



Regional Board Report

Request for Decision

To: Regional Board

From: Director of Engineering Services

Date: May 18, 2023

Subject: 2023 District of Lake Country Septage Agreement

Voting Entitlement: All Directors - Unweighted Corporate Vote - Simple Majority (LGA s.208)

Purpose: To present the results of the service review for the Septic Effluent Disposal Site service; and obtain approve the new 2023 Regional Septage Facility Agreement with the District of Lake Country; and consider readings and adoption of the Septic Tank Effluent Regulation Amendment Bylaw.

Executive Summary:

In 1999, the RDCO and the District of Lake Country (DLC) entered a 20-year Memorandum of Understanding (MOU) to offer Septage Receiving Services as part of the DLC's new Wastewater Treatment Facility. To fund the service, the RDCO guaranteed to the DLC a stream of revenue over the 20-year term to cover associated operation, maintenance, and capital repair costs.

The original MOU expired at the end of 2020 with the service continuing to operate under the same principles while a 3rd party completed an independent service review of the facility and its operation. The service review provided a detailed analysis of the entire facility and included both the DLC and RDCO capital and operational requirements. The review of both the Septage Facility and the DLC Wastewater Treatment Plant then allocated components to septage and/or sewer operations, with corresponding costs.

This service review forms the backbone of the new agreement between the DLC and the RDCO. The DCL has already approved the proposed agreement subject to any changes the Regional Board may consider. In addition, the approval of the new agreement will trigger a corresponding amendment to Schedule "A" (the rates) as outlined in Septic Tank Effluent Regulation Bylaw, as proposed in Bylaw 1530.

During the review, it was identified that an asset management study had not been fully considered under the previous cost model. Opportunities to improve DLCs operational independence were also identified, that would allow DLC to quickly pivot and react to operational needs without approval or funding adjustments from the RDCO.

The new agreement has incorporated the operational needs of the DLC and the service delivery goals of the RDCO. The agreement in principle was prepared for consideration by the Board and DLC Council before legal review and other components proceeded.

Recommendation(s):

THAT the Regional Board receives the 2023 District of Lake Country Septage Agreement report from the Director of Engineering Services dated May 18, 2023 for information;

AND THAT the Regional Board authorizes the Chair and Corporate Officer to execute the Septage Service agreement with the District of Lake Country inclusive of the principles provided to the Board on May 18, 2023, subject to a satisfactory legal review;

AND THAT Regional District of Central Okanagan Septic Tank Effluent Regulation Amendment Bylaw No. 1530, 2023 be given first, second, and third readings;

AND FURTHER THAT Regional District of Central Okanagan Septic Tank Effluent Regulation Amendment Bylaw No. 1530, 2023 be adopted.

Respectfully submitted by: Clarke Kruiswyk, Analyst and Travis Kendel, Manager

Approved by:



David Komaika, P.Eng.
Director of Engineering Services

Attachment(s):

1. BL1530 – Septic Tank Effluent Regulation Amendment Bylaw 2023.docx
2. DLC Septage Facility Agreement (Final Draft).pdf
3. Regional Septage Facility Agreement.pptx

Strategic Plan Alignment:

Priorities: Environment, Sustainable Communities

Values: Collaboration, Regional Perspective

Background:

In 1999, the District of Lake Country (DLC) and the Regional District of Central Okanagan (RDCO) agreed to jointly develop and operate a septage receiving and processing service at the DLC's Wastewater Treatment Plant (WWTP). Under this 20-year agreement, the DLC oversaw the management of the day-to-day operations of the facility while the RDCO collected hauler tipping fees to recover the operational and capital costs.

Since the original agreement was signed and the service developed, the both the septage service and the operation of the WWTP have evolved and changed. The WWTP was originally operated by a contractor, which made it difficult to obtain accurate and timely information regarding the operating and capital costs of the facility. In addition, the DLC and the RDCO have both now completed Asset Management Inventories/Evaluations for the entire facility to fully address and assign the capital and operating costs. Under the proposed new septage agreement, every aspect of the sewage and septage process have been reviewed to determine the relative contribution each process makes to the operating and capital costs of the facility.

Summary of Agreement:

The major components included within the agreement are:

- Term of the agreement is 20 years, with Service Fees revised every 5 years.
- Service Fees will be determined using a jointly-agreed-upon financial model.
- DLC will be responsible for all operation, maintenance, and renewal of all equipment and all Septage Service assets will become the property of the DLC.
- Service Fees paid to the DLC by the RDCO include:
 - Operation and Maintenance Base Fees
 - Operation and Maintenance Variable Fees
 - Capital Renewal Fees
 - Capital Improvement Fees
- \$300,000 of the existing Septage Capital Reserve held by the RDCO will be transferred to the DLC and be allocated towards the identified Septage Service capital improvements.
- RDCO to set, manage, and communicate the Septage Tipping Fees that will apply to septage users.
 - Septage Tipping Fees are intended to fully fund the service and are established and collected by the RDCO. Those values are included in the approved 2023-2027 Five-Year Financial Plan.
- The RDCO will continue to support the DLC with biosolids processing solutions.
- RDCO and DLC will strive to partner in grant applications for the benefit of the service.

Service Review - Septage Contribution Methodology:

The DLC WWTP offers treatment and processing services for two independent waste streams: septage and raw sewage. The two streams are blended and processed as one combined waste stream, however for the purpose of determining the relative operating costs of both streams, the operating parameters were divided into the following areas:

- Sewage – Liquid Train
- Septage – Liquid Train
- Sludge Train
- Sludge Hauling

- Garbage Hauling

Table 3-1: Contribution to Operating Cost Parameters

	2021 ¹		2020		2019	
	Septage	Sewage	Septage	Sewage	Septage	Sewage
Average Power Consumption Contribution	13%	87%	14%	86%	13%	87%
Average Waste Sludge Hauling and Tipping Contribution	46%	54%	52%	48%	43%	57%
Average Garbage Hauling Contribution ^{2,3}	55%	45%	50%	50%	18%	82%

Based upon these operating parameters, the approximate costs for the two waste streams were determined. This Average Operating Cost was used to develop an approximate daily cost for each waste stream based upon the percentage of the load each place upon the WWTP and related infrastructure.

Table 3-2: Contributions to Power, Garbage Hauling, and Biosolids Disposal Costs

	2021 ¹		2020		2019	
	Septage	Sewage	Septage	Sewage	Septage	Sewage
Average Power Cost (\$/d)	\$41	\$271	\$37	\$228	\$32	\$215
Average Waste Sludge Hauling and Tipping Cost (\$/d)	\$296	\$341	\$265	\$240	\$194	\$262
Average Garbage Cost (\$/d) ²	\$22	\$18	\$12	\$12	\$6	\$23
Average Total Daily Operating Cost per Train (\$/d)	\$368	\$642	\$325	\$490	\$240	\$512
Average Variable Process Operating Costs (\$/d)	\$1,010		\$815		\$752	
Average Variable Process Operating Costs Contribution (%)	36%	64%	40%	60%	32%	68%

Based upon Table 3-2, septage is estimated to contribute an average of 36% to the variable operating costs, and sewage an average of 64%. These figures agree with historical allocations for the service and were incorporated into the financial analysis.

Agreement Impact and Service Details

The operating and capital costs of the septage facility are funded by user fees. Currently, the user fees for the septage facility are \$52/m³. Based upon the recommendation of the Asset Management Inventory and the review of the service, this rate must increase to \$85/m³ to fully fund the service. Further annual adjustments inclusive of forecasted inflation will occur year-over-year.

For the average homeowner with a standard septage system, the proposed rate adjustment would amount to an increase of approximately \$20-40 per year (based on a 3-year pump-out cycle). Currently, user fees paid by septage haulers are the only funding source for the septage service. The recommended

Septage Tipping Fees include annual rate adjustments for a 5-year period, to allow businesses to appropriately account for changing user fees within their contracts and fee structures.

Permitted septage haulers can currently access the facility 24/7; and, due to safety and risk concerns, the hours of operation are proposed to change to align with when the facility is staffed. This change will impact approximately 20% of the historically hauled septage, which is currently delivered on Sundays, in the early morning, or the evening. The impact of this change is expected to be minimal.

Based upon the most recent technical study, the 5 participating municipalities are contributing flows to the septage facility in roughly the followings proportions:

Table 3-3: Septage Contributions by Jurisdiction from Septage Disposal Tipping Fee (RDCO, 2015)

SEPTAGE CONTRIBUTOR	ESTIMATED CONTRIBUTION TO TOTAL FACILITY FLOW (2015 DATA)
Kelowna	55%
West Kelowna	3%
Lake Country	16%
Peachland	6%
Electoral Areas	20%

Risks

The following service risks associated with the new agreement are summarized for the Board's consideration:

1. Fixed Base Fees

With the proposed Service Fee structure, about 75% of the overall cost is independent of actual septage received and treated. Should haulers bring their septage to other facilities for treatment, the RDCO may not collect sufficient revenue to pay base fees. Over the past 10 years, annual septage has varied from 10,800 m³ to 14,300 m³ per year.

Impact: A Septage Service use drop of 10% in any given year, would result in a shortfall of approximately \$70,000. Conversely, a 10% rise in use would result in a surplus of \$90,000.

Likelihood: High. Although not experienced with historical Tipping Fee adjustments, it is expected that increasing the Tipping Fee could result in a reduction of septage being disposed of at the Regional Septage Facility.

Mitigation: The Operating Reserve (approximately \$260,000) can be used to fund/maintain the Septage Service if revenues decline for a short period of time until the Tipping Fee or other factors can be adjusted appropriately.

2. Service Withdrawal

The term of the agreement is 20-years, the same as the previous Agreement between the DLC and the RDCO. Once committed to a 20-year term, withdrawal from the service will be more challenging.

Impact: Withdrawal from or elimination of the service may be considered if higher Tipping Fees encourage Septage Haulers to use out-of-region services for disposal.

Likelihood: Low. It is expected that increasing Tipping Fees could result in a reduction of septage being disposed of at the Regional Septage Facility; however, it is not expected to drive a significant change that would warrant service withdrawal or elimination.

Mitigation: The RDCO has undertaken a review of the Septage Service and has summarized the terms and conditions of existing and proposed service arrangements for Board consideration. These terms are not expected to change significantly over the duration of the 20-year contract, and the service is expected to remain fully funded through user fees.

Next Steps:

Should the Board resolve to enter into the Septage Service agreement, based upon the principles provided to the Board and inclusive of Board direction, RDCO Staff will work with DLC Staff to complete a legal review, finalize the agreement, and update the Septic Tank Effluent and Regulation Bylaw to reflect Tipping Fees to fully fund the service.

Considerations:

Organizational/External:

- This service relies upon an ongoing collaborative partnership with the District of Lake Country.
- District of Lake Country Council resolved on April 11, 2023:
 - **THAT** the Mayor and Chief Administrative Officer (CAO) are hereby authorized to execute the legal agreements for the operation and maintenance of the regional septage facility contracts between the District of Lake Country and Regional District of Central Okanagan.

Financial:

- This service is fully funded through user fees.

Legal/Statutory Authority:

- Supplementary Letters Patent of the Regional District of Central Okanagan issued the March 19, 1974, granted the Regional District the authority to acquire, establish, develop, operate, regulate, and maintain grounds and other facilities for the disposal of septic tank effluent.

Alternate Recommendation:

- **THAT** the Board receives the 2023 Septage Agreement Report from the Director of Engineering Services dated May 18, 2023 for information.
- **AND THAT** the Board directs staff to incorporate Board direction into the Septage Service agreement with the District of Lake Country and return to the Board for approval of the agreement.

Approved for Agenda

A handwritten signature in black ink, appearing to read "Brian Reardon".

Brian Reardon, CAO