TECHNICAL MEMORANDUM

To:	**Ian McAllister, Ashleigh Crompton, Mike Champion, Mark Zan and Ryan Schucroft (Woodfibre LNG)**	**Date:**	**8 Aug 2025**
From:	**Holly Pelletier, Cheng Kuang and Patrick Mueller (Lorax)**	**Project #:**	**A633-9**
Subject:	**PE-111578 Weekly Discharge and Compliance Report #75 for July 27 – August 2**		

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 #75) was prepared by Lorax Environmental and summarizes WDA monitoring conducted for the period of July 27 – August 2. 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 #75 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 F for contact water, treated water and receiving environment samples.

1. Current Conditions

1.1 Water Management Infrastructure

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

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

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

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

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

A flocculant-based TSS settling system (2700GPM) is being implemented at West Sedimentation Pond to clarify all non-contaminated construction contact water prior to re-use at site or discharge at SP-W-OUT. The fully built 2700GPM TSS settling system will have the installed capacity to clarify 14,700 m^3/day of contact water and will consist of six parallel treatment trains, each with an installed capacity of 2,450 m^3/day. The number of active trains will be matched to contact water flows. Only one train will be operated during dry conditions or when contact water flows are below approximately 2450 m^3/day, whereas at higher flows additional trains will be activated as needed to match the influent volumes. The individual treatment trains are being commissioned in stages. The first, third and fourth trains have been commissioned and pilot testing was on-going during the monitoring period (July 27 – August 2).

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

1.2 Weather and Water Management

Generally warm and sunny weather conditions were observed during the July 27 – August 2 monitoring period with no precipitation recorded. The daily weather conditions are summarized in Table 1.

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

Date	Precipitation (mm)	Max. Temp (°C)	Min. Temp (°C)	Weather Description
2025-07-27	0	24.4	13.2	Mix of Sun and Cloud
2025-07-28	0	25.7	14.1	Mix of Sun and Cloud
2025-07-29	0	27.2	14.7	Mix of Sun and Cloud
2025-07-30	0	27.6	15.5	Sunny
2025-07-31	0	26.7	16.6	Sunny
2025-08-01	0	26.3	16.7	Mix of Sun and Cloud
2025-08-02	0	26.6	16.2	Mix of Sun and Cloud

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

From July 27 – August 2, the East Sedimentation Pond received recirculated effluent from the East WWTP as well as recirculated effluent from the 2700GPM TSS settling system while the West Sedimentation Pond was drained and cleaned (Appendix A, Figure 2). There was no discharge to Howe Sound from station SP-E-OUT during the monitoring period. No water from the East Sedimentation Pond was transferred to the West Sedimentation Pond from July 27 – August 2 (Appendix B, Table B-5).

Routine operation of the East WWTP continued during the monitoring period (July 27 – August 2). Concrete contact water was periodically directed to the East WWTP for treatment, as well as water stored in the East Sedimentation Pond (Appendix A, Figure 2 and Figure 3). East WWTP treated effluent was discharged to the East Sedimentation Pond each day from July 27 – August 2. Daily water volumes processed by the East WWTP are provided in Appendix B (Table B-5).

From July 27 - 29, the West Sedimentation Pond received recirculated effluent from the 2700GPM TSS settling system (Appendix A, Figure 3). Pilot testing of the 2700GPM TSS settling system continued. On July 30, to allow for maintenance of the West Sedimentation Pond and installation of the permanent outfall pipe, the pond was drained via the 2700GPM system to the East Sedimentation Pond. From July 31 – August 2 the 2700GPM system was reconfigured to recirculate to the East Sedimentation Pond. There was no discharge to Howe Sound from station SP-W-OUT during the monitoring period. From July 27 – August 2, a total of 420 m^3 of clarified effluent was reclaimed for construction use. Daily clarified effluent volumes from the 2700GPM TSS settling system and volumes of reclaimed water are provided in Appendix C (Table C-6).

On July 31, an estimated 2.84 m^3 of clarified effluent from the 2700GPM system leaked from the temporary water return line to the East Sedimentation Pond and flowed onto the Marine Offloading Facility (MOF). The leak was detected and repaired shortly after pumping was initiated. Before the effluent flow was fully contained, a portion of the clarified effluent (*i.e.*, < 2.84 m^3) flowed off the MOF into Howe Sound, bypassing the SP-E-OUT authorized discharge location. The discharge was reported to BCER and is tracked in Table 4.

2. Monitoring Summary

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

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

- Non-contact diversion ditch outlet monitoring stations (OUT-01, OUT-02, OUT-06, and OUT-11). East Creek water was temporarily diverted to OUT-11 on September 17, 2024, and is monitored at the inlet to temporary diversion (station SW-04), therefore OUT-11 is not currently monitored.

- Creek water monitoring stations for Woodfibre, Mill and East Creek (SW-01, SW-02, SW-03, SW-04, SW-07).
- Contact water monitoring locations (SP-E-IN, WWTP-E-IN, WWTP-E-OUT, SP-W-IN, 2700GPM-IN, and 2700GPM-OUT).
- Effluent compliance stations (SP-E-OUT and SP-W-OUT).
- Howe Sound reference and IDZ monitoring stations (WQR1, WQR2, IDZ-E1, IDZ-E2, IDZ-W1, and IDZ-W2).

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

A flocculant-based TSS settling system (2700GPM) is used at the West Sedimentation Pond as described in Section 1.1. Influent and effluent are monitored at stations 2700GPM-IN and 2700GPM-OUT, respectively. The 2700GPM 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 SP-E-IN, WWTP-E-IN, WWTP-E-OUT, SP-W-IN, 2700GPM-IN, and 2700GPM-OUT during the monitoring period (July 27 – August 2). Sampling dates and parameters tested are summarized in Table 2.

Overall, the PE-111578 monitoring requirements that were applicable during the monitoring period (July 27 – August 2) were met. The initial high frequency monitoring requirements outlined in effluent permit PE-111578 for the sedimentation pond, WWTP and IDZ stations have been met. On June 25, 2025, BCER approved the implementation of low-frequency (*i.e.,* bi-monthly and monthly) monitoring requirements specified in PE-111578 for all parameters, except for metals, hexavalent chromium and methylmercury which will continue to be monitored weekly at sedimentation pond and WWTP stations.

Daily field parameters and a weekly analytical sample were not collected at the east and west catchment effluent stations (SP-E-OUT and SP-W-OUT, respectively) as there was no discharge to Howe Sound during the monitoring period (July 27 – August 2). Daily field parameters were not collected from the west catchment influent station (SP-W-IN) on July 30 through August 2 as the West Sedimentation Pond was drained for cleaning and outfall pipe construction. Daily field parameters and a weekly analytical sample were not collected at the influent and effluent stations of the West WWTP (WWTP-W-IN and WWTP-W-OUT, respectively) as it was not operational during the monitoring period.

The PE-111578 monitoring requirements for the month of July were met. Field parameters and analytical samples were not collected from non-contact water diversion ditch outlets as the ditches were reported dry in July.

Table 2: Summary of PE-111578 Monitoring Samples Collected July 27 – August 2.

Sampling Date	Sample	Description	Parameters Tested	Monitoring Frequency
July 27, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	2700GPM-OUT	2700GPM TSS settling system at the effluent meter box		
July 28, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field and Physical Parameters, Total, Dissolved and Speciated Metals, and Methylmercury.	D, M_2, W
	WWTP-E-IN	East WWTP at the influent meter box	Field and Physical Parameters, Total, Dissolved and Speciated Metals, and Methylmercury.	D, M_2, W
	WWTP-E-OUT	East WWTP at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	2700GPM-OUT	2700GPM TSS settling system at the effluent meter box		
July 29, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box		
	SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	Field and Physical Parameters, Total, Dissolved and Speciated Metals, and Methylmercury.	D, M_2, W
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans.	P
	2700GPM-OUT	2700GPM TSS settling system at the effluent meter box		
July 30, 2025	SP-E-IN	East Sedimentation Pond monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box		
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	2700GPM-OUT	2700GPM TSS settling system at the effluent meter box		
July 31, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box		
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	2700GPM-OUT	2700GPM TSS settling system at the effluent meter box		
August 1, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box		
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	2700GPM-OUT	2700GPM TSS settling system at the effluent meter box		
August 2, 2025	SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	Field Parameters.	D
	WWTP-E-IN	East WWTP at the influent meter box	Field Parameters.	D
	WWTP-E-OUT	East WWTP at the effluent meter box		
	2700GPM-IN	2700GPM TSS settling system at the influent meter box	Field Parameters.	P
	2700GPM-OUT	2700GPM 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_2 – bi-monthly monitoring for physical parameters at WWTP and sedimentation pond stations.
W – high frequency monitoring for metals, chromium speciation and methylmercury at WWTP and sedimentation pond influent and effluent stations, effective June 25, 2025.
P – periodic monitoring for targeted parameters that is supplementary to PE-111578 requirements.

3. Water Quality Results

3.1 Screening and Reporting Overview

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

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

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

3.2 Summary of Reported Results

Field measurements and analytical results included in this weekly report (Report #75) are listed below in Table 3. Testing for methylmercury, dioxins, furans and toxicity may require four weeks or longer to complete. Analytical results not reported will be included in future weekly reports. Reporting of results is pending for the following samples and parameters:

- SP-E-IN, WWTP-E-IN, and WWTP-E-OUT collected July 10 (dioxins and furans)
- IDZ-E1, IDZ-E2, and WQR1 collected July 12 (dioxins and furans)
- 2700GPM-IN and 2700GPM-OUT collected July 14 (dioxins and furans)
- IDZ-W1, IDZ-W2 and WQR2 collected July 22 (dioxins and furans)
- 2700GPM-IN and 2700GPM-OUT collected July 25 (dioxins and furans)
- 2700GPM-IN and 2700GPM-OUT collected July 29 (dioxins and furans)

Table 3: Summary of Analytical Results Included in Weekly Discharge and Compliance Report #75.

Sample	Description	Sampling Date	Parameters Reported
2700GPM-IN	2700 GPM TSS settling system at the influent meter box	June 29, 2025	Dioxins and Furans.
2700GPM-OUT	2700 GPM TSS settling system at the effluent meter box		
SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	July 7, 2025	Dioxins and Furans.
2700GPM-IN	2700 GPM TSS settling system at the influent meter box		
2700GPM-OUT	2700 GPM TSS settling system at the effluent meter box		
SW-01	Lower Reach of Woodfibre Creek (near the mouth)	July 8, 2025	Dioxins and Furans.
SW-04	Lower Reach of East Creek (near the outlet to the outfall culvert)		
SW-02	Lower Reach of Mill Creek (upstream of the third bridge)	July 9, 2025	Dioxins and Furans.
SW-03	Mill Creek Estuary		
SW-07	Upstream Mill Creek (at the diversion inlet)		
IDZ-W1-0.5	Howe Sound IDZ station W1; 0.5 m below surface	July 22, 2025	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, VOCs, and Methylmercury.
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		
SP-E-IN	East Sedimentation Pond influent monitored at cell 1 of the pond	July 28, 2025	Field and Physical Parameters, Total and Dissolved Metals, Hexavalent Chromium, and Methylmercury.
WWTP-E-IN	East WWTP at the influent meter box		
WWTP-E-OUT	East WWTP at the effluent meter box		
SP-W-IN	West Sedimentation Pond influent monitored at cell 1 of the pond	July 29, 2025	Field and Physical Parameters, Total and Dissolved Metals, Hexavalent Chromium, and Methylmercury.
2700GPM-IN	2700 GPM TSS settling system at the influent meter box		Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, VOCs, and Methylmercury.
2700GPM-OUT	2700 GPM TSS settling system at the effluent meter box		

3.3 East Catchment

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

There were no discharges from the SP-E-OUT authorized discharge location during the monitoring period (July 27 – August 2). East WWTP treated effluent volumes and discharge volumes from SP-E-OUT are listed in Appendix B, Table B-5.

As described in Section 1.2, on July 31 less than 2.84 m^3 of 2700GPM TSS clarified effluent was inadvertently discharged from the MOF into Howe Sound. The discharge was reported to BCER and is tracked in Table 4.

Field measurements were collected July 27 – August 2 at multiple influent and effluent locations, as outlined in Section 2, and are tabulated in Appendix B, Table B-4. Analytical samples collected July 28 (stations SP-E-IN, WWTP-E-IN, and WWTP-E-OUT) were available at the time of reporting. Screening results for east catchment contact water quality are summarized in Table B-1 and Table B-2 of Appendix B.

Dissolved oxygen was below the lower limit of the MDO in East WWTP effluent (WWTP-E-OUT) in field measurements collected each day during the July 27 – August 2 monitoring period (Appendix B, Table B-4) and total copper was above the MDO in East WWTP effluent collected July 28 (Appendix B, Table B-2). The depletion of dissolved oxygen was also observed in contact water during dry conditions in 2024 and is speculated to be induced by warm temperatures and limited freshwater inputs (*i.e.*, from rain) to the contact water management system during dry conditions. East WWTP treated effluent was directed to the East Sedimentation Pond and there was no discharge to Howe Sound from the authorized discharge location (SP-E-OUT) during the July 27 – August 2 monitoring period. The copper concentration above the MDO is tracked in Table 4.

Methylmercury results were available for East Sedimentation Pond influent (SP-E-IN) and East WWTP influent and effluent (WWTP-E-IN and WWTP-E-OUT, respectively) collected July 28.

The methylmercury concentration was 0.00130 µg/L in the WWTP-E-OUT sample collected July 28 (Appendix B, Table B-3), which is above the WQG (0.0001 µg/L). East WWTP effluent was directed to the East Sedimentation Pond and there was no discharge from the pond to Howe Sound on July 28. Total mercury concentrations are also listed in Appendix B, Table B-3 and are above the WQG. Mercury parameters are tracked in Table 4.

3.4 West Catchment

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

During the monitoring period (July 27 – August 2), pilot testing of the 2700GPM TSS settling system continued (Section 1.1 and Section 1.2). From July 31 – August 2 the 2700GPM system was temporarily reconfigured to clarify and recirculate East Sedimentation Pond effluent (Section 1.2). There were no discharges to Howe Sound from the west catchment discharge location (SP-W-OUT) during the monitoring period. Daily clarified effluent and discharge volumes from the west catchment are summarized in Appendix C, Table C-6.

Field measurements were collected July 27 – August 2 at multiple influent and effluent locations, as outlined in Section 2, and are tabulated in Appendix C, Table C-5. Analytical samples collected July 29 (stations SP-W-IN, 2700GPM-IN and 2700GPM-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.

During the monitoring period (July 27 – August 2), field measurements and analytical results for samples collected at station 2700GPM-OUT met PE-111578 discharge limits and WQGs except for dissolved oxygen each day during the monitoring period. The depletion of dissolved oxygen was also observed in contact water during dry conditions in 2024 and is speculated to be induced by warm temperatures and limited freshwater inputs (*i.e.,* from rain) to the contact water management system during dry conditions. Clarified effluent from the 2700GPM system was recirculated to the West Sedimentation Pond and there was no discharge to Howe Sound from the authorized discharge location (SP-W-OUT) during the July 27 – August 2 monitoring period.

Methylmercury results were available for West Sedimentation Pond influent (SP-W-IN) and 2700GPM TSS settling system influent and effluent (2700GPM-IN and 2700GPM-OUT, respectively) collected July 29. The methylmercury concentrations were 0.000257 and 0.000260 µg/L in the 2700GPM-OUT samples collected July 28 (Appendix C, Table C-3), which are above the WQG (0.0001 µg/L). Clarified effluent from the 2700GPM system was recirculated to the West Sedimentation Pond and there was no discharge from the pond to Howe Sound on July 29. The total mercury concentration is also listed in Appendix C, Table C-3 and is above the WQG. Mercury parameters are tracked in Table 4.

Dioxin and furan results were reported for 2700GPM TSS settling system influent and effluent (2700GPM-IN and 2700GPM-OUT, respectively) collected June 29 (as discussed in Report #71) as well as for West Sedimentation Pond influent (SP-W-IN) and 2700GPM TSS settling system influent and effluent collected July 7 (as discussed in Report #72). The lower and upper bound PCDD/F TEQ concentrations in the 2700GPM-OUT samples ranged from 0.000405 to 0.0132 pg/L and from 0.998 to 1.43 pg/L, respectively. Results are tabulated in Appendix C, Table C-4.

3.5 Non-Contact Water Diversion Ditch Outlets

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

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

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

3.6 Freshwater and Estuarine Water Receiving Environment

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

Dioxin and furan results were reported for freshwater and estuarine water samples collected near the mouth of Woodfibre Creek and East Creek (stations SW-01 and SW-04, respectively) on July 8 and at the lower freshwater reach of Mill Creek (station SW-02), the Mill Creek estuary (SW-03) and upstream on Mill Creek (SW-07) on July 9 (as discussed in Report #72). The lower and upper

bound PCDD/F TEQ concentrations measured in these samples ranged from 0.00661 to 0.0398 pg/L and from 0.645 to 0.883 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 D, Table D-1 and Appendix E, Table E-1.

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 F.

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 July 22 at IDZ-W1, IDZ-W2, and marine reference station WQR2 (as discussed in Report #74).

Parameter concentrations met WQGs except dissolved oxygen, total boron and total copper in some samples (Appendix F; Tables F-1 and Table F-2). In samples collected at 2 m above the seafloor at IDZ-W1, IDZ-W2 and marine reference station WQR2 on July 22, dissolved oxygen ranged from 6.68 to 6.89 mg/L and was below the lower limit of the WQG (8 mg/L). Total boron was also above the WQG (1.2 mg/L) and ranged from 2.69 to 3.15 mg/L in samples collected at 2 m above the seafloor at IDZ-W1, IDZ-W2 and marine reference station WQR2. 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.

Total copper was above the short- and long-term WQGs (0.002 and 0.003 mg/L, respectively) in a sample collected at 2 m below the surface from station IDZ-W2 (0.0310 mg/L) on July 22. The total copper concentration was above the range of concentrations that have been observed in the pre-construction baseline monitoring program and above background ranges observed at marine reference stations, suggesting potential project influence. However, the total copper concentrations

measured in companion samples collected at IDZ-W1 (shallow depths were < 0.0011 mg/L) and at IDZ-W2 from 0.5 m below the surface (0.00111 mg/L) were below the WQGs. Therefore, the IDZ-W2 total copper result at 2 m below the surface is a suspected erroneous result and that is being verified by the laboratory and is tracked in Table 4.

Chronic toxicity test results for the May 27 marine receiving environment samples (as discussed in Weekly Report #66) are summarized herein. Marine water samples were tested for chronic toxicity to inland silverside (fish) and echinoderm (invertebrate). All chronic toxicity tests were conducted using 100% (undiluted) marine water collected from 0.5 m below the surface at stations IDZ-E1, IDZ-E2, IDZ-W1, IDZ-W2, and marine reference stations WQR1 and WQR2 in the receiving environment of Howe Sound. Salinity adjustment was made prior to testing as per standard test protocol.

The May 27 chronic toxicity test results showed no statistically significant differences between the marine samples and laboratory controls for any of the endpoints tested for inland silverside. For the echinoderm test, a statistically significant difference in fertilization rate was observed in samples collected from stations IDZ-E1, IDZ-E2, IDZ-W1, IDZ-W2, and from marine reference stations WQR1 and WQR2 relative to the laboratory controls.

Analytical results of water samples collected from the marine receiving environment in tandem with the May 27 toxicity samples show that water quality parameter concentrations met WQGs in all samples. There is no clear link between water quality and chronic effect on the echinoderm test species that was observed in the IDZ and reference locations. Considering that the May 27 reference station results showed inhibition of echinoderm fertilization rate similar to the IDZ station results, and that some reference station samples collected in 2024 also showed similar effects, it is inferred that there is a natural condition in the Howe Sound marine water collected at 0.5 m depth that periodically induces a chronic effect (*i.e.,* inhibition of fertilization rate) to echinoderm, that is not attributable to project influence.

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 (July 27 – August 2, Report #75)		
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.
Non-Compliance - Effluent Bypass	Bypass of the SP-E-OUT discharge location.	On July 31, following the temporary reconfiguration of water transfer lines to recirculate East Sedimenation Pond water through the 2700GPM system and the subsequent commencement of recirculation, an estimated 2.84 m^3 of clarified effluent from the 2700GPM system leaked from the water return line and flowed onto the Marine Offloading Facility (MOF). The leak was detected and repaired shortly after pumping was initiated. Before the leak was fully contained, a portion of the 2.84 m^3 2700GPM clarified effluent had flowed off the MOF into Howe Sound, bypassing the SP-E-OUT authorized discharge location. BCER has been notified. Review of the non-compliance is underway. This item remains open.
Potential Project Influence	Total copper at IDZ-W2 above WQG and the baseline concentration range.	The total copper concentration (0.0310 mg/L) observed at 2 m below the surface at IDZ-W2 on July 22 was 16 and 10 times greater than the short- and long-term WQGs, respectively, and 3 times greater than the maximum concentration (0.00974 mg/L) observed in the pre-construction baseline monitoring program or within background ranges observed at marine reference stations. In contrast, the total copper concentrations measured in the sample collected at 0.5 m below the surface at IDZ-W2 (0.00111 mg/L) and at IDZ-W1 (both shallow depths < 0.0011 mg/L) were below the WQGs. The result for IDZ-W2sample collected 2 m below surface is suspected to be erroneous and is being verified by the laboratory. This item remains open.
Pending Data	Analytical results not reported.	Dioxins and furans results for contact water and treated water samples collected July 29 were not included with Report #75. The pending results will be included in future weekly reports when available. This item remains open.
Ongoing Items from Previous Weekly Reports		
Report #62: WWTP Performance Evaluation	Total copper above the MDO.	This item was first noted in Report #46 (January 8 sample). From January 8 onwards the WWTP-E-OUT total copper concentrations were 0.00809, 0.00595, 0.00895, 0.00518, 0.00542, 0.00525, 0.00450, 0.00734, 0.00464, 0.00462, and 0.00573 mg/L in samples collected at WWTP-E-OUT on January 8, 14, 24, 28, February 24, March 8, 17, April 24, May 10, June 3, and June 9, respectively, and ranged from 0.00613 to 0.0108 mg/L in four replicate samples collected on February 15 which are above the MDO. The HSMT metal removal media was replaced on June 5 and the fresh media was expected to improve copper removal; however, the total copper result for WWTP-E-OUT collected June 9 (0.00573 mg/L) following the media replacement was above the MDO. Follow-up samples collected June 19, 23, July 2, 10, 13 and 21 returned total copper concentrations of 0.00264, 0.00263, 0.00181, 0.00185, 0.00215 and 0.00174 mg/L, respectively, and met the MDO. A detailed process evaluation was conducted on July 13 and a modification to how the treatment reagents are added was developed to improve copper removal. BCER was notified of the planned modification on July 21, and it was subsequently implemented. A sample collected July 28 returned a total copper concentration of 0.00797 mg/L and was above the MDO. The WWTP treatment performance for total copper continues to be reviewed. This item remains open.
Report #66: Pending Data	Analytical results not reported.	Chronic toxicity results for marine receiving environment samples collected May 27 are discussed in Section 3.7 of Report #75. This item is closed.
Report #67: WQG Evaluation	Total mercury and methylmercury above WQG.	In general, there has been an increased incidence of total mercury and methylmercury concentrations above the WQGs in site contact waters since late April. In contrast, as of Weekly Report #75, receiving environment samples have met WQGs since May 19. Since late April, site conditions have been drier than through the winter months. Total methylmercury results in contact water from SP-E-OUT, SP-W-OUT, WWTP-E-OUT and 2700GPM-OUT from May 3 to July 21 have been generally above the WQG (0.0001 µg/L) ranging from 0.000089 to 0.00194 µg/L with the highest values observed at WWTP-E-OUT on July 10 and 13 (0.00163 and 0.00194 µg/L, respectively). Possible project related sources have been evaluated, and upstream contact water monitoring data indicate methylmercury is elevated in the hydrovac sump. Excess water from this sump is directed to the East WWTP. Further data evaluation will be conducted after additional data are collected. This item remains open.
Report #71: Pending Data	Analytical results not reported.	Dioxins and furans results for contact water and treated water samples collected June 29 are discussed in Section 3.4 of Report #75. This item is closed.
Report #72: Pending Data	Analytical results not reported.	Dioxins and furans results for contact water and treated water samples collected July 7 and for freshwater and estuarine water receiving environment samples collected July 8 and 9 are discussed in Sections 3.4 and 3.6 of Report #75. Dioxins and furans results for contact water and treated water samples collected July 10 and for marine water receiving environment samples collected July 12 were not included with Report #75. The pending results will be included in future weekly reports when available. This item remains open.
Report #73: Pending Data	Analytical results not reported.	Dioxins and furans results for contact water and treated water samples collected July 14 were not included with Report #75. The pending results will be included in future weekly reports when available. This item remains open.
Report #74: Pending Data	Analytical results not reported.	Field parameters and analytical results for marine water receiving environment samples collected July 22 are discussed in Section 3.7 of Report #75. Dioxins and furans results for marine water receiving environment samples collected July 22 and for contact water and treated water samples collected July 25 were not included with Report #75. 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
- Clean Water Diversion Discharge Station
- Sedimentation Pond Monitoring Stations (Water Quality)
- Wastewater Treatment Plant (WWTP)
- Certified Project Area
- Watercourse
- East Creek Temporary Diversion
- Non-Contact Ditch
- Culvert / Outfall / Pipeline

DATE SAVED:	Aug 06, 2025
DRAWN BY:	DM
REVIEWED:	PM
VERSION:	1

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

1:6,000

0 100 200 Metres

CLIENT: Woodfibre LNG

LORAX ENVIRONMENTAL

PROJECT:

Woodfibre LNG Project Construction Phase

TITLE: Site Layout and Water Quality Monitoring Stations for PE-111578 (August 2, 2025)

PROJECT #: A633-9

FIGURE: 1

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

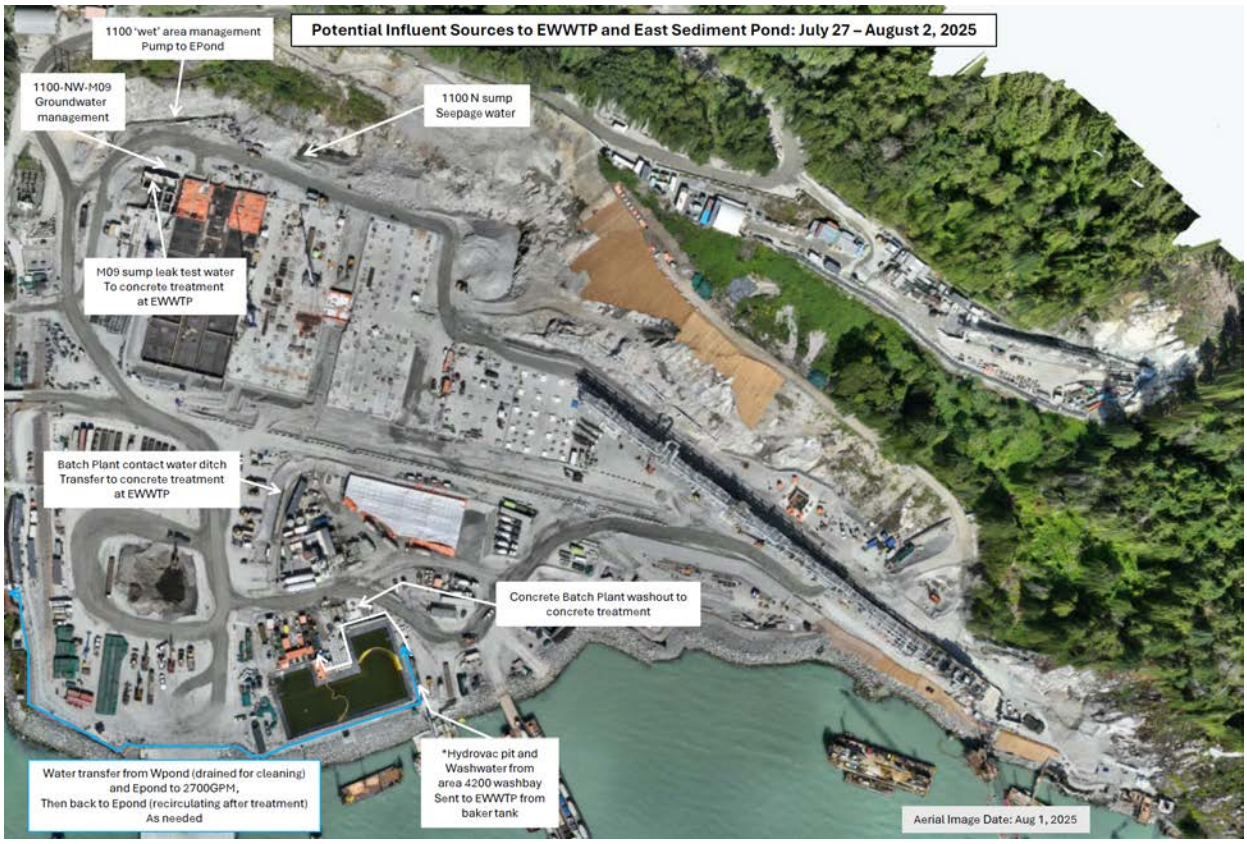

Figure 2: East Catchment contact water management facilities (July 27 – August 2).

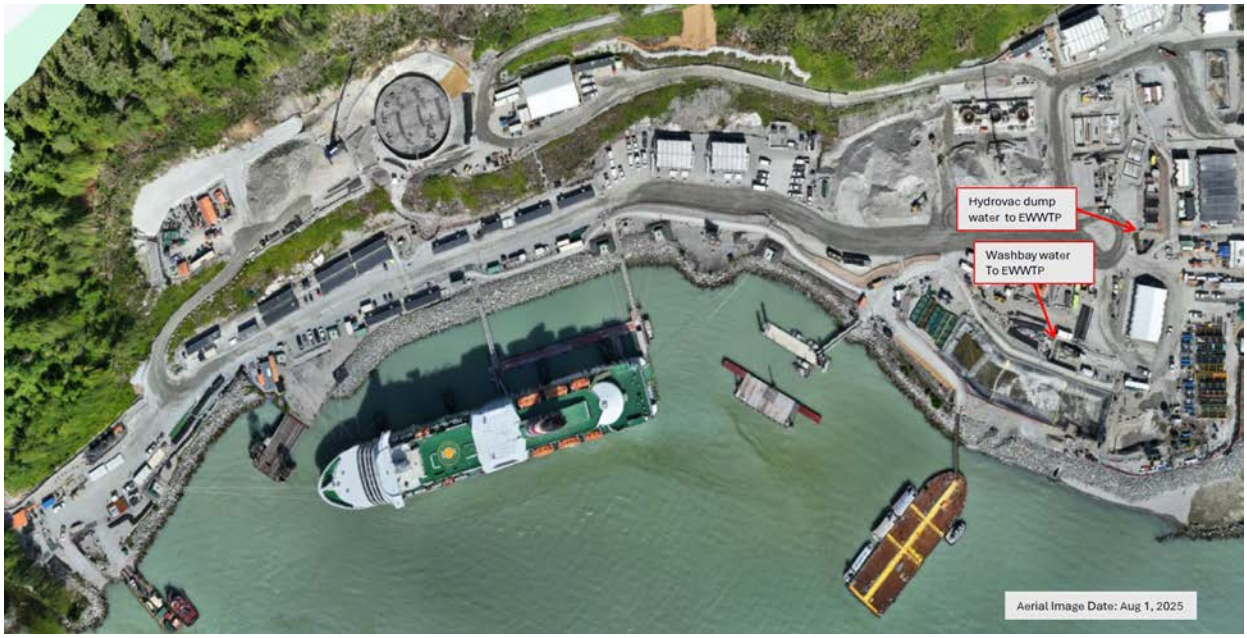

Figure 3: West Catchment contact water management facilities (July 27 – August 2).

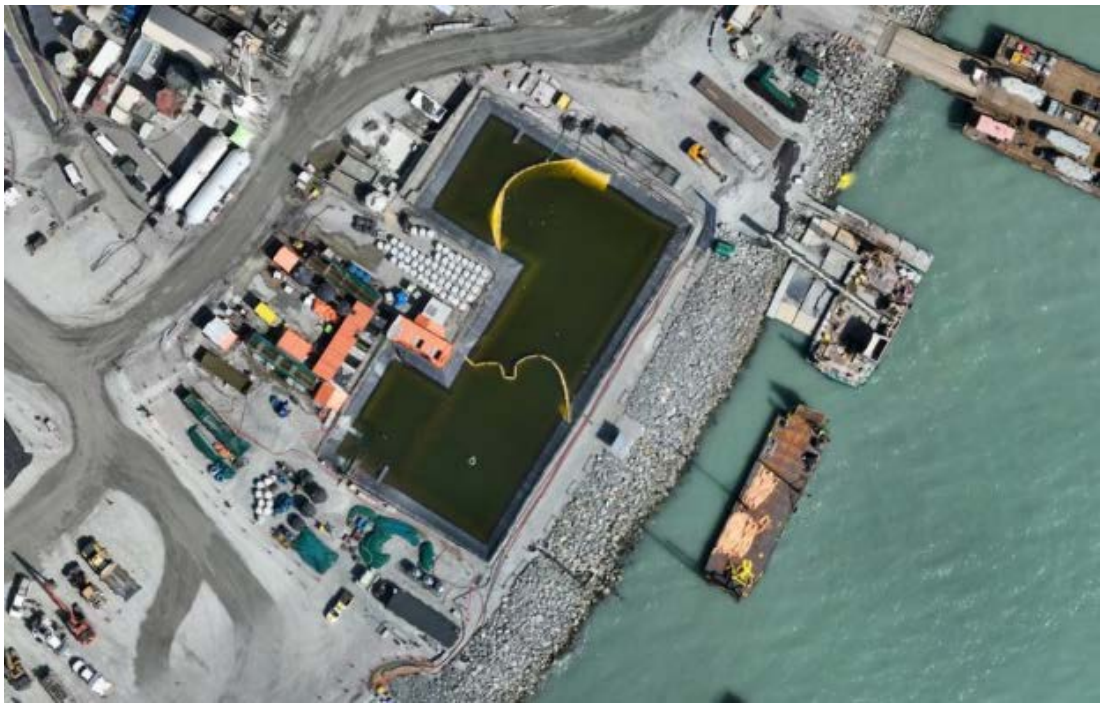

Figure 4: Aerial view of the East Sedimentation Pond (August 1, 2025). The East WWTP is located on the left side of the pond.

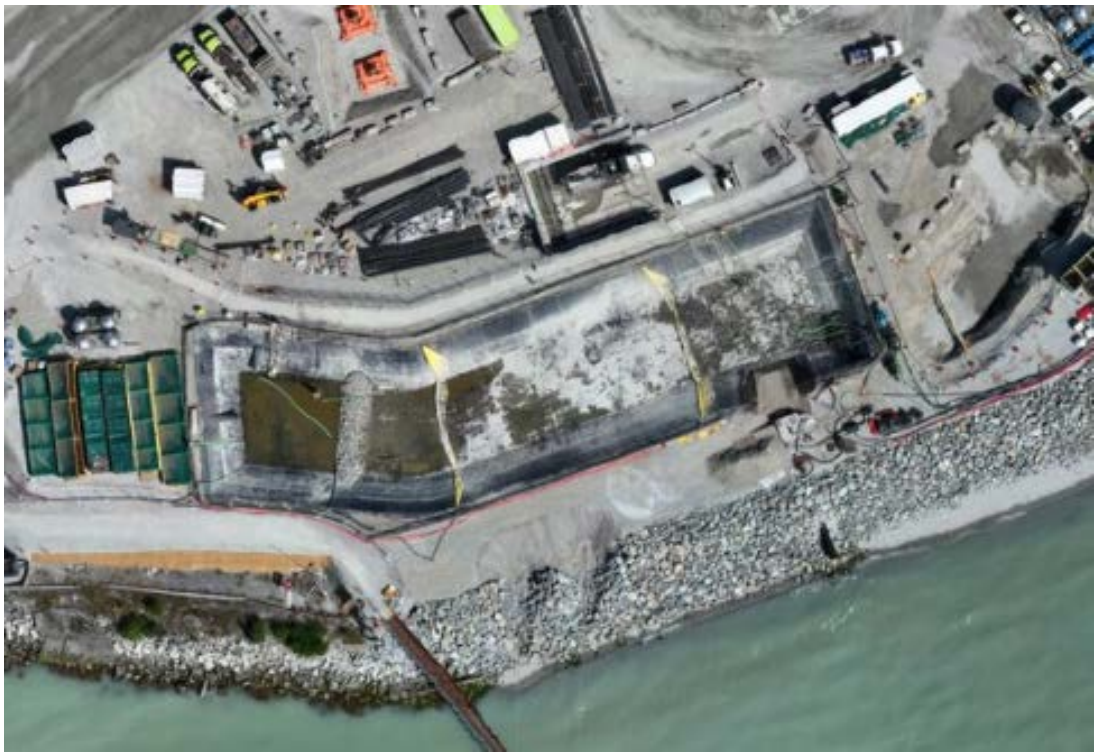

Figure 5: Aerial view of the West Sedimentation Pond (August 1, 2025). The West Sedimentation Pond was drained July 31 for cleaning and outfall pipe installation.

Appendix B: East Catchment Monitoring Results

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

Parameter	Unit	Lowest Applicable Guideline [1]		PE-111578 Discharge Limit	Station SP-E-IN Influent	Station WWTP-E-IN Influent
					SP-E-IN	WWTP-E-IN
					VA25B8579-003	VA25B8579-001
		Long Term	Short Term		2025-07-28 9:22	2025-07-28 8:43
General Parameters						
pH - Field	pH units	- [2]	-	5.5 - 9.0	6.8	6.9
Specific Conductivity - Field	µS/cm	-	-	-	2434	2422
Temperature - Field	°C	-	-	-	22.9	22.8
Salinity - Field	ppt	-	-	-	1.25	1.25
Turbidity - Field	NTU	-	-	-	3.83	3.24
TSS	mg/L	-	-	25 or 75 [6]	30.1	<3.0
Dissolved Oxygen - Field	mg/L	≥8	-	-	8.92	9.42
Anions and Nutrients						
Sulphate	mg/L	-	-	-	-	-
Chloride	mg/L	-	-	-	-	-
Fluoride	mg/L	-	1.5	-	-	-
Ammonia ($N\text{-}NH_3$)	mg/L	9.4 [3]	62 [3]	-	-	-
Nitrite ($N\text{-}NO_2$)	mg/L	-	-	-	-	-
Nitrate ($N\text{-}NO_3$)	mg/L	3.7	339	-	-	-
Total Metals						
Aluminum, total (T-Al)	mg/L	-	-	-	0.244	0.177
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00178	0.00174
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00205	0.00192
Barium, total (T-Ba)	mg/L	-	-	-	0.00972	0.00772
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000040	<0.000040
Boron, total (T-B)	mg/L	1.2	-	-	0.224	0.223
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000350	<0.0000400
Chromium, total (T-Cr)	mg/L	-	-	-	0.00405	0.00142
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00020	<0.00020
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00182	0.00227
Iron, total (T-Fe)	mg/L	-	-	-	0.696	0.437
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.000515	0.000462
Manganese, total (T-Mn)	mg/L	-	-	-	0.0155	0.0118
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	***0.000107***	***0.0000667***
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.125	0.114
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00100	0.00268
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000761	0.000425
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000020	<0.000020
Thallium, total (T-Tl)	mg/L	-	-	-	0.000026	0.000028
Uranium, total (T-U)	mg/L	-	-	-	0.0198	0.0209
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.00336	0.00297
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	<0.0060	0.0243
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050	<0.00050
Dissolved Metals						
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000300	<0.0000300
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00143	0.00142
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.371	0.207
Lead, dissolved (D-Pb)	mg/L	-	-	-	0.000247	0.000182
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0128	0.0101
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00100	<0.00100
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.179	0.163
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00273	0.00247
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.004	0.0119
Polycyclic Aromatic Hydrocarbons (PAHs)						
Acenaphthene	mg/L	0.006	-	-	-	-
Acridine	mg/L	-	-	-	-	-
Anthracene	mg/L	-	-	-	-	-
Benz(a)anthracene	mg/L	-	-	-	-	-
Benzo(a)pyrene	mg/L	0.00001	-	-	-	-
Chrysene	mg/L	0.0001	-	-	-	-
Fluoranthene	mg/L	-	-	-	-	-
Fluorene	mg/L	0.012	-	-	-	-
1-methylnaphthalene	mg/L	0.001	-	-	-	-
2-methylnaphthalene	mg/L	0.001	-	-	-	-
Naphthalene	mg/L	0.001	-	-	-	-
Phenanthrene	mg/L	-	-	-	-	-
Pyrene	mg/L	-	-	-	-	-
Quinoline	mg/L	-	-	-	-	-
Volatile Organic Compounds (VOCs)						
Benzene	mg/L	0.11	-	-	-	-
Ethylbenzene	mg/L	0.25	-	-	-	-
Methyl-tert-butyl-ether	mg/L	5	0.44	-	-	-
Styrene	mg/L	-	-	-	-	-
Toluene	mg/L	0.215	-	-	-	-
Total Xylenes	mg/L	-	-	-	-	-
Chlorobenzene	mg/L	0.025	-	-	-	-
1,2-Dichlorobenzene	mg/L	0.042	-	-	-	-

Notes:
Non-detect results are screened using the detection limit value.
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text exceed the PE-111578 East Sedimentation Pond Discharge Limit.
The East Catchment did not discharge during the monitoring period (July 27 – August 2).
[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 VA25B8579-002 2025-07-28 8:52
		Long Term	Short Term		
General Parameters					
pH - Field	pH units	- [2]	-	5.5 - 9.0	6.3
Specific Conductivity - Field	µS/cm	-	-	-	2411
Temperature - Field	°C	-	-	-	22.7
Salinity - Field	ppt	-	-	-	1.24
Turbidity - Field	NTU	-	-	-	4.5
TSS	mg/L	-	-	25 or 75 [6]	<3.0
Dissolved Oxygen - Field	mg/L	≥8	-	-	***6.46***
Anions and Nutrients					
Sulphate	mg/L	-	-	-	-
Chloride	mg/L	-	-	-	-
Fluoride	mg/L	-	1.5	-	-
Ammonia (N-NH_3)	mg/L	9.4 [3]	62 [3]	-	-
Nitrite (N-NO_2)	mg/L	-	-	-	-
Nitrate (N-NO_3)	mg/L	3.7	339	-	-
Total Metals					
Aluminum, total (T-Al)	mg/L	-	-	-	0.229
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00197
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00218
Barium, total (T-Ba)	mg/L	-	-	-	0.00578
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000040
Boron, total (T-B)	mg/L	1.2	-	-	0.221
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000500
Chromium, total (T-Cr)	mg/L	-	-	-	0.00906
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00020
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00797
Iron, total (T-Fe)	mg/L	-	-	-	0.923
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.000869
Manganese, total (T-Mn)	mg/L	-	-	-	0.0142
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	***0.000112***
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.172
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00100
Selenium, total (T-Se)	mg/L	0.002	-	-	0.00113
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000020
Thallium, total (T-Tl)	mg/L	-	-	-	0.000031
Uranium, total (T-U)	mg/L	-	-	-	0.017
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.00402
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	0.0073
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	-	-	-	0.00145
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.484
Lead, dissolved (D-Pb)	mg/L	-	-	-	0.000228
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0123
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00100
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.152
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00301
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0038
Polycyclic Aromatic Hydrocarbons (PAHs)					
Acenaphthene	mg/L	0.006	-	-	-
Acridine	mg/L	-	-	-	-
Anthracene	mg/L	-	-	-	-
Benz(a)anthracene	mg/L	-	-	-	-
Benzo(a)pyrene	mg/L	0.00001	-	-	-
Chrysene	mg/L	0.0001	-	-	-
Fluoranthene	mg/L	-	-	-	-
Fluorene	mg/L	0.012	-	-	-
1-methylnaphthalene	mg/L	0.001	-	-	-
2-methylnaphthalene	mg/L	0.001	-	-	-
Naphthalene	mg/L	0.001	-	-	-
Phenanthrene	mg/L	-	-	-	-
Pyrene	mg/L	-	-	-	-
Quinoline	mg/L	-	-	-	-
Volatile Organic Compounds (VOCs)					
Benzene	mg/L	0.11	-	-	-
Ethylbenzene	mg/L	0.25	-	-	-
Methyl-tert-butyl-ether	mg/L	5	0.44	-	-
Styrene	mg/L	-	-	-	-
Toluene	mg/L	0.215	-	-	-
Total Xylenes	mg/L	-	-	-	-
Chlorobenzene	mg/L	0.025	-	-	-
1,2-Dichlorobenzene	mg/L	0.042	-	-	-

Notes:
Non-detect results are screened using the detection limit value.
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text exceeded the PE-111578 East Sedimentation Pond Discharge Limit.
The East Catchment did not discharge during the monitoring period (July 27 – August 2).
[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]	0.0043-0.0086 [3,4]
Station	**Water Type**	**Sample ID**	**Lab ID**	**Sampling Date**		
Influent						
SP-E-IN	Influent	SP-E-IN	VA25B8579-003	2025-07-28	***0.00160***	***0.107***
WWTP-E-IN	Influent	WWTP-E-IN	VA25B8579-001	2025-07-28	***0.00155***	***0.0667***
Effluent						
WWTP-E-OUT	Effluent	WWTP-E-OUT	VA25B8579-002	2025-07-28	***0.00130*** [5]	***0.112*** [5]

Notes:
Non-detect results are screened using the detection limit value.
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine aquatic life.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] From BC Ambient Water Quality Guidelines for Mercury Overview Report. The methylmercury concentration threshold of 0.0001 µg/L (0.1 ng/L) is indicated as a WQG for the protection of wildlife and is set at a concentration that protects fish from mercury bioaccumulation to a level that may harm wildlife that consume fish.
[3] CCME guideline for total mercury = 0.016 µg/L.
[4] When MeHg ≤ 0.5% of total Hg, BC WQG = 0.02 µg/L. When MeHg > 0.5% of total Hg, BC WQG = 0.0001/(MeHg/Total Hg). Detection limit values are used to calculate the WQG for result reported as not detected.
[5] East WWTP effluent was directed to the East Sedimentation Pond and there was no discharge from the pond to Howe Sound on July 28.

Table B-4: East Catchment Field Measurements Collected During the Monitoring Period (July 27 – August 2).

Parameter			**Temp.**	**Dissolved Oxygen (DO)**	**Salinity**	**Turbidity**	**Estimated TSS [3]**	**pH**	**Specific Conductivity**	**Visibility of Sheen**
Unit			**°C**	**mg/L**	**ppt**	**NTU**	**mg/L**	**s.u.**	**µS/cm**	
PE-111578 Discharge Limit			-	-	-	-	25 or 75 [6]	5.5 - 9.0	-	-
Lowest Applicable Guideline [1]			-	≥8	-	-	- [2]	- [2]	-	-
Station ID	**Water Type**	**Date**								
Influent [4]										
SP-E-IN	Influent	2025-07-27 14:48	25.2	10.13	1.26	3.41	5.5	7.1	2454	No
SP-E-IN	Influent	2025-07-28 9:22	22.9	8.92	1.25	3.83	5.9	6.8	2434	No
SP-E-IN	Influent	2025-07-29 12:48	25.0	9.79	1.28	4.50	6.4	6.9	2484	No
SP-E-IN	Influent	2025-07-30 15:41	27.2	9.52	1.28	7.20	8.4	7.1	2500	No
SP-E-IN	Influent	2025-07-31 13:25	28.0	10.15	1.37	5.35	7.0	7.1	2657	No
SP-E-IN	Influent	2025-08-01 13:44	26.7	9.07	1.34	3.30	5.5	7.1	2601	No
SP-E-IN	Influent	2025-08-02 12:48	26.6	8.37	1.35	3.07	5.3	7.1	2620	No
WWTP-E-IN	Influent	2025-07-27 14:44	24.8	10.5	1.25	3.38	5.5	7.2	2427	No
WWTP-E-IN	Influent	2025-07-28 8:43	22.8	9.42	1.25	3.24	5.4	6.9	2422	No
WWTP-E-IN	Influent	2025-07-29 12:41	25.6	9.22	1.27	5.20	6.9	7.1	2482	No
WWTP-E-IN	Influent	2025-07-30 15:52	27.8	8.91	1.27	6.54	7.9	7.2	2484	No
WWTP-E-IN	Influent	2025-07-31 13:15	37.3	***4.02***	1.35	5.16	6.8	6.9	2675	No
WWTP-E-IN	Influent	2025-08-01 13:36	27.0	8.28	1.34	5.97	7.5	7.2	2600	No
WWTP-E-IN	Influent	2025-08-02 12:57	26.7	8.26	1.34	2.94	5.2	7.1	2612	No
Effluent [5]										
WWTP-E-OUT	Effluent	2025-07-27 14:43	22.8	***4.14*** [7]	1.31	3.15	5.3	6.5	2545	No
WWTP-E-OUT	Effluent	2025-07-28 8:52	22.7	***6.46*** [7]	1.24	4.50	6.4	6.3	2411	No
WWTP-E-OUT	Effluent	2025-07-29 12:44	24.1	***6.73*** [7]	1.30	4.62	6.4	6.4	2525	No
WWTP-E-OUT	Effluent	2025-07-30 16:04	26.0	***5.07*** [7]	1.34	3.68	5.7	6.4	2606	No
WWTP-E-OUT	Effluent	2025-07-31 14:28	25.3	***3.16*** [7]	0.72	3.63	5.7	6.1	1443	No
WWTP-E-OUT	Effluent	2025-08-01 13:40	26.2	***6.00*** [7]	1.42	4.25	6.2	6.5	2750	No
WWTP-E-OUT	Effluent	2025-08-02 12:59	25.8	***5.05*** [7]	1.39	4.60	6.4	6.4	2700	No

Notes:
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text exceed the PE-111578 East Sedimentation Pond Discharge Limit.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] The WQG was not evaluated for parameters with discharge limits.
[3] TSS concentration is estimated from field turbidity measurements using a site-specific relationship TSS = 0.7458 * [turbidity as NTU] + 3.
[4] Daily field measurements for station SP-E-IN were collected from cell 1 of the East Sedimentation Pond.
[5] There was no discharge at the authorized discharge location (SP-E-OUT) during the monitoring period (July 27 – August 2), therefore daily field measurements for SP-E-OUT were not collected on those days.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.
[7] East WWTP treated effluent is directed to the East Sedimentation Pond and there was no discharge from the pond to Howe Sound during the monitoring period (July 27 – August 2).

Table B-5: East Catchment Daily Discharge Volumes for the Monitoring Period (July 27 – August 2).

	East Sedimentation Pond Effluent	**Transfer to West Sedimentation Pond**	**East WWTP Treated Effluent (Station WWTP-E-OUT)[2]**	**Discharge to Howe Sound (Station SP-E-OUT)**
Unit	**m^3**	**m^3**	**m^3**	**m^3**
PE-111578 Discharge Limit	-	-	1100	- [1]
Date				
2025-07-27	0	0	178	0
2025-07-28	0	0	444	0
2025-07-29	0	0	412	0
2025-07-30	0	0	654	0
2025-07-31	0	0	385	0
2025-08-01	0	0	635	0
2025-08-02	0	0	719	0

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

Appendix C: West Catchment Monitoring Results

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

Parameter	Unit	Lowest Applicable Guideline [1]		PE-111578 Discharge Limit	Station SP-W-IN Influent SP-W-IN VA25B8721-005 2025-07-29 10:38	Station 2700GPM-IN Influent 2700GPM-IN VA25B8721-006 2025-07-29 10:14
		Long Term	Short Term			
General Parameters						
pH - Field	pH units	- [2]	-	5.5 - 9.0	7.9	8.1
Specific Conductivity - Field	µS/cm	-	-	-	1949	1951
Temperature - Field	°C	-	-	-	23.9	23.8
Salinity - Field	ppt	-	-	-	0.99	0.99
Turbidity - Field	NTU	-	-	-	2.45	2.31
TSS	mg/L	-	-	25 or 75 [6]	8.5	<3.0
Dissolved Oxygen - Field	mg/L	≥8	-	-	***5.34***	***6.57***
Anions and Nutrients						
Sulphate	mg/L	-	-	-	-	682
Chloride	mg/L	-	-	-	-	29.6
Fluoride	mg/L	-	1.5	-	-	0.267
Ammonia (N-NH_3)	mg/L	0.97-1.5 [3]	6.4-10 [3]	-	-	0.0406
Nitrite (N-NO_2)	mg/L	-	-	-	-	<0.0100
Nitrate (N-NO_3)	mg/L	3.7	339	-	-	<0.0500
Total Metals						
Aluminum, total (T-Al)	mg/L	-	-	-	0.131	0.132
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00098	0.00098
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00475	0.00459
Barium, total (T-Ba)	mg/L	-	-	-	0.00706	0.00858
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000040	<0.000040
Boron, total (T-B)	mg/L	1.2	-	-	<0.020	<0.020
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000400	<0.0000400
Chromium, total (T-Cr)	mg/L	-	-	-	<0.00100	<0.00100
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00020	<0.00020
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	<0.00100	0.00113
Iron, total (T-Fe)	mg/L	-	-	-	0.149	0.095
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.000298	0.000498
Manganese, total (T-Mn)	mg/L	-	-	-	0.0244	0.0128
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	***0.00000403***	***0.00000283***
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.111	0.116
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00100	<0.00100
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000375	0.000347
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000020	<0.000020
Thallium, total (T-Tl)	mg/L	-	-	-	0.000057	0.000043
Uranium, total (T-U)	mg/L	-	-	-	0.00739	0.0089
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.00223	0.00229
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	<0.0060	<0.0060
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050	<0.00050
Dissolved Metals						
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000300	<0.0000250
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00061	0.00076
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.023	<0.020
Lead, dissolved (D-Pb)	mg/L	-	-	-	<0.000100	<0.000100
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0174	0.00652
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00100	<0.00100
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.317	0.305
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00201	0.00221
Zinc, dissolved (D-Zn)	mg/L	-	-	-	<0.0020	<0.0020
Polycyclic Aromatic Hydrocarbons (PAHs)						
Acenaphthene	mg/L	0.006	-	-	-	<0.000010
Acridine	mg/L	-	-	-	-	<0.000010
Anthracene	mg/L	-	-	-	-	<0.000010
Benz(a)anthracene	mg/L	-	-	-	-	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	-	-	<0.0000050
Chrysene	mg/L	0.0001	-	-	-	<0.000010
Fluoranthene	mg/L	-	-	-	-	<0.000010
Fluorene	mg/L	0.012	-	-	-	<0.000010
1-methylnaphthalene	mg/L	0.001	-	-	-	<0.000010
2-methylnaphthalene	mg/L	0.001	-	-	-	<0.000010
Naphthalene	mg/L	0.001	-	-	-	<0.000050
Phenanthrene	mg/L	-	-	-	-	<0.000020
Pyrene	mg/L	-	-	-	-	<0.000010
Quinoline	mg/L	-	-	-	-	<0.000050
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:
Non-detect results are screened using the detection limit value.
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text exceed the PE-111578 West Sedimentation Pond Discharge Limit.
The West Catchment did not discharge during the monitoring period (July 27 – August 2).
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] The WQG was not evaluated for parameters with discharge limits.
[3] The BC WQG for total ammonia is salinity, pH and temperature dependent; see Tables 27E and 27F in BC WQG guidance document.
[4] The working BC WQG for trivalent antimony [SB(III)] is 0.27 mg/L and is applied to total antimony results.
[5] When MeHg ≤0.5% of total Hg, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.

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

Parameter	Unit	Lowest Applicable Guideline [1]		PE-111578 Discharge Limit	Station 2700GPM-OUT Effluent 2700GPM-OUT VA25B8721-003 2025-07-29 9:20	Station 2700GPM-OUT Effluent 2700GPM-OUT-DUP VA25B8721-002 2025-07-29 9:30
		Long Term	Short Term			
General Parameters						
pH - Field	pH units	- [2]	-	5.5 - 9.0	7.8	7.8
Specific Conductivity - Field	µS/cm	-	-	-	1950	1950
Temperature - Field	°C	-	-	-	22.8	22.8
Salinity - Field	ppt	-	-	-	0.99	0.99
Turbidity - Field	NTU	-	-	-	1.58	1.58
TSS	mg/L	-	-	25 or 75 [6]	<3.0	<3.0
Dissolved Oxygen - Field	mg/L	≥8	-	-	***4.05***	***4.05***
Anions and Nutrients						
Sulphate	mg/L	-	-	-	673	682
Chloride	mg/L	-	-	-	29.4	29.7
Fluoride	mg/L	-	1.5	-	0.279	0.276
Ammonia (N-NH_3)	mg/L	1.5 [3]	10 [3]	-	0.0362	0.0357
Nitrite (N-NO_2)	mg/L	-	-	-	<0.0100	<0.0100
Nitrate (N-NO_3)	mg/L	3.7	339	-	<0.0500	<0.0500
Total Metals						
Aluminum, total (T-Al)	mg/L	-	-	-	0.0267	0.0251
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00108	0.00104
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00456	0.00444
Barium, total (T-Ba)	mg/L	-	-	-	0.00545	0.0053
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000040	<0.000040
Boron, total (T-B)	mg/L	1.2	-	-	<0.020	<0.020
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000350	<0.0000300
Chromium, total (T-Cr)	mg/L	-	-	-	<0.00100	<0.00100
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00020	<0.00020
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	<0.00100	<0.00100
Iron, total (T-Fe)	mg/L	-	-	-	0.038	0.037
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	<0.000100	<0.000100
Manganese, total (T-Mn)	mg/L	-	-	-	0.0163	0.0161
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	***0.00000226***	***0.00000193***
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.116	0.112
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00100	<0.00100
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000366	0.000391
Silver, total (T-Ag)	mg/L	0.0005	0.0037	-	<0.000020	<0.000020
Thallium, total (T-Tl)	mg/L	-	-	-	0.000056	0.000058
Uranium, total (T-U)	mg/L	-	-	-	0.00669	0.00659
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.00231	0.00238
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	<0.0060	<0.0060
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050	<0.00050
Dissolved Metals						
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000300	<0.0000300
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00055	0.00053
Iron, dissolved (D-Fe)	mg/L	-	-	-	0.026	0.025
Lead, dissolved (D-Pb)	mg/L	-	-	-	<0.000100	<0.000100
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0169	0.0168
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00100	<0.00100
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.316	0.307
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00242	0.0024
Zinc, dissolved (D-Zn)	mg/L	-	-	-	<0.0020	<0.0020
Polycyclic Aromatic Hydrocarbons (PAHs)						
Acenaphthene	mg/L	0.006	-	-	<0.000010	<0.000010
Acridine	mg/L	-	-	-	<0.000010	<0.000010
Anthracene	mg/L	-	-	-	<0.000010	<0.000010
Benz(a)anthracene	mg/L	-	-	-	<0.000010	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	-	<0.0000050	<0.0000050
Chrysene	mg/L	0.0001	-	-	<0.000010	<0.000010
Fluoranthene	mg/L	-	-	-	<0.000010	<0.000010
Fluorene	mg/L	0.012	-	-	<0.000010	<0.000010
1-methylnaphthalene	mg/L	0.001	-	-	<0.000010	<0.000010
2-methylnaphthalene	mg/L	0.001	-	-	<0.000010	<0.000010
Naphthalene	mg/L	0.001	-	-	<0.000050	<0.000050
Phenanthrene	mg/L	-	-	-	<0.000020	<0.000020
Pyrene	mg/L	-	-	-	<0.000010	<0.000010
Quinoline	mg/L	-	-	-	<0.000050	<0.000050
Volatile Organic Compounds (VOCs)						
Benzene	mg/L	0.11	-	-	<0.00050	<0.00050
Ethylbenzene	mg/L	0.25	-	-	<0.00050	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	-	<0.00050	<0.00050
Styrene	mg/L	-	-	-	<0.00050	<0.00050
Toluene	mg/L	0.215	-	-	<0.00040	<0.00040
Total Xylenes	mg/L	-	-	-	<0.00050	<0.00050
Chlorobenzene	mg/L	0.025	-	-	<0.00050	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	-	<0.00050	<0.00050

Notes:
Non-detect results are screened using the detection limit value.
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text exceed the PE-111578 West Sedimentation Pond Discharge Limit.
The West Catchment did not discharge during the monitoring period (July 27 – August 2).
[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 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]	0.0012-0.0017 [3,4]
Station	**Water Type**	**Sample ID**	**Lab ID**	**Sampling Date**		
Influent						
SP-W-IN	Influent	SP-W-IN	VA25B8721-005	2025-07-29	***0.00159***	***0.00403***
2700GPM-IN	Influent	2700GPM-IN	VA25B8721-006	2025-07-29	***0.000558***	***0.00283***
Effluent						
2700GPM-OUT	Effluent	2700GPM-OUT	VA25B8721-003	2025-07-29	***0.000257*** [5]	***0.00226*** [5]
2700GPM-OUT	Effluent	2700GPM-OUT-DUP	VA25B8721-002	2025-07-29	***0.000260*** [5]	***0.00193*** [5]

Notes:
Non-detect results are screened using the detection limit value.
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine aquatic life.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] From BC Ambient Water Quality Guidelines for Mercury Overview Report. The methylmercury concentration threshold of 0.0001 µg/L (0.1 ng/L) is indicated as a WQG for the protection of wildlife and is set at a concentration that protects fish from mercury bioaccumulation to a level that may harm wildlife that consume fish.
[3] CCME guideline for total mercury = 0.016 µg/L.
[4] When MeHg ≤ 0.5% of total Hg, BC WQG = 0.02 µg/L. When MeHg > 0.5% of total Hg, BC WQG = 0.0001/(MeHg/Total Hg). Detection limit values are used to calculate the WQG for result reported as not detected.
[5] 2700GPM clarified effluent was directed to the West Sedimentation Pond and there was no discharge from the pond to Howe Sound on July 29.

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

Parameter					**Lower Bound PCDD/F TEQ**	**Upper Bound PCDD/F TEQ**
Unit					**pg/L**	**pg/L**
Station	**Water Type**	**Sample ID**	**Lab ID**	**Sampling Date**		
Influent						
SP-W-IN	Influent	SP-W-IN	VA25B6443-001	2025-07-07	0.0204	0.659
2700GPM-IN	Influent	2700GPM-IN	VA25B5858-001	2025-06-29	0.0176	1.58
2700GPM-IN	Influent	2700GPM-IN	VA25B6443-002	2025-07-07	0.0201	1.66
Effluent						
2700GPM-OUT	Effluent	2700GPM-OUT	VA25B5858-002	2025-06-29	0.000405	1.43
2700GPM-OUT	Effluent	2700GPM-OUT	VA25B6443-003	2025-07-07	0.0132	0.998

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

Table C-5: West Catchment Field Measurements Collected During the Monitoring Period (July 27 – August 2).

Parameter			**Temperature**	**Dissolved Oxygen (DO)**	**Salinity**	**Turbidity**	**Estimated TSS [3]**	**pH**	**Specific Conductivity**	**Visibility of Sheen**
Unit			**°C**	**mg/L**	**ppt**	**NTU**	**mg/L**	**s.u.**	**µS/cm**	
PE-111578 Discharge Limit			-	-	-	-	25 or 75 [6]	5.5 - 9.0	-	-
Lowest Applicable Guideline [1]			-	≥8	-	-	- [2]	- [2]	-	-
Station ID	**Water Type**	**Date**								
Influent [4]										
SP-W-IN	Influent	2025-07-27 11:21	23.4	***7.25***	0.99	2.39	4.8	8.1	1945	No
SP-W-IN	Influent	2025-07-28 9:52	23.4	***7.10***	0.99	2.24	4.7	8.1	1946	No
SP-W-IN	Influent	2025-07-29 10:38	23.9	***5.34***	0.99	2.45	4.8	7.9	1949	No
2700GPM-IN	Influent	2025-07-27 10:59	22.5	***7.17***	0.97	3.81	5.8	8.0	1911	No
2700GPM-IN	Influent	2025-07-28 9:31	22.9	***6.96***	0.99	2.78	5.1	7.9	1939	No
2700GPM-IN	Influent	2025-07-29 10:14	23.8	***6.57***	0.99	2.31	4.7	8.1	1951	No
2700GPM-IN	Influent	2025-07-30 15:14	34.1	***6.77***	1.03	142.72	109.4	8.3	2056	No
2700GPM-IN	Influent	2025-07-31 14:35	26.1	***3.55***	1.17	1.57	4.2	7.8	2288	No
2700GPM-IN	Influent	2025-08-01 13:30	26.6	8.35	1.30	2.39	4.8	7.5	2523	No
2700GPM-IN	Influent	2025-08-02 13:04	26.3	8.16	1.33	2.32	4.7	7.5	2589	No
Effluent [5]										
2700GPM-OUT	Effluent	2025-07-27 11:07	23.0	***6.75*** [7]	0.99	1.56	4.2	8.0	1949	No
2700GPM-OUT	Effluent	2025-07-28 9:38	23.1	***6.94*** [7]	0.99	1.44	4.1	8.0	1941	No
2700GPM-OUT	Effluent	2025-07-29 9:20	22.8	***4.05*** [7]	0.99	1.58	4.2	7.8	1950	No
2700GPM-OUT	Effluent	2025-07-30 15:22	27.4	***4.56*** [7]	1.01	3.41	5.5	8.0	1987	No
2700GPM-OUT	Effluent	2025-07-31 14:18	27.0	***3.84*** [7]	1.00	1.28	4.0	7.9	1978	No
2700GPM-OUT	Effluent	2025-08-01 14:43	27.2	***7.02*** [7]	1.29	1.48	4.1	7.7	2514	No
2700GPM-OUT	Effluent	2025-08-02 12:33	26.4	***7.28*** [7]	1.33	1.64	4.2	7.7	2581	No

Notes:
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text exceed the PE-111578 West Sedimentation Pond Discharge Limit.
[1] The lowest applicable guidelines from approved or working BC WQGs, Canadian (CCME) WQGs and Federal WQGs.
[2] The WQG was not evaluated for parameters with discharge limits.
[3] TSS concentration is estimated from field turbidity measurements using a site-specific relationship TSS = 0.7458 * [turbidity as NTU] + 3.
[4] Daily field measurements for station SP-W-IN were collected from cell 1 of the West Sedimentation Pond. Daily field parameters were not collected July 30 to August 2 as the West Sedimentation Pond was drained for pond cleaning and outfall pipe construction.
[5] There was no discharge at the authorized discharge location (SP-W-OUT) during the monitoring period (July 27 – August 2), therefore daily field measurements for SP-W-OUT were not collected on those days.
[6] The PE-111578 discharge limit for TSS is 25 mg/L under dry conditions and 75 mg/L for each day of Wet Conditions.
[7] 2700GPM clarified effluent is directed to the West Sedimentation Pond and there was no discharge from the pond to Howe Sound during the monitoring period (July 27 – August 2).

Table C-6: West Catchment Daily Discharge Volumes for the Monitoring Period (July 27 – August 2).

	West Sedimentation Pond Effluent	West TSS Settling System (2700GPM) Clarified Effluent (Station 2700GPM-OUT)[3]	Water Reclaimed for Construction Purposes (Station 2700GPM-OUT)	West WWTP Treated Effluent [1] (Station WWTP-W-OUT)	Discharge to Howe Sound (Station SP-W-OUT)
Unit	**m^3**		**m^3**	**m^3**	**m^3**
PE-111578 Discharge Limit	-		-	120	- [2]
Date					
2025-07-27	0	746	0	0	0
2025-07-28	0	1,666	76	0	0
2025-07-29	0	1,444	135	0	0
2025-07-30	0	48	0	0	0
2025-07-31	0	443	31	0	0
2025-08-01	0	1,389	54	0	0
2025-08-02	0	1,367	124	0	0

Notes:
Results in orange text exceed the PE-111578 West Sedimentation Pond Discharge Limit.
[1] The West WWTP is not being operated, therefore discharges are not expected from this facility.
[2] As noted in PE-111578 Condition 2.2.4, the annual average authorized discharge rate from the West Sedimentation Pond to Howe Sound was set to 310 m^3/day for the purpose of calculating discharge fees as required by the Permit and Approval Fees and Charges Regulation. Therefore, the annual average authorized discharge rate is not evaluated as a discharge limit.
[3] Commissioning and pilot testing of a larger TSS settling system (2700GPM) continued during the monitoring period (July 27 – August 2). Clarified effluent from the 2700GPM TSS settling system is recirculated to the West Sedimentation Pond or reclaimed for construction purposes based on operational considerations. From July 30 to August 2, clarified effluent from the 2700GPM TSS settling system was temporarily directed to the East Sediment Pond while the West Sedimentation Pond was drained for cleaning and outfall pipe construction.

Appendix D: Freshwater Receiving Environment Results

Table D-1: 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	VA25B6721-001	2025-07-08	0.0104	0.692
SW-04	Lower Reach of East Creek (near the outlet to the outfall culvert)	SW-04	VA25B6721-002	2025-07-08	0.00706	0.645
SW-02	Lower Freshwater Reach of Mill Creek (upstream of the third bridge)	SW-02	VA25B6721-003	2025-07-09	0.0398	0.800
SW-07	Upstream Mill Creek (at the diversion inlet)	SW-07	VA25B6721-005	2025-07-09	0.0185	0.883

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 E: Estuarine Water Receiving Environment Results

Table E-1: 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	VA25B6721-004	2025-07-09	0.00661	0.881

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: Marine Water Receiving Environment Results

Table F-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-W1-0.5	IDZ-W1-2m	IDZ-W1-SF	IDZ-W2-0.5	IDZ-W2-2m	IDZ-W2-SF
				VA25B7938-001	VA25B7938-002	VA25B7938-003	VA25B7938-004	VA25B7938-005	VA25B7938-006
		Long Term	Short Term	2025-07-22 11:00	2025-07-22 11:25	2025-07-22 11:45	2025-07-22 12:00	2025-07-22 12:30	2025-07-22 12:45
General Parameters									
pH - Field	pH units	7.0 - 8.7	-	7.83	8.09	7.61	7.70	8.11	7.60
Specific Conductivity - Field	µS/cm	-	-	4848	13354	45351	4243	22004	45214
Temperature - Field	℃	-	-	16.1	16.1	10.3	16.9	16.6	10.4
Salinity - Field	ppt	Narrative [2]	-	2.61	7.73	29.21	2.27	13.29	29.12
Turbidity - Field	NTU	Narrative [2]	Narrative [2]	14.67	10.27	1.16	14.38	8.94	0.96
TSS	mg/L	Narrative [2]	Narrative [2]	8.8	9.6	5.2	14.4	13.8	4.3
Dissolved Oxygen - Field	mg/L	>=8	-	10.0	10.0	***6.68***	9.75	9.63	***6.76***
Anions and Nutrients									
Sulphate	mg/L	-	-	190	275	1890	165	169	1940
Chloride	mg/L	-	-	1630	2310	14000	1440	1510	14600
Fluoride	mg/L	-	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ammonia (N-NH_3)	mg/L	1.4-5.6 [3]	9.4-37 [3]	<0.0050	<0.0050	0.0066	<0.0050	<0.0050	0.0066
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	<0.50
Total Metals									
Aluminum, total (T-Al)	mg/L	-	-	0.231	0.248	0.0309	0.328	0.329	0.024
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	<0.00040	0.00146	<0.00040	<0.00040	0.0015
Barium, total (T-Ba)	mg/L	-	-	0.0145	0.0146	0.0119	0.0155	0.0152	0.0115
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	-	0.48	0.61	***3.15***	0.34	0.36	***3.02***
Cadmium, total (T-Cd)	mg/L	0.00012	-	<0.000020	0.000022	0.000064	<0.000020	<0.000020	0.000063
Chromium, total (T-Cr)	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, total (T-Co)	mg/L	-	-	0.000166	0.000164	0.00009	0.000194	0.000212	0.000077
Copper, total (T-Cu)	mg/L	0.002	0.003	0.00098	0.00104	0.00064	0.00111	***0.0310***	0.00062
Iron, total (T-Fe)	mg/L	-	-	0.266	0.276	0.066	0.341	0.353	0.024
Lead, total (T-Pb)	mg/L	0.002	0.14	<0.00010	<0.00010	<0.00010	<0.00010	0.00018	<0.00010
Manganese, total (T-Mn)	mg/L	-	-	0.0135	0.0135	0.00469	0.0156	0.0168	0.00366
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	-	-	0.00118	0.00173	0.00895	0.00084	0.00102	0.00925
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	-	-	0.000277	0.000434	0.00227	0.000213	0.000234	0.00233
Vanadium, total (T-V)	mg/L	0.005	-	0.00109	0.00114	0.00143	0.00121	0.00128	0.00149
Zinc, total (T-Zn)	mg/L	0.01	0.055	<0.0030	<0.0030	<0.0030	<0.0030	0.0064	<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	<0.000020	0.000044	<0.000020	<0.000020	0.000064
Copper, dissolved (D-Cu)	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Iron, dissolved (D-Fe)	mg/L	-	-	<0.010	<0.010	<0.010	<0.010	0.021	<0.010
Lead, dissolved (D-Pb)	mg/L	-	-	0.00017	<0.00010	<0.00010	0.0001	0.00095	0.00032
Manganese, dissolved (D-Mn)	mg/L	-	-	0.0082	0.0069	0.0034	0.00679	0.00705	0.00339
Nickel, dissolved (D-Ni)	mg/L	-	-	<0.00050	<0.00050	<0.00050	0.00079	<0.00050	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	0.726	1.02	5.5	0.548	0.576	6.28
Vanadium, dissolved (D-V)	mg/L	-	-	<0.00050	0.00052	0.00118	<0.00050	<0.00050	0.00131
Zinc, dissolved (D-Zn)	mg/L	-	-	0.0011	<0.0010	<0.0010	0.0013	<0.0010	<0.0010
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 F-2: Summary of Marine Water Quality Results Received at the Time of Reporting

Parameter	Unit	Lowest Applicable Guideline [1]		Reference Station WQR2		
				0.5 m Below Surface	2 m Below Surface	2 m Above Seafloor
				WQR2-0.5	WQR2-2m	WQR2-SF
				VA25B7938-007	VA25B7938-008	VA25B7938-009
		Long Term	Short Term	2025-07-22 9:50	2025-07-22 10:00	2025-07-22 10:30
General Parameters						
pH - Field	pH units	7.0 - 8.7	-	7.95	8.21	7.62
Specific Conductivity - Field	µS/cm	-	-	5188	15800	45055
Temperature - Field	°C	-	-	15.5	15.8	10.6
Salinity - Field	ppt	Narrative [2]	-	2.81	9.28	29.02
Turbidity - Field	NTU	Narrative [2]	Narrative [2]	14.36	12.11	1.08
TSS	mg/L	Narrative [2]	Narrative [2]	16.7	11.0	<2.0
Dissolved Oxygen - Field	mg/L	>=8	-	10.17	10.16	***6.89***
Anions and Nutrients						
Sulphate	mg/L	-	-	86	223	1780
Chloride	mg/L	-	-	891	1950	13400
Fluoride	mg/L	-	1.5	<1.0	<1.0	<1.0
Ammonia ($N\text{-}NH_3$)	mg/L	0.87-5.6 [3]	5.8-37 [3]	<0.0050	0.0097	0.0101
Nitrite ($N\text{-}NO_2$)	mg/L	-	-	<0.10	<0.10	<0.10
Nitrate ($N\text{-}NO_3$)	mg/L	3.7	339	<0.50	<0.50	<0.50
Total Metals						
Aluminum, total (T-Al)	mg/L	-	-	0.479	0.277	0.0204
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	<0.0010	<0.0010	<0.0010
Arsenic, total (T-As)	mg/L	0.0125	0.0125	<0.00040	<0.00040	0.00113
Barium, total (T-Ba)	mg/L	-	-	0.0176	0.015	0.0108
Beryllium, total (T-Be)	mg/L	0.1	-	<0.00050	<0.00050	<0.00050
Boron, total (T-B)	mg/L	1.2	-	<0.30	0.44	***2.69***
Cadmium, total (T-Cd)	mg/L	0.00012	-	<0.000020	<0.000020	0.000063
Chromium, total (T-Cr)	mg/L	-	-	<0.00050	<0.00050	<0.00050
Cobalt, total (T-Co)	mg/L	-	-	0.000261	0.000177	0.000066
Copper, total (T-Cu)	mg/L	0.002	0.003	0.00146	0.00104	0.00054
Iron, total (T-Fe)	mg/L	-	-	0.507	0.288	0.022
Lead, total (T-Pb)	mg/L	0.002	0.14	0.00012	<0.00010	<0.00010
Manganese, total (T-Mn)	mg/L	-	-	0.0195	0.0141	0.00298
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total (T-Mo)	mg/L	-	-	0.00074	0.00134	0.00806
Nickel, total (T-Ni)	mg/L	0.0083	-	<0.00050	<0.00050	<0.00050
Selenium, total (T-Se)	mg/L	0.002	-	<0.00050	<0.00050	<0.00050
Silver, total (T-Ag)	mg/L	0.0005	0.0037	<0.00010	<0.00010	<0.00010
Thallium, total (T-Tl)	mg/L	-	-	<0.000050	<0.000050	<0.000050
Uranium, total (T-U)	mg/L	-	-	0.000146	0.000326	0.002
Vanadium, total (T-V)	mg/L	0.005	-	0.00155	0.0012	0.00133
Zinc, total (T-Zn)	mg/L	0.01	0.055	<0.0030	<0.0030	<0.0030
Hexavalent Chromium, total	mg/L	0.0015	-	<0.00150	<0.00150	<0.00150
Dissolved Metals						
Cadmium, dissolved (D-Cd)	mg/L	-	-	<0.000020	<0.000020	0.000054
Copper, dissolved (D-Cu)	mg/L	-	-	<0.00050	<0.00050	<0.00050
Iron, dissolved (D-Fe)	mg/L	-	-	<0.010	<0.010	<0.010
Lead, dissolved (D-Pb)	mg/L	-	-	<0.00010	<0.00010	<0.00010
Manganese, dissolved (D-Mn)	mg/L	-	-	0.00826	0.00587	0.00163
Nickel, dissolved (D-Ni)	mg/L	-	-	<0.00050	<0.00050	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	0.389	0.948	5.47
Vanadium, dissolved (D-V)	mg/L	-	-	<0.00050	0.00052	0.00135
Zinc, dissolved (D-Zn)	mg/L	-	-	<0.0010	<0.0010	<0.0010
Polycyclic Aromatic Hydrocarbons (PAHs)						
Acenaphthene	mg/L	0.006	-	<0.000010	<0.000010	<0.000010
Acridine	mg/L	-	-	<0.000010	<0.000010	<0.000010
Anthracene	mg/L	-	-	<0.000010	<0.000010	<0.000010
Benz(a)anthracene	mg/L	-	-	<0.000010	<0.000010	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	<0.0000050	<0.0000050	<0.0000050
Chrysene	mg/L	0.0001	-	<0.000010	<0.000010	<0.000010
Fluoranthene	mg/L	-	-	<0.000010	<0.000010	<0.000010
Fluorene	mg/L	0.012	-	<0.000010	<0.000010	<0.000010
1-methylnaphthalene	mg/L	0.001	-	<0.000010	<0.000010	<0.000010
2-methylnaphthalene	mg/L	0.001	-	<0.000010	<0.000010	<0.000010
Naphthalene	mg/L	0.001	-	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	-	-	<0.000020	<0.000020	<0.000020
Pyrene	mg/L	-	-	<0.000010	<0.000010	<0.000010
Quinoline	mg/L	-	-	<0.000050	<0.000050	<0.000050
Volatile Organic Compounds (VOCs)						
Benzene	mg/L	0.11	-	<0.00050	<0.00050	<0.00050
Ethylbenzene	mg/L	0.25	-	<0.00050	<0.00050	<0.00050
Methyl-tert-butyl-ether	mg/L	5	0.44	<0.00050	<0.00050	<0.00050
Styrene	mg/L	-	-	<0.00050	<0.00050	<0.00050
Toluene	mg/L	0.215	-	<0.00040	<0.00040	<0.00040
Total Xylenes	mg/L	-	-	<0.00050	<0.00050	<0.00050
Chlorobenzene	mg/L	0.025	-	<0.00050	<0.00050	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	-	<0.00050	<0.00050	<0.00050

Notes:
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 are marine reference stations and represent background conditions, 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 $\leqslant$ 0.5% of total Hg, BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.