TECHNICAL MEMORANDUM

To:	**Ian McAllister, Ashleigh Crompton, Mike Champion, Jackie Boruch and Ryan Schucroft (Woodfibre LNG)**	**Date: 16 Sept 2024**
From:	**Cheng Kuang and Holly Pelletier (Lorax)**	**Project #: A633-7**
Subject:	**PE-111578 Weekly Discharge and Compliance Report #29 for August 25 – 31**	

Waste Discharge Authorization Effluent Permit PE-111578 was issued by the British Columbia Energy Regulator (BCER) to Woodfibre LNG on February 9, 2024. The permit specifies monitoring and reporting requirements for contact water discharges during construction of the LNG Export Facility. Reporting is required on a weekly basis.

This report replaces Report #29 issued on September 6 with the following revisions:

- Updated Section 3.2 to indicate that results were pending for samples collected at SP-E-NE and SP-E-NW on August 30 at the time of reporting. Results are reported in Report #30.
- Removed footnote regarding discharge limit under Table 5. The East Sedimentation Pond did not discharge during the monitoring period (August 25 – 31).
- Updated field dissolved oxygen measured at the in-pond effluent quality station (SP-E-NE) on August 28 from 0.22 mg/L to 9.22 mg/L in text and Table B-3 of Appendix B upon confirmation with field staff.
- Updated caption of Figure 3 (Appendix A) to indicate that contact water from the 4200 Area was pumped to the East WWTP during the August 25-31, 2024 monitoring period.

Discharge and compliance monitoring 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 for Woodfibre LNG.

This technical memorandum (Report #29) was prepared by Lorax Environmental and summarizes monitoring conducted the week of August 25 – 31 for contact waters directed to a Wastewater Treatment Plant (WWTP) or a sedimentation pond. 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 #29 has been prepared to meet the requirements specified in Condition 4.2 of WDA Effluent Permit 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."

The site layout is shown in Figure 1 at the end of this memorandum. Sedimentation pond photographs are included in Appendix A, and monitoring results are tabulated in Appendix B through Appendix G for contact water and receiving environment samples.

1. Current Conditions

The Construction Phase of the Woodfibre LNG Export Facility commenced in October 2023. Early stage civil works are ongoing, and these include site grading, levelling, overburden and bedrock excavation, and construction of contact water management facilities. Shoring works along the shoreline and foreshore areas were initiated in December 2023, and in early 2024 construction of water management infrastructure was initiated and has continued through the August 25 – 31 monitoring period. The East WWTP and East Sedimentation Pond are commissioned for operation and discharge since April 15, 2024. The West WWTP and West Sedimentation Pond are constructed. The PE-111578 water management facilities that are completed or were under construction during the reporting period are shown in Figure 1. Established contact water collection and dewatering locations and photographs of the sedimentation ponds are shown in Appendix A, Figure 2 through Figure 5.

The completed non-contact water diversion ditch west of Mill Creek was commissioned for use on April 7 and discharges to Mill Creek at station OUT-06 (Figure 1). Monitoring stations OUT-01 and OUT-02 at pre-existing culvert outlets and associated with pre-existing ditching have been established. Although a station was previously established at OUT-11, there is no water directed to this outlet. The East and West catchments conveyance ditches described in PE-111578 were designed to transport non-contaminated contact water 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, non-contaminated and contaminated contact waters within the catchments are managed to remain on site using a system of sumps and baker tanks for intermediate storage and are then directed to the East WWTP for treatment.

A revised schedule is being developed to complete the installation of the East and West Sedimentation Pond permanent outfall structures. A temporary discharge system (*i.e.*, pump, hosing and diffusor) is used to convey East Sedimentation Pond effluent to the authorized discharge location when necessary for the discharge of excess water, and if the effluent water quality meets the requirements set out in PE-111578. The West Sedimentation Pond is not commissioned for discharge. Surplus water in the West Sedimentation Pond is pumped to the East WWTP for treatment prior to discharge through the East Sedimentation Pond.

Pilot testing of the East WWTP continued during the monitoring period (August 25 – 31). Contaminated and potentially contaminated contact waters from the 1100 and 4200 excavations and small amounts of concrete wash water were directed to the East WWTP for treatment, as well as water recirculated from the East Sedimentation Pond (Appendix A, Figure 2 and Figure 3). A total of 3,983 m^3 of treated WWTP effluent was discharged to the East Sedimentation Pond during the reporting period (August 25 – 31). Daily East WWTP effluent flows are provided in Appendix C (Table C-4). There were no discharges from the East Sedimentation Pond during the reporting period.

The West Sedimentation Pond is complete, except for the outfall structure, and has not been commissioned for discharge. The West WWTP is undergoing early-stage pilot trials. If it is necessary to remove water from the pond the water will be pumped to the East WWTP for treatment. A total of 39 m^3 of West Sedimentation Pond water was recirculated through the West WWTP on August 25, 26, 28 and 29 as part of pilot testing. There were no discharges from the West Sedimentation Pond during the monitoring period.

The weather was variable during the monitoring period (August 25 – 31), with precipitation recorded at the Woodfibre site weather station from August 25 to 27. The total weekly precipitation amount was 35 mm, and the heaviest rainfall was recorded on August 26 (33 mm). The daily weather conditions are summarized in Table 1.

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

Date	Precipitation (mm)	Max. Temp (°C)	Min. Temp (°C)	Weather Description
08-25-2024	0.2	18.95	12.73	Overcast
08-26-2024	33.2	17.09	13.64	Rain
08-27-2024	1.6	19.26	10.70	Overcast, Rain
08-28-2024	0	19.53	9.70	Sun
08-29-2024	0	21.79	11.55	Sun
08-30-2024	0	24.25	13.31	Sun
08-31-2024	0	24.94	15.08	Sun

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

2. Monitoring Summary

The PE-111578 authorized works were under construction during the August 25 – 31 monitoring period. Compliance monitoring stations are progressively established as water management infrastructure is completed. 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 monitoring stations have been established (Figure 1):

- Creek water (SW-01, SW-02, SW-03, SW-04, SW-07).
- Howe Sound reference and initial dilution zone (IDZ) locations (WQR1, WQR2, IDZ-E1 and IDZ-E2).
- Non-contact diversion ditch outlets (OUT-01, OUT-02, OUT-06, and OUT-11). Although a station was previously established at OUT-11, water is not currently directed to this outlet.
- Contact water monitoring locations (WWTP-E-IN, WWTP-E-OUT, SP-E-IN-2, SP-E-OUT, SP-E-NE, SP-E-NW, WWTP-W-IN, WWTP-W-OUT, SP-W-W, and SP-W-E).

East Sedimentation Pond influent and effluent stations SP-E-NW and SP-E-NE, respectively, are in-pond stations that may be monitored in place of stations SP-E-IN-2 and SP-E-OUT when there is no influent to, or discharge from the East Sedimentation Pond. In-pond monitoring stations have been established for the West Sedimentation Pond at locations SP-W-W and SP-W-E and are used for pond water quality monitoring during the West WWTP pilot trials.

Water quality was monitored at stations WQR1, WQR2, WWTP-E-IN, WWTP-E-OUT, SP-E-NE, SP-E-NW, WWTP-W-IN, WWTP-W-OUT, SP-W-W, and SP-W-E during the monitoring period (August 25 – 31). Sampling dates and parameters tested are summarized in Table 2. Overall, the PE-111578 monitoring requirements that were applicable during the monitoring period (August 25 – 31) were met, except for weekly field and physical parameters at IDZ-E1 and IDZ-E2. Follow-up investigation is underway and is being tracked in Table 10.

Daily field parameters and weekly analytical samples were not collected at influent station SP-E-IN-2 and effluent station SP-E-OUT as the East Sedimentation Pond did not receive contact water inflows and did not discharge during the monitoring period. Daily field parameters were not collected on August 25 and 27 at WWTP-E-OUT as there was no discharge from the East WWTP at the time of monitoring.

Table 2: Summary of PE-111578 Monitoring Samples Collected August 25 – 31.

Sampling Date	Sample	Description	Parameters Tested	Monitoring Frequency
August 25, 2024	SP-E-NE [1]	East Sedimentation Pond, in-pond sample, represents effluent quality	Field Parameters.	P
	WWTP-E-IN	East WWTP influent	Field Parameters.	D
August 26, 2024	SP-E-NE [1]	East Sedimentation Pond, in-pond sample, represents effluent quality	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans, Glycols, Oil and Grease.	P
	SP-E-NW [1]	East Sedimentation Pond, in-pond sample, represents influent quality		
	WWTP-E-OUT	East WWTP effluent	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans, Glycols, Oil and Grease.	D, W_1, W_2
	WWTP-E-IN	East WWTP influent		
	WQR1-0.5	Reference site 1; 0.5 m below surface.	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans, Glycols, Oil and Grease.	M
	WQR1-2m	Reference site 1; 2 m below surface.		
	WQR1-SF	Reference site 1; 2 m above the seafloor.		
	WQR2-0.5	Reference site 2; 0.5 m below surface.		
	WQR2-2m	Reference site 2; 2 m below surface.		
	WQR2-SF	Reference site 2; 2 m above the seafloor.		
August 27, 2024	SP-E-NE [1]	East Sedimentation Pond, in-pond sample, represents effluent quality	Field Parameters.	P
	WWTP-E-IN	East WWTP influent	Field Parameters.	D
	SW-01	Lower Reach of Woodfibre Creek (near the mouth)	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans, Glycols, Oil and Grease.	M
	SW-04	Lower Reach of East Creek (near the outlet to the outfall culvert)		
	SW-07	Upstream Mill Creek (at the diversion inlet)		
	SW-02	Upper Reach of Mill Creek (upstream of the third bridge)		
August 28, 2024	SP-E-NE [1]	East Sedimentation Pond, in-pond sample, represents effluent quality	Field & Physical Parameters, Total, Dissolved and Speciated Metals.	P
	WWTP-E-OUT	East WWTP effluent	Field Parameters.	D
	WWTP-E-IN	East WWTP influent		
	SP-W-E	West Sedimentation Pond, in-pond sample, represents effluent quality	Field & Physical Parameters, EPHs & PAHs, Total, Dissolved and Speciated Metals.	P
	SP-W-W	West Sedimentation Pond, in-pond sample, represents influent quality		
	WWTP-W-OUT	West WWTP effluent	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans, Glycols, Oil and Grease.	P
	WWTP-W-IN	West WWTP influent		
	SW-03	Lower Reach of Mill Creek (near the mouth, in the estuarine zone)	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans, Glycols, Oil and Grease.	M
August 29, 2024	SP-E-NE [1]	East Sedimentation Pond, in-pond sample, represents effluent quality	Field Parameters.	P
	WWTP-E-OUT	East WWTP effluent	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans, Glycols, Oil and Grease.	D, W_1, W_2
	WWTP-E-IN	East WWTP influent		
	WWTP-W-OUT	West WWTP effluent	Field, Physical & General Parameters, VH & BTEX, EPHs & PAHs, Total, Dissolved and Speciated Metals, VOCs, Methylmercury, Dioxins & Furans, Glycols, Oil and Grease.	P
	WWTP-W-IN	West WWTP influent		
August 30, 2024	SP-E-NE [1]	East Sedimentation Pond, in-pond sample, represents effluent quality	Field, Physical & General Parameters, EPHs & PAHs, Total, Dissolved and Speciated Metals.	P
	SP-E-NW [1]	East Sedimentation Pond, in-pond sample, represents influent quality		
	WWTP-E-OUT	East WWTP effluent	Field Parameters.	D
	WWTP-E-IN	East WWTP influent		
August 31, 2024	SP-E-NE [1]	East Sedimentation Pond, in-pond sample, represents effluent quality	Field Parameters.	P
	WWTP-E-OUT	East WWTP effluent	Field Parameters.	D
	WWTP-E-IN	East WWTP influent		

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.
W_1 – initial high frequency monitoring for physical parameters at WWTP and sedimentation pond influent and effluent stations (weekly for the first 6 months of monitoring).
W_2 - initial high frequency monitoring for all parameters at WWTP and sedimentation pond influent and effluent stations (weekly for the first 5 weeks of monitoring).
W_3 – initial high frequency monitoring for physical parameters at IDZ stations (weekly for the first 5 weeks of monitoring).
P - periodic monitoring for targeted parameters that is supplementary to PE-111578 requirements.
[1] In-Pond stations SP-E-NW and SP-E-NE may be monitored in place of stations SP-E-IN-2 and SP-E-OUT, respectively, when there is no influent to, or discharge from the East Sedimentation Pond at the time of monitoring. The monitoring of in-pond stations is not a PE-111578 requirement and is conducted at the discretion of field staff.

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, PE-111578 discharge limits as well as Canadian, Federal and BC water quality guidelines (WQGs). The screening results are discussed in Section 3. All water quality results are stored 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 characterization.

Canadian, Federal and BC WQGs are not specified for dioxins and furans. The general term "dioxins and furans" refers to chlorinated dibenzo-*p*-dioxins and chlorinated dibenzofurans. A sub-set of 17 polychlorinated dibenzo-*p*-dioxins (PCDDs) and polychlorinated dibenzofurans (PCDFs) are typically evaluated for toxicity and the individual parameter concentrations are converted to toxic equivalent (TEQ) values that are summed and reported 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 sub-set of 17 individual PCDDs and PCDFs are not detected.

3.2 Summary of Reported Results

Field measurements and analytical results available at the time of reporting for samples collected during the monitoring period (August 25 – 31) and for other samples that have not been previously reported are listed below in Table 3. Analytical results not available at the time of reporting will be included in future weekly reports when testing is completed. Testing for methylmercury, dioxins and furans typically requires up to four weeks to complete. Results are pending for the following samples and parameters:

- SP-E-NE, SP-E-NW, WWTP-E-OUT, and WWTP-E-IN collected August 21 (dioxins and furans)
- SP-E-NE, SP-E-NW, WWTP-E-OUT, and WWTP-E-IN collected August 26 (dioxins and furans)

- WQR1 and WQR2 collected August 26 (field measurements and all analytical parameters)
- SW-01, SW-02, SW-04, and SW-07 collected August 27 (dioxins and furans)
- SW-03 collected August 28 (field measurements and all analytical parameters)
- WWTP-W-OUT and WWTP-W-IN collected August 28 (methylmercury, dioxins and furans)
- WWTP-E-OUT, WWTP-E-IN, WWTP-W-OUT and WWTP-W-IN collected August 29 (methylmercury, dioxins and furans)
- SP-E-NE and SP-E-NW collected August 30 (all analytical parameters)

Table 3: Summary of Analytical Results Included in Weekly Discharge and Compliance Report #29.

Sample	Description	Sampling Date	Parameters Reported
WWTP-E-IN	East WWTP influent	July 24, 2024	Dioxins and Furans.
WWTP-E-OUT	East WWTP effluent		
SW-01	Lower Reach of Woodfibre Creek (near the mouth)	July 31, 2024	Dioxins and Furans.
SW-04	Lower Reach of East Creek (near the outlet to the outfall culvert)		
SW-07	Upstream Mill Creek (at the diversion inlet)		
SW-02	Upper Reach of Mill Creek (upstream of the third bridge)		
SW-03	Lower Reach of Mill Creek (near the mouth, in the estuarine zone)		
SP-E-NE	East Sedimentation Pond, in-pond sample, represents effluent quality	August 21, 2024	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, VOCs, and Methylmercury.
SP-E-NW	East Sedimentation Pond, in-pond sample, represents influent quality		
WWTP-E-IN	East WWTP influent		
WWTP-E-OUT	East WWTP effluent		
SP-E-NE	East Sedimentation Pond, in-pond sample, represents effluent quality	August 26, 2024	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, VOCs, and Methylmercury.
SP-E-NW	East Sedimentation Pond, in-pond sample, represents influent quality		
WWTP-E-IN	East WWTP influent		
WWTP-E-OUT	East WWTP effluent		
SW-01	Lower Reach of Woodfibre Creek (near the mouth)	August 27, 2024	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, VOCs, and Methylmercury.
SW-04	Lower Reach of East Creek (near the outlet to the outfall culvert)		
SW-07	Upstream Mill Creek (at the diversion inlet)		
SW-02	Upper Reach of Mill Creek (upstream of the third bridge)		
SP-E-NE	East Sedimentation Pond, in-pond sample, represents effluent quality	August 28, 2024	Field and Physical Parameters, Total and Dissolved Metals, and Hexavalent Chromium.
SP-W-E	West Sedimentation Pond, in-pond sample, represents effluent quality		Field and Physical Parameters, Total and Dissolved Metals, Hexavalent Chromium, and PAHs.
SP-W-W	West Sedimentation Pond, in-pond sample, represents influent quality		
WWTP-W-OUT	West WWTP effluent		Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, and VOCs.
WWTP-W-IN	West WWTP influent		
WWTP-W-OUT	West WWTP effluent	August 29, 2024	Field, Physical and General Parameters, Total and Dissolved Metals, Hexavalent Chromium, PAHs, and VOCs.
WWTP-W-IN	West WWTP influent		
WWTP-E-IN	East WWTP influent		
WWTP-E-OUT	East WWTP effluent		

3.3 East Sedimentation Pond

The East Sedimentation Pond influent and effluent results 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. Influent water is not discharged from site, therefore only effluent water quality is assessed for exceedances. The analytical results, daily field parameters, discharge limits and WQGs are summarized in Table B-1 and Table B-2 (analytical results) and Table B-3 (field measurements) of Appendix B. Screening results are summarized in Table 4 and Table 5 for parameter concentrations that exceeded WQGs and discharge limits, respectively in sedimentation pond effluent.

During the monitoring period (August 25 – 31), the East Sedimentation Pond received East WWTP treated effluent each day. The sedimentation pond did not receive contact water and did not discharge during the monitoring period; therefore, field measurements and analytical samples at stations SP-E-IN-2 and SP-E-OUT were not collected. Field measurements were taken daily at the in-pond effluent quality station (SP-E-NE) during the monitoring period and from the in-pond influent quality station (SP-E-NW) on August 26 and 30.

Field pH ranged from 6.3 to 6.9 at SP-E-NE during the monitoring period (August 25 – 31), while dissolved oxygen ranged from 7.17 to 14.14 mg/L, and turbidity ranged from 4.02 to 21.70 NTU (Appendix B, Table B-3). Dissolved oxygen measured at station SP-E-NE on August 31 (7.17 mg/L) was below the lower limit of the WQG (≥8 mg/L; Table 4). Dissolved oxygen was above the WQG at the in-pond influent quality station SP-E-NW on August 30. Low dissolved oxygen has been observed in sedimentation pond effluent and a field investigation is planned to confirm that effluent with low dissolved oxygen concentrations will meet the WQG for dissolved oxygen within the initial dilution zone defined in PE-111578 (Table 10).

Analytical samples collected at the in-pond effluent (SP-E-NE) and influent (SP-E-NW) stations on August 21 (as discussed in Weekly Report #28), August 26, and August 28 (SP-E-NE only) were available at the time of reporting. Total zinc concentrations measured at station SP-E-NE on August 21 (0.0222 mg/L), August 26 (0.0249 mg/L), and August 28 (0.0137 mg/L) were above the discharge limit of 0.0133 mg/L. However, the pond did not discharge on those days and therefore non-compliant effluent was not discharged to Howe Sound.

Methylmercury analytical results were available at the time of reporting for the in-pond samples collected on August 21 and 26. Methylmercury concentrations ranged from 0.000185 to 0.000200 µg/L at SP-E-NE, and from 0.000152 to 0.000216 µg/L at SP-E-NW.

Table 4:
Summary of Parameters Exceeding WQGs at the In-Pond Effluent Quality Station SP-E-NE during the Monitoring Period (August 25 – 31)

Parameter	Units	WQG	N	N >WQG	Commentary
Field Dissolved Oxygen	mg/L	≥8	5	1	Field dissolved oxygen measured at SP-E-NE on August 31 (7.17 mg/L) was below the lower limit of the WQG. A field investigation is planned to confirm that effluent with low dissolved oxygen will meet the WQG within the initial dilution zone defined in PE-111578. The East Sedimentation Pond did not discharge during the monitoring period.

N = number of samples.
Non-detect results are screened using the detection limit value.

Table 5:
Summary of Parameters Exceeding PE-111578 Discharge Limits at the In-Pond Effluent Quality Station SP-E-NE during the Monitoring Period (August 25 – 31)

Parameter	Units	PE-111578 Discharge Limit	N	N > Discharge Limit	Commentary
Total Zinc	mg/L	0.00133	2	2	Total zinc concentrations measured at station SP-E-NE on August 26 (0.0249 mg/L) and August 28 (0.0137 mg/L) were above the discharge limit of 0.0133 mg/L. However, the pond did not discharge on those days, and therefore non-compliant effluent was not discharged to Howe Sound.

N = number of samples.
Non-detect results are screened using the detection limit value.

3.4 East Wastewater Treatment Plant

The East WWTP influent and effluent results are screened against the minimum discharge objectives (MDOs) which the WWTP was designed to meet. Contaminated contact water is directed to the WWTP influent, and it is expected that influent water is unlikely to meet the design MDOs. The analytical results, daily field measurements, and the design MDOs are summarized in Table C-1 through Table C-3 (analytical results) and Table C-4 (field measurements) of Appendix C. Screening results are summarized in Table 6 for parameter concentrations that do not meet the design MDOs in WWTP effluent.

The East WWTP received contact water and recirculated East Sedimentation Pond water each day August 25 – 31 (Section 2). The influent waters were treated by the East WWTP and discharged to the East Sedimentation Pond. Field measurements were collected each day at the influent (WWTP-E-IN) and effluent (WWTP-E-OUT) stations except on August 25 and 27 (data available at WWTP-E-IN only) since the East WWTP was not discharging at the time of monitoring. Field pH ranged from 6.5 to 7.0 at WWTP-E-IN during the monitoring period (August 25 – 31), while dissolved oxygen ranged from 3.28 to 9.43 mg/L, and turbidity ranged from 3.74 to 25.20 NTU (Appendix C, Table C-4).

Field pH, dissolved oxygen, and turbidity in the WWTP effluent (WWTP-E-OUT) ranged from pH 6.0 to 7.1, 1.20 to 7.80 mg/L, and 1.76 to 7.88 NTU, respectively. Field measurements for pH did not meet the design MDOs in the WWTP-E-OUT samples collected during the monitoring period. However, all pH measurements met the sedimentation pond discharge limits for pH that are specified in PE-111578.

Analytical samples collected from the East WWTP influent and effluent stations on August 21 (as discussed in Weekly Report #28), August 26 and 29 were available at the time of reporting. Effluent quality monitored at WWTP-E-OUT achieved design MDOs for all parameters except for total vanadium in the August 29 sample (0.00558 mg/L) (Table 6).

Methylmercury analytical results were available at the time of reporting for the East WWTP influent and effluent samples collected on August 21 (as discussed in Weekly Report #28) and August 26. Methylmercury concentrations ranged from 0.000154 to 0.000178 µg/L at WWTP-E-IN, and from 0.000133 to 0.000236 µg/L at WWTP-E-OUT.

Dioxins and furans analytical results were available at the time of reporting for the WWTP-E-IN and WWTP-E-OUT samples collected on July 24 (as discussed in Weekly Report #24). The lower and upper bound PCDD/F TEQ concentrations were 0.00297 and 0.819 pg/L, respectively in the influent sample. In the effluent sample, the lower and upper bound PCDD/F TEQ concentrations were 0 and 0.696 pg/L, respectively.

Table 6:
Summary of Parameters Outside Design Minimum Discharge Objectives (MDOs) at East WWTP Effluent Station WWTP-E-OUT during the Monitoring Period (August 25 – 31).

Parameter	Units	MDO	N	N >MDO	Commentary
Field pH	s.u.	7.0-8.7	5	5	Field pH ranged from pH 6.0 and 7.1 in effluent samples collected on August 26, and 28-31, which was below the lower design MDO. The WWTP is being operated to meet the sedimentation pond discharge limits for pH that are specified in PE-111578.
Total Vanadium	mg/L	0.005	2	1	The total vanadium concentration in the August 29 effluent sample (0.00558 mg/L) was 1.1 times above the design MDO.

MDO = Minimum discharge objective which the East WWTP was designed to meet.
N = number of samples.
Non-detect results are screened using the detection limit value.

3.5 West Sedimentation Pond

The West Sedimentation Pond influent and effluent results 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. Influent water is not discharged from site, therefore only effluent water quality is assessed for exceedances. The analytical results, discharge limits and WQGs are summarized in Table D-1 of Appendix D. Screening results for

sedimentation pond effluent are summarized in Table 7 for parameter concentrations that exceeded WQGs and in Table 8 for parameter concentrations that exceeded PE-111578 discharge limits.

Field measurements and analytical results were available at the time of reporting for samples collected on August 28 from the in-pond influent station (SP-W-W) and in-pond effluent station (SP-W-E). Effluent quality monitored at station SP-W-E did not meet PE-111578 discharge limits for TSS, total copper, total lead, total vanadium, and total zinc. Concentrations of total cadmium and benzo(a)pyrene were above their respective WQGs in the SP-W-E sample. The West Sedimentation Pond is not commissioned for discharge and did not discharge on August 28.

Table 7:
Summary of Parameters Exceeding WQGs at the In-Pond Effluent Quality Station SP-W-E

Parameter	Units	WQG	N	N >WQG	Commentary
Total Cadmium	mg/L	0.00012	1	1	The total cadmium concentration in the August 28 SP-W-E sample (0.000144 mg/L) was 1.2 times greater than the WQG.
Benzo(a)pyrene	mg/L	0.00001	1	1	The benzo(a)pyrene concentration in the August 28 SP-W-E sample (0.0000153 mg/L) was 1.5 times greater than the WQG.

N = number of samples.
Non-detect results are screened using the detection limit value.

Table 8:
Summary of Parameters Exceeding PE-111578 Discharge Limits at the In-Pond Effluent Quality Station SP-W-E

Parameter	Units	PE-111578 Discharge Limit[1]	N	N > Discharge Limit	Commentary
TSS	mg/L	25	1	1	In-pond effluent quality monitored at station SP-W-E on August 28 met PE-111578 discharge limits except for TSS (35.6 mg/L), total copper (0.00595 mg/L), total lead (0.00485 mg/L), total vanadium (0.00891 mg/L), and total zinc (0.0184 mg/L). The West Sedimentation Pond is not commissioned for discharge and did not discharge on August 28.
Total Copper	mg/L	0.0043	1	1	
Total Lead	mg/L	0.0035	1	1	
Total Vanadium	mg/L	0.0081	1	1	
Total Zinc	mg/L	0.0133	1	1	

[1] PE-111578 discharge limits only apply to discharge compliance station SP-W-OUT. The West Sedimentation Pond has not been commissioned for discharge and station SP-W-OUT has not yet been established.
N = number of samples.
Non-detect results are screened using the detection limit value.

3.6 West Wastewater Treatment Plant

The West WWTP influent and effluent results are screened against the minimum discharge objectives (MDOs) which the WWTP was designed to meet. Contaminated contact water is directed to the WWTP influent, and it is expected that influent water is unlikely to meet the design MDOs. The analytical results and the design MDOs for the West WWTP pilot testing are

summarized in Table E-1 (analytical results) of Appendix E. Screening results are summarized in Table 9 for parameter concentrations that do not meet the design MDOs.

Field measurements and analytical results were available at the time of reporting for West WWTP influent (WWTP-W-IN) and effluent (WWTP-W-OUT) stations collected on August 28 and 29. Effluent quality monitored at WWTP-W-OUT achieved design MDOs for all parameters except for field pH, total copper, total lead and total nickel (August 29 only), and total zinc (Table 9). The West WWTP is undergoing early-stage pilot trials.

Table 9:
Summary of Parameters Outside Design Minimum Discharge Objectives (MDOs) at West WWTP Effluent Station WWTP-W-OUT.

Parameter	Units	MDO	N	N >MDO	Commentary
Field pH	s.u.	7.0-8.7	2	2	The West WWTP effluent quality monitored at WWTP-W-OUT on August 28 and 29 did not meet the design MDOs for field pH (6.1-6.2), total copper (0.00413-0.00455 mg/L), total lead (0.00207 mg/L in the August 29 sample), total nickel (0.0123 mg/L in the August 29 sample), and total zinc (0.0350-0.0609 mg/L). The West WWTP is undergoing early-stage pilot trials.
Total Copper	mg/L	0.002	2	2	
Total Lead	mg/L	0.002	2	1	
Total Nickel	mg/L	0.0083	2	1	
Total Zinc	mg/L	0.01	2	2	

MDO = Minimum discharge objective which the West WWTP was designed to meet.
N = number of samples.
Non-detect results are screened using the detection limit value.

3.7 Non-Contact Water Diversion Ditch Outlets

Water quality results were not available for the non-contact water diversion ditch outlets at the time of reporting. There are no outstanding results for diversion ditch stations.

3.8 Freshwater and Estuarine Water Receiving Environment

Freshwater and estuarine water receiving environment samples are screened against BC, Canadian and Federal WQGs for the protection of freshwater or estuarine water aquatic life. The analytical results, field parameters and WQGs are summarized in Appendix F and Appendix G for freshwater and estuarine water, respectively.

Analytical results were available for the August 27 freshwater receiving environment samples collected at Woodfibre Creek (station SW-01), Mill Creek (stations SW-02 and SW-07), and East Creek (station SW-04). Results were not available for the August 28 estuarine water sample collected near the mouth of Mill Creek (station SW-03) at the time of reporting.

Field pH met WQGs at all freshwater stations except for SW-07 (pH 6.4), which was below the lower limit of the WQG. Parameter concentrations met WQGs except for total aluminum and

dissolved copper. Total aluminum concentration was above WQG at the Mill Creek background station (SW-07) only. Dissolved copper concentrations were above their respective WQGs at all stations sampled. The total aluminum and dissolved copper concentrations measured in the freshwater samples were within the concentration ranges observed in the pre-construction baseline monitoring program and are therefore not considered to be exceedances of baseline conditions.

Methylmercury analytical results were available for the August 27 freshwater receiving environment samples. Methylmercury concentrations were <0.000020 µg/L in Woodfibre Creek (SW-01) and Mill Creek (SW-02 and SW-07), and 0.000046 µg/L in East Creek (SW-04).

Dioxins and furans analytical results were available at the time of reporting for the freshwater (SW-01, SW-02, SW-07, and SW-04) and estuarine (SW-03) water receiving environment samples collected on July 31 (as discussed in Weekly Report #25). The lower bound PCDD/F TEQ concentrations ranged from 0 to 0.0201 pg/L in the freshwater stations and was 0.000281 pg/L at the estuarine station. The upper bound PCDD/F TEQ concentrations ranged from 0.957 to 1.23 pg/L in the freshwater samples and was 0.955 pg/Lin the estuarine sample.

3.9 Marine Water Receiving Environment

There were no water quality results available for the marine water receiving environment at the time of reporting.

4. Quality Control

This section presents the results of the quality control (QC) evaluation for the PE-111578 weekly report (Table 10). 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 10. Any items flagged for follow-up are carried forward to future reports until they are closed.

Table 10: Weekly Report QC Evaluations and Ongoing Items

QC Procedure	Observation	Investigation/Resolution
Reporting Period (August 25 – 31, Report #29)		
Monitoring Program Evaluation	PE-111578 contact water, non-contact water and initial dilution zone monitoring stations have not been fully established.	The PE-111578 authorized works were under construction during the reporting period. Monitoring stations are progressively established as water management infrastructure is completed. The East Sedimentation Pond and East WWTP are completed, and pilot testing of the East WWTP is ongoing. The East Sedimentation Pond was commissioned for discharge on April 15. The West Sedimentation Pond is complete, except the outfall structure and West WWTP is undergoing pilot testing. The West Sedimentation Pond is not commissioned for discharge. The non-contact water diversion ditch that discharges at station OUT-06 has been commissioned, and stations for pre-existing outfalls OUT-01, OUT-02, and OUT-11 have also been established. This item remains open.
Monitoring Program Evaluation	Field and physical parameters not collected from IDZ-E1 and IDZ-E2.	Weekly field and physical parameters were not collected at stations IDZ-E1 and IDZ-E2 during the reporting period. Follow-up investigation is underway. This item remains open.
Pending Data	Analytical results for samples collected at marine reference stations on August 26 and the estuarine receiving environment on August 28 were not reported.	Analytical results were not complete at the time of Report #29 preparation for samples collected from marine reference stations on August 26 and the estuarine receiving environment station on August 28. The pending results will be included in future weekly reports when available. This item remains open.
	Methylmercury, dioxins and furans results for samples collected August 26 – 29 were not reported.	Analytical results for methylmercury, dioxins and furans were not complete at the time of Report #29 preparation for samples collected August 26, 27, 28, and 29. Testing of dioxins and furans typically requires up to 4 weeks to complete. The pending results will be included in future weekly reports when available. This item remains open.
Ongoing Items from Previous Weekly Reports		
Report #21: WWTP Performance Evaluation	Dissolved oxygen is frequently outside the treatment MDO	Previous weekly reports have indicated there was a design MDO for dissolved oxygen, this was incorrect, rather the marine WQG for dissolved oxygen water was evaluated as an MDO. This has been clarified in Appendix C, Table C-1 beginning with Report #24. However, low dissolved oxygen has been observed in sedimentation pond effluent. It is speculated warm weather conditions led to the depletion of oxygen in contact water stored in baker tanks and in the East Sedimentation Pond. As of August 10, a field investigation is planned to be conducted during the next discharge event to confirm that East Sedimentation Pond effluent with low dissolved oxygen concentrations will mix with Howe Sound at the top of the water column and meet the WQG for dissolved oxygen within the initial dilution zone defined in PE-111578. This item remains open.
Report #24: Pending Data	Methyl mercury, dioxin and furan results for samples collected July 24, 26, and 27 were not reported.	Methylmercury results for samples collected July 26 and 27 are discussed in Section 3.4 of Report #25. Methylmercury results for samples collected July 24 are discussed in Sections 3.3 and 3.4 of Report #26. Dioxin and furan results for samples collected July 24 are discussed in Section 3.4 of Report #29. This QC table incorrectly reported that there were pending dioxins and furans results for July 26 and 27 samples. Dioxins and furans testing was not completed on the samples collected July 26 and 27; therefore, there are no pending results. This item is closed.
Report #25: Pending Data	Methyl mercury, dioxin and furan results for samples collected July 31 and August 2 were not reported.	Methylmercury results for samples collected August 2 are discussed in Section 3.4 of Report #26. Dioxin and furan results for samples collected July 31 are discussed in Section 3.8 of Report #29. This item is closed.
Report #27: Pending Data	Analytical results for samples collected August 12, 16, and 17 and dioxins and furans results for samples collected August 13 were not reported.	Analytical results for samples collected August 12, 16, and 17 are discussed in Sections 3.5, 3.6, and 3.9 of Report #28. Dioxin and furan results for samples collected August 12 are discussed in Sections 3.5 and 3.6 of Report #28. Dioxin and furan results for samples collected August 13, 16 and 17 were not complete at the time of Report #29 preparation. Testing of dioxins and furans typically requires up to 4 weeks to complete. The pending results will be included in future weekly reports when available. This item remains open.
Report #27: Sample Integrity	Dioxin and furans could not be tested in the July 19 IDZ-E1 sample from 2 m below surface.	The laboratory reports that the sample bottles for dioxin and furans were broken during trans-shipment between testing facilities while the sample was under laboratory custody, therefore results for this sample are not available. Root cause investigation by the laboratory is underway. This item remains open.
Report #28: Pending Data	Analytical results for samples collected August 21 and 23 were not reported.	Available analytical results for samples collected August 21 are discussed in Sections 3.3 and 3.4 of Report #29 with dioxins and furans results still pending. Testing of dioxins and furans typically requires up to 4 weeks to complete. Analytical results for samples collected August 23 were not complete at the time of Report #29 preparation. The pending results will be included in future weekly reports when available. This item remains open.

Notes:

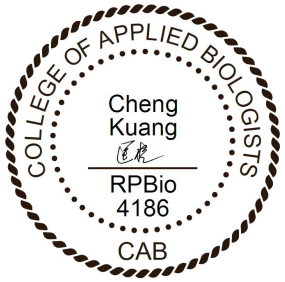
Result QA/QC screening includes the evaluation of field and lab QC results, comparison of total and dissolved metal results and review for modified detection limits.
Pending data are outstanding results from monitoring samples reported in the current or previous weekly reports.
Monitoring program evaluation is an assessment of the completeness of the monitoring program compared to PE-111578 specified or implied requirements.
WWTP performance evaluation is an assessment of WWTP effluent quality compared to design MDO's and WQG (for dissolved oxygen and total vanadium only).
Data review under QC Procedure 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.

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.



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LEGEND

- Freshwater Monitoring Station
- Marine Water Monitoring Station
- Certified Project Area
- Watercourse
- Non Contact Ditch (Under Construction)
- Outfall
- Clean Water Diversion Discharge Station
- Sediment Pond Monitoring Stations (Water Quality)
- Wastewater Treatment Plant (WWTP)

DATE SAVED:	Sep 05, 2024
DRAWN BY:	DM
REVIEWED:	PM
VERSION:	1

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

1:6,000

0 50 100 150 Metres

CLIENT: Woodfibre LNG

LORAX ENVIRONMENTAL

PROJECT:

Woodfibre LNG Project Construction Phase

TITLE: Completed or Under Construction Water Management Facilities and Established PE-111578 Monitoring Stations (August 31, 2024)

PROJECT #: A633-7 FIGURE: 1

P:\@Drafting\Woodfibre\Drafting Figures\APRX\WLNG Construction Phase 2024\WLNG Construction Phase 2024 - Weekly Reporting.aprx Figure 1 Monitoring and Compliance Locations

Appendix A: East and West Catchment Photographs

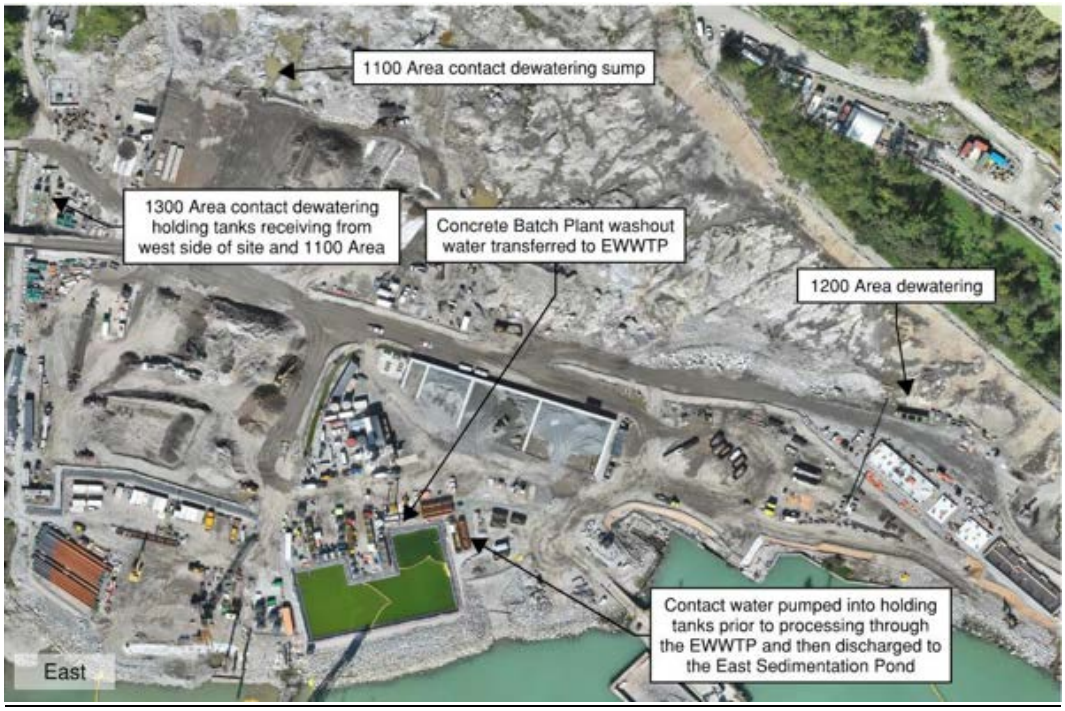

Figure 2: East Catchment dewatering areas. Contact water from the 1100 and 4200 Areas and small amounts of concrete wash water were directed to the East WWTP during the August 25 – 31, 2024 monitoring period.

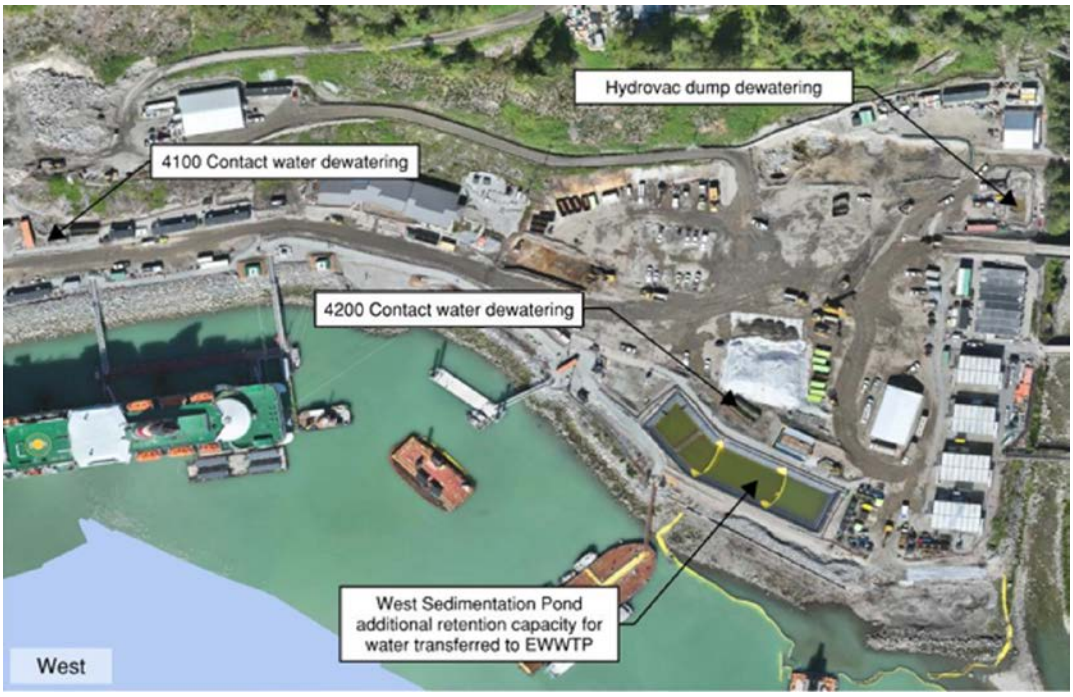

Figure 3: West Catchment dewatering areas. Contact water from the 4200 Area was pumped to the East WWTP during the August 25 – 31, 2024 monitoring period.

Figure 4: Aerial view of the East Sedimentation Pond showing the placement of two sediment curtains (August 28, 2024). The East WWTP is located on the left side of the pond.

Figure 5: Aerial view of the West Sedimentation Pond showing the placement of two sediment curtains (August 28, 2024). The West WWTP is located on the right side of the pond.

Appendix B: East Sedimentation Pond Results

Table B-1: Summary of East Sedimentation Pond Water Quality Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline [1]		PE-111578 Discharge Limit	East Sedimentation Pond				
					In-Pond at Effluent Location	In-Pond at Influent Location	In-Pond at Effluent Location	In-Pond at Influent Location	In-Pond at Effluent Location
					SP-E-NE	SP-E-NW	SP-E-NE	SP-E-NW	SP-E-NE
					VA24C1462-003	VA24C1462-004	VA24C1836-003	VA24C1836-004	VA24C2368-001
		Long Term	Short Term		8/21/2024	8/21/2024	8/26/2024	8/26/2024	8/28/2024
General Parameters									
pH - Field	pH units	- [2]	-	5.5 - 9.0	6.6	7.5	6.6	6.7	6.6
Conductivity - Field	µS/cm	-	-	-	1319	1315	1570	1294	1222
Temperature - Field	°C	-	-	-	20.1	19.9	18.7	19.2	19.9
Salinity - Field	ppt	-	-	-	0.73	0.73	0.79	0.73	0.66
Turbidity - Field	NTU	-	-	-	3.84	5.77	18.5	3.15	12.1
TSS	mg/L	-	-	25	8.2	9.4	24	15.2	<3.0
Dissolved Oxygen - Field	mg/L	>=8	-	-	***6.88***	***6.75***	-[6]	-[6]	***0.22***
Anions and Nutrients									
Sulphate	mg/L	-	-	-	64	63.7	61.8	56.7	-
Chloride	mg/L	-	-	-	96.9	97	82.9	74	-
Fluoride	mg/L	-	1.5	-	0.278	0.321	0.256	0.27	-
Ammonia (N-NH_3)	mg/L	Variable [3]	Variable [3]	-	0.0075	<0.0050	0.0114	0.0077	<0.0050
Nitrite (N-NO_2)	mg/L	-	-	-	0.0059	0.0148	0.0143	0.0076	0.0052
Nitrate (N-NO_3)	mg/L	3.7	339	-	2.51	1.45	1.04	1.1	0.819
Total Metals									
Aluminum, total (T-Al)	mg/L	-	-	-	0.063	0.107	0.821	0.458	0.346
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.00166	0.00169	0.00164	0.0017	0.00292
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00152	0.00148	0.00174	0.00159	0.00284
Barium, total (T-Ba)	mg/L	-	-	-	0.0105	0.0114	0.0192	0.0127	0.00762
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Boron, total (T-B)	mg/L	1.2	-	-	0.372	0.276	0.226	0.205	0.151
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	<0.0000375	<0.0000350	<0.0000400	<0.0000300	<0.0000300
Chromium, total (T-Cr)	mg/L	-	-	-	<0.00050	<0.00050	0.0009	0.00067	0.00157
Cobalt, total (T-Co)	mg/L	-	-	-	<0.00010	<0.00010	0.00032	0.0002	0.00017
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00182	0.00142	0.0028	0.00199	0.00348
Iron, total (T-Fe)	mg/L	-	-	-	0.043	0.042	0.606	0.326	0.198
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.00026	0.000342	0.00181	0.000977	0.00076
Manganese, total (T-Mn)	mg/L	-	-	-	0.00643	0.0038	0.0254	0.0166	0.00934
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	<0.0000050	<0.0000050	0.000006	<0.0000050	<0.0000050
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0817	0.0754	0.0726	0.0728	0.0764
Nickel, total (T-Ni)	mg/L	0.0083	-	-	<0.00050	<0.00050	0.0007	0.00054	0.00377
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000193	0.000117	0.000141	0.000182	0.000314
Silver, total (T-Ag)	mg/L	0.0015	0.003	-	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thallium, total (T-Tl)	mg/L	-	-	-	0.000026	0.000025	0.000018	0.000011	<0.000010
Uranium, total (T-U)	mg/L	-	-	-	0.0435	0.0604	0.0391	0.0446	0.0258
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.00348	0.00374	0.0043	0.00353	0.00709
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	0.0222	0.006	0.0249	0.0084	0.0137
Hexavalent Chromium, total	mg/L	0.0015	-	-	<0.00050	<0.00050	<0.00050	<0.00050	0.00118
Dissolved Metals									
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	<0.0000350	<0.0000200	<0.0000450	<0.0000300	<0.0000225
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00127	0.00062	0.00122	0.00104	0.00165
Iron, dissolved (D-Fe)	mg/L	-	-	-	<0.010	<0.010	0.07	<0.010	0.012
Lead, dissolved (D-Pb)	mg/L	-	-	-	0.000077	<0.000050	0.000296	0.000089	0.00006
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.00586	0.0029	0.0143	0.0101	0.00647
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00050	<0.00050	<0.00050	<0.00050	0.00055
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.203	0.211	0.176	0.155	0.0919
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00086	0.00102	0.00169	0.00143	0.00485
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0206	0.0029	0.0276	0.0056	0.0082
Polycyclic Aromatic Hydrocarbons (PAHs)									
Acenaphthene	mg/L	0.006	-	-	<0.000010	<0.000010	<0.000010	<0.000010	-
Acridine	mg/L	-	-	-	<0.000010	<0.000010	<0.000010	<0.000010	-
Anthracene	mg/L	-	-	-	<0.000010	<0.000010	<0.000010	<0.000010	-
Benz(a)anthracene	mg/L	-	-	-	<0.000010	<0.000010	<0.000010	<0.000010	-
Benzo(a)pyrene	mg/L	0.00001	-	-	<0.0000050	<0.0000050	0.0000052	<0.0000050	-
Chrysene	mg/L	0.0001	-	-	<0.000010	<0.000010	<0.000010	<0.000010	-
Fluoranthene	mg/L	-	-	-	<0.000010	<0.000010	0.000016	0.00001	-
Fluorene	mg/L	0.012	-	-	<0.000010	<0.000010	<0.000010	<0.000010	-
1-methylnaphthalene	mg/L	0.001	-	-	<0.000010	<0.000010	<0.000010	<0.000010	-
2-methylnaphthalene	mg/L	0.001	-	-	<0.000010	<0.000010	<0.000010	<0.000010	-
Naphthalene	mg/L	0.001	-	-	<0.000050	<0.000050	<0.000050	<0.000050	-
Phenanthrene	mg/L	-	-	-	<0.000020	<0.000020	<0.000020	<0.000020	-
Pyrene	mg/L	-	-	-	<0.000010	<0.000010	0.000015	<0.000010	-
Quinoline	mg/L	-	-	-	<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	-
Ethylbenzene	mg/L	0.25	-	-	<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	-
Styrene	mg/L	-	-	-	<0.00050	<0.00050	<0.00050	<0.00050	-
Toluene	mg/L	0.215	-	-	<0.00040	<0.00040	<0.00040	<0.00040	-
Total Xylenes	mg/L	-	-	-	<0.00050	<0.00050	<0.00050	<0.00050	-
Chlorobenzene	mg/L	0.025	-	-	<0.00050	<0.00050	<0.00050	<0.00050	-
1,2-Dichlorobenzene	mg/L	0.042	-	-	<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.
Results in orange text exceeded the PE-11578 East Sedimentation Pond Discharge Limit.
The East Sedimentation Pond did not discharge during the monitoring period (August 25 – 31).
[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 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, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.
[6] Suspected erroneous dissolved oxygen values measured at SP-E-NE (22.35 mg/L) and SP-E-NW (31.59 mg/L) on August 26 are removed from the table.

Table B-2: Summary of East Sedimentation Pond Water Quality Results for Methylmercury Received at the Time of Reporting.

Parameter	Unit	East Sedimentation Pond			
		In-Pond at Influent Location	**In-Pond at Effluent Location**	**In-Pond at Influent Location**	**In-Pond at Effluent Location**
		SP-E-NW	**SP-E-NE**	**SP-E-NW**	**SP-E-NE**
		VA24C1462-004	**VA24C1462-003**	**VA24C1836-004**	**VA24C1836-003**
		8/21/2024	**8/21/2024**	**8/26/2024**	**8/26/2024**
Methylmercury	**µg/L**	0.000216	0.000185	0.000152	-0.0002

Table B-3: Summary of East Sedimentation Pond Daily Field Parameters August 25 – 31.

Parameter		Temperature	Dissolved Oxygen (DO)	Salinity	Turbidity	pH	Conductivity	Visibility of Sheen	Total Daily Discharge from the East Sedimentation Pond to Howe Sound
Unit		**°C**	**mg/L**	**ppt**	**NTU**	**s.u.**	**µS/cm**		**m^3**
PE-111578 Discharge Limit		-	-	-	-	5.5 - 9.0	-	-	-[3]
Lowest Applicable Guideline [1]		-	>=8	-	-	-[2]	-	-	-
Station ID [4]	**Date**								
SP-E-NE	8/25/2024 17:13	20.4	14.14	0.8	21.7	6.7	1448	No	0
SP-E-NE	8/26/2024 13:38	18.7	-[5]	0.79	18.5	6.6	1570	No	0
SP-E-NW	8/26/2024 14:42	19.2	-[5]	0.73	3.15	6.7	1294	No	0
SP-E-NE	8/27/2024 17:40	21.1	12.9	0.76	11.4	6.9	1391	No	0
SP-E-NE	8/28/2024 17:18	19.9	9.22	0.66	12.1	6.6	1222	No	0
SP-E-NE	8/29/2024 16:29	21.5	-[5]	0.83	5.64	6.6	1170	No	0
SP-E-NE	8/30/2024 16:20	22.6	8.03	0.59	5.46	6.3	1135	No	0
SP-E-NW	8/30/2024 18:12	25.1	15.89	0.69	17.8	7.5	1381	No	0
SP-E-NE	8/31/2024 17:25	23.5	***7.17***	0.58	4.02	6.5	1135	No	0

Notes:
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of marine water aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of marine water aquatic life.
Results in orange text exceeded the PE-11578 East Sedimentation Pond Discharge Limit.
All SP-E-OUT samples collected from May 27 to the time of writing were taken from the sample port which is located near the inlet end of the temporary discharge hose.
The East Sedimentation Pond did not discharge during the monitoring period (August 25 – 31).
[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 annual average authorized discharge rate from the East Sedimentation Pond is 650 m^3/day. As noted in PE-111578 Condition 2.1.4, the actual discharge rate may deviate from the annual average rate due to annual variations in precipitation amounts within the catchment area. Therefore, the annual average authorized discharge rate is not evaluated as a discharge limit.
[4] The sedimentation pond did not receive non-contaminated contact water influent August 25 – August 31, therefore daily measurements for station SP-E-IN-2 were not collected. The East Sedimentation Pond did not discharge August 25 – August 31, therefore daily measurements for station SP-E-OUT were not collected. In-Pond stations SP-E-NW and SP-E-NE may be monitored in place of stations SP-E-IN-2 and SP-E-OUT, respectively when there is no influent to, or discharge from the East Sedimentation Pond at the time of monitoring.
[5] Suspected erroneous dissolved oxygen values measured at SP-E-NE (22.35 mg/L) and SP-E-NW (31.59 mg/L) on August 26, and SP-E-NE on August 29 (29.71 mg/L) are removed from the table.

Appendix C: East Wastewater Treatment Plant Results

Table C-1: Summary of East Wastewater Treatment Plant Water Quality Results Received at the Time of Reporting.

Parameter	Unit	Minimum Discharge Objective [1]	East WWTP					
			Influent	Effluent	Influent	Effluent	Influent	Effluent
			WWTP-E-IN	WWTP-E-OUT	WWTP-E-IN	WWTP-E-OUT	WWTP-E-IN	WWTP-E-OUT
			VA24C1462-002	VA24C1462-001	VA24C1836-001	VA24C1836-002	VA24C2418-002	VA24C2418-001
			8/21/2024	8/21/2024	8/26/2024	8/26/2024	8/29/2024	8/29/2024
General Parameters								
pH - Field	pH units	7.0 - 8.7	***6.8***	7.9	7	***6.9***	***6.8***	7.1
Conductivity - Field	µS/cm	-	1345	1364	1382	1084	1193	1268
Temperature - Field	℃	-	21.4	21.3	18.9	18.8	21.5	20.6
Salinity - Field	ppt	-	0.73	0.74	0.8	0.62	0.64	0.7
Turbidity - Field	NTU	-	5.71	5.22	16.5	1.76	6.37	3.39
TSS	mg/L	-	7.2	6.8	20.6	7.2	6.4	<3.0
Dissolved Oxygen - Field	mg/L	>=8 [2]	***7.01***	***2.15***	-[3]	***6***	8.21	***6.7***
Anions and Nutrients								
Sulphate	mg/L	-	64.2	63.6	61.4	52.3	55	51.4
Chloride	mg/L	-	96.8	94	82.8	64.6	44.6	35.2
Fluoride	mg/L	-	0.281	0.289	0.261	0.348	0.219	<0.100
Ammonia (N-NH_3)	mg/L	Variable	0.0065	0.009	0.0108	0.0062	<0.0050	0.0118
Nitrite (N-NO_2)	mg/L	-	0.0059	0.0053	0.0178	<0.0050	<0.0050	<0.0050
Nitrate (N-NO_3)	mg/L	3.7	2.5	0.93	1.01	1.04	0.984	1.16
Total Metals								
Aluminum, total (T-Al)	mg/L	-	0.0478	0.0837	0.818	0.119	0.226	0.0528
Antimony, total (T-Sb)	mg/L	-	0.00172	0.00168	0.00163	0.00168	0.00272	0.00276
Arsenic, total (T-As)	mg/L	0.0125	0.00145	0.00119	0.00176	0.00155	0.00281	0.00174
Barium, total (T-Ba)	mg/L	-	0.0105	0.0103	0.0194	0.00737	0.00421	0.004
Beryllium, total (T-Be)	mg/L	0.1	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100	<0.000100
Boron, total (T-B)	mg/L	1.2	0.364	0.205	0.232	0.218	0.156	0.174
Cadmium, total (T-Cd)	mg/L	0.00012	<0.0000425	<0.0000200	<0.0000400	<0.0000200	<0.0000250	<0.0000225
Chromium, total (T-Cr)	mg/L	-	<0.00050	0.0005	0.001	<0.00050	0.0012	0.00114
Cobalt, total (T-Co)	mg/L	-	<0.00010	<0.00010	0.00032	<0.00010	0.00012	0.0001
Copper, total (T-Cu)	mg/L	0.002	***0.00482***	0.00055	***0.00321***	0.00194	***0.00502***	0.00161
Iron, total (T-Fe)	mg/L	-	0.027	0.041	0.59	0.072	0.068	0.014
Lead, total (T-Pb)	mg/L	0.002	0.00042	0.000053	0.00166	0.000226	0.00131	0.000061
Manganese, total (T-Mn)	mg/L	-	0.00597	0.00107	0.0252	0.00469	0.00414	0.0022
Mercury, total (T-Hg)	mg/L	0.000016	<0.0000050	<0.0000050	0.0000076	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total (T-Mo)	mg/L	-	0.0846	0.0603	0.071	0.068	0.0823	0.0776
Nickel, total (T-Ni)	mg/L	0.0083	0.00052	<0.00050	0.00073	<0.00050	0.00067	<0.00050
Selenium, total (T-Se)	mg/L	0.002	0.00015	0.000108	0.000166	0.000208	0.000376	0.000374
Silver, total (T-Ag)	mg/L	0.0015	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thallium, total (T-Tl)	mg/L	-	0.000027	0.000022	0.000018	<0.000010	<0.000010	<0.000010
Uranium, total (T-U)	mg/L	-	0.0434	0.0495	0.0389	0.0593	0.0434	0.0116
Vanadium, total (T-V)	mg/L	0.005	0.00346	0.00336	0.00453	0.00283	***0.00794***	***0.00558***
Zinc, total (T-Zn)	mg/L	0.01	***0.0323***	0.003	***0.0238***	0.0046	***0.0289***	<0.0030
Hexavalent Chromium, total	mg/L	0.0015	<0.00050	<0.00050	<0.00050	<0.00050	0.00082	0.00112
Dissolved Metals								
Cadmium, dissolved (D-Cd)	mg/L	-	<0.0000425	<0.0000200	<0.0000400	<0.0000300	<0.0000200	<0.0000200
Copper, dissolved (D-Cu)	mg/L	-	0.00313	0.0003	0.00134	0.00112	0.00159	0.00136
Iron, dissolved (D-Fe)	mg/L	-	0.013	0.018	0.019	<0.010	<0.010	<0.010
Lead, dissolved (D-Pb)	mg/L	-	0.000363	<0.000050	0.000112	<0.000050	0.000067	<0.000050
Manganese, dissolved (D-Mn)	mg/L	-	0.00628	0.00168	0.0133	0.00241	0.00295	0.00251
Nickel, dissolved (D-Ni)	mg/L	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00052
Strontium, dissolved (D-Sr)	mg/L	-	0.203	0.22	0.174	0.144	0.0537	0.0642
Vanadium, dissolved (D-V)	mg/L	-	0.00087	0.00114	0.00129	0.00127	0.00671	0.00595
Zinc, dissolved (D-Zn)	mg/L	-	0.036	0.0013	0.018	0.0031	0.0044	0.0021
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	0.000015	<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	0.000013	<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	<0.00050	<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:

[1] Design minimum discharge objectives (MDOs) for WWTP effluent that are listed in the WWTP design report.

[2] A design MDO for dissolved oxygen was not specified in the WWTP design report. The water quality guideline is provided in place of an MDO for reference purposes only.

Results ***underlined in bold italics*** exceed the applicable minimum discharge objective.

[3] Suspected erroneous dissolved oxygen value measured at WWTP-E-IN on August 26 (31.4 mg/L) is removed from the table.

Table C-2: Summary of East Wastewater Treatment Plant Water Quality Results for Methylmercury Received at the Time of Reporting.

Parameter	Unit	East WWTP			
		Influent	Effluent	Influent	Effluent
		WWTP-E-IN	WWTP-E-OUT	WWTP-E-IN	WWTP-E-OUT
		VA24C1462-002	VA24C1462-001	VA24C1836-001	VA24C1836-002
		8/21/2024	8/21/2024	8/26/2024	8/26/2024
Methylmercury	**µg/L**	0.000178	0.000236	0.000154	0.000133

Table C-3: Summary of East Wastewater Treatment Plant Water Quality Results for Dioxins and Furans Received at the Time of Reporting.

Parameter	Unit	East WWTP	
		Influent	Effluent
		WWTP-E-IN	WWTP-E-OUT
		L2756780-1	L2756780-2
		07/24/2024	07/24/2024
Lower Bound PCDD/F TEQ	**pg/L**	0.00297	0
Upper Bound PCDD/F TEQ	**pg/L**	0.819	0.696

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

Table C-4: Summary of East Wastewater Treatment Plant Daily Field Parameters August 25 – 31.

Parameter		**Temperature**	**Dissolved Oxygen (DO)**	**Salinity**	**Turbidity**	**pH**	**Conductivity**	**Visibility of Sheen**	**Total Daily Discharge from the East WWTP**
Unit		**°C**	**mg/L**	**ppt**	**NTU**	**s.u.**	**µS/cm**		**m^3**
PE-111578 Discharge Limit [1]		-	-	-	-	-	-	-	1,100
Minimum Discharge Objective [2]		-	>=8 [3]	-	-	7.0 - 8.7	-	-	-
Station ID	**Date**								
WWTP-E-IN	8/25/2024 17:05	19.8	8.4	0.9	25.2	***6.8***	1509	No	-
WWTP-E-OUT	8/25/2024	-[4]	-[4]	-[4]	-[4]	-[4]	-[4]	-[4]	477
WWTP-E-IN	8/26/2024 13:54	18.9	-[5]	0.8	16.5	7	1382	No	-
WWTP-E-OUT	8/26/2024 14:23	18.8	***6***	0.62	1.76	***6.9***	1084	No	548
WWTP-E-IN	8/27/2024 17:35	19.3	***7.8***	0.8	12.8	7	1345	No	-
WWTP-E-OUT	8/27/2024	-[4]	-[4]	-[4]	-[4]	-[4]	-[4]	-[4]	551
WWTP-E-IN	8/28/2024 17:30	20.5	9.43	0.69	11.8	***6.6***	1260	No	-
WWTP-E-OUT	8/28/2024 17:32	19.4	***7.8***	0.63	3.88	***6.5***	1129	No	603
WWTP-E-IN	8/29/2024 16:06	21.5	8.21	0.64	6.37	***6.8***	1193	No	-
WWTP-E-OUT	8/29/2024 15:40	20.6	***6.7***	0.7	3.39	7.1	1268	No	602
WWTP-E-IN	8/30/2024 16:23	22.8	7.5	0.57	8.47	***6.5***	1100	No	-
WWTP-E-OUT	8/30/2024 16:26	21.9	3.7	0.66	5.19	***6***	1235	No	620
WWTP-E-IN	8/31/2024 17:21	23.9	***3.28***	0.58	3.74	***6.7***	1136	No	-
WWTP-E-OUT	8/31/2024 17:07	33.2	***1.2***	0.68	7.88	***6.9***	1594	No	582

Notes:
[1] PE-111578 East WWTP Discharge Limit is applied to effluent compliance station WWTP-E-OUT.
[2] Design minimum discharge objectives (MDOs) for WWTP effluent that are listed in the WWTP design report.
[3] A design MDO for dissolved oxygen was not specified in the WWTP design report. The water quality guideline is provided in place of an MDO for reference purposes only.
[4] The East WWTP was not discharging at the time of monitoring, therefore field measurements were not collected from WWTP-E-OUT on August 25 and 27.
[5] Suspected erroneous dissolved oxygen value measured at WWTP-E-IN on August 26 (31.4 mg/L) is removed from the table.
Results ***underlined in bold italics*** do not meet the applicable minimum discharge objective (except DO).

Appendix D: West Sedimentation Pond Results

Table D-1: Summary of West Sedimentation Pond Water Quality Results Received at the Time of Reporting.

Parameter	Unit	Lowest Applicable Guideline [1]		PE-111578 Discharge Limit	West Sedimentation Pond	
					In-Pond at Influent Location	In-Pond at Effluent Location
					SP-W-W	SP-W-E
					VA24C2368-005	VA24C2368-004
		Long Term	Short Term		8/28/2024	8/28/2024
General Parameters						
pH - Field	pH units	- [2]	-	5.5 - 9.0	6.4	7.7
Conductivity - Field	µS/cm	-	-	-	1095	2262
Temperature - Field	°C	-	-	-	20.6	21.8
Salinity - Field	ppt	-	-	-	0.6	1.25
Turbidity - Field	NTU	-	-	-	34.4	18.7
TSS	mg/L	-	-	25	21.2	35.6
Dissolved Oxygen - Field	mg/L	>=8	-	-	-[5]	9.28
Anions and Nutrients						
Sulphate	mg/L	-	-	-	-	-
Chloride	mg/L	-	-	-	-	-
Fluoride	mg/L	-	1.5	-	-	-
Ammonia ($N\text{-}NH_3$)	mg/L	Variable [3]	Variable [3]	-	0.0193	<0.0050
Nitrite ($N\text{-}NO_2$)	mg/L	-	-	-	0.0226	<0.0100
Nitrate ($N\text{-}NO_3$)	mg/L	3.7	339	-	0.109	<0.0500
Total Metals						
Aluminum, total (T-Al)	mg/L	-	-	-	1.97	2.3
Antimony, total (T-Sb)	mg/L	-	0.27 [4]	-	0.0035	0.00234
Arsenic, total (T-As)	mg/L	0.0125	0.0125	-	0.00358	0.00338
Barium, total (T-Ba)	mg/L	-	-	-	0.0303	0.0568
Beryllium, total (T-Be)	mg/L	0.1	-	-	<0.000100	<0.000100
Boron, total (T-B)	mg/L	1.2	-	-	0.052	0.057
Cadmium, total (T-Cd)	mg/L	0.00012	-	-	0.0000636	***0.000144***
Chromium, total (T-Cr)	mg/L	-	-	-	0.00327	0.00261
Cobalt, total (T-Co)	mg/L	-	-	-	0.00057	0.0007
Copper, total (T-Cu)	mg/L	- [2]	- [2]	0.0043	0.00562	0.00595
Iron, total (T-Fe)	mg/L	-	-	-	1.01	1.57
Lead, total (T-Pb)	mg/L	- [2]	- [2]	0.0035	0.00436	0.00485
Manganese, total (T-Mn)	mg/L	-	-	-	0.0305	0.0416
Mercury, total (T-Hg)	mg/L	0.000016 [5]	-	-	***0.0000164***	0.0000142
Molybdenum, total (T-Mo)	mg/L	-	-	-	0.0236	0.0186
Nickel, total (T-Ni)	mg/L	0.0083	-	-	0.00104	0.00142
Selenium, total (T-Se)	mg/L	0.002	-	-	0.000305	0.000165
Silver, total (T-Ag)	mg/L	0.0015	0.003	-	0.000012	0.000017
Thallium, total (T-Tl)	mg/L	-	-	-	0.000012	0.000021
Uranium, total (T-U)	mg/L	-	-	-	0.00716	0.00926
Vanadium, total (T-V)	mg/L	- [2]	-	0.0081	0.0109	0.00891
Zinc, total (T-Zn)	mg/L	- [2]	- [2]	0.0133	0.0134	0.0184
Hexavalent Chromium, total	mg/L	0.0015	-	-	0.0013	0.0006
Dissolved Metals						
Cadmium, dissolved (D-Cd)	mg/L	-	-	-	0.0000237	0.0000613
Copper, dissolved (D-Cu)	mg/L	-	-	-	0.00234	0.00151
Iron, dissolved (D-Fe)	mg/L	-	-	-	<0.010	<0.010
Lead, dissolved (D-Pb)	mg/L	-	-	-	0.000087	<0.000050
Manganese, dissolved (D-Mn)	mg/L	-	-	-	0.0054	0.0048
Nickel, dissolved (D-Ni)	mg/L	-	-	-	<0.00050	<0.00050
Strontium, dissolved (D-Sr)	mg/L	-	-	-	0.2	0.338
Vanadium, dissolved (D-V)	mg/L	-	-	-	0.00752	0.00498
Zinc, dissolved (D-Zn)	mg/L	-	-	-	0.0046	0.0023
Polycyclic Aromatic Hydrocarbons (PAHs)						
Acenaphthene	mg/L	0.006	-	-	0.000175	<0.000077
Acridine	mg/L	-	-	-	0.000014	<0.000010
Anthracene	mg/L	-	-	-	0.00002	<0.000010
Benz(a)anthracene	mg/L	-	-	-	0.000022	0.000013
Benzo(a)pyrene	mg/L	0.00001	-	-	***0.0000195***	***0.0000153***
Chrysene	mg/L	0.0001	-	-	0.000037	0.000024
Fluoranthene	mg/L	-	-	-	0.000142	0.000058
Fluorene	mg/L	0.012	-	-	0.000155	0.000079
1-methylnaphthalene	mg/L	0.001	-	-	0.000015	0.000032
2-methylnaphthalene	mg/L	0.001	-	-	0.000017	0.000043
Naphthalene	mg/L	0.001	-	-	0.000051	0.000138
Phenanthrene	mg/L	-	-	-	0.000065	0.000084
Pyrene	mg/L	-	-	-	0.000081	0.000035
Quinoline	mg/L	-	-	-	0.000071	<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: 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-11578 West Sedimentation Pond Discharge Limit.
The West Sedimentation Pond did not discharge during the monitoring period (August 25 – 31).
[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 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, the BC WQG = 0.00002 mg/L. The Canadian WQG = 0.000016 mg/L.
[6] Suspected erroneous dissolved oxygen value measured at SP-W-W (24.45 mg/L) on August 28 is removed from the table

Appendix E: West Wastewater Treatment Plant Results

Table E-1: Summary of West Wastewater Treatment Plant Water Quality Results Received at the Time of Reporting.

Parameter	Unit	Minimum Discharge Objective [1]	West WWTP			
			Influent	Effluent	Influent	Effluent
			WWTP-W-IN	WWTP-W-OUT	WWTP-W-IN	WWTP-W-OUT
			VA24C2368-002	VA24C2368-003	VA24C2417-002	VA24C2417-001
			8/28/2024	8/28/2024	8/29/2024	8/29/2024
General Parameters						
pH - Field	pH units	7.0 - 8.7	7.5	***6.2***	7.5	***6.1***
Conductivity - Field	µS/cm	-	2192	1336	1998	2471
Temperature - Field	℃	-	20.6	20	19.2	20.4
Salinity - Field	ppt	-	1.24	0.74	1.16	1.41
Turbidity - Field	NTU	-	16.5	6.61	14.5	2.18
TSS	mg/L	-	10.2	3	4	<3.0
Dissolved Oxygen - Field	mg/L	>=8 [2]	***7.18***	***7.11***	-[3]	-[3]
Anions and Nutrients						
Sulphate	mg/L	-	71.5	72.7	81.3	86.8
Chloride	mg/L	-	458	539	449	548
Fluoride	mg/L	-	<0.200	<0.400	<0.200	<0.400
Ammonia (N-NH_3)	mg/L	Variable	<0.0050	<0.0050	<0.0050	<0.0050
Nitrite (N-NO_2)	mg/L	-	<0.0100	<0.0200	<0.0100	<0.0200
Nitrate (N-NO_3)	mg/L	3.7	<0.0500	<0.100	<0.0500	<0.100
Total Metals						
Aluminum, total (T-Al)	mg/L	-	0.701	0.0641	0.682	0.0718
Antimony, total (T-Sb)	mg/L	-	0.0025	0.002	0.00271	0.00207
Arsenic, total (T-As)	mg/L	0.0125	0.00287	0.00234	0.00283	0.00225
Barium, total (T-Ba)	mg/L	-	0.0492	0.0524	0.0479	0.0488
Beryllium, total (T-Be)	mg/L	0.1	<0.000100	<0.000100	<0.000100	<0.000100
Boron, total (T-B)	mg/L	1.2	0.056	0.026	0.055	0.019
Cadmium, total (T-Cd)	mg/L	0.00012	0.000093	0.0000154	0.0000742	0.0000228
Chromium, total (T-Cr)	mg/L	-	0.00113	0.00105	0.00126	0.00096
Cobalt, total (T-Co)	mg/L	-	0.00024	<0.00020	0.00024	<0.00010
Copper, total (T-Cu)	mg/L	0.002	***0.00829***	***0.00455***	***0.00458***	***0.00413***
Iron, total (T-Fe)	mg/L	-	0.401	0.467	0.402	0.321
Lead, total (T-Pb)	mg/L	0.002	***0.0022***	0.00145	0.00165	***0.00207***
Manganese, total (T-Mn)	mg/L	-	0.0156	0.00545	0.0154	0.00351
Mercury, total (T-Hg)	mg/L	0.000016	0.0000076	<0.0000050	0.0000081	<0.0000050
Molybdenum, total (T-Mo)	mg/L	-	0.0193	0.0124	0.0207	0.012
Nickel, total (T-Ni)	mg/L	0.0083	0.00087	0.00137	0.0007	***0.0123***
Selenium, total (T-Se)	mg/L	0.002	0.000131	<0.000100	0.000176	0.00009
Silver, total (T-Ag)	mg/L	0.0015	0.00001	<0.000020	0.000011	<0.000010
Thallium, total (T-Tl)	mg/L	-	0.000011	<0.000020	0.000012	<0.000010
Uranium, total (T-U)	mg/L	-	0.00878	0.00718	0.00887	0.00688
Vanadium, total (T-V)	mg/L	0.005	***0.00607***	0.00113	***0.00627***	0.00104
Zinc, total (T-Zn)	mg/L	0.01	***0.0172***	***0.035***	***0.0113***	***0.0609***
Hexavalent Chromium, total	mg/L	0.0015	0.00061	<0.00050	0.00084	<0.00050
Dissolved Metals						
Cadmium, dissolved (D-Cd)	mg/L	-	0.0000542	<0.0000100	0.000055	<0.0000100
Copper, dissolved (D-Cu)	mg/L	-	0.00191	0.00196	0.00194	0.0025
Iron, dissolved (D-Fe)	mg/L	-	<0.010	0.038	<0.010	0.258
Lead, dissolved (D-Pb)	mg/L	-	0.000077	0.000305	0.000051	0.000506
Manganese, dissolved (D-Mn)	mg/L	-	0.00532	0.00201	0.00476	0.00268
Nickel, dissolved (D-Ni)	mg/L	-	<0.00050	0.00108	<0.00050	0.00121
Strontium, dissolved (D-Sr)	mg/L	-	0.338	0.373	0.332	0.359
Vanadium, dissolved (D-V)	mg/L	-	0.0049	0.001	0.00516	0.00092
Zinc, dissolved (D-Zn)	mg/L	-	0.0087	0.0149	0.0064	0.0351
Polycyclic Aromatic Hydrocarbons (PAHs)						
Acenaphthene	mg/L	0.006	0.000046	0.000011	0.000046	<0.000010
Acridine	mg/L	-	<0.000010	<0.000010	<0.000010	<0.000010
Anthracene	mg/L	-	<0.000010	<0.000010	<0.000010	<0.000010
Benz(a)anthracene	mg/L	-	<0.000010	<0.000010	<0.000010	<0.000010
Benzo(a)pyrene	mg/L	0.00001	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Chrysene	mg/L	0.0001	<0.000011	<0.000010	<0.000010	<0.000010
Fluoranthene	mg/L	-	0.000044	<0.000010	0.000044	<0.000010
Fluorene	mg/L	0.012	0.000042	0.00001	0.000042	<0.000010
1-methylnaphthalene	mg/L	0.001	<0.000010	0.000015	<0.000010	<0.000010
2-methylnaphthalene	mg/L	0.001	0.000012	0.00002	<0.000010	<0.000010
Naphthalene	mg/L	0.001	<0.000050	0.000076	<0.000050	<0.000050
Phenanthrene	mg/L	-	0.000041	<0.000020	0.00003	<0.000020
Pyrene	mg/L	-	0.000024	<0.000010	0.000022	<0.000010
Quinoline	mg/L	-	<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
Ethylbenzene	mg/L	0.25	<0.00050	<0.00050	<0.00050	<0.00050
Methyl-tert-butyl-ether	mg/L	5	<0.00050	<0.00050	<0.00050	<0.00050
Styrene	mg/L	-	<0.00050	<0.00050	<0.00050	<0.00050
Toluene	mg/L	0.215	<0.00040	<0.00040	<0.00040	<0.00040
Total Xylenes	mg/L	-	<0.00050	<0.00050	<0.00050	<0.00050
Chlorobenzene	mg/L	0.025	<0.00050	<0.00050	<0.00050	<0.00050
1,2-Dichlorobenzene	mg/L	0.042	<0.00050	<0.00050	<0.00050	<0.00050

Notes:

[1] Design minimum discharge objectives (MDOs) for WWTP effluent that are listed in the WWTP design report.

[2] A design MDO for dissolved oxygen was not specified in the WWTP design report. The water quality guideline is provided in place of an MDO for reference purposes only.

Results ***underlined in bold italics*** exceed the applicable minimum discharge objective.

[3] Suspected erroneous dissolved oxygen values measured at WWTP-W-IN (32.5 mg/L) and WWTP-W-OUT (19.13 mg/L) on August 29 are removed from the table.

Appendix F: Freshwater Receiving Environment Results

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

Parameter	Unit	Lowest Applicable Guideline [1, 2]		Station SW-01	Station SW-02	Station SW-04	Station SW-07
				Woodfibre Creek Lower Reach	Mill Creek Mid-Reach	East Creek Lower Reach	Mill Creek Background
				SW-01	SW-02	SW-04	SW-07
				VA24C2197-001	VA24C2197-002	VA24C2197-004	VA24C2197-005
		Long Term	Short Term	8/27/2024	8/27/2024	8/27/2024	8/27/2024
General Parameters							
pH - Field	pH units	6.5 - 9.0	-	6.8	6.6	7.2	***6.4***
Specific Conductivity - Field	µS/cm	-	-	92	59	250	76
Temperature - Field	℃	-	-	12.1	13.6	15.8	15
Salinity - Field	ppt	-	-	0.05	0.04	0.15	0.05
Turbidity - Field	NTU	-	-	0.0	1.82	3.28	1.66
TSS	mg/L	-	-	<3.0	<3.0	<3.0	<3.0
Dissolved Oxygen - Field	mg/L	>=8	>=5	-[6]	8.56	-[6]	9.91
Anions and Nutrients							
Sulphate [3]	mg/L	128-309	-	0.38	1.67	28.4	1.39
Chloride	mg/L	120	600	<0.50	0.56	4.78	0.55
Fluoride [3]	mg/L	-	0.400-1.23	<0.020	<0.020	0.033	<0.020
Ammonia ($N\text{-}NH_3$) [3]	mg/L	1.77-22.0	16.9-24.5	<0.0050	<0.0050	<0.0050	<0.0050
Nitrite ($N\text{-}NO_2$) [3]	mg/L	0.0200-0.0600	0.06-0.18	<0.0010	<0.0010	0.0084	<0.0010
Nitrate ($N\text{-}NO_3$)	mg/L	3	32.8	0.0552	0.135	1.95	0.104
Total Metals							
Aluminum, total (T-Al) [3]	mg/L	0.0695-0.530	-	0.162	0.0771	0.0509	***0.0711***
Antimony, total (T-Sb)	mg/L	0.074	-	<0.00010	<0.00010	0.00012	<0.00010
Arsenic, total (T-As)	mg/L	0.005	-	0.00013	<0.00010	0.00018	<0.00010
Barium, total (T-Ba)	mg/L	1	-	0.00207	0.00264	0.017	0.00227
Beryllium, total (T-Be)	mg/L	0.00013	-	<0.000100	<0.000100	<0.000100	<0.000100
Boron, total (T-B)	mg/L	1.2	29	<0.010	<0.010	0.015	<0.010
Cadmium, total (T-Cd) [3]	mg/L	0.0000364-0.000127	0.000106-0.00160	<0.0000050	0.0000059	0.0000152	0.0000072
Chromium, total (T-Cr) [5]	mg/L	0.001	-	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, total (T-Co)	mg/L	0.001	0.11	<0.00010	<0.00010	<0.00010	<0.00010
Copper, total (T-Cu)	mg/L	-	-	<0.00050	<0.00050	0.00158	0.0006
Iron, total (T-Fe)	mg/L	0.3	1	0.037	0.012	0.122	<0.010
Lead, total (T-Pb) [3]	mg/L	0.00344-0.00558	0.00300-0.0582	<0.000074	<0.000050	0.00008	<0.000050
Manganese, total (T-Mn) [3]	mg/L	0.768-0.942	0.816-1.39	0.00138	0.0006	0.014	0.00051
Mercury, total (T-Hg) [4]	mg/L	0.00002	-	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total (T-Mo)	mg/L	0.073	46	0.000309	0.000479	0.00137	0.000447
Nickel, total (T-Ni) [3]	mg/L	0.0250-0.0781	-	<0.00050	<0.00050	0.00105	<0.00050
Selenium, total (T-Se)	mg/L	0.001	-	<0.000050	<0.000050	<0.000050	<0.000050
Silver, total (T-Ag) [3]	mg/L	0.0000500	0.000100	<0.000010	<0.000010	<0.000010	<0.000010
Thallium, total (T-Tl)	mg/L	0.0008	-	<0.000010	<0.000010	<0.000010	<0.000010
Uranium, total (T-U)	mg/L	0.0085	0.033	0.000686	0.000196	0.000124	0.000177
Vanadium, total (T-V)	mg/L	0.12	-	<0.00050	<0.00050	<0.00050	<0.00050
Zinc, total (T-Zn)	mg/L	-	-	<0.0030	<0.0030	<0.0030	<0.0030
Hexavalent Chromium, total	mg/L	0.001	-	<0.00050	<0.00050	<0.00050	<0.00050
Dissolved Metals							
Cadmium, dissolved (D-Cd) [3]	mg/L	0.0000176-0.000174	0.0000380-0.000448	<0.0000050	0.0000095	0.0000118	0.0000074
Copper, dissolved (D-Cu) [3]	mg/L	0.000200-0.00104	0.000200-0.00545	***0.00032***	***0.00032***	***0.00122***	***0.00054***
Iron, dissolved (D-Fe)	mg/L	-	0.35	0.022	<0.010	0.032	<0.010
Lead, dissolved (D-Pb) [3]	mg/L	0.00282-0.00782	-	<0.000050	<0.000050	<0.000050	<0.000050
Manganese, dissolved (D-Mn) [3]	mg/L	0.310-0.560	1.97-5.27	0.00072	0.00048	0.00945	0.00048
Nickel, dissolved (D-Ni) [3]	mg/L	0.700-1.80	10.9-30.2	<0.00050	<0.00050	0.00093	<0.00050
Strontium, dissolved (D-Sr)	mg/L	2.5	-	0.00342	0.00577	0.0774	0.00512
Vanadium, dissolved (D-V)	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050
Zinc, dissolved (D-Zn)	mg/L	0.00629-0.0305	0.00863-0.0877	<0.0010	<0.0010	0.0023	<0.0010
Polycyclic Aromatic Hydrocarbons (PAHs)							
Acenaphthene	mg/L	0.0058	-	<0.000010	<0.000010	<0.000010	<0.000010
Acridine	mg/L	0.003	-	<0.000010	<0.000010	<0.000010	<0.000010
Anthracene	mg/L	0.000012	-	<0.000010	<0.000010	<0.000010	<0.000010
Benz(a)anthracene	mg/L	0.000018	-	<0.000010	<0.000010	<0.000010	<0.000010
Benzo(a)pyrene	mg/L	0.00001	-	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Chrysene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010
Fluoranthene	mg/L	0.00004	-	<0.000010	<0.000010	<0.000010	<0.000010
Fluorene	mg/L	0.003	-	<0.000010	<0.000010	<0.000010	<0.000010
1-methylnaphthalene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010
2-methylnaphthalene	mg/L	-	-	<0.000010	<0.000010	<0.000010	<0.000010
Naphthalene	mg/L	0.001	0.001	<0.000050	<0.000050	<0.000050	<0.000050
Phenanthrene	mg/L	0.0003	-	<0.000020	<0.000020	<0.000020	<0.000020
Pyrene	mg/L	0.00002	-	<0.000010	<0.000010	<0.000010	<0.000010
Quinoline	mg/L	0.0034	-	<0.000050	<0.000050	<0.000050	<0.000050
Volatile Organic Compounds (VOCs)							
Benzene	mg/L	0.04	-	<0.00050	<0.00050	<0.00050	<0.00050
Ethylbenzene	mg/L	0.09	-	<0.00050	<0.00050	<0.00050	<0.00050
Methyl-tert-butyl-ether	mg/L	10	3.4	<0.00050	<0.00050	<0.00050	<0.00050
Styrene	mg/L	0.072	-	<0.00050	<0.00050	<0.00050	<0.00050
Toluene	mg/L	0.0005	-	<0.00040	<0.00040	<0.00040	<0.00040
Total Xylenes	mg/L	0.03	-	<0.00050	<0.00050	<0.00050	<0.00050
Chlorobenzene	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050
1,2-Dichlorobenzene	mg/L	-	-	<0.00050	<0.00050	<0.00050	<0.00050

Notes:
Results ***underlined in bold italics*** exceed the applicable long-term water quality guideline for the protection of freshwater aquatic life.
Shaded results exceed the applicable short-term water quality guideline for the protection of freshwater aquatic life.
[1] Approved British Columbia Water Quality Guidelines for the protection of freshwater aquatic life (BC ENV, 2023). Where an approved guideline is not established, the working guideline is applied.
[2] Canadian Water Quality Guideline for the protection of freshwater aquatic life (CCME, 2021). Federal Water Quality Guidelines (FWQG) are used for total Al, Co, and V, and for dissolved Cu, Sr, and Pb (Environment and Climate Change Canada).
[3] BC WQG or CWQG indicated to be variable are calculated from sample-specific measurements for temperature, field pH, total hardness and dissolved organic carbon (DOC) content.
[4] When MeHg ⩽ 0.5% of total Hg, BC WQG = 0.00002 mg/L.
[5] The approved BC WQG for hexavalent chromium [Cr(VI)] is 0.001 mg/L and 0.0089 mg/L for trivalent chromium [Cr(III)]. The more conservative criteria for Cr(VI) is applied to total chromium results.
[6] Suspected erroneous dissolved oxygen values measured at SW-01 (49.04 mg/L) and SW-04 (22.77 mg/L) on August 27 are removed from the table.
The lowest applicable guidelines are shown in the table; however, water quality data was screened to all applicable guidelines.

Table F-2: Summary of Freshwater Quality Results for Methylmercury Received at the Time of Reporting.

Parameter	Unit	Station SW-01	Station SW-02	Station SW-07	Station SW-04
		Lower Reach of Woodfibre Creek (near the mouth)	Upper Reach of Mill Creek (upstream of the third bridge)	Upstream Mill Creek (at the diversion inlet)	Lower Reach of East Creek (near the outlet to the outfall culvert)
		SW-01	SW-02	SW-07	SW-04
		VA24C2197-001	VA24C2197-002	VA24C2197-004	VA24C2197-003
		8/27/2024	8/27/2024	8/27/2024	8/27/2024
Methylmercury	**µg/L**	<0.000020	<0.000020	<0.000020	0.000046

Table F-3: Summary of Freshwater Quality Results for Dioxins and Furans Received at the Time of Reporting.

Parameter	Unit	Station SW-01	Station SW-02	Station SW-07	Station SW-04
		Lower Reach of Woodfibre Creek (near the mouth)	Upper Reach of Mill Creek (upstream of the third bridge)	Upstream Mill Creek (at the diversion inlet)	Lower Reach of East Creek (near the outlet to the outfall culvert)
		SW-01	SW-02	SW-07	SW-04
		L2756871-1	L2756871-2	L2756871-5	L2756871-4
		07/31/2024	07/31/2024	07/31/2024	07/31/2024
Lower Bound PCDD/F TEQ	**pg/L**	0	0.0184	0.0201	0
Upper Bound PCDD/F TEQ	**pg/L**	1.14	1.23	0.957	1.08

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

Appendix G: Estuarine Water Receiving Environment Results

Table G-1: Summary of Estuarine Water Quality Results for Dioxins and Furans Received at the Time of Reporting.

Parameter	Unit	Station SW-03
		Mill Creek Estuary
		SW-03
		L2756871-3
		07/31/2024
Lower Bound PCDD/F TEQ	**pg/L**	0.000281
Upper Bound PCDD/F TEQ	**pg/L**	0.955

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.