

**REPORT TO CAPITAL REGIONAL DISTRICT BOARD  
MEETING OF WEDNESDAY, JUNE 11, 2025**

---

**SUBJECT**     **Operating Budget Amendment for Biosolids Disposal**

**ISSUE SUMMARY**

Capital Regional District (CRD) staff have identified a need to increase the budget for biosolids management in 2025.

**BACKGROUND**

The CRD has been producing Class A biosolids at the Residuals Treatment Facility (RTF) since the commissioning of the Core Area Wastewater Treatment Project in December 2020. The RTF produces an average of 9.5 tonnes of biosolids each day. Under the provincially approved Core Area Liquid Waste Management Plan, biosolids must be beneficially used. In 2019, in anticipation of biosolids production, the CRD developed a Short-Term Biosolids Beneficial Use Strategy (2020-2025). Under this strategy, biosolids were to be transported to Richmond, BC for use as an alternative fuel in a cement kiln.

The Long-Term Biosolids Management Strategy (strategy) was endorsed by the CRD Board in June 2024 and acknowledged by the Province in March 2025. The strategy prioritizes advanced thermal treatment as the preferred option for biosolids management with a portfolio of out-of-region, non-agricultural beneficial uses for resiliency and contingency purposes.

**Tier 1: Advanced thermal option**

The preferred solution for biosolids beneficial use management under the long-term strategy is advanced thermal treatment.

**Tier 2: Out-of-region compliance options**

The second tier of options under the long-term strategy constitute measures that the CRD will use to meet its obligation for the beneficial use of biosolids while the Tier 1 thermal processing options are being developed or otherwise unavailable.

**Tier 3: In-region contingency options**

The third tier options constitute contingency options of last resort to ensure compliance with regulatory requirements for the beneficial use of biosolids. The CRD would implement Tier 3 options on a contingency basis, only when options within the Tier 2 portfolio are unavailable and only after receiving explicit consent from the Board and consulting and engaging with any affected First Nations, should the need for Tier 3 arise.

Currently, all available biosolids management options fall within Tier 2 of the strategy. At this time, the CRD has three available options: combustion at a cement kiln; industrial land reclamation at a gravel quarry; and growing medium production at a plant nursery in the Fraser Valley. Costs of these options range between \$200 to \$840 per tonne (inclusive of shipping). CRD staff coordinate

the daily management of biosolids across its portfolio of beneficial use options with the objective of mitigating costs, and the CRD has maintained an open procurement for additional Tier 2 options to encourage the market to come forward with cost-effective options to add to the CRD's portfolio.

As of the end of May 2025, the RTF had produced 1,386 tonnes of biosolids, with 21% of the product going to the cement kiln, 77% to the gravel quarry and 2% to the nursery. Biosolids have not been landfilled since March 2024.

The costs that nearby regional districts pay to manage biosolids through forest fertilization, agricultural land application, and mine reclamation range between \$520 to \$840 per dry tonne, comparable to the per dry tonne cost of the CRD.

### **Biosolids Management Cost Forecast**

CRD staff actively track and forecast costs for biosolids management.

The 2025 budget for biosolids management is \$1.2 million and was established assuming greater reliance on the lowest cost management option: using CRD biosolids as an alternative fuel for cement manufacturing. Due to ongoing maintenance and market-driven shutdowns of the cement kiln, the CRD has relied more heavily on costlier Tier 2 options. Staff have prepared a forecast for a low and high range for year-end biosolids management expenses for 2025 (Table 1). The low-end forecast assumes that the remaining biosolids are managed within the theoretical capacity limits of the cement kiln (the lowest cost option) while the high-end forecast assumes that none of the remaining biosolids are able to be received at the cement kiln as a result of ongoing reliability challenges.

**Table 1: Biosolids Beneficial Use Management Budget**

Budgeted	\$1.2 million
Cost-to-Date (April 30, 2025)	\$675,000
Year-End Projected Costs (low)	\$1.7 million
Year-End Projected Costs (high)	\$2.8 million
Forecasted Budget Deficit (range)	\$0.5 million - \$1.6 million

### **ALTERNATIVES**

#### *Alternative 1*

That staff be directed to amend the Core Area Wastewater Operations Service Financial Plan to increase the 2025 budget by \$1.6 million due to biosolids management cost variances with such expenditures to be funded from operational reserves.

#### *Alternative 2*

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

### **IMPLICATIONS**

#### *Financial Implications*

The Operational Reserve fund currently holds \$4.8 million (Table 2). At this time, with no further

budget amendments anticipated for the Core Area Wastewater Operations Service, there are sufficient funds available in the reserve to cover the additional operating costs projected for 2025. However, it is important to note that the reserve remains underfunded relative to the Board-approved CRD Operating Reserve Guidelines. Based on the size, scope and scale of the service, the optimal operating reserve balance would be approximately \$9.6 million. Without a planned increase, the reserve will not be a reliable funding source for addressing higher-than-anticipated operating costs.

**Table 2:**

<b>Operating Reserve Schedule</b>						
<b>Operating Reserve Schedule Fund: 1500 Fund Center: 105543</b>	<b>Actual</b>	<b>Budget</b>				
	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>
<b>Core Area Beginning Balance</b>	3,667,473	4,796,965	3,106,559	4,256,559	5,191,559	6,496,559
Planned Purchase	(350,849)	(790,406)	(150,000)	(365,000)	(95,000)	(640,000)
Transfer from Ops Budget	700,000	700,000	900,000	900,000	1,000,000	1,000,000
Transfer to Ops Budget		(1,600,000)				
Additional Transfers from Ops Budget			400,000	400,000	400,000	400,000
Interest Income	268,833					
Deficit/surplus YE	511,508					
<b>Year End Balance</b>	<b>4,796,965</b>	<b>3,106,559</b>	<b>4,256,559</b>	<b>5,191,559</b>	<b>6,496,559</b>	<b>7,256,559</b>

To rebuild the reserve balance, additional transfers to the Operating Reserve will be required over the 2026-2029 period. Staff will review the reserve fund strategy and incorporate these increased transfers into the development of the five-year operating budget. The proposed increase in reserve contributions is expected to impact the service requisition by approximately 1.02% to 1.13% (Table 3).

**Table 3:**

	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>
Current Requisition	4.60%	3.17%	2.29%	2.24%
Projected Requisition	5.73%	4.25%	3.34%	3.26%
<b>Increase in Requisition</b>	<b>1.13%</b>	<b>1.08%</b>	<b>1.05%</b>	<b>1.02%</b>

## **CONCLUSION**

The 2025 operating budget for biosolids management will be exceeded due to greater-than-anticipated reliance on more costly biosolids management options. Staff have identified that up to an additional \$1.6 million is required to fund biosolids beneficial use for the remainder of the year. Staff are working to procure more cost-effective contingency options for biosolids management consistent with Tier 2 of the Capital Regional District's Long-Term Biosolids Management Strategy.

## **RECOMMENDATION**

That staff be directed to amend the Core Area Wastewater Operations Service Financial Plan to increase the 2025 budget by \$1.6 million due to biosolids management cost variances with such expenditures to be funded from operational reserves.

Submitted by:	Rory Tooke, PhD, Senior Manager, Environmental Innovation
Concurrence:	Luisa Jones, MBA, General Manager, Parks, Recreation & Environmental Services
Concurrence:	Alicia Fraser, P. Eng., General Manager, Integrated Water Services
Concurrence:	Nelson Chan, MBA, FCPA, FCMA, Chief Financial Officer, GM Finance & IT
Concurrence:	Ted Robbins, B. Sc., C. Tech., Chief Administrative Officer