

**REPORT TO CORE AREA LIQUID WASTE MANAGEMENT COMMITTEE
MEETING OF JULY 22, 2026**

SUBJECT **Wastewater Bypass Activities at MPWWTP and ECCC Warning Letter**

ISSUE SUMMARY

This report provides an overview of the two McLoughlin Point Wastewater Treatment Plant (MPWWTP) planned bypass events, outlines the associated regulatory requirements and engagement activities, and summarizes the actions taken and planned in response to a recent warning letter from Environment and Climate Change Canada (ECCC).

BACKGROUND

Rationale for Bypasses

Between March 2025 and June 2026, two planned bypasses of secondary and tertiary treatment works were required at the MPWWTP. Every effort was made to avoid or minimize bypassing of treatment works; however, due to the MPWWTP's hydraulic configuration, secondary and tertiary treatment processes could not be operated during the required work. Both bypasses were undertaken as controlled measures to manage risk to the treatment plant, receiving environment, and broader conveyance system. Primary wastewater treatment processes remained operational and were not impacted by this work

2025 Bypass (March 26 to April 14, 2025)

The first bypass occurred over 20 days and was primarily undertaken to clean the dirty backwash tank (DBWT), which stores backwash waste from the biological aerated filters (BAF, secondary treatment) and disk filters (tertiary treatment). The DBWT had not been cleaned since commissioning the plant in 2020 and had accumulated debris to the point that cleaning was necessary to maintain reliable operation and mitigate odour. The periodic cleaning of the DBWT is a known requirement and is a planned maintenance activity which will need to occur approximately every five years. Staff have been planning the cleaning since 2022. Activities completed during this bypass period included removing approximately 104,000 kg of accumulated media from the DBWT, replacing failed DWBT pump guiderails, and additional cleaning, maintenance, and inspection.

2026 Bypass (May 22 to May 29, 2026)

The second bypass occurred over eight days and was undertaken primarily in response to unforeseen leakage from a BAF inlet valve. Conditions required prompt action to prevent further potential damage to plant processes, ensure worker safety, and avoid uncontrolled system failures. The 2026 bypass included replacing the leaking BAF inlet valve and submarine access door, inspecting the valves and doors in the other BAF units, and retrofits on pump guide rails in the DBWT. Unlike the 2025 bypass, the work was not anticipated as the BAF valve failed prematurely, well before its expected service life of 20 yrs, and resulted in the need for an unanticipated bypass.

Design Requirements for MPWWTP

The discharge from the MPWWTP is considered to be near recreational waters with potential for human contact; therefore, the plant was designed as a Reliability Category 1 facility in accordance with the BC Municipal Wastewater Regulation (MWR). The MPWWTP is authorized to discharge under the MWR registration RE-108831, which stipulates effluent quality and monitoring requirements. The facility must also meet all requirements of the Federal Wastewater Systems Effluent Regulations (WSER). Treated effluent from the plant is discharged to the ocean out the 2 km long outfall.

The MWR requirements for Category 1 facilities apply to process component units, not individual process equipment. Redundancy is incorporated at the process unit level, with critical equipment generally duplicated or designed to operate with one unit out of service, and additional (n+1) redundancy provided for key supporting systems such as pumps. Table 1 summarizes the reliability requirements of MWR for Category 1 facilities versus what is provided for at MPWWTP and incorporated in the Provincially approved Operating Plan for MPWWTP.

Table 1: MWR Reliability Requirements vs MPWWTP Redundancy of Design

McLoughlin Point WWTP System	Category 1 Requirements (MWR)		McLoughlin WWTP	
	Treatment System	Remaining Capacity w/ Largest Unit Out of Service	Units Provided	Remaining Capacity w/ Largest Unit Out of Service
Blower Aerators	Multiple Units	100%	5 Duty, 1 Standby	100%
Primary Clarifier	Multiple Units	50%	2x Plate Settlers + 3x Densadeg	100%
Fine Screens	N/A	N/A	2 Duty, 1 Standby	100%
Aeration Basins	Multiple Units	75%	2x MBBR + 12 BAFs	>75% *
Effluent Filters	2 Minimum	75%	3 Duty Disk Filters	>75% *

* 75% of treatment capacity for secondary and tertiary treatment at 216 MLD.

Full redundancy is not feasible for all components due to space, cost, and operational constraints. As such, some maintenance activities require temporary bypasses, as permitted under Section 49 of the MWR, when work cannot reasonably proceed otherwise. For example, the DBWT dimensions are approximately 31 m × 14 m × 6.5 m (length × width × height), resulting in a tank volume of approximately 2,800 m³. Due to the size and location of the tank, as well as the limited site area available, construction of a redundant DBWT was not feasible. Certain activities, such as cleaning the DBWT, can also require bypass to meet WorkSafeBC safety requirements.

While process redundancy supports continuous operation, interconnecting systems and ancillary equipment still require periodic maintenance, repair, or replacement. Equipment performance can vary from expected service life, with some components failing prematurely and others exceeding design expectations.

Permitting Requirements

In order to carry out maintenance bypasses, authorization is required under the Provincial MWR, and Federal Municipal Systems Effluent Regulations (MSER). In advance of both the bypasses, both Provincial and Federal regulatory agencies were notified, and approvals by both the Provincial and Federal Government were received. Approvals with all specific conditions and compliance requirements are included in Appendix A.

Provincial requirements (under MWR) included:

- Adherence to specific duration, systems bypassed, communication protocols and monitoring program, including specified locations and parameters, during and post bypass.
- Submitting a bypass summary report within 60 days of the completion of the bypass event to the province and specified First Nations.
- Submitting an updated Operating Plan.
 - The 2025 authorization noted the updated Operating Plan must be submitted by September 1, 2025, and include all regular maintenance activities that require bypasses of authorized works with recommendations for how and when to undertake that work to minimize any associated bypass requests.
 - The 2026 authorization noted the requirement to submit a further update to the Operating Plan by October 31, 2026, informed by the results of the Maintenance Bypass Risk and Mitigation Assessment. This update must identify and evaluate design and operational measures to reduce the frequency, duration, and necessity of maintenance-related bypasses, and include recommendations for how and when identified maintenance activities should be undertaken to minimize future bypass requests. These recommendations must include design changes to prevent future bypasses for BAF inlet valves.

Federal requirements (under WSER) included:

- Monitoring measures to be implemented during the bypass, including sampling and reporting results.
- A final report to be sent to ECCC, within 90 days after the last day of the period of the authorization, that among other items, includes:
 - a confirmation of the existence of a plan that describes future planned modifications to the wastewater system and other measures that will be taken to reduce the need for future temporary bypass authorizations. The plan must include a schedule for implementation.
 - a declaration that this plan is available to the public and information on how it is publicly accessible.

To date, the Capital Regional District (CRD) has submitted the 2025 bypass summary report to the Province and the 2025 final report to ECCC. These reports include results and summaries of the bypass activities, communications and monitoring completed. Remaining deliverables include an updated Operating Plan; a Maintenance Bypass Risk and Mitigation Assessment (including confirmation of its public availability); effluent dispersion modelling; and the 2026 bypass summary report and final report. Additional communications, monitoring and reporting for the 2026 bypass are also underway. Actions to address all outstanding issues are outlined below.

Environmental Monitoring Requirements

As a condition of the provincial bypass approval, the CRD is required to evaluate the bypass scenario with an oceanographic plume dilution and dispersion model, and carry out additional monitoring before, during and after bypass events to confirm the model predictions and better understand the potential for impacts. Historically, the CRD has relied on the model to predict near and far field impacts of the MPWWTP wastewater discharge and to guide the environmental monitoring program. Conservative model predictions indicated that exceedances of bacteriological guidelines would occur in the immediate vicinity of the outfall, but that exceedances at far-field locations should not occur. At the time of writing this report, 2026 monitoring data is being compiled; however, data from the 2025 bypass confirmed bacterial levels did not exceed recreational targets (protective of swimming and wading) at any shoreline monitoring location. Additionally, the monitoring confirmed the risk of bacterial contamination impacting shellfish harvesting in the far-field reaches of the plume (e.g., Tl'ches (Chatham/Discovery Islands), Haystack Islets) to be low.

Public and First Nations Engagement

Prior to the bypasses and concurrent to the requests for authorization, the CRD notified all First Nations with interests in the area to explain the reason for the bypasses, potential impacts and the enhanced monitoring to be done during bypassing. The CRD also met with the neighbouring community through the Esquimalt Liaison Committee and posted public website alerts.

ECCC Warning Letter and Engagement

On May 19, 2026, the CRD received a warning letter, dated April 29, 2026, from Environment and Climate Change Canada (ECCC) in relation to the 2025 bypass final report submission (Appendix B). The warning letter outlines alleged contraventions of WSER, specifically sections 44(1)(c.1)(ii), paragraph 45.2(3)(f) and subsection 45.2(4). These related to the CRD's outstanding obligations to include, in the 2025 final report, the confirmation of a plan to reduce the need for future MPWWTP bypasses and to limit adverse effects of bypasses, a schedule for implementation of the plan, and confirmation that the plan is publicly available. The warning letter states that its purpose is to bring these matters to the CRD's attention and to set the expectation that corrective actions will be taken to achieve compliance and demonstrate due diligence going forward. The letter does not constitute a finding of guilt or civil liability.

The MPWWTP is relatively new and, as with any new facility, process and maintenance improvements are typically established within the first few years of operation including identifying the necessary maintenance activities and bypass requirements. As part of ongoing operations of the plant it was understood that bypasses would be necessary. The requirement to develop a bypass mitigation plan was not anticipated so soon after bringing the plant online; therefore, a plan was not readily available to meet the requirements of the ECCC bypass authorization. Further study and engineering assessment is required in order to develop a plan of this nature.

In response to the warning letter, the CRD provided a formal written response to ECCC on June 2, 2026, outlining the actions underway to address the outstanding reporting requirements and achieve compliance with the WSER. The response described the CRD's planned technical assessment process, development of a Maintenance Bypass Risk and Mitigation Assessment

Report and updated Operating Plan, proposed timeline for completion, and commitment to publicly communicate information regarding bypass requirements and mitigation measures. A copy of the CRD's response letter is included as Appendix C.

Next Steps

In order to address the outstanding ECCC requirements identified in the warning letter, the CRD is working to develop the plan to mitigate the need for future bypasses. Staff have engaged the original MPWWTP design engineering consultant to develop a Maintenance Bypass Risk and Mitigation Assessment that will include:

- evaluation of maintenance work;
- predictions for future bypass requirements;
- identification of modifications and evaluation of design and operational measures to:
 - reduce the frequency, duration, and necessity of maintenance-related bypasses
 - limit any adverse effects on fish, fish habitat or the use by man of fish
- recommendations for how and when identified maintenance activities should be undertaken to minimize future bypass requests. Recommendations must include design changes to prevent future bypasses for BAF inlet valves;
- description of future planned modifications to the wastewater system and other measures that will be taken to reduce the need for future temporary bypass authorizations; and
- a schedule for implementation.

Once the Maintenance Bypass Risk and Mitigation Assessment is completed, CRD will re-issue the 2025 final bypass report to ECCC. In addition, a summary of the Maintenance Bypass Risk and Mitigation Assessment will be posted to the CRD website in order to meet the ECCC requirements that the information is made available for public examination. These actions will address the outstanding items noted by ECCC in the warning letter.

Based on the results and findings of the Maintenance Bypass Risk and Mitigation Assessment, operational changes and capital upgrades will be scheduled and incorporated into both capital and operating budgets through the next budget cycle, with costs allocated as part of the five-year capital planning process.

In addition, staff will complete outstanding regulatory requirements of the 2026 bypass authorizations in alignment with the identified Provincial and Federal requirements and timeframes including submitting:

- a Bypass Summary Report to the Province and First Nations.
- a Final Report to ECCC.
- Effluent Dispersion Modelling to the Province.
- an Updated Operating Plan, informed by the Maintenance Bypass Risk and Mitigation Assessment, to the Province.

CONCLUSION

Two bypass events at McLoughlin Point Wastewater Treatment Plant in 2025 and 2026 were necessary, controlled measures undertaken to maintain safe and reliable plant operations. Both bypasses were completed under Provincial and Federal authorizations. Despite the actions undertaken for the 2025 bypass, the Capital Regional District (CRD) received a warning letter from Environment and Climate Change Canada (ECCC) identifying gaps in formalizing and

publicly communicating a plan to reduce future bypasses. In response, the CRD has initiated actions to address these gaps, including completing outstanding reporting requirements, developing a comprehensive Maintenance Bypass Risk and Mitigation Assessment, and integrating its recommendations into operational and capital planning. These steps will strengthen system reliability, reduce the frequency and duration of future bypasses, and support ongoing protection of the receiving environment while meeting regulatory expectations.

RECOMMENDATION

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

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ATTACHMENT(S)

Appendix A: Provincial and Federal Authorizations for 2025 and 2026 MPWWTP Bypasses
Appendix B: ECCC Warning Letter to CRD – April 29, 2026 (Received May 19, 2026)
Appendix C: CRD Response Letter to ECCC – June 2, 2026