

Core Area Wastewater Treatment



Commissioning Activities Update

Capital Regional District | December 2021

The Capital Regional District (CRD) is currently carrying out ongoing commissioning activities at the McLoughlin Point Wastewater Treatment Plant (MPWWTP) in Esquimalt, the Residuals Treatment Facility (RTF) located north of Hartland Landfill in Saanich and the Residuals Solids Conveyance pipeline that connects both facilities.

McLoughlin Point Wastewater Treatment Plant

- Optimization and fine tuning of the odour control system is ongoing. All of the primary and secondary treatment vessels have their head space extracted and scrubbed through odour control units however balancing of these spaces is being fine-tuned to ensure no odour escapes during operation
- Critical maintenance and warranty work on vessels is more prevalent during start-up operations. This work requires covers or vessel lids to be removed in part or entirely which negatively impacts the vessel head space extraction and results in fugitive odours. Efforts continue to be made to minimize the duration that the lids are removed to reduce the negative impact on odours

Residuals Treatment Facility

- Current activities at the RTF include fine-tuning a number of components throughout the facility so that the plant can function as designed
- The temporary air release valve and associated traffic control measures located on Willis Point Road have been removed
- Consistent delivery of Class A biosolids to Lafarge under the Biosolids Beneficial Use Strategy has not been possible in recent weeks due to a number of issues, including ferry service cancellations due to inclement weather and vessel maintenance and a number of temporary but unplanned cement kiln shutdowns at Lafarge
- Lafarge's planned fall maintenance period has been delayed until early 2021 and the CRD intends to continue shipping dried product to the cement facility until then
- Class A biosolids that cannot be delivered to Lafarge will be managed under the CRD's Short Term Contingency Plan and used at Hartland Landfill as both a nutrient additive to improve vegetation growth in areas of the landfill and as an engineered biocover to mitigate fugitive methane emissions
- Management of biosolids under the Short Term Contingency Plan is not anticipated to have any environmental or climate implications due to the controls that are in place at Hartland Landfill to ensure the protection of adjacent ground and surface water resources

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- Best management practices will be implemented to ensure effective dust control during all aspects of handling, blending and application of engineered cover systems incorporating biosolids
- Monthly biosolids production reports are available [here](#)

Residuals Solids Conveyance Pipeline (Esquimalt and Saanich)

- The Residuals Solids Conveyance Pipeline that conveys fluid consisting of 1.5 to 2% concentration of solids from McLoughlin Point WWTP to the RTF includes a series of pump stations that pump the fluid. The pipelines are pressurized (forcemains) between the pump stations and air is relieved from these forcemains at the geographical high points of the pipe. This air is forced through odour control equipment to reduce odours in the vicinity of these air release valves. The chambers in which these air release valves are located appear to be frequently inundated by groundwater rendering the odour control equipment ineffective. Work is being done to reduce the groundwater entering these chambers and thereby optimize the odour extraction equipment.

Conveyance System

- The odour control system at the new Macaulay Point Pump Station is being investigated to ensure optimal odour removal from air prior to being emitted from the station. A number of mitigation measures are being taken including the replacement of the odour scrubbing media in the odour control equipment which was completed on Dec 6, 2021.
- The Arbutus Attenuation Tank is an underground concrete tank that will temporarily store wastewater flows during high volume storm events to reduce the number of sewer overflows. The temporary storage of wastewater will reduce the number of overflows and impacts along the coastline. Work is expected to be complete in December 2021.
- Once work is complete, the Arbutus Attenuation Tank will be equipped with odour controls and will be used to temporarily store wastewater flows during high volume storm events to reduce the number of sewer overflows along the coastline.

These commissioning activities may result in the generation of intermittent odours near each facility.

Ongoing optimization of the treatment plant and conveyance infrastructure is anticipated to extend well into the performance period which ends in January 2023. During this period, operational, maintenance and optimization activities are anticipated to impact system performance in terms of odour control and treatment plant effluent

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quality. The CRD continues to complete routine odour monitoring as well as respond to community odour complaints with corresponding corrective actions in an effort to mitigate the root cause.

The CRD remains mindful of the impact this has on residents and is grateful to our local communities for their patience and will provide regular updates as we work toward normal operating conditions.

Last updated: December 20, 2021