



REPORT TO SAANICH PENINSULA WASTEWATER COMMISSION MEETING OF THURSDAY, JULY 18, 2024

SUBJECT Septage Diversion to the Saanich Peninsula Wastewater Treatment Plant

ISSUE SUMMARY

To report back to the Commission on the implications of redirecting local Saanich Peninsula septic tank effluent to the Saanich Peninsula Wastewater Treatment Plant (SPWWTP) and to review the Commission's authority to mandate this.

BACKGROUND

Currently, all septic tank waste in the capital region is transported by private haulers as septage to a private treatment facility (Septage Processing Ltd. [SPL] in Langford, owned by GFL Environmental Inc. [GFL]). GFL is under contract (Septage Services Agreement - EPRO2021-002) with the Capital Regional District (CRD) to receive the region's septage from the private haulers, then treat materials to allow the liquid stream to be discharged to the CRD Core Area sewer system. Septage (also called trucked liquid waste) includes septic tank waste and other wastes that do not meet the sewer discharge requirements of CRD Bylaw No. 2922 (Sewer Use Bylaw), such as catch basin material, portable toilets, oil and grease interceptors, and high-strength business waste.

Residual solids generated in SPL's treatment process are transported to locations designed and authorized to manage wastewater residuals in accordance with provincial regulation, including GFL's composting facility in Chemainus. Currently, that facility is undergoing capital improvements and SPL residuals are deposited at Hartland Landfill under a Controlled Waste permit.

The Saanich Peninsula Wastewater Commission has received two previous staff reports discussing options for accepting septage at the Saanich Peninsula Wastewater Treatment Plant (SPWWTP). The reports of April 17, 2014 (Appendix A) and March 16, 2023 (Appendix B) were both received for information by the Commission. This report summarizes aspects of the previous reports, as well as covering the mandate and options for changes to the septage handling process on the Saanich Peninsula.

ALTERNATIVES

Alternative 1

The Saanich Peninsula Wastewater Commission recommends to the Capital Regional District Board:

That the Saanich Peninsula Wastewater Commission continue to support the existing private model for delivery of septage treatment services.

Alternative 2

The Saanich Peninsula Wastewater Commission recommends to the Capital Regional District Board:

That staff be directed to procure a consulting firm to undertake a Feasibility Review and Business Case Analysis to be funded from the Saanich Peninsula Liquid Waste Management Planning Operating Reserve.

Alternative 3

That this report be referred back to staff for additional information.

IMPLICATIONS

Operational Implications

The CRD has no authority to regulate what homeowners put into their private septic system. As such, they are not subject to our source control approach to liquid waste management. The CRD does have educational programming on best practices for protecting septic systems that mirrors source control best practices.

Septic tank pump out material is much more concentrated than municipal sewage (which is 98% water), as much of the water in on-site systems is dispersed through a drain field, leaving behind a high concentration of sludge and non-biodegradable materials in a septic tank for up to five years. Therefore, the pump out material is generally aged and anaerobic, with much higher levels of ammonia, total suspended solids and biochemical oxygen demand, which would require special handling if it were received at the SPWWTP.

Financial Implications

The costs of accepting residential septage at the SPWWTP would be determined through a Feasibility Review and Business Case Analysis. However, as indicated in Appendix A, significant capital investment would be required to support receiving septage at the SPWWTP, including at minimum:

- a receiving station inclusive of a concrete pad, screening, grit removal equipment and metering
- an equalization tank and mixers
- a new or upgraded odour control system
- various upgrades to the existing solids stream including larger tanks and dewatering equipment; and
- upgrades to the SPWWTP access road to accommodate two-way truck traffic

In addition to the capital investment, there would also be additional operation and maintenance costs that will need to be considered. Some of the additional costs include:

- increased polymer usage
- new staff positions
- additional tipping fees; and
- additional odor control media

The review and analysis would include consideration of offsetting a portion of these increased capital and operational costs by tipping fees charged to haulers. Tipping fee rate(s) would be determined during the review and analysis, and would consider market rates, as well as cost recovery of delivering this service.

Staff estimate the current cost for a consultant to undertake the analysis at \$100,000-150,000, but the CRD would need to proceed with a procurement process to get a more accurate costing. Funding for the analysis would be drawn from the Saanich Peninsula Liquid Waste Management Planning Operating Reserve.

Legal Implications

CRD Bylaw No. 3427, Saanich Peninsula Liquid Waste Management Local Service Committee, Bylaw No. 1, 1997, states *...the Commission shall establish policies governing the provision and operation of the service....* CRD Bylaw No. 2827 (Septage Disposal Bylaw) sets out the requirement for the disposal of septage at a septage disposal facility (e.g., SPL or other facilities designated by bylaw amendment) and a prohibition for the discharge of septage waste via direct or indirect connection to a sewer or drain, except at a septage disposal facility. In addition, the quality criteria for discharge in Bylaw No. 2827 assumes septage is treated prior to discharge to the sewage system.

Staff procured a legal review of the current Septage Services Agreement, and diversion of Saanich Peninsula septage from SPL would not result in a breach of the agreement. Irrespective of the agreement terms, diversion of Saanich Peninsula septage away from SPL would represent a change in the longstanding delivery model for the trucked liquid waste service, and a significant loss of business for SPL. There is a risk of creating business uncertainty for the CRD's septage services contractor by removing waste streams from the historically projected volumes and signalling the CRD's willingness to change the business model further in the future.

Service Delivery Implications

More than 20 years ago, the CRD opted to pursue a private model for delivery of septage treatment and trucked liquid waste services. Since the inception of the service, the SPL facility has been accepting the required septage and trucked liquid waste from the entire capital region.

In recent years, GFL has invested significant resources into its facility and has worked closely with the CRD to modify and upgrade its treatment system to ensure compliance with the Sewer Use Bylaw. At the same time, GFL continues to deliver an essential component of the liquid waste service as a centralized service, benefiting the entire region. The CRD currently does not have authority to compel or mandate homeowners or septage haulers to transport septage to a certain location for processing. Similarly, the CRD has no regulatory authority to direct private haulers to use specific receiving stations based on the geographic location of their waste pickup.

Regulatory Implications

In the Septage Collection Plan approved in Amendment 2 of the Saanich Peninsula Liquid Waste Management Plan (SPLWMP), septage generated on the Saanich Peninsula will be processed at the private regional facility (SPL). Any changes to septage collection and treatment would require amendment of the SPLWMP.

Similarly, any changes to the treatment process at SPWWTP, including the addition of a septage receiving facility, would require an amendment to the Operating Certificate issued by the Ministry of Environment and Climate Change Strategy, and a corresponding amendment of the SPLWMP.

Climate Action Implications

The review and analysis outlined in Appendix A did not explicitly consider the impacts to greenhouse gas emissions and other climate impacts.

CONCLUSION

The Saanich Peninsula Wastewater Commission has asked staff to report on the implications of redirecting local Saanich Peninsula septic tank effluent to the Saanich Peninsula Wastewater Treatment Plant and to review the Commission's authority to mandate this. This would result in significant operational and financial impact to the Saanich Peninsula Wastewater service and cause potential issues for the existing regional private septage treatment business model in the capital region. Evaluation of capital upgrades and consideration of triple bottom line (with an emphasis on operational impacts, climate impacts and benefits) would require a modified Feasibility Review and Business Case Analysis based on the 2014 proposed scope, at an estimated cost of \$100,000-\$150,000. While the Commission can establish policies governing the provision and operation of a service, the CRD currently does not have authority to compel or mandate homeowners or septage haulers to transport septage to a certain location for processing.

RECOMMENDATION

The Saanich Peninsula Wastewater Commission recommends to the Capital Regional District Board:

That the Saanich Peninsula Wastewater Commission continues to support the existing private model for delivery of septage treatment services.

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ATTACHMENTS

Appendix A: Staff Report: Saanich Peninsula Wastewater Treatment Plant – Scope for Feasibility Review and Business Case Analysis of Receiving Septage (April 17, 2014)

Appendix B: Staff Report: Review of Septic Tank Disposal Options for Saanich Peninsula Residents (March 16, 2023)