not available for this facility. Exceedances of PE-111578 discharge limits and WQGs in samples of effluent discharged to Howe Sound and results received for methylmercury, dioxins and furans are summarized below.

During the monitoring period (May 4 – May 10), West Sedimentation Pond effluent was directed to the TSS settling system (W500GPM) each day and clarified effluent was recirculated to the pond or used for road dust suppression. The smaller TSS settling system (ESC) was operational on May 8 and 9 and clarified effluent was recirculated to the pond. The west catchment did not discharge to Howe Sound during the monitoring period. Daily clarified effluent and discharge volumes from the west catchment are summarized in Appendix C, Table C-5.

Field measurements were collected May 4 – May 10 at multiple influent and effluent locations, as outlined in Section 2, and are tabulated in Appendix C, Table C-4. Analytical samples collected May 9 (stations SP-W-IN and W500GPM-OUT) 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.

Dioxin and furan results were reported for West Sedimentation Pond influent (station SP-W-IN) and effluent discharged at SP-W-OUT on March 24, March 31, and April 9 (as discussed in Reports #57, #58, and #59, respectively). The lower and upper bound PCDD/F TEQ concentrations in effluent discharged at SP-W-OUT on March 24, March 31, and April 9 ranged from 0 to 0.0110 pg/L and from 0.790 to 2.19 pg/L, respectively. Results are tabulated in Appendix C, Table C-3.

3.5 Non-Contact Water Diversion Ditch Outlets

Non-contact water diversion ditch samples are screened against Canadian, Federal and BC WQGs for the protection of freshwater aquatic life. The analytical results, field parameters, and WQGs are summarized in Appendix D.

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

Methylmercury results were available at the time of reporting for non-contact water diversion ditch samples collected April 11 at OUT-01, OUT-02, and OUT-06 (as discussed in Report #59). Methylmercury concentrations ranged from 0.000023 to 0.000041 µg/Li the April 11 non-contact water diversion ditch samples . Methylmercury results met the WQG. The corresponding total mercury results also met WQGs. Results are tabulated in Appendix D, Table D-1.

3.6 Freshwater and Estuarine Water Receiving Environment

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

Analytical results were available at the time of reporting for freshwater and estuarine water samples collected at the lower freshwater reach of Mill Creek (SW-02), the Mill Creek estuary (SW-03) and upstream on Mill Creek (SW-07) on April 20 as well as near the mouth of Woodfibre Creek and East Creek (stations SW-01 and SW-04, respectively) on April 22 (as discussed in Report #61). The aforementioned freshwater and estuarine water samples reflect the fourth sampling event for the spring high frequency monitoring (5-in-30) requirement.

Parameter concentrations met WQGs except field pH and total aluminum in one or more samples. Field pH was below the lower range of the WQG in the Mill Creek Estuary (SW-03; pH 6.8). Total aluminum was above the long-term WQG in all samples collected from Woodfibre Creek, Mill Creek, and East Creek (SW-01, SW-02, SW-04, and SW-07), with concentrations ranging from 0.0764 to 0.191 mg/L.

The observed field pH and total aluminum concentrations are within ranges observed in the pre-construction baseline monitoring program for the freshwater and estuarine water receiving environment stations. The samples collected from upstream Mill Creek (station SW-07) represent background water quality in Mill Creek. The observed field pH, total aluminum and dissolved copper concentrations are considered to represent background conditions in all samples and are not flagged as potential project-influenced exceedances of the WQGs.

Methylmercury results were available at the time of reporting for freshwater samples collected at Mill Creek (SW-02 and SW-07) and the Mill Creek estuary (SW-03) on April 20 (as discussed in Report #61). The methylmercury concentrations were <0.000020 µg/L in the samples collected from stations SW-02, SW-03, and SW-07. Methylmercury results met the WQG. The corresponding total mercury results also met WQGs. Results are tabulated in Appendix E, Table E-2 (freshwater) and Appendix F, Table F-2 (estuarine).

Dioxin and furan results were available at the time of reporting for freshwater and estuarine water samples collected April 2 (all stations), April 7 (SW-02, SW-03, and SW-07) and April 8 (SW-01 and SW-04) (as discussed in Report #58 and #59). The lower and upper bound PCDD/F TEQ concentrations measured in these samples ranged from 0 to 0.0494 pg/L and from 0.964 to 2.11 pg/L, respectively. The lower and upper bound PCDD/F TEQ concentrations were within the concentration ranges observed in the baseline monitoring program. Results are tabulated in Appendix E, Table E-3 (freshwater) and Appendix F, Table F-3 (estuarine).

3.7 Marine Water Receiving Environment

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

Analytical results and field measurements were available at the time of reporting for marine water samples collected at 0.5 and 2 m below the water surface and 2 m above the seafloor on May 5 at IDZ-W1 and IDZ-W2. The aforementioned marine water samples reflect the fourth sampling event for the spring high frequency monitoring (5-in-30) requirement at IDZ-W1 and IDZ-W2.

Parameter concentrations met WQGs except dissolved oxygen and total boron in some samples (Appendix G; Tables G-1). In samples collected at 2 m above the seafloor at IDZ-W1 and IDZ-W2, dissolved oxygen (6.93 and 6.89 mg/L, respectively) was below the lower limit of the WQG (8 mg/L) . Total boron was above the WQG (1.2 mg/L) in samples collected at 2 m above the seafloor at IDZ-W1 and IDZ-W2 (3.02 and 3.01 mg/L, respectively). Low concentrations of dissolved oxygen and elevated concentrations of total boron are indicative of influence from the deeper saline waters in the northern basin of Howe Sound and are a natural condition of marine water at the

WDA monitoring stations. The dissolved oxygen and total boron concentrations observed at the IDZ monitoring stations are within concentrations that have been observed in the pre-construction baseline monitoring program or within background ranges observed at marine reference stations and are therefore not attributed to project influence.

Dioxins and furans analytical results were available at the time of reporting for marine samples collected from 0.5 and 2 m below the water surface and 2 m above the seafloor at stations IDZ-W1 and IDZ-W2 on April 8 and at stations IDZ-E1 and IDZ-E2 on April 10 (as discussed in Report #59). The lower and upper bound PCDD/F TEQ concentrations measured in these samples ranged from 0 to 0.0323 pg/L, and 0.620 to 1.87 pg/L, respectively. The lower and upper bound PCDD/F TEQ concentrations were within the concentration ranges observed in the baseline monitoring program or within background ranges observed at marine reference stations. Results are tabulated in Appendix G, Table G-2.

4. Quality Control

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

Table 4: Weekly Report QC Evaluations and Ongoing Items

QC Procedure	Observation	Investigation/Resolution
Reporting Period (May 4 – May 10, Report #63)		
Authorized Works and Monitoring Program Evaluation	The authorized works and monitoring stations have not been established as described in PE-111578.	The PE-111578 authorized works for water management have been constructed, except for some of the conveyance ditches which require completion of site grading prior to installation. Sumps, pumps and hoses are used for temporary conveyance until the ditches are completed. The lower reach of East Creek has been temporarily diverted through OUT-11 outfall since September 17, 2024, to facilitate replacement of the East Creek outfall culvert (OUT-12). All monitoring stations have been established except at SP-E-IN-1, SP-E-IN-2, SP-W-IN-1 and SP-W-IN-2 where substitute stations are established in lieu of those listed in PE-111578 (refer to Section 2). This item remains open.
Pending Data	Analytical results not reported.	Analytical results and field parameters for receiving environment samples collected May 6, 7, and 9 as well as analytical results for contact water and treated water samples collected May 10 were not included with Report #63. Methylmercury, dioxins and furans results for receiving environment samples collected May 5 and contact water and treated water samples collected May 9 were not included with Report #63. The pending results will be included in future weekly reports when available. This item remains open.
Monitoring Requirement Evaluation	General parameters not tested for marine receiving environment reference station.	The general parameters bottle for the sample collected at 2 m above the seafloor at marine reference station WQR2 on May 6 leaked in transit to the laboratory; therefore, general parameters could not be tested for this sample. This item has been reviewed with field staff and moving forward, field staff will ensure bottle lids are tight and will collect two general parameter bottles for each sample submission. This item is closed.
Ongoing Items from Previous Weekly Reports		
Report #57: Pending Data	Analytical results not reported.	Dioxins and furans results for contact water samples collected March 24 are discussed in Sections 3.3 and 3.4 of Report #63. Chronic toxicity results for marine receiving environment samples collected March 25 were not included with Report #63. The pending results will be included in future weekly reports when available. This item remains open.
Report #58: Pending Data	Analytical results not reported.	Dioxins and furans results for contact water samples collected March 31 and April 1, and for receiving environment samples collected April 2 are discussed in Sections 3.4, 3.3, and 3.6 of Report #63, respectively. This item is closed.
Report #59: Pending Data	Analytical results not reported.	Methylmercury results for diversion ditch samples collected April 11 are discussed in Section 3.5 of Report #63. Dioxins and furans results for contact water samples collected April 9 and receiving environment samples collected April 7, 8, 10 are discussed in Sections 3.3, 3.4, 3.6, and 3.7 of Report #63. Dioxins and furans results for receiving environment samples collected April 11 and 12 were not included with Report #63. The pending results will be included in future weekly reports when available. This item remains open.
Report #60: Pending Data	Analytical results not reported.	Dioxins and furans results for receiving environment, contact water, and treated water samples collected April 13, 14, 16, and 19 were not included with Report #63. The pending results will be included in future weekly reports when available. This item remains open.
Report #62: WWTP Performance Evaluation	Field pH, total copper, total mercury, total zinc, and hexavalent Cr above the MDO	This item was first noted in Report #46 (January 8 sample) and has been updated with January 14 results (Report #47), January 24 and January 28 results (Report #49), February 5 and 6 results (Report #50), February 10 results (Report #51), February 15 and 20 results (Report #52), February 24 results (Report #53), March 8 results (Report #55), March 17 results (Report #56), April 24 results (Reports #61 and #62) and May 3 results. The total copper concentrations were 0.00809, 0.00595, 0.00895, 0.00518, 0.00542, 0.00525, 0.00450, and 0.00734 mg/L in samples collected at WWTP-E-OUT on January 8, 14, 24, 28, February 24, March 8, 17, and April 24, respectively, and ranged from 0.00613 to 0.0108 mg/L in four replicate samples collected on February 15. The total mercury concentrations were 0.0355, 0.185, 0.223, 0.0882, 0.0101 and 0.0269 µg/L in samples collected on January 24, 30, February 20, 24, April 24 and May 3 respectively, and were 0.0615 and 0.0644 mg/L in two replicate samples collected February 15. The total zinc concentrations were 0.0137, 0.0152, and 0.0156 mg/L in the samples collected on January 24, February 20 and 24, and were 0.0223 and 0.0234 mg/L in two of four replicate samples collected February 15. Hexavalent chromium concentrations were 0.00197 and 0.00166 mg/L in samples collected January 24 and 28 at WWTP- E-OUT. Field pH was 9.1, 9.2, and 9.6 in samples collected at WWTP-E-OUT on February 5, 6 and 10, respectively. As of May 10, and since February/March, field pH and total metals have been consistently meeting MDOs except total copper (April) and total mercury (April/May). The WWTP is not designed to treat mercury, therefore possible contact water sources of mercury are being evaluated. Treatment performance for total copper continues to be monitored. This item remains open.
Report #61: Pending Data	Analytical results not reported.	Methylmercury results for receiving environment samples collected April 20 are discussed in Section 3.6 of Report #63. Methylmercury results for receiving environment samples collected April 21 and 23 and dioxins and furans results for receiving environment, contact water and treated water samples collected April 20, 21, 22, 23, and 24 were not included with Report #63. The pending results will be included in future weekly reports when available. This item remains open.
Report #62: Discharge WQG Evaluation	Total mercury and methylmercury above WQG	Total mercury and methylmercury measured at station SP-E-OUT on April 24 (0.00851 and 0.000264 µg/L, respectively) were 2.6 times greater than the calculated WQG. Potential sources are being reviewed. This item remains open.
Report #62: Pending Data	Analytical results not reported.	Analytical results and field parameters for receiving environment samples collected April 28 and 29 as well as analytical results for contact water and treated water samples collected May 3 are discussed in Sections 3.6 and 3.3 of Report #63, respectively. Methylmercury, dioxin and furans results for receiving environment samples collected April 28 and 29 and dioxins and furans results for contact water and treated water samples collected May 2 and 3 were not included with Report #63. The pending results will be included in future weekly reports when available. This item remains open.

Notes:

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

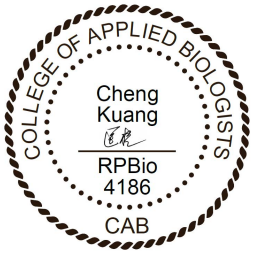
5. Closure

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

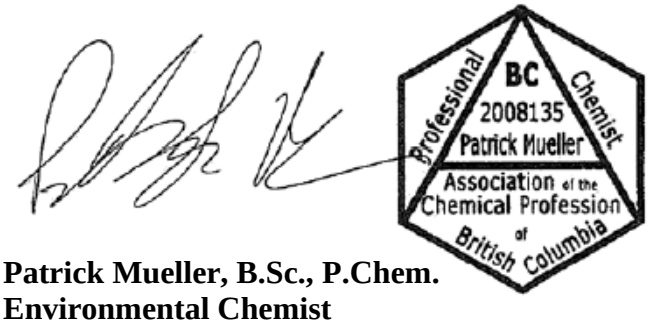
Regards,

LORAX ENVIRONMENTAL SERVICES LTD.

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



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



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

Appendix A: Figures and Site Images

LEGEND

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

DATE SAVED:	May 15, 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 50 100 150 Metres

CLIENT: Woodfibre LNG

LORAX ENVIRONMENTAL

PROJECT:

Woodfibre LNG Project Construction Phase

TITLE: Water Management Facilities and Established PE-111578 Monitoring Stations (May 10, 2025)

PROJECT #: A633-7

FIGURE: 1

P:\@Drafting\Woodfibre\Drafting Figures\APRX\WLNG Construction Phase 2024\WLNG Construction Phase 2024 - Weekly Reporting.aprx

Figure 1 Monitoring and Compliance Locations

Figure 2: East Catchment contact water management facilities (May 4 – May 10).

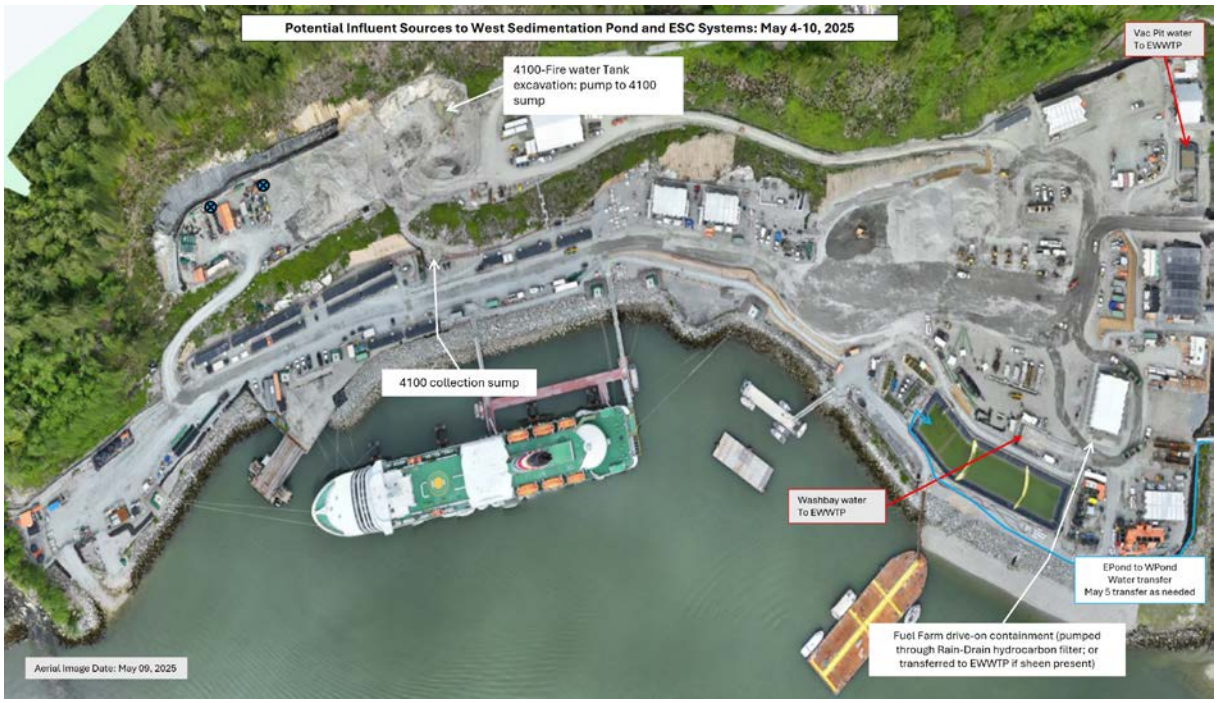


Figure 3: West Catchment contact water management facilities (May 4 – May 10).

Figure 4: Aerial view of the East Sedimentation Pond (May 9, 2025). The East WWTP is located on the left side and the E500GPM TSS settling system is situated along the bottom edge of the pond.

Figure 5: Aerial view of the West Sedimentation Pond (May 9, 2025). The TSS settling systems are located to the left (W500GPM) and right (ESC) of the pond.

Appendix B: East Catchment Monitoring Results

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

Parameter	Unit	Lowest Applicable Guideline [1]		PE-111578 Discharge Limit	Station WWTP-E-IN Influent WWTP-E-IN VA25B0141-001 2025-05-03 15:00
		Long Term	Short Term		
General Parameters					
pH - Field	pH units	- [2]	-	5.5 - 9.0	7.2
Conductivity - Field	µS/cm	-	-	-	1068
Temperature - Field	°C	-	-	-	18.1
Salinity - Field	ppt	-	-	-	0.62
Turbidity - Field	NTU	-	-	-	26.14
TSS	mg/L	-	-	25 or 75 [6]	23
Dissolved Oxygen - Field	mg/L	≥8	-	-	9.41
Anions and Nutrients					
Sulphate	mg/L	-	-	-	335
Chloride	mg/L	-	-	-	16.4
Fluoride	mg/L	-	1.5	-	0.234
Ammonia ($N\text{-}NH_3$)	mg/L	8.7 [3]	58 [3]	-	<0.0050
Nitrite ($N\text{-}NO_2$)	mg/L	-	-	-	<0.0050
Nitrate ($N\text{-}NO_3$)	mg/L	3.7	339	-	<0.0250
Total Metals					
Aluminum, total (T-Al)	mg/L	-	-	-	1.61
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00121
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00257
Barium, total (T-Ba)	mg/L	-	-	-	0.0183
Beryllium, total (T-Be)	mg/L	0.1	-	-	0.000034
Boron, total (T-B)	mg/L	1.2	-	-	0.087
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000600
Chromium, total (T-Cr)	mg/L	-	-	-	0.00148
Cobalt, total (T-Co)	mg/L	-	-	-	0.0005
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00524
Iron, total (T-Fe)	mg/L	-	-	-	1.26
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.00277
Manganese, total (T-Mn)	mg/L	-	-	-	0.0627
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	***0.0000344***
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.131
Nickel, total (T-Ni)	mg/L	0.0083	-	-	0.00099
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000509
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	0.000014
Thallium, total (T-Tl)	mg/L	-	-	-	0.00004
Uranium, total (T-U)	mg/L	-	-	-	0.0274
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.00452
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	0.0266
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050
Dissolved Metals					
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000400
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00194
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.024
Lead, dissolved (D-Pb)	mg/L	-	-	-	0.000092
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0334
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.135
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00241
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0131
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: 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 (May 4 – May 10).
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] The WQG was not evaluated for parameters with discharge limits.
[3] The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.
[4] The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.
[5] When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.

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

Parameter	Unit	Lowest Applicable Guideline [1]		PE-111578 Discharge Limit	Station WWTP-E-OUT
					Effluent
					WWTP-E-OUT
					VA25B0141-002
		Long Term	Short Term		2025-05-03 15:20
General Parameters					
pH - Field	pH units	- [2]	-	5.5 - 9.0	6.0
Conductivity - Field	µS/cm	-	-	-	1208
Temperature - Field	°C	-	-	-	17.7
Salinity - Field	ppt	-	-	-	0.71
Turbidity - Field	NTU	-	-	-	4.57
TSS	mg/L	-	-	25 or 75 [6]	<3.0
Dissolved Oxygen - Field	mg/L	≥8	-	-	8.56
Anions and Nutrients					
Sulphate	mg/L	-	-	-	485
Chloride	mg/L	-	-	-	19.7
Fluoride	mg/L	-	1.5	-	0.185
Ammonia ($N\text{-}NH_3$)	mg/L	14 [3]	92 [3]	-	0.0052
Nitrite ($N\text{-}NO_2$)	mg/L	-	-	-	<0.0050
Nitrate ($N\text{-}NO_3$)	mg/L	3.7	339	-	<0.0250
Total Metals					
Aluminum, total (T-Al)	mg/L	-	-	-	0.258
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00111
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00114
Barium, total (T-Ba)	mg/L	-	-	-	0.00368
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000020
Boron, total (T-B)	mg/L	1.2	-	-	0.075
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000250
Chromium, total (T-Cr)	mg/L	-	-	-	0.00053
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00010
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00248
Iron, total (T-Fe)	mg/L	-	-	-	0.133
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.000472
Manganese, total (T-Mn)	mg/L	-	-	-	0.00716
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	***0.0000269***
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.104
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00050
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000391
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000010
Thallium, total (T-Tl)	mg/L	-	-	-	0.000019
Uranium, total (T-U)	mg/L	-	-	-	0.0128
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.00129
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	0.0033
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050
Dissolved Metals					
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000250
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00196
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.014
Lead, dissolved (D-Pb)	mg/L	-	-	-	0.000094
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.00604
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.124
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00101
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0035
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: 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 (May 4 – May 10).

[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] The WQG was not evaluated for parameters with discharge limits.
[3] The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.
[4] The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.
[5] When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.

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

Parameter					**Total Methylmercury**	**Total Mercury**
Unit					**µg/L**	**µg/L**
Lowest Applicable Guideline[1]					0.0001 [2]	0.0078 – 0.018 [3,4]
Station	**Water Type**	**Sample ID**	**Lab ID**	**Sampling Date**		
Influent						
WWTP-E-IN	Influent	WWTP-E-IN	VA25B0141-001	2025-05-03	***0.000441***	***0.0344***
Effluent						
WWTP-E-OUT	Effluent	WWTP-E-OUT	VA25B0141-002	2025-05-03	***0.000152***	***0.0269***

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

Table B-4: East 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-E-IN	Influent	SP-E-IN	VA25A6439-001	2025-03-24	0.0716	6.26
SP-E-IN	Influent	SP-E-IN	VA25A7142-001	2025-04-01	0.0739	2.02
SP-E-IN	Influent	SP-E-IN	VA25A7964-003	2025-04-09	0.0334	0.942
WWTP-E-IN	Influent	WWTP-E-IN	VA25A6439-004	2025-03-24	0.332	2.83
WWTP-E-IN	Influent	WWTP-E-IN	VA25A7142-003	2025-04-01	0.0230	2.26
WWTP-E-IN	Influent	WWTP-E-IN	VA25A7964-001	2025-04-09	0.0299	1.20
Effluent						
SP-E-OUT	Effluent	SP-E-OUT	VA25A6439-002	2025-03-24	0.0293	2.95
SP-E-OUT	Effluent	SP-E-OUT	VA25A7142-002	2025-04-01	0.00218	0.962
SP-E-OUT	Effluent	SP-E-OUT	VA25A7964-004	2025-04-09	0.0101	0.880
WWTP-E-OUT	Effluent	WWTP-E-OUT	VA25A6439-005	2025-03-24	0.00306	1.26
WWTP-E-OUT	Effluent	WWTP-E-OUT	VA25A7142-004	2025-04-01	0.00224	0.965
WWTP-E-OUT	Effluent	WWTP-E-OUT	VA25A7964-002	2025-04-09	0	0.650

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 B-5: East Catchment Field Measurements Collected During the Monitoring Period (May 4 – May 10).

Parameter			Temp.	Dissolved Oxygen (DO)	Salinity	Turbidity	Estimated TSS [3]	pH	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	2025-05-04 13:29	17.5	9.68	0.63	17.16	15.8	7.4	1074	No
SP-E-IN	Influent	2025-05-05 15:33	18.9	9.85	0.66	18.02	16.4	7.1	1168	No
SP-E-IN	Influent	2025-05-06 14:43	19.7	8.99	0.75	7.73	8.8	6.5	1330	No
SP-E-IN	Influent	2025-05-07 14:19	19.2	9.10	0.65	57.60	46.0	6.9	1156	No
SP-E-IN	Influent	2025-05-08 13:07	18.8	9.68	0.79	15.33	14.4	6.6	1372	No
SP-E-IN	Influent	2025-05-09 15:37	18.4	10.16	0.73	4.50	6.4	7.7	1259	No
SP-E-IN	Influent	2025-05-10 13:22	16.4	10.41	0.66	14.92	14.1	7.8	1092	No
WWTP-E-IN	Influent	2025-05-04 13:23	16.8	9.85	0.62	37.17	30.7	7.2	1039	No
WWTP-E-IN	Influent	2025-05-05 15:39	18.9	10.67	0.66	13.10	12.8	7.0	1158	No
WWTP-E-IN	Influent	2025-05-06 14:28	19.4	10.09	0.67	21.66	19.2	7.0	1196	No
WWTP-E-IN	Influent	2025-05-07 14:09	19.5	9.98	0.68	24.29	21.1	7.1	1216	No
WWTP-E-IN	Influent	2025-05-08 12:58	18.2	10.27	0.69	24.68	21.4	7.2	1197	No
WWTP-E-IN	Influent	2025-05-09 18:40	18.2	10.91	0.72	12.21	12.1	7.5	1244	No
WWTP-E-IN	Influent	2025-05-10 12:33	16.4	10.63	0.75	8.65	9.5	7.4	1238	No
E500GPM-IN	Influent	2025-05-04 13:41	17.4	9.73	0.63	30.46	25.7	7.2	1068	No
E500GPM-IN	Influent	2025-05-05 15:24	18.0	10.49	0.65	13.64	13.2	7.1	1126	No
E500GPM-IN	Influent	2025-05-07 14:03	22.3	***2.72***	0.66	16.43	15.3	7.2	1246	No
E500GPM-IN	Influent	2025-05-09 15:44	18.2	10.43	0.73	12.44	12.3	7.5	1259	No
E500GPM-IN	Influent	2025-05-10 13:41	17.4	10.52	0.74	9.66	10.2	7.6	1256	No
Effluent [5]										
WWTP-E-OUT	Effluent	2025-05-04 13:46	16.8	***5.79***	0.65	3.57	5.7	6.7	1090	No
WWTP-E-OUT	Effluent	2025-05-05 16:11	17.5	8.69	0.69	3.12	5.3	7.3	1171	No
WWTP-E-OUT	Effluent	2025-05-06 14:47	18.4	***7.91***	0.77	1.34	4.0	6.0	1337	No
WWTP-E-OUT	Effluent	2025-05-07 14:14	18.6	8.93	0.72	1.78	4.3	6.6	1256	No
WWTP-E-OUT	Effluent	2025-05-08 13:02	17.8	9.39	0.82	2.52	4.9	6.2	1387	No
WWTP-E-OUT	Effluent	2025-05-09 18:46	17.0	8.27	0.83	2.21	4.6	6.3	1386	No
WWTP-E-OUT	Effluent	2025-05-10 13:02	16.7	9.22	0.83	2.16	4.6	6.4	1376	No
E500GPM-OUT	Effluent	2025-05-04 13:34	17.5	9.32	0.62	2.66	5.0	7.4	1069	No
E500GPM-OUT	Effluent	2025-05-05 15:30	18.7	9.46	0.65	2.47	4.8	7.3	1144	No
E500GPM-OUT	Effluent	2025-05-09 15:48	17.9	9.33	0.73	2.52	4.9	7.7	1248	No
E500GPM-OUT	Effluent	2025-05-10 13:45	17.0	10.22	0.74	2.44	4.8	7.8	1240	No

Notes:
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text exceeded 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 (May 4 – May 10), 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-6: East Catchment Daily Discharge Volumes for the Monitoring Period (May 4 – May 10).

	East Sedimentation Pond Effluent	East TSS Settling System (E500GPM) Clarified Effluent (Station E500GPM-OUT)	East WWTP Treated Effluent (Station WWTP-E-OUT)	Discharge to Howe Sound (Station SP-E-OUT)
Unit	**m^3**	**m^3**	**m^3**	**m^3**
PE-111578 Discharge Limit	- [1]	- [1]	1100	- [1]
Date				
2025-05-04	0	1,456 [2]	590 [3]	0
2025-05-05	0	1,793 [2]	689 [3]	0
2025-05-06	0	0	516 [3]	0
2025-05-07	0	0	479 [3]	0
2025-05-08	0	728 [2]	513 [3]	0
2025-05-09	0	1,816 [2]	226 [3]	0
2025-05-10	0	1,754 [2]	768 [3]	0

Notes:
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text exceeded the PE-111578 East Sedimentation Pond Discharge Limit.
[1] The annual average authorized discharge rate from the East Sedimentation Pond is 650 m^3/day. As noted in PE-111578 Condition 2.1.4, the actual discharge rate may deviate from the annual average rate due to annual variations in precipitation amounts within the catchment area. Therefore, the annual average authorized discharge rate is not evaluated as a discharge limit.
[2] E500GPM clarified effluent is discharged to Howe Sound or recirculated to the East Sedimentation Pond based on operational considerations. Therefore, the E500GPM clarified effluent volume is generally higher than the volume discharged to Howe Sound. The E500GPM was operational during the monitoring period (May 4 – May 10) except on May 6 and 7.
[3] East WWTP treated effluent was recirculated to the East Sedimentation Pond.

Appendix C: West Catchment Monitoring Results

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

Parameter	Unit	Lowest Applicable Guideline [1]		PE-111578 Discharge Limit	Station SP-W-IN
					Influent
					SP-W-IN
					VA25B0798-004
		Long Term	Short Term		2025-05-09 17:15
General Parameters					
pH - Field	pH units	- [2]	-	5.5 - 9.0	8.3
Conductivity - Field	µS/cm	-	-	-	623
Temperature - Field	°C	-	-	-	19
Salinity - Field	ppt	-	-	-	0.34
Turbidity - Field	NTU	-	-	-	15.69
TSS	mg/L	-	-	25 or 75 [6]	6.3
Dissolved Oxygen - Field	mg/L	≥8	-	-	11.76
Anions and Nutrients					
Sulphate	mg/L	-	-	-	196
Chloride	mg/L	-	-	-	11.7
Fluoride	mg/L	-	1.5	-	0.15
Ammonia (N-NH_3)	mg/L	0.87 [3]	5.8 [3]	-	0.0095
Nitrite (N-NO_2)	mg/L	-	-	-	0.0255
Nitrate (N-NO_3)	mg/L	3.7	339	-	0.229
Total Metals					
Aluminum, total (T-Al)	mg/L	-	-	-	0.399
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00096
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00122
Barium, total (T-Ba)	mg/L	-	-	-	0.00632
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000020
Boron, total (T-B)	mg/L	1.2	-	-	0.011
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000350
Chromium, total (T-Cr)	mg/L	-	-	-	<0.00050
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00010
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00173
Iron, total (T-Fe)	mg/L	-	-	-	0.232
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.00392
Manganese, total (T-Mn)	mg/L	-	-	-	0.00958
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	0.00000256
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0644
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00050
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000326
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000010
Thallium, total (T-Tl)	mg/L	-	-	-	0.00005
Uranium, total (T-U)	mg/L	-	-	-	0.0158
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.00149
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	0.0033
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050
Dissolved Metals					
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000175
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00095
Iron, dissolved (D-Fe)	mg/L	-	-	-	<0.010
Lead, dissolved (D-Pb)	mg/L	-	-	-	0.000408
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.00097
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.116
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.0011
Zinc, dissolved (D-Zn)	mg/L	-	-	-	<0.0010
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: 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 West Sedimentation Pond Discharge Limit.
The West Catchment did not discharge during the monitoring period (May 4 – May 10).
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] The WQG was not evaluated for parameters with discharge limits.
[3] The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.
[4] The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.
[5] When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.

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

Parameter	Unit	Lowest Applicable Guideline [1]		PE-111578 Discharge Limit	Station W500GPM-OUT Effluent W500GPM-OUT VA25B0798-001 2025-05-09 16:45
		Long Term	Short Term		
General Parameters					
pH - Field	pH units	- [2]	-	5.5 - 9.0	8.1
Conductivity - Field	µS/cm	-	-	-	628
Temperature - Field	℃	-	-	-	18.7
Salinity - Field	ppt	-	-	-	0.35
Turbidity - Field	NTU	-	-	-	3.94
TSS	mg/L	-	-	25 or 75 [6]	<3.0
Dissolved Oxygen - Field	mg/L	≥8	-	-	12.42
Anions and Nutrients					
Sulphate	mg/L	-	-	-	187
Chloride	mg/L	-	-	-	11.5
Fluoride	mg/L	-	1.5	-	0.154
Ammonia (N-NH_3)	mg/L	1.4 [3]	9.4 [3]	-	0.0128
Nitrite (N-NO_2)	mg/L	-	-	-	0.0263
Nitrate (N-NO_3)	mg/L	3.7	339	-	0.28
Total Metals					
Aluminum, total (T-Al)	mg/L	-	-	-	0.129
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00096
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00114
Barium, total (T-Ba)	mg/L	-	-	-	0.00378
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000020
Boron, total (T-B)	mg/L	1.2	-	-	0.01
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000200
Chromium, total (T-Cr)	mg/L	-	-	-	<0.00050
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00010
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00138
Iron, total (T-Fe)	mg/L	-	-	-	0.044
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.00104
Manganese, total (T-Mn)	mg/L	-	-	-	0.00181
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	0.00000203
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0642
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00050
Selenium, total (T-Se)	mg/L	0.002	-	-	0.00035
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000010
Thallium, total (T-Tl)	mg/L	-	-	-	0.000027
Uranium, total (T-U)	mg/L	-	-	-	0.016
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.00113
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	<0.0030
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050
Dissolved Metals					
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000150
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00084
Iron, dissolved (D-Fe)	mg/L	-	-	-	<0.010
Lead, dissolved (D-Pb)	mg/L	-	-	-	0.000234
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.00039
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.121
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00107
Zinc, dissolved (D-Zn)	mg/L	-	-	-	<0.0010
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: 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 West Sedimentation Pond Discharge Limit.
The West Catchment did not discharge during the monitoring period (May 4 – May 10).
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] The WQG was not evaluated for parameters with discharge limits.
[3] The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.
[4] The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.
[5] When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.

Table C-3: 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	VA25A6439-006	2025-03-24	0.164	1.81
SP-W-IN	Influent	SP-W-IN	VA25A7033-001	2025-03-31	0.0494	1.24
SP-W-IN	Influent	SP-W-IN	VA25A7964-005	2025-04-09	0.0815	1.06
Effluent						
SP-W-OUT	Effluent	SP-W-OUT	VA25A6439-007	2025-03-24	0.00378	2.19
SP-W-OUT	Effluent	SP-W-OUT	VA25A7033-002	2025-03-31	0.0110	1.48
SP-W-OUT	Effluent	SP-W-OUT	VA25A7964-006	2025-04-09	0	0.790

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-4: West Catchment Field Measurements Collected During the Monitoring Period (May 4 – May 10).

Parameter			**Temperature**	**Dissolved Oxygen (DO)**	**Salinity**	**Turbidity**	**Estimated TSS [3]**	**pH**	**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	2025-05-04 15:26	19.8	10.61	0.09	14.55	13.9	8.2	178.5	No
SP-W-IN	Influent	2025-05-05 14:41	20.0	10.14	0.72	19.50	17.5	7.9	228	No
SP-W-IN	Influent	2025-05-06 13:58	20.6	9.03	0.32	29.01	24.6	7.5	605	No
SP-W-IN	Influent	2025-05-07 12:52	19.9	9.22	0.31	2.84	5.1	7.9	580	No
SP-W-IN	Influent	2025-05-08 12:49	19.4	10.61	0.37	13.03	12.7	8.1	670	No
SP-W-IN	Influent	2025-05-09 17:15	19.0	11.76	0.34	15.69	14.7	8.3	623	No
SP-W-IN	Influent	2025-05-10 14:14	18.1	11.42	0.34	19.39	17.5	8.4	596	No
W500GPM-IN	Influent	2025-05-04 15:18	18.7	10.42	0.09	3.99	6.0	8.2	173.6	No
W500GPM-IN	Influent	2025-05-05 14:38	19.8	10.38	0.11	10.02	10.5	8.1	210	No
W500GPM-IN	Influent	2025-05-06 13:49	20.0	9.69	0.27	6.49	7.8	7.7	496	No
W500GPM-IN	Influent	2025-05-07 12:42	19.1	9.93	0.31	8.59	9.4	7.9	561	No
W500GPM-IN	Influent	2025-05-08 12:45	18.9	10.64	0.37	33.93	28.3	8.1	666	No
W500GPM-IN	Influent	2025-05-09 17:16	18.9	13.06	0.35	4.33	6.2	8.5	628	No
W500GPM-IN	Influent	2025-05-10 14:22	17.8	12.34	0.34	5.23	6.9	8.5	599	No
Effluent [5]										
W500GPM-OUT	Effluent	2025-05-04 15:23	19.6	11.04	0.09	1.69	4.3	8.1	176.6	No
W500GPM-OUT	Effluent	2025-05-05 14:47	20.2	11.45	0.10	1.25	3.9	7.9	190	No
W500GPM-OUT	Effluent	2025-05-06 15:31	21.6	9.26	0.28	2.84	5.1	7.9	537	No
W500GPM-OUT	Effluent	2025-05-07 12:48	19.9	8.92	0.31	1.72	4.3	7.8	578	No
W500GPM-OUT	Effluent	2025-05-08 12:46	19.6	10.12	0.38	3.02	5.3	8.1	690	No
W500GPM-OUT	Effluent	2025-05-09 16:45	18.7	12.42	0.35	3.94	5.9	8.1	628	No
W500GPM-OUT	Effluent	2025-05-10 14:19	17.8	11.6	0.34	1.96	4.5	8.3	603	No

Notes: Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text exceeded 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] There was no discharge at the authorized discharge location (SP-W-OUT) during the monitoring period (May 4 – May 10), 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.

Table C-5: West Catchment Daily Discharge Volumes for the Monitoring Period (May 4 – May 10).

	West Sedimentation Pond Effluent	West TSS Settling System (W500GPM) Clarified Effluent (Station W500GPM-OUT)	West TSS Settling System (ESC) Clarified Effluent (Station ESC-W-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	- [2]	- [2]	- [2]	120	- [2]
Date					
2025-05-04	0	1,396 [3]	0	0	0
2025-05-05	0	1,932 [3]	0	0	0
2025-05-06	0	1,222 [3]	0	0	0
2025-05-07	0	1,651 [3]	0	0	0
2025-05-08	0	2,350 [3]	172 [4]	0	0
2025-05-09	0	2,122 [3]	286 [4]	0	0
2025-05-10	0	2,294 [3]	0	0	0

Notes:
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text exceeded 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] The annual average authorized discharge rate from the West Sedimentation Pond is 310 m^3/day. As noted in PE-111578 Condition 2.1.4, the actual discharge rate may deviate from the annual average rate due to annual variations in precipitation amounts within the catchment area. Therefore, the annual average authorized discharge rate is not evaluated as a discharge limit.
[3] W500GPM clarified effluent is discharged to Howe Sound or recirculated to the West Sedimentation Pond based on operational considerations. Therefore, the W500GPM clarified effluent volume may be higher than the volume discharged to Howe Sound at station SP-W-OUT. The W500GPM was operational each day during the monitoring period (May 4 – May 10).
[4] ESC clarified effluent was recirculated to the West Sedimentation Pond on May 8 and 9.

Appendix D: Non-Contact Water Diversion Ditch Outlets Results

Table D-1: Non-contact Water Diversion Ditch Outlet 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]	0.0035-0.012 [3,4]
Station	**Water Type**	**Sample ID**	**Lab ID**	**Sampling Date**		
OUT-01	Non-Contact Water	OUT-01	VA25A8149-001	2025-04-11	0.000041	0.00143
OUT-02	Non-Contact Water	OUT-02	VA25A8149-002	2025-04-11	0.000032	0.00298
OUT-06	Non-Contact Water	OUT-06	VA25A8149-003	2025-04-11	0.000023	0.00285

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: Freshwater Receiving Environment Results

Table E-1: Summary of Freshwater Water Quality Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline [1, 2]		Station SW-01	Station SW-02	Station SW-07	Station SW-04
				Woodfibre Creek Lower Reach	Mill Creek Upper Reach	Upstream Mill Creek	East Creek Lower Reach
				SW-01	SW-02	SW-07	SW-04
				VA25A9703-002	VA25A9553-002	VA25A9553-003	VA25A9703-001
		Long Term	Short Term	2025-04-29 11:45	2025-04-28 11:33	2025-04-28 15:40	2025-04-29 10:00
General Parameters							
pH - Field	pH units	6.5 - 9.0	-	6.6	6.9	6.9	7.5
Specific Conductivity - Field	µS/cm	-	-	4	5	5	39
Temperature - Field	°C	-	-	5.5	5.7	5.5	10.5
Salinity - Field	ppt	-	-	0	0	0	0.02
Turbidity - Field	NTU	-	-	0.36	0.34	0.47	0.78
TSS	mg/L	-	-	<3.0	<3.0	<3.0	3.8
Dissolved Oxygen - Field	mg/L	>=8	>=5	12.97	13.01	12.71	11.34
Anions and Nutrients							
Sulphate [2]	mg/L	128-218	-	0.31	1.08	1.47	4.68
Chloride	mg/L	120	600	<0.50	<0.50	3.08	4.47
Fluoride [2]	mg/L	-	0.40-1.0	<0.020	<0.020	<0.020	0.11
Ammonia ($N\text{-}NH_3$) [2]	mg/L	1.85-1.94	12.7-26.1	<0.0050	<0.0050	<0.0050	0.0062
Nitrite ($N\text{-}NO_2$) [2]	mg/L	0.020-0.060	0.060-0.18	<0.0010	<0.0010	<0.0010	<0.0010
Nitrate ($N\text{-}NO_3$)	mg/L	3	32.8	0.0145	0.0262	0.0242	<0.0050
Total Metals							
Aluminum, total (T-Al) [2]	mg/L	0.041-0.12	-	***0.154***	***0.0780***	***0.0764***	***0.191***
Antimony, total (T-Sb)	mg/L	0.074	-	<0.00010	<0.00010	<0.00010	0.00013
Arsenic, total (T-As)	mg/L	0.005	-	0.0001	<0.00010	<0.00010	0.00078
Barium, total (T-Ba)	mg/L	1	-	0.00139	0.00154	0.00143	0.00579
Beryllium, total (T-Be)	mg/L	0.00013	-	<0.000020	<0.000020	<0.000020	<0.000020
Boron, total (T-B)	mg/L	1.2	29	<0.010	<0.010	<0.010	<0.010
Cadmium, total (T-Cd) [2]	mg/L	0.000036-0.000079	0.00011-0.00089	<0.0000050	0.0000056	<0.0000050	0.0000218
Chromium, total (T-Cr) [4]	mg/L	0.001	-	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, total (T-Co)	mg/L	0.001	0.11	<0.00010	<0.00010	<0.00010	<0.00010
Copper, total (T-Cu)	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050
Iron, total (T-Fe)	mg/L	0.3	1	0.029	0.011	0.03	0.069
Lead, total (T-Pb)	mg/L	-	-	0.000063	<0.000050	<0.000050	0.00007
Manganese, total (T-Mn) [2]	mg/L	0.768-0.795	0.816-1.01	0.00094	0.00039	0.00078	0.0055
Mercury, total (T-Hg) [3]	mg/L	0.00002	-	0.0000018	0.00000082	0.00000072	0.00000099
Molybdenum, total (T-Mo)	mg/L	0.073	46	0.000186	0.000316	0.000306	0.01
Nickel, total (T-Ni) [2]	mg/L	0.025	-	<0.00050	<0.00050	<0.00050	<0.00050
Selenium, total (T-Se)	mg/L	0.001	-	<0.000050	<0.000050	<0.000050	<0.000050
Silver, total (T-Ag)	mg/L	0.00012	-	<0.000010	<0.000010	<0.000010	<0.000010
Thallium, total (T-Tl)	mg/L	0.0008	-	<0.000010	<0.000010	<0.000010	<0.000010
Uranium, total (T-U)	mg/L	0.0085	0.033	0.000624	0.000165	0.000157	0.00147
Vanadium, total (T-V)	mg/L	0.12	-	<0.00050	<0.00050	<0.00050	<0.00050
Zinc, total (T-Zn)	mg/L	-	-	<0.0030	<0.0030	<0.0030	<0.0030
Hexavalent Chromium, total	mg/L	0.001	-	<0.00050	<0.00050	<0.00050	<0.00050
Dissolved Metals							
Cadmium, dissolved (D-Cd) [2]	mg/L	0.000018-0.00011	0.000038-0.00025	<0.0000050	<0.0000050	<0.0000050	0.0000175
Copper, dissolved (D-Cu) [2]	mg/L	0.00020-0.00041	0.0011-0.0025	<0.00020	<0.00020	<0.00020	0.00035
Iron, dissolved (D-Fe)	mg/L	-	0.35	0.023	<0.010	<0.010	0.012
Lead, dissolved (D-Pb) [2]	mg/L	0.0026-0.0044	-	<0.000050	<0.000050	<0.000050	<0.000050
Manganese, dissolved (D-Mn) [2]	mg/L	0.33-0.35	1.97-3.19	0.00078	0.00042	0.00047	0.00348
Nickel, dissolved (D-Ni) [2]	mg/L	0.00060-0.0011	0.0094-0.013	<0.00050	<0.00050	<0.00050	<0.00050
Strontium, dissolved (D-Sr)	mg/L	2.5	-	0.0027	0.00378	0.0037	0.0368
Vanadium, dissolved (D-V)	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050
Zinc, dissolved (D-Zn) [2]	mg/L	0.0043-0.0077	0.0083-0.022	<0.0010	<0.0010	<0.0010	0.0012
Polycyclic Aromatic Hydrocarbons (PAHs)							
Acenaphthene	mg/L	0.0058	-	<0.000010	<0.000010	<0.000010	<0.000010
Acridine	mg/L	0.003	-	<0.000010	<0.000010	<0.000010	0.000012
Anthracene	mg/L	0.000012	-	<0.000010	<0.000010	<0.000010	<0.000010
Benz(a)anthracene	mg/L	0.000018	-	<0.000010	<0.000010	<0.000010	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Chrysene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010
Fluoranthene	mg/L	0.00004	-	<0.000010	<0.000010	<0.000010	<0.000010
Fluorene	mg/L	0.003	-	<0.000010	<0.000010	<0.000010	<0.000010
1-methylnaphthalene	mg/L	-	-	<0.000010	<0.000010	<0.000010	0.000012
2-methylnaphthalene	mg/L	-	-	<0.000010	<0.000010	<0.000010	0.000014
Naphthalene	mg/L	0.001	0.001	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	0.0003	-	<0.000020	<0.000020	<0.000020	<0.000020
Pyrene	mg/L	0.00002	-	<0.000010	<0.000010	<0.000010	<0.000010
Quinoline	mg/L	0.0034	-	<0.000050	<0.000050	<0.000050	<0.000050
Volatile Organic Compounds (VOCs)							
Benzene	mg/L	0.04	-	<0.00050	<0.00050	<0.00050	<0.00050
Ethylbenzene	mg/L	0.09	-	<0.00050	<0.00050	<0.00050	<0.00050
Methyl-tert-butyl-ether	mg/L	10	3.4	<0.00050	<0.00050	<0.00050	<0.00050
Styrene	mg/L	0.072	-	<0.00050	<0.00050	<0.00050	<0.00050
Toluene	mg/L	0.0005	-	<0.00040	<0.00040	<0.00040	<0.00040
Total Xylenes	mg/L	0.03	-	<0.00050	<0.00050	<0.00050	<0.00050
Chlorobenzene	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050
1,2-Dichlorobenzene	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050

Notes:
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of freshwater aquatic life.
Shaded results exceed the applicable short-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] BC WQG or CWQG indicated to be variable are calculated from sample-specific measurements for temperature, field pH, total hardness and dissolved organic carbon (DOC) content.
[3] When MeHg $\leqslant$ 0.5% of total Hg, BC WQG = 0.00002 mg/L.
[4] The approved BC WQG for hexavalent chromium [Cr(VI)] is 0.001 mg/L and 0.0089 mg/L for trivalent chromium [Cr(III)]. The more conservative criteria for Cr(VI) is applied to total chromium results.
The lowest applicable guidelines are shown in the table; however, water quality data was screened to all applicable guidelines.

Table E-2: 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]	0.0030-0.0038 [3,4]
Station	**Water Type**	**Sample ID**	**Lab ID**	**Sampling Date**		
SW-02	Mill Creek, upper reach	SW-02	VA25A8840-001	2025-04-20	<0.000020	0.00060
SW-07	Upstream Mill Creek	SW-07	VA25A8840-003	2025-04-20	<0.000020	0.00076

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.

Table E-3: Freshwater 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**		
SW-01	Lower Reach of Woodfibre Creek (near the mouth)	SW-01	VA25A7262-001	2025-04-02	0.0408	1.22
SW-02	Upper Reach of Mill Creek (upstream of the third bridge)	SW-02	VA25A7262-002	2025-04-02	0.00233	1.14
SW-07	Upstream Mill Creek (at the diversion inlet)	SW-07	VA25A7262-005	2025-04-02	0.00369	1.03
SW-04	Lower Reach of East Creek (near the outlet to the outfall culvert)	SW-04	VA25A7262-004	2025-04-02	0.0115	0.998
SW-02	Upper Reach of Mill Creek (upstream of the third bridge)	SW-02	VA25A7640-001	2025-04-07	0.000405	1.89
SW-07	Upstream Mill Creek (at the diversion inlet)	SW-07	VA25A7640-003	2025-04-07	0.0157	2.11
SW-01	Lower Reach of Woodfibre Creek (near the mouth)	SW-01	VA25A7742-001	2025-04-08	0.000342	1.18
SW-04	Lower Reach of East Creek (near the outlet to the outfall culvert)	SW-04	VA25A7742-002	2025-04-08	0.0494	1.43

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.

Appendix F: Estuarine Water Receiving Environment Results

Table F-1: Summary of Mill Creek Estuary Water Quality Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline [1]		Station SW-03 Mill Creek Estuary SW-03 VA25A9553-001 2025-04-28 11:15
		Long Term	Short Term	
General Parameters				
pH - Field	pH units	7.0 - 8.7	-	***6.8***
Specific Conductivity - Field	µS/cm	-	-	173
Temperature - Field	℃	-	-	5.9
Salinity - Field	ppt	-	-	0.1
Turbidity - Field	NTU	-	-	0.67
TSS	mg/L	-	-	<3.0
Dissolved Oxygen - Field	mg/L	-	-	12.88
Anions and Nutrients				
Sulphate	mg/L	-	-	11.3
Chloride	mg/L	-	-	71.5
Fluoride	mg/L	-	-	<0.020
Ammonia ($N\text{-}NH_3$)	mg/L	-	-	<0.0050
Nitrite ($N\text{-}NO_2$)	mg/L	-	-	<0.0010
Nitrate ($N\text{-}NO_3$)	mg/L	-	-	0.0232
Total Metals				
Aluminum, total (T-Al)	mg/L	-	-	0.0759
Antimony, total (T-Sb)	mg/L	-	-	<0.00010
Arsenic, total (T-As)	mg/L	-	-	<0.00010
Barium, total (T-Ba)	mg/L	-	-	0.0012
Beryllium, total (T-Be)	mg/L	-	-	<0.000020
Boron, total (T-B)	mg/L	-	-	0.024
Cadmium, total (T-Cd)	mg/L	-	-	<0.0000050
Chromium, total (T-Cr)	mg/L	-	-	<0.00050
Cobalt, total (T-Co)	mg/L	-	-	<0.00010
Copper, total (T-Cu)	mg/L	0.002	0.003	<0.00050
Iron, total (T-Fe)	mg/L	-	-	0.011
Lead, total (T-Pb)	mg/L	0.002	0.14	<0.000050
Manganese, total (T-Mn)	mg/L	-	-	0.00054
Mercury, total (T-Hg) [2]	mg/L	0.00002	-	0.00000092
Molybdenum, total (T-Mo)	mg/L	-	-	0.000424
Nickel, total (T-Ni)	mg/L	-	-	<0.00050
Selenium, total (T-Se)	mg/L	-	-	<0.000050
Silver, total (T-Ag)	mg/L	-	-	<0.000010
Thallium, total (T-Tl)	mg/L	-	-	<0.000010
Uranium, total (T-U)	mg/L	-	-	0.000176
Vanadium, total (T-V)	mg/L	-	-	<0.00050
Zinc, total (T-Zn)	mg/L	-	-	<0.0030
Hexavalent Chromium, total	mg/L	-	-	<0.00050
Dissolved Metals				
Cadmium, dissolved (D-Cd)	mg/L	-	-	<0.0000050
Copper, dissolved (D-Cu)	mg/L	-	-	<0.00020
Iron, dissolved (D-Fe)	mg/L	-	-	<0.010
Lead, dissolved (D-Pb)	mg/L	-	-	<0.000050
Manganese, dissolved (D-Mn)	mg/L	-	-	0.00038
Nickel, dissolved (D-Ni)	mg/L	-	-	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	0.0342
Vanadium, dissolved (D-V)	mg/L	-	-	<0.00050
Zinc, dissolved (D-Zn)	mg/L	-	-	<0.0010
Polycyclic Aromatic Hydrocarbons (PAHs)				
Acenaphthene	mg/L	-	-	<0.000010
Acridine	mg/L	-	-	<0.000010
Anthracene	mg/L	-	-	<0.000010
Benz(a)anthracene	mg/L	-	-	<0.000010
Benzo(a)pyrene	mg/L	-	-	<0.0000050
Chrysene	mg/L	-	-	<0.000010
Fluoranthene	mg/L	-	-	<0.000010
Fluorene	mg/L	-	-	<0.000010
1-methylnaphthalene	mg/L	-	-	<0.000010
2-methylnaphthalene	mg/L	-	-	<0.000010
Naphthalene	mg/L	-	-	<0.000050
Phenanthrene	mg/L	-	-	<0.000020
Pyrene	mg/L	-	-	<0.000010
Quinoline	mg/L	-	-	<0.000050
Volatile Organic Compounds (VOCs)				
Benzene	mg/L	-	-	<0.00050
Ethylbenzene	mg/L	-	-	<0.00050
Methyl-tert-butyl-ether	mg/L	-	-	<0.00050
Styrene	mg/L	-	-	<0.00050
Toluene	mg/L	-	-	<0.00040
Total Xylenes	mg/L	-	-	<0.00050
Chlorobenzene	mg/L	-	-	<0.00050
1,2-Dichlorobenzene	mg/L	-	-	<0.00050

Notes:
Results in ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of estuarine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of estuarine water aquatic life.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] When MeHg ⩽ 0.5% of total Hg, BC WQG = 0.00002 mg/L.

Table F-2: Mill Creek Estuary 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]	0.0037 [3,4]
Station	**Water Type**	**Sample ID**	**Lab ID**	**Sampling Date**		
SW-03	Mill Creek estuary	SW-03	VA25A8840-002	2025-04-20	<0.000020	0.00073

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.

Table F-3: Estuarine Water 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**		
SW-03	Mill Creek Estuary	SW-03	VA25A7262-003	2025-04-02	0.0404	0.964
SW-03	Mill Creek Estuary	SW-03	VA25A7640-002	2025-04-07	0	1.83

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.

Appendix G: Marine Water Receiving Environment Results

Table G-1: Summary of Marine Water Quality Results Received at the Time of Reporting

Parameter	Unit	Lowest Applicable Guideline [1]		Station IDZ-W1			Station IDZ-W2		
				0.5 m Below Surface	2 m Below Surface	2 m Above Seafloor	0.5 m Below Surface	2 m Below Surface	2 m Above Seafloor
				IDZ-W2-0.5	IDZ-W2-2m	IDZ-W2-SF	IDZ-W1-0.5	IDZ-W1-2m	IDZ-W1-SF
				VA25B0262-004	VA25B0262-005	VA25B0262-006	VA25B0262-001	VA25B0262-002	VA25B0262-003
		Long Term	Short Term	2025-05-05 9:45	2025-05-05 9:35	2025-05-05 9:20	2025-05-05 10:40	2025-05-05 10:25	2025-05-05 10:00
General Parameters									
pH - Field	pH units	7.0 - 8.7	-	7.57	8.08	7.50	8.06	8.16	7.47
Specific Conductivity - Field	µS/cm	-	-	2952	22887	32128	2888	21064	32059
Temperature - Field	℃	-	-	9.3	12.4	8.6	9.0	12.1	8.6
Salinity - Field	ppt	Narrative [2]	-	2.25	18.71	30.04	2.21	17.22	30.06
Turbidity - Field	NTU	Narrative [2]	Narrative [2]	5.38	0.73	0.67	5.17	0.89	0.60
TSS	mg/L	Narrative [2]	Narrative [2]	3.5	3	<2.0	4.5	4.2	<2.0
Dissolved Oxygen - Field	mg/L	>=8	-	11.63	10.7	***6.93***	11.63	10.93	***6.89***
Anions and Nutrients									
Sulphate	mg/L	-	-	134	589	2320	154	322	2330
Chloride	mg/L	-	-	1210	4510	17100	1260	2570	17000
Fluoride	mg/L	-	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ammonia (N-NH_3)	mg/L	2-13 [3]	13-85 [3]	0.0084	0.0144	0.0459	0.0081	0.0098	0.042
Nitrite (N-NO_2)	mg/L	-	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrate (N-NO_3)	mg/L	3.7	339	<0.50	<0.50	<0.50	<0.50	<0.50	0.51
Total Metals									
Aluminum, total (T-Al)	mg/L	-	-	0.260	0.190	0.0105	0.273	0.238	0.006
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Arsenic, total (T-As)	mg/L	0.0125	0.0125	<0.00040	0.00052	0.00152	<0.00040	<0.00040	0.00163
Barium, total (T-Ba)	mg/L	-	-	0.0093	0.0092	0.0087	0.0091	0.0095	0.0088
Beryllium, total (T-Be)	mg/L	0.1	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Boron, total (T-B)	mg/L	1.2	-	0.33	1.02	***3.02***	0.34	0.61	***3.01***
Cadmium, total (T-Cd)	mg/L	0.00012	-	0.000039	0.000026	0.000068	<0.000020	<0.000020	0.000076
Chromium, total (T-Cr)	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, total (T-Co)	mg/L	-	-	0.000152	0.000138	0.000102	0.000154	0.000151	0.000096
Copper, total (T-Cu)	mg/L	0.002	0.003	0.00137	0.00123	<0.00050	0.00121	0.00111	<0.00050
Iron, total (T-Fe)	mg/L	-	-	0.249	0.177	0.019	0.256	0.235	0.011
Lead, total (T-Pb)	mg/L	0.002	0.14	0.00022	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Manganese, total (T-Mn)	mg/L	-	-	0.0093	0.00776	0.00176	0.00937	0.00894	0.00124
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total (T-Mo)	mg/L	-	-	0.001	0.00302	0.00927	0.00097	0.00173	0.00899
Nickel, total (T-Ni)	mg/L	0.0083	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Selenium, total (T-Se)	mg/L	0.002	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Silver, total (T-Ag)	mg/L	0.0005	0.0037	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Thallium, total (T-Tl)	mg/L	-	-	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Uranium, total (T-U)	mg/L	-	-	0.000256	0.00072	0.00224	0.00027	0.000445	0.00226
Vanadium, total (T-V)	mg/L	0.005	-	0.00088	0.00092	0.00155	0.00087	0.00092	0.00146
Zinc, total (T-Zn)	mg/L	0.01	0.055	0.0053	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Hexavalent Chromium, total	mg/L	0.0015	-	<0.00150	<0.00150	<0.00150	<0.00150	<0.00150	<0.00150
Dissolved Metals									
Cadmium, dissolved (D-Cd)	mg/L	-	-	<0.000020	0.000039	0.000066	<0.000020	0.000051	0.000075
Copper, dissolved (D-Cu)	mg/L	-	-	0.00059	0.00063	<0.00050	0.00062	0.00054	<0.00050
Iron, dissolved (D-Fe)	mg/L	-	-	0.02	<0.010	<0.010	0.019	<0.010	<0.010
Lead, dissolved (D-Pb)	mg/L	-	-	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Manganese, dissolved (D-Mn)	mg/L	-	-	0.00429	0.00382	0.00353	0.00418	0.00361	0.00186
Nickel, dissolved (D-Ni)	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	0.456	2.91	5.48	0.644	4.47	6.43
Vanadium, dissolved (D-V)	mg/L	-	-	<0.00050	0.00061	0.00103	<0.00050	0.00076	0.00155
Zinc, dissolved (D-Zn)	mg/L	-	-	<0.0010	0.0022	<0.0010	<0.0010	<0.0010	0.001
Polycyclic Aromatic Hydrocarbons (PAHs)									
Acenaphthene	mg/L	0.006	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Acridine	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Anthracene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Benz(a)anthracene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Chrysene	mg/L	0.0001	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Fluoranthene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Fluorene	mg/L	0.012	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
1-methylnaphthalene	mg/L	0.001	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
2-methylnaphthalene	mg/L	0.001	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Naphthalene	mg/L	0.001	-	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	-	-	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Pyrene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Quinoline	mg/L	-	-	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Volatile Organic Compounds (VOCs)									
Benzene	mg/L	0.11	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Ethylbenzene	mg/L	0.25	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Styrene	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Toluene	mg/L	0.215	-	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Total Xylenes	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Chlorobenzene	mg/L	0.025	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050

Notes:
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] Narrative guideline for the evaluation of change from background conditions arising from discharges to the aquatic environment. Salinity WQG was not evaluated. The water quality data presented in the table were collected when the site was not discharging, therefore the turbidity and TSS WQGs were not evaluated.
[3] The approved total ammonia nitrogen BC WQG is salinity, pH and temperature dependent; see Tables 26E and 26F 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, BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.

Table G-2: Marine Water 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**		
Station IDZ-E1						
IDZ-E1	0.5 m Below Surface	IDZ-E1-0.5	VA25A8109-001	2025-04-10	0	1.43
IDZ-E1	2 m Below Surface	IDZ-E1-2m	VA25A8109-002	2025-04-10	0.000483	1.41
IDZ-E1	2 m Above Seafloor	IDZ-E1-SF	VA25A8109-003	2025-04-10	0.000912	1.45
Station IDZ-E2						
IDZ-E2	0.5 m Below Surface	IDZ-E2-0.5	VA25A8109-004	2025-04-10	0.01510	1.62
IDZ-E2	2 m Below Surface	IDZ-E2-2m	VA25A8109-005	2025-04-10	0.0323	1.54
IDZ-E2	2 m Above Seafloor	IDZ-E2-SF	VA25A8109-006	2025-04-10	0	1.87
Station IDZ-W1						
IDZ-W1	0.5 m Below Surface	IDZ-W1-0.5	VA25A7740-001	2025-04-08	0	0.695
IDZ-W1	2 m Below Surface	IDZ-W1-2m	VA25A7740-002	2025-04-08	0.00274	1.13
IDZ-W1	2 m Above Seafloor	IDZ-W1-SF	VA25A7740-003	2025-04-08	0.00110	0.697
Station IDZ-W2						
IDZ-W2	0.5 m Below Surface	IDZ-W2-0.5	VA25A7740-004	2025-04-08	0	0.620
IDZ-W2	2 m Below Surface	IDZ-W2-2m	VA25A7740-005	2025-04-08	0	0.911
IDZ-W2	2 m Above Seafloor	IDZ-W2-SF	VA25A7740-006	2025-04-08	0	0.863

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.