

**REPORT TO CORE AREA LIQUID WASTE MANAGEMENT COMMITTEE
MEETING OF WEDNESDAY, MARCH 25, 2026**

SUBJECT **2025 Annual Compliance Summary – McLoughlin Point Wastewater Treatment Plant**

ISSUE SUMMARY

The Capital Regional District's (CRD) McLoughlin Point Wastewater Treatment Plant (WWTP) is authorized to discharge under both provincial and federal environmental regulations. After commissioning of the WWTP in 2021, staff have provided updates to the Committee on performance and compliance; this report summarizes the regulatory compliance status for 2025.

BACKGROUND

The McLoughlin Point WWTP is authorized to discharge under the Provincial *Municipal Wastewater Regulation* (MWR) registration RE-108831 (under the *Environmental Management Act [EMA]*). The facility must also meet all requirements of the Federal *Wastewater Systems Effluent Regulation* (WSER) under the *Fisheries Act*. The plant was commissioned in August 2020 to replace the previous practice of discharging fine-screened (6 mm) but otherwise untreated wastewater through the Macaulay Point (Macaulay) and Clover Point (Clover) outfalls. The MPWWTP receives wastewater for the Core Area catchment serving a population of approximately 330,000 from seven municipalities and two First Nations (x^wsepsum Nation [Esquimalt] and Songhees Nation). Wastewater is treated through primary, secondary, and tertiary processes before being discharged through a 1,925 metre (m) long outfall to the Salish Sea. Tertiary treatment capacity is in place for flows up to 216,000 m³/day. During rain events when flows exceed 216,000 m³/day, the excess flow is treated to a primary standard and blended with the tertiary effluent prior to discharge to the marine environment. Total plant capacity is up to 432,000 m³/day.

The Core Area Liquid Waste Management Plan (LWMP) contains the CRD's commitments to build and operate the facility, and work with the municipal and First Nations participants in the service to manage wastewater and other liquid wastes in a manner that ensures protection of human health and the environment.

Regulatory requirements include comprehensive monitoring of effluent and the receiving environment to ensure final effluent quality limits are not exceeded and potential impacts to human health and the environment are minimized. Any abnormal operational conditions, including non-compliant effluent quality, must also be reported immediately. The facility was last inspected by provincial regulators in July 2025 and visited by federal regulators in November 2025. A summary of the 2025 regulatory compliance can be found in Appendix A.

IMPLICATIONS

Intergovernmental Implications

The CRD meets regularly with provincial and federal staff to discuss regulatory, operational, and compliance issues. Staff are working to address the non-compliant conditions (described below and in Appendix A).

Regulatory Implications

The facility did not meet compliance requirements for a few administrative and several effluent quality events. The frequency of non-compliant events in 2025 was similar to previous years. Administratively, there was one week when the required effluent sampling frequency could not be met due to a staff capacity issue, and five days where results were not reported on time, due to internal database discrepancies. There was also one day where collecting a receiving environment sample was not possible due to unsafe weather conditions.

Operationally, the facility was non-compliant with provincial monthly average effluent quality limits for total suspended solids (10 mg/L TSS) for five of the 12 months, and carbonaceous biochemical oxygen demand (10 mg/L CBOD) for 10 of the 12 months. For context, 91% of the TSS and CBOD were below the provincial 25 mg/L maximum daily limits for these two parameters over the course of the year. The facility was >97% compliant with the provincial 25 mg/L limit in 2023 and 2024 (Appendix A; Figure 3).

In 2025, 30% of the CBOD and 56% of the TSS results were less than the provincial 10 mg/L average monthly limit.

Provincial limits for the facility are more stringent than those typically required for marine discharges and have been a challenge to achieve since commissioning. These exceedances are a result of the limited performance and availability of the tertiary disc filters. Appendix A provides further background on the challenges with the tertiary disc filters. There were also two equipment malfunctions in 2025 (a power failure and a gate malfunction) which resulted in non-compliant conditions. Federal effluent quality limits for un-ionized ammonia were also exceeded five days within the year. Staff continue to investigate, including follow-up with federal regulators on whether similar challenges are observed elsewhere. Based on current information, the exceedances are likely a result of delays in external laboratory analysis that caused changes in pH levels during transport and holding, thereby affecting the calculation for unionized ammonia.

Since plant commissioning and completion of the performance period in January 2023, the plant has maintained relatively stable effluent quality conditions through the first five years of full plant operations (Appendix B).

More details can be found in Appendices A and B.

Environmental Implications

The number of non-compliance events with the provincial discharge authorization limits was high in frequency, but low in magnitude, as noted above and in Appendix A; with the environmental significance being low. This is because the assimilative capacity of the marine receiving environment around the outfall is high, and effluent quality was generally better than the environmental protection target of equivalent-to-secondary treatment. In addition, toxicity testing confirmed that McLoughlin effluent was not acutely toxic to fish, indicating risk to marine life was low.

Relative to the pre-treatment discharge of fine-screened, but otherwise untreated, wastewater through the Macaulay and Clover outfalls, the McLoughlin Point WWTP has effectively reduced TSS and CBOD concentrations and loadings to marine environment by approximately 95% (Appendix B). Similarly, there has been a concurrent, and significant, reduction in the loadings of many other contaminants that were previously of environmental concern, such as metals, microplastics, per-fluorinated substances, and other contaminants of emerging environmental concern.

CONCLUSION

The Core Area Wastewater Treatment Project has reduced TSS and CBOD concentrations and loadings to the marine environment by 95%. Non-compliance with regulatory effluent quality limits listed in the discharge authorization was observed over several months for specific parameters in 2025. While the frequency of exceedances was high in 2025, the magnitude of these exceedances, and its associated environmental risk, is low. CRD staff meet regularly with provincial and federal regulatory staff to discuss and address these non-compliant events and general operation of the wastewater service.

RECOMMENDATION

There is no recommendation. This report is for information only.

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ATTACHMENTS

- Appendix A: 2025 McLoughlin Point WWTP Compliance Summary
- Appendix B: McLoughlin Point WWTP TSS and CBOD Concentrations (2015 to 2025)