

Core Area Wastewater Treatment



Commissioning Activities Update

Capital Regional District | September 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
 - Anaerobic digester operations have been stabilized
 - Dryer operations have been stabilized, and the CRD is now sending regular shipments of dried Class A biosolids to the Lafarge cement plant under the Biosolids Beneficial Use Strategy.
- During RTF commissioning, all dewatered residuals were deposited at Hartland Landfill as controlled waste in accordance with the facility's operational certificate (similar to other sludge historically received at the landfill) while dried biosolids were mixed with dirt for use as cover material that will eventually be landfilled with other municipal solid waste
- The disposal of this material 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 groundwater resources and collection of landfill gas
- The interim disposal process is different than how Class A biosolids will be beneficially used at Hartland Landfill in the future when Lafarge Canada, the cement plant that will be using the CRD's biosolids as an alternate fuel source, is shut down for annual maintenance

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- During the annual cement plant shut-down periods (approximately four to six weeks per year) the biosolids will be used at Hartland Landfill as a nutrient additive to improve vegetation growth in areas of the landfill and as an engineered biocover to mitigate fugitive methane emissions
- 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

- Maintenance and Commissioning activities at the Macaulay Point Pump Station are sometimes generating odours. Staff are working to rectify this issue as soon as possible
- 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 fall 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.

Some operating and equipment challenges are not uncommon in the period of time immediately after handover of a facility from a contractor to an operator, as a period of fine-tuning and optimizing operations is to be expected.

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CRD staff and facility contractors are making every effort to limit the source and impact of odour around the wastewater treatment facilities and will continue to monitor this issue as work proceeds.

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: September 1, 2021