

Maliview Wastewater Treatment Plant Upgrade



FAQ

Capital Regional District | **REVISED June 11, 2025**

Some frequently asked questions regarding the Maliview Wastewater Treatment Plant are noted below.

The Capital Regional District (CRD) is making progress with upgrades to the Maliview Wastewater treatment plant to meet provincial and federal regulations while ensuring environmental protection. Before construction begins, local ratepayers will need to approve borrowing to secure funds for the project.

Why is the Waste Water Treatment Plant Upgrade required?

The project to upgrade the Maliview Wastewater Treatment Plant (WWTP) was initiated in 2019 following a warning letter from Environment and Climate Change Canada (ECCC). Subsequent non-compliances resulting in effluent discharged above permit limits has resulted in the B.C. Ministry of Environment and Parks requiring an Environmental Management Act waste discharge application including a wastewater treatment plant upgrade as corrective action.

What capacity will the WWTP Upgrade treat?

The current plant can treat 60 m³/day with full treatment, flows above this are screened but not treated prior to a combined discharge. The current system is regularly out of compliance for effluent discharge limits for total Suspended Solids (TSS) and Biological Oxygen Demand (BOD). The upgraded plant has capacity to treat 256 m³/d. Flows in excess of 256 m³/d goes through the screen system and by-pass the biological treatment system and are combined with the Moving Bed Bioreactors (MBBR) system unit effluent before discharge.

How will the WWTP Upgrade be funded?

The WWTP Upgrade will be funded through a combination of an Investing in Canada Infrastructure Program – Rural and Northern Communities grant for \$1.9M and debt borrowing of \$2,510,000.

How will the borrowing be approved?

Once approved in the Five-Year Capital Plan, the electors' approval for the borrowing will follow a petition process. This is the most cost-effective method for obtaining approval and is the only method which limits participation to property owners only. Through the petition process, owners of at least 50% of the properties must consent and those properties must represent at least 50% of the net taxable value in the service area. If the petition is not successful, an alternative approval process will be initiated at further cost to the ratepayers.

What is the borrowing process?

Long-term debt must be arranged through the Municipal Finance Authority (MFA) which offers a maximum lending term of 30 years. MFA will set a fixed interest rate for an initial term, generally 10 years, and subsequently refinance the loan for refinancing interest rate, typically in five-year increments. The loan authorization bylaw will define the maximum debt term; however, the length of the initial fixed term and the subsequent refinancing terms are at the sole discretion of the MFA.

What is the cost to each property owner?

The actual cost of borrowing will be dependent on the loan amount, actual interest rates at the time of borrowing and refinancing, and the amortization term selected. CRD staff consider multiple guidelines with respect to amortization term, including estimated useful life of the infrastructure, the impact of the annual debt payment requirement, the total cost of borrowing over debt term, and the interest rate risk. A longer amortization term will minimize the annual debt payments, but results in higher total cost of borrowing and higher interest rate risk exposure. A 30-year term is recommended to balance the annual debt payments requirement for ratepayers, the interest rate risk and the useful life of the capital assets.

For analytical purposes only, using the indicative interest rate of 4.74% published by MFA at the time of this report and the recommended maximum 30-year amortization period, the estimated annual debt cost per taxable folio is \$1,779. The actual borrowing cost will be determined with the interest rate at the time of debt issuing.

Why has the project taken so long?

The project was first initiated in 2019 in response to a warning letter and effluent non-compliance. The Technology Screening Report was received in May 2020, and the Preliminary Design Report was received in October 2020. For a period in 2021, the CRD had no Engineering Manager or Project Manager assigned. The project resumed in October 2021 with award of the Detail Design Contract. The Ammonia Modelling and Geotechnical Reports were received in early 2022. Equipment procurement occurred in 2022-2023 followed by a gap in project management capacity. The permit amendment process has been in progress since 2023, and final application was submitted ahead of the June 15, 2025, deadline. The Final Detail Design Report is complete and will accompany the application.

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How does the upgraded WWTP work?

The upgrade consists of 2 new Moving Bed Bioreactors. The MBBR tanks will be filled with media that will facilitate the growth of microbes that will consume the organic matter and oxidize ammonia in the wastewater. Tank 1 will function as the first stage in which BOD (Biological Oxygen Demand) is consumed, while Tank 2 will function as the second stage in which ammonia is oxidized to nitrate. The existing building will be upgraded and utilized, as well as the existing MBBR tank and other tanks and infrastructure where possible.

How long will the new upgrades last?

A regular maintenance program is expected to provide more than 30 years of service from the major equipment. Regular repairs and replacement of minor equipment is expected over time.

How do owners take care of the new system?

Reduction of flows through the Inflow and Infiltration program and reduced flows from properties will increase the function of the plant to meet requirements. Please remember what you put down your drain matters.

Protecting your Pipes | Capital Regional District <https://www.crd.ca/environment/sewer-and-septic/protecting-your-pipes>

Contact Information

For more information on the project, visit:

www.crd.ca/maliview

or contact Carolyn Hopp chopp@crd.bc.ca