
To: Performance and Audit Committee

From: Joe Sass, Director Financial Planning and Operations/Deputy CFO

Date: September 10, 2020 Meeting date: October 8, 2020

Subject: **Semi-Annual Report on GVS&DD Development Cost Charges**

RECOMMENDATION

That the Performance and Audit Committee receive for information the report dated September 10, 2020, titled "Semi-Annual Report on GVS&DD Development Cost Charges".

EXECUTIVE SUMMARY

Total GVS&DD Development Cost Charges (DCC's) collected in the first half of 2020 were \$33.4 million (up from \$23.7 million in the prior year.) This is due primarily to the rate increase which came fully into effect in May 2019 combined with a steady stream of developments in the Region.

Building permit activity in the Region has been relatively consistent over the last 18 months with the January-June 2020 permit value being close to \$5.8 billion. The bulk of this activity has been in the residential development sector (averaging close to 70% of building permit values over the period January 2019 to June 2020) with the balance being generated in the industrial (3%), commercial (21%) and institutional/governmental (6%) development sectors over the same period.

The total GVS&DD DCC's that are currently held in reserve at December 31, 2019 are \$227.6 million.

PURPOSE

To report on the GVS&DD Development Cost Charge (DCC) revenue collections during the first half of 2020 and any implications on their adequacy, as required in the Board's policy.

BACKGROUND

Regional GVS&DD Development Cost Charges (DCC's) are collected on behalf of Metro Vancouver, as set out in the Board approved DCC Bylaw, by member municipalities and remitted twice a year. DCC's are used to fund growth related capital expenditures. Board policy requires that the DCC collections be reported to the Committee on a semi-annual basis. This is the first report for 2020.

DCC COLLECTIONS

A review of the DCC program was completed in 2017 which led to the implementation of new rates effective May 1, 2018 to derive additional future funding of regional growth related requirements. Due to the in-stream provisions within enabling legislation, it was expected that there would likely not be substantive collections at the new rates until later in 2018 or after. The results for the 1st half of 2020 show that the new rates are continuing to impact DCC collections with the expiry of the in-stream provisions as of April 30, 2019. Continued substantial revenue levels are being experienced in all Sewer Areas in 1st half of 2020. DCC revenue collections received by Sewer Area are as follows:

(\$ millions)	Fraser	Lulu	North Shore	Vancouver	Total
2019 1 st half	\$20.325	\$0.824	\$0.360	\$2.178	\$23.687
2019 2 nd half	\$29.594	\$1.124	\$1.013	\$4.821	\$36.552
2020 1 st half	\$26.307	\$2.145	\$1.186	\$3.799	\$33.437

Each year, the sewerage growth capital projects that are undertaken are generally funded through long term debt financing utilizing a 15-year amortization period, for which the DCC's received are used to pay the principal portion of the borrowing. Recent amendments to the GVS&DD Cost Apportionment Bylaw 283, 2014 allow direct application of DCC's to fund growth infrastructure projects with some direct applications of DCCs funding being included in the 2020 approved budget.

Excess DCC collections are maintained as deferred revenues for future application to the sewerage growth projects as required. The DCC deferred revenue balances as at December 31, 2019 totaled \$227.6 million and are broken down by Sewer Area as follows:

Fraser Sewer Area - \$147.6 million
Lulu Island Sewer Area - \$24.5 million
North Shore Sewer Area - \$10.9 million
Vancouver Sewer Area - \$44.6 million

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

The DCC program was established pursuant to the concept of "Development Pays for Growth". Should the collections be inadequate to fund the Sewerage growth related projects, the funding burden would default to Sewer levies collected from the GVS&DD member municipalities.

SUMMARY / CONCLUSION

DCC collections for the first half of 2020 were \$33.437 million. DCC's received are used to pay for growth related GVS&DD capital projects. As the requirement for capital projects related to growth is substantial and continues to grow, a review of the DCC program rates was completed in 2017 which resulted in rates increasing effective May 1, 2018 thereby ensuring the long term adequacy of program funds for future growth capital requirements. With the expiry of the in-stream provisions as of April 30, 2019, the DCC collection levels have been steadily climbing last year and into the current year and continue to exhibit the impacts of the higher DCC rates alongside a consistent level of development activity in the Region in all Sewer Areas through 2020 the 1st half. The review of GVS&DD DCC rates is currently underway and will be completed in 2021.

To: Zero Waste Committee

From: Terry Fulton, Project Engineer, Solid Waste Services

Date: October 9, 2020 Meeting Date: October 16, 2020

Subject: **Waste Composition Program Plan**

RECOMMENDATION

That the Zero Waste Committee receive for information the report dated October 9, 2020 titled "Waste Composition Program Plan".

EXECUTIVE SUMMARY

Metro Vancouver monitors waste composition annually to obtain valuable estimates of the types and quantities of material disposed in the region. Metro Vancouver is proposing a waste composition schedule to align with and provide baseline data for Metro Vancouver's new solid waste management plan, while building upon existing waste composition data. Under the new schedule, full-scale waste composition studies and studies focusing on the multi-family and commercial/institutional sectors, which represent the greatest opportunities for increasing recycling, would be conducted annually for the next three years during the solid waste management plan development process. Studies would be completed every other year thereafter. A consistent waste composition study schedule will allow for effective monitoring of trends in waste disposal for all types of waste generators.

PURPOSE

The purpose of this report is to establish a plan for annual waste composition studies that identifies specific sectors to target on a set schedule and creates a baseline of data to help inform Metro Vancouver's new solid waste management plan.

BACKGROUND

Metro Vancouver monitors the composition of some elements of the municipal solid waste stream annually. Currently, a full-scale waste composition study is conducted every two years and a focused, sector-specific study is completed in years without a full-scale study. This report outlines a schedule for waste composition studies that aligns with the upcoming solid waste management plan review to ensure consistent and reproducible updates to regional waste composition estimates.

WASTE COMPOSITION PROGRAM PLAN

Waste composition analysis helps gauge the progress of various waste reduction and recycling initiatives, identify materials for future programs, and evaluate trends in material composition over time. Metro Vancouver's waste composition data is valuable not only for Solid Waste Services, but also for other Metro Vancouver departments, local governments, the provincial government, external agencies and businesses. A typical waste composition report published on Metro Vancouver's web page is downloaded up to 6,500 times not only locally, but also by users in jurisdictions such as Toronto, San Francisco and Melbourne.

The following schedule will provide periodic composition estimates on key sectors. The schedule will be reviewed annually and updated based on current needs and priorities.

Type of Study	Description	Frequency
Full-scale	Includes samples from all sectors received at Regional Facilities	Annually
Multi-family	Focuses on apartment and townhome waste sampled directly from participating buildings	Annually for three years, then every two years
Commercial/Institutional	Focuses on business waste sampled directly from participating businesses	Annually for three years, then every two years
Construction & Demolition	Visually estimates composition of large construction and demolition loads received at regional landfills	Every three years

The waste composition monitoring schedule has been reviewed with municipal staff through the Regional Engineers Solid Waste Subcommittee.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

Waste composition monitoring program is ongoing and is included in the Solid Waste Services annual operating budget. The waste composition monitoring plan would not require any changes to the existing budget.

CONCLUSION

The waste composition monitoring plan provides a consistent approach to obtain valuable data used for planning purposes. It builds upon existing waste composition data to facilitate continued accountability and demonstrable progress in waste reduction and recycling initiatives.

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To: Zero Waste Committee

From: Lynne Vidler, Senior Project Engineer, Solid Waste Operations, Solid Waste Services

Date: October 9, 2020 Meeting Date: October 16, 2020

Subject: **Solid Waste Services Capital Program Expenditure Update as of August 31, 2020**

RECOMMENDATION

That the Zero Waste Committee receive for information the report dated October 9, 2020, titled "Solid Waste Services Capital Program Expenditure Update as of August 31, 2020".

EXECUTIVE SUMMARY

The capital expenditure reporting process as approved by the Board provides for regular status reports on capital expenditures three times per year. This is the second report for 2020 which includes the overall capital program for Solid Waste Services with a multi-year view of capital projects and the actual capital spending for the 2020 fiscal year to August 31, 2020 compared to the prorated annual budget. To date in 2020, the annual capital expenditures for Solid Waste Services are \$22.3 million compared to a prorated Capital Budget of \$59.0 million.

Forecasted expenditures for the current Solid Waste Services capital program remain within the approved budgets through to completion.

PURPOSE

The purpose of this report is to provide the Zero Waste Committee with an update on the status of the Solid Waste Services capital program and financial performance for the 2020 fiscal year to August 31, 2020.

BACKGROUND

The capital expenditure reporting process as approved by the Board provides for regular status reports on capital expenditures with interim reports sent to the Water, Liquid Waste, Zero Waste, and Performance and Audit Committees, in July and October, with a final year-end report to the Committees and the Boards in April of each year.

This is the second in a series of three reports for 2020 and looks at the overall capital program for Solid Waste Services with a multi-year view of capital projects and the actual capital spending for the 2020 fiscal year to August 31, 2020 compared to the prorated annual budget.

2020 CAPITAL EXPENDITURES

Capital Program Funding

The capital spending for Solid Waste Services is funded through the Solid Waste Services Operating Budget by a combination of contribution to capital (pay-as-you-go funding) and debt service costs, (principal and interest payments) which is generated annually from the regional ratepayers through tipping fees. As a result, the annual impact on the ratepayers is less than the level of budgeted capital expenditures.

OVERALL CAPITAL PROGRAM

The overall capital program for Solid Waste Services includes capital projects which require multiple years to complete. These projects are broken down into various phases such as project definition, pre-design, detailed design and construction. With the completion of each phase, more information is learned for the appropriate costing of subsequent phases.

Solid Waste Services capital projects included in the 2020 to 2024 capital plan are expected to be over budget by \$6.5 million, which is within 1.9% of the total budget. The two projects expected to be over budget are the Waste-to-Energy Facility refuse crane and Coquitlam Landfill pump station, based on updated cost projections to complete these projects. Budget increases are proposed for both projects as part of the 2021-2025 Capital Plan.

Table 1 in Attachment 1 provides a summary of Solid Waste Services capital expenditures for both ongoing and completed projects for the approved 5-year Capital Budget. Completed projects include a summary of actual spending compared to the Board-approved spending limits while the ongoing projects include a summary of projected spending to completion compared to Board-approved spending limits. With the rare exception, projects tend to complete with actual spending below the approved limits predominantly due to savings on budgeted contingency amounts. The majority of projects that have not yet started in 2020 are not scheduled to begin until 2021 or later.

Attachment 2 provides the details behind the summary information including specific capital projects, summary financial information and notes where required. Attachment 3 provides additional status information for some key projects.

2020 CAPITAL PROGRAM PROGRESS

The Metro Vancouver financial planning process includes Board approval of both an annual Operating Budget (operations, contribution to capital and debt service) and an annual Capital Budget for the planned capital infrastructure projects. The annual Capital Budget includes the projected spending for a list of capital projects either continuing or to be started within the calendar year.

In 2020, capital expenditures for Solid Waste Services were \$22.3 million to August 31, 2020 compared to a prorated annual Capital Budget of \$59.0 million, representing an overall expenditure rate of 37.9%. The underspend is primarily due to timing of expenditures for the Coquitlam Transfer Station replacement and the Surrey Recycling and Waste Drop-Off projects. Construction is in progress for the Coquitlam Transfer Station replacement and completion is expected in Spring 2021. The construction contract has now been signed for the Surrey Recycling and Waste Drop-Off with construction expected to be completed by late 2021.

Table 2 in Attachment 1 provides a summary of the 2020 actual capital spending compared to the Board-approved Capital Budget.

Capital Program Impacts from COVID-19

During these unprecedented times of health and economic uncertainty, all departments have been expected to monitor the impacts of the pandemic on their operations. This includes capital program expenditures.

Overall, the impact to the solid waste capital program has largely been schedule related, with few notable impacts to project expenditures confirmed to date. Staff are monitoring impacts on their projects regularly. Any impacts to project schedules or expenditures are included in the respective project section of Attachment 3.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

Capital expenditures are funded internally (pay-as-you-go) and through debt financing. As capital expenditures are incurred, short-term financing is secured and converted twice per year to long-term debt through the Municipal Finance Authority. If capital expenditures are less than budgeted at the end of the year, any surplus, per policy, will be used in future years to fund capital and avoid debt.

CONCLUSION

This is the second in a series of three capital expenditure progress reports for 2020. Solid Waste Services is projecting to be under budget for capital projects ongoing or completed in 2020.

Although the 2020 Solid Waste Services Capital Budget shows a projected underspend, the variance is a result of cash flow timing. Ongoing capital projects are monitored to ensure they remain within total project budgets. Any surplus resulting from a 2020 underspend is used to directly fund capital in 2021 and avoid future borrowing.

Attachments *(Orbit #41136046)*

1. Capital Expenditure Summary – Solid Waste Services
2. Detailed Solid Waste Services Capital Expenditure Summary
3. Solid Waste Services Capital Project Status Information

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Metro Vancouver

Capital Expenditure Summary

Solid Waste Services

As at August 31, 2020

Table 1 – Ongoing and Completed Project Summary

	Total Projected to Completion	Total Budget	Projected Variance
Solid Waste Services			
Ongoing	\$ 247,055,000	\$ 247,800,000	\$ 745,000
Completed	-	-	-
Not Started	100,350,000	100,350,000	-
	\$ 347,405,000	\$ 348,150,000	\$ 745,000

Table 2 – 2020 Capital Spending Summary

	2020 Budget	Prorated Budget to August 2020	Actual Expenditures	
Solid Waste Services				
Infrastructure Opportunity Program	\$ 2,250,000	\$ 1,500,000	\$ 60,577	
Landfills	12,250,000	8,168,000	3,495,055	
Transfer Station System	57,800,000	38,533,000	17,615,098	
Waste to Energy Facility	16,220,000	10,814,000	1,175,724	
	\$ 88,520,000	\$ 59,015,000	\$ 22,346,454	37.9%

Metro Vancouver
Solid Waste Services Capital Expenditures Summary
As of August 31, 2020

Project Name	Project Location	Lifetime					Percent Complete	Status	Project on Schedule?	Note	Comments
		Total Project Budget	Total Expenditures to Date	Remaining Budget	Projected Expenditures	Projected Remaining Budget					
Infrastructure Opportunity Program											
WTE Facility District Heating Opportunities	Burnaby	2,300,000	60,577	2,239,423	2,300,000	-	3%	Ongoing	Y		
		2,300,000	60,577	2,239,423	2,300,000	-					
Landfills											
Alternative Fuel and Recyclables Recovery Centre	Coquitlam	60,000,000	-	60,000,000	60,000,000	-	0%	Not Started	Y		
Coquitlam Landfill Closure	Coquitlam	5,000,000	3,353,091	1,646,909	5,000,000	-	67%	Ongoing	Y		
Coquitlam Landfill East Closure	Coquitlam	5,000,000	-	5,000,000	5,000,000	-	0%	Not Started	Y		Dependent on area development
Coquitlam Landfill Fly Ash Cell 2 Closure Final Cover	Coquitlam	3,200,000	2,131,152	1,068,848	3,200,000	-	67%	Ongoing	Y		
Coquitlam Landfill Gas Collection Upgrades	Coquitlam	3,100,000	2,856,423	243,577	3,100,000	-	92%	Ongoing	Y		
Coquitlam Landfill Gas Collection Upgrades Phase II	Coquitlam	3,600,000	2,064,553	1,535,447	3,600,000	-	57%	Ongoing	Y		
Coquitlam Landfill Lot 3 Development	Coquitlam	5,000,000	-	5,000,000	5,000,000	-	0%	Ongoing	Y		
Coquitlam Landfill Pump Station Upgrade	Coquitlam	600,000	41,007	558,993	600,000	-	7%	Ongoing	Y		Additional budget included in 2021 Capital Plan.
Coquitlam Landfill: Leachate Collection System Grade Realignment	Coquitlam	1,000,000	-	1,000,000	1,000,000	-	0%	Not Started	Y		
		86,500,000	10,446,226	76,053,774	86,500,000	-					
Transfer Station System											
Coquitlam Transfer Station Compactor Replacement	Coquitlam	2,500,000	344,316	2,155,684	2,500,000	-	14%	Ongoing	Y		
Coquitlam Transfer Station Replacement	Coquitlam	77,600,000	44,936,524	32,663,476	77,600,000	-	58%	Ongoing	Y		Facility expected to open in spring 2021
Maple Ridge Transfer Station Upgrades	Maple Ridge	2,000,000	-	2,000,000	2,000,000	-	0%	Not Started	Y		
North Shore Transfer Station Compactor Replacement	North Vancouver	2,500,000	-	2,500,000	2,500,000	-	0%	Not Started	Y		
Surrey Recycling and Waste Drop-Off	Surrey	62,300,000	15,067,529	47,232,471	62,300,000	-	24%	Ongoing	Y		Facility expected to open in late 2021
Surrey Transfer Station Compactor Replacement	Surrey	2,500,000	-	2,500,000	2,500,000	-	0%	Not Started	Y		
		149,400,000	60,348,368	89,051,632	149,400,000	-					
Waste to Energy Facility											
Acid Gas Reduction	Burnaby	41,000,000	450,000	40,550,000	41,000,000	-	1%	Ongoing	Y		Operational Certificate amendment pending
Biosolids Processing	Burnaby	20,500,000	169,260	20,330,740	20,500,000	-	1%	Ongoing	Y		
Boiler Grate and Feed Table Supports Replacement	Burnaby	4,500,000	-	4,500,000	4,500,000	-	0%	Not Started	Y		
Bottom Ash Crane Replacement	Burnaby	1,500,000	-	1,500,000	1,500,000	-	0%	Not Started	Y		
Carbon Silo Replacement	Burnaby	2,400,000	-	2,400,000	2,400,000	-	0%	Not Started	Y		
Feed Hopper/Chute	Burnaby	2,600,000	330,826	2,269,174	2,587,000	13,000	25%	Ongoing	Y		
Feedwater Pump Replacement	Burnaby	1,000,000	284,000	716,000	284,000	716,000	99%	Ongoing	Y	(1)	
Generation Bank Replacement	Burnaby	9,000,000	-	9,000,000	9,000,000	-	0%	Not Started	Y		
Lime Silo Replacement	Burnaby	3,600,000	-	3,600,000	3,600,000	-	0%	Not Started	Y		
Primary Economizer Replacement	Burnaby	5,000,000	-	5,000,000	5,000,000	-	0%	Ongoing	Y		
Refuse Crane	Burnaby	7,000,000	73,539	6,926,461	7,000,000	-	1%	Ongoing	Y		Additional budget included in 2021 Capital Plan.
Second Pass Superheater Replacement	Burnaby	5,500,000	2,954,939	2,545,061	5,484,000	16,000	95%	Ongoing	Y	(1)	
Secondary Economizers Replacement	Burnaby	6,000,000	-	6,000,000	6,000,000	-	0%	Not Started	Y		
Stack Refurbishment	Burnaby	350,000	-	350,000	350,000	-	0%	Not Started	Y		
		109,950,000	4,262,564	105,687,436	109,205,000	745,000					
Grand Total Solid Waste Services		348,150,000	75,117,735	273,032,265	347,405,000	745,000					

Notes:

(1) Contractor authorized expenditure amount

Capital Project Status Information – Solid Waste Services

August 31, 2020

Major GVS&DD solid waste capital projects are proceeding on schedule and within budget. Project details are highlighted below:

Transfer Station Program

- The Coquitlam Transfer Station replacement project construction started in May 2018 with site grading works. The full construction contract was awarded in December 2018. Construction is in progress and approximately 60% complete, with anticipated commissioning of the new transfer station scheduled for spring 2021.
- The Surrey Recycling and Waste Drop - Off project construction contract was executed in early June 2020. Construction began in July 2020 and is expected to take 15 months for completion. Commissioning of the new facility is expected to occur in the fall of 2021.

Landfills Program

- Construction of Phase 2 landfill gas collection system upgrades for the new Coquitlam Transfer Station are in progress. The system has been designed as a combination of an active system at buildings and a passive system over the remainder of the transfer station site. Installation of the active gas wells was completed in 2019. Installation of the passive system along with laterals and header pipes for the active system is anticipated to be completed in late 2020. A new control room at the blower flare station is required for the existing and future system upgrade and is expected to be constructed in 2021.

Waste-to-Energy Program

- The refuse crane replacement project commenced with preliminary engineering on February 14, 2019. The preliminary engineering report identified funding gaps which will be addressed through the 2021 budget cycle.
- The second pass superheater replacement project started on April 11, 2019. The replacement tubing has been received and installed on two boilers during the 2019 fall outages. Installation on the final boiler was completed during the July 2020 outage.
- The feedwater pump replacement project commenced on May 3, 2019. The pump was installed in November 2019 and commissioned in January 2020. Covanta has worked with the pump manufacturer and the pump is now operating at full specifications. Final commissioning work was completed during the July 2020 outage.
- The feed hopper / chute replacement project started on October 28, 2019. Two units will be installed in fall 2020 and one unit in spring 2021.
- The biosolids processing preliminary design project started on October 28, 2019. Preliminary design work will continue through 2020.