

NANOOSE BAY SEWER CAPITAL PROJECTS PRIORITY ADJUSTMENT

RECOMMENDATION

That the Board direct staff to seek an amendment to the Liquid Waste Management Plan to change the timeline for Nanoose Bay Pollution Control Centre secondary treatment upgrade to prioritize critical sewer upgrades in the same service area.

BACKGROUND

The Fairwinds subdivision in Nanoose Bay was developed in stages starting in 1988. The original developer designed and installed the sewer infrastructure and transferred its ownership to the Regional District of Nanaimo (RDN). Now, the RDN operates nine pump stations and forcemains, a wastewater treatment facility, and an ocean outfall for a small service area of about 1,350 people.

The Nanoose Bay Pollution Control Centre (NBPCC) currently provides chemically enhanced primary wastewater treatment. NBPCC represents less than 1% of the wastewater treated by the RDN and is the RDN's last wastewater treatment facility to require an upgrade to provide secondary treatment.

On January 28, 2014, the RDN Board carried Motion 14-084 to approve the timeline for providing secondary treatment at NBPCC by 2023. However, due to change in capital spending priority in the Nanoose Bay area, an additional motion to adjust the capital project plan is needed. This adjustment has been identified in the Public Engagement Plan for the Liquid Waste Management Plan (LWMP) amendment. The RDN Board carried Motion 21-634 on December 7, 2021 to approve the Communication and Engagement Plan for the Liquid Waste Management Plan Amendment.

Factors listed below contribute to the required changes to the NBPCC secondary treatment upgrade timeline.

Critical Repairs to the Sewer and Pump Stations

Since Motion 14-084, the Fairwinds sewer and pump stations experienced several failures. Investigations revealed that the failures were a result of poor construction techniques and materials. These sewer infrastructure failures risk harm to human health and the environment – rehabilitation of the sewer pipes and pump stations in critical areas must be accelerated.

The updated Ten-Year Capital Plan for Nanoose wastewater projects captures a phased approach that:

- Advances two phases of critical sewer and pump station repairs. (A third phase is less critical and beyond the 10-year capital planning horizon).
- Postpones the secondary treatment upgrade at NBPCC to a later year that still meets the requirement in the federal Wastewater Systems Effluent Regulations, which ranks NBPCC as a low-risk wastewater treatment facility that must provide secondary treatment by 2040.

Cost Escalation

Cost escalations are showing up for other RDN treatment plant upgrade projects and projects across the construction industry. This trend was reported to the [June 22, 2021 Board](#), attached to an update on the [French Creek Pollution Control Centre Expansion and Odour Control Upgrade Project](#).

The Nanoose Wastewater Ten-Year Capital Plan allocates a budget of \$21 million for upcoming capital projects that include Phase 1 and 2 of the sewer and pump station upgrades and secondary treatment plant upgrades for the service area. Table 1 in the Financial Implications provides the budget breakdown for the capital projects in the phased approach.

Grant Applications

The RDN applied for several grants to help with critical funding of sewer projects in the Nanoose Bay service area. To date, all attempts were unsuccessful. The RDN will continue to seek all funding options available for these projects. Securing grant funding may accelerate the timeline for capital projects and/or lessen the financial burden for a small service area.

FINANCIAL IMPLICATIONS

The Nanoose Wastewater Ten-Year Capital Plan captures a phased approach that advances the most critical sewer repairs and revises the implementation of the secondary treatment upgrade project at NBPCC. Table 1 provides the budget for the capital projects in the phased approach.

Table 1. Phased approach for the capital projects in the Nanoose Bay sewer service area

Capital Project	Ten-Year Capital Plan	
	Cost Estimate	Phase
Phase 1 Sewer and Pump Station Upgrades	\$3 million	2022+
Phase 2 Sewer and Pump Station Upgrades	\$4 million	2027+
NBPCC Secondary Treatment Upgrade	\$14 million	2031+
Phase 3 Sewer and Pump Station Upgrades	Beyond 10-Year Capital Plan	

STRATEGIC PLAN ALIGNMENT

Growth Management - Provide effective regional land use planning and responsible asset management for both physical infrastructure and natural assets.

Environmental Stewardship - Continue to improve the quality of treated wastewater in the Region.

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