

**GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT (GVS&DD)
BOARD OF DIRECTORS**

REGULAR BOARD MEETING

Friday, July 26, 2019

9:00 A.M.

28th Floor Boardroom, 4730 Kingsway, Burnaby, British Columbia

[Membership and Votes](#)

A G E N D A¹

A. ADOPTION OF THE AGENDA

1. July 26, 2019 Regular Meeting Agenda

That the GVS&DD Board adopt the agenda for its regular meeting scheduled for July 26, 2019 as circulated.

B. ADOPTION OF THE MINUTES

1. June 28, 2019 Regular Meeting Minutes

That the GVS&DD Board adopt the minutes for its regular meeting held June 28, 2019 as circulated.

C. DELEGATIONS

D. INVITED PRESENTATIONS

E. CONSENT AGENDA

Note: Directors may adopt in one motion all recommendations appearing on the Consent Agenda or, prior to the vote, request an item be removed from the Consent Agenda for debate or discussion, voting in opposition to a recommendation, or declaring a conflict of interest with an item.

1. PERFORMANCE AND AUDIT COMMITTEE REPORTS

1.1 Appointment of External Auditors

That the GVS&DD Board appoint BDO Canada LLP as external auditors for the fiscal years 2019 to 2023.

¹ Note: Recommendation is shown under each item, where applicable. All Directors vote unless otherwise noted.

2. LIQUID WASTE COMMITTEE REPORTS

2.1 Liquid Waste Services Capital Program Expenditure Update as at April 30, 2019

That the GVS&DD Board receive for information the report dated July 3, 2019, titled "Liquid Waste Services Capital Program Expenditure Update as at April 30, 2019".

2.2 Award of Contract Resulting from Request for Proposal No. 19-011: Annacis Island Wastewater Treatment Plant Trickling Filter Media, Rotary Distributor and Ducting Replacement

That the GVS&DD Board:

- a) approve the award of a contract for an amount of up to \$32,870,400 (exclusive of taxes) to Maple Reinders Constructors Ltd., resulting from Request for Proposal No. 19-011: Annacis Island Wastewater Treatment Plant Trickling Filter Media, Rotary Distributor and Ducting Replacement; and
- b) authorize the Commissioner and the Corporate Officer to execute the contract.

2.3 Regional Sewerage Services – Village of Anmore

That the GVS&DD Board direct staff to review the *GVS&DD Cost Apportionment Bylaw No. 283, 2014* with respect to how growth charges are calculated and apportioned to Anmore.

3. ZERO WASTE COMMITTEE REPORTS

3.1 Organics and Paid Recyclables Management at Metro Vancouver Transfer Stations

That the GVS&DD Board:

- a) approve setting tipping fees for paid recyclables to recover operational costs, except where the risk of illegal dumping or other negative impacts exist, alternate fees structures will be considered;
- b) approve providing municipal organics transfer services upon request and under contract with full cost recovery;
- c) direct staff to initiate procurement for processing services for municipal organics from the North Shore Transfer Station; and
- d) direct staff to develop a business case for the provision of commercial organics transfer services at Metro Vancouver transfer stations and report back on options.

3.2 Initiating Procurement for Bottom Ash Beneficial Use

That the GVS&DD Board direct staff to initiate a procurement process for bottom ash beneficial use.

3.3 Support for Municipal Jurisdiction to Regulate Single-Use Items

That the GVS&DD Board write a letter to the Province of BC and the Union of British Columbia Municipalities in support of municipal jurisdiction to regulate single use items, as it relates to the June 24, 2019 District of West Vancouver Council resolution.

F. ITEMS REMOVED FROM THE CONSENT AGENDA

G. REPORTS NOT INCLUDED IN CONSENT AGENDA

1. FINANCE AND INTERGOVERNMENT COMMITTEE REPORTS

1.1 Proposed Amendments to GVS&DD Cost Apportionment Bylaw No. 283, 2014

[Recommendation a): simple weighted majority vote.] and

[Recommendation b): 2/3 weighted majority vote.]

That the GVS&DD Board:

- a) give first, second and third reading to *Greater Vancouver Sewerage and Drainage District Cost Apportionment Amending Bylaw No. 328, 2019*; and
- b) pass and finally adopt *Greater Vancouver Sewerage and Drainage District Cost Apportionment Amending Bylaw No. 328, 2019*.

H. MOTIONS FOR WHICH NOTICE HAS BEEN GIVEN

I. OTHER BUSINESS

1. GVS&DD Board Committee Information Items and Delegation Summaries

J. BUSINESS ARISING FROM DELEGATIONS

K. RESOLUTION TO CLOSE MEETING

Note: The Board must state by resolution the basis under section 90 of the Community Charter on which the meeting is being closed. If a member wishes to add an item, the basis must be included below.

That the GVS&DD Board close its regular meeting scheduled for July 26, 2019 pursuant to the *Community Charter* provisions, Section 90 (1) (a), (k) and 90 (2) (b) as follows:

- "90 (1) A part of a board meeting may be closed to the public if the subject matter being considered relates to or is one or more of the following:
- (a) personal information about an identifiable individual who holds or is being considered for a position as an officer, employee or agent of the regional district or another position appointed by the regional district;
 - (k) negotiations and related discussions respecting the proposed provision of a regional district service that are at their preliminary stages and that, in the view of the board or committee, could reasonably be expected to harm the interests of the regional district if they were held in public; and
- 90 (2) A part of a meeting must be closed to the public if the subject matter being considered relates to one or more of the following:
- (b) the consideration of information received and held in confidence relating to negotiations between the regional district and a provincial government or the federal government or both, or between a provincial government or the federal government or both and a third party."

L. RISE AND REPORT (Items Released from Closed Meeting)

M. ADJOURNMENT/CONCLUSION

That the GVS&DD Board adjourn/conclude its regular meeting of July 26, 2019.

**GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
BOARD OF DIRECTORS**

Minutes of the Regular Meeting of the Greater Vancouver Sewerage and Drainage District (GVS&DD) Board of Directors held at 9:11 a.m. on Friday, June 28, 2019 in the 28th Floor Boardroom, 4730 Kingsway, Burnaby, British Columbia.

MEMBERS PRESENT:

Burnaby, Chair, Director Sav Dhaliwal
 North Vancouver City, Vice Chair Director
 Linda Buchanan
 Burnaby, Director Pietro Calendino
 Burnaby, Director Mike Hurley
 Coquitlam, Director Craig Hodge
 Coquitlam, Director Richard Stewart
 Delta, Director George Harvie
 Electoral Area A, Director Jen McCutcheon
 Langley City, Alternate Director Gayle Martin for
 Val van den Broek
 Langley Township, Alternate Director Petrina
 Arnason for Jack Froese
 Langley Township, Director Kim Richter
 New Westminster, Director Jonathan Côté
 North Vancouver District, Director Lisa Muri
 Pitt Meadows, Alternate Director Tracy Miyashita
 for Bill Dingwall
 Port Coquitlam, Director Brad West
 Port Moody, Alternate Director Hunter Madsen
 for Rob Vagramov

Richmond, Director Malcolm Brodie
 Richmond, Director Harold Steves
 Surrey, Director Doug Elford
 Surrey, Director Laurie Guerra
 Surrey, Director Jack Singh Hundial
 Surrey, Director Brenda Locke
 Surrey, Director Doug McCallum
 Surrey, Director Steven Pettigrew
 Vancouver, Director Christine Boyle
 Vancouver, Director Adriane Carr
 Vancouver, Director Melissa De Genova
 Vancouver, Director Lisa Dominato
 Vancouver, Alternate Director Pete Fry for
 Kennedy Stewart
 Vancouver, Director Colleen Hardwick
 Vancouver, Director Michael Wiebe
 West Vancouver, Director Mary-Ann Booth
 White Rock, Director Darryl Walker
 Commissioner Carol Mason (Non-voting member)

MEMBERS ABSENT:

Delta, Director Lois Jackson

Maple Ridge, Director Mike Morden

STAFF PRESENT:

Janis Knaupp, Legislative Services Coordinator, Board and Information Services
 Chris Plagnol, Corporate Officer

A. ADOPTION OF THE AGENDA

1. June 28, 2019 Regular Meeting Agenda

It was MOVED and SECONDED

That the GVS&DD Board:

- a) amend the agenda for its regular meeting scheduled for June 28, 2019 by:
 - i. varying the order of the agenda to consider Section K. Resolution to Close Meeting, prior to Section B. Adoption of the Minutes;
 - ii. adding on-table replacement page 25 Item E1.4 Award of a Contract Resulting from Request for Proposal (RFP) No. 19-007: Northwest Langley Wastewater Treatment Plant – Design and Construction Engineering Services; and
- b) adopt the agenda as amended.

CARRIED

Agenda Varied

Pursuant to Item A.1, the order of the agenda was varied to consider Section K. Resolution to Close Meeting at this point.

K. RESOLUTION TO CLOSE MEETING

It was MOVED and SECONDED

That the GVS&DD Board close its regular meeting scheduled for June 28, 2019 pursuant to the *Community Charter* provisions, Section 90 (1) (g) and (k) as follows:

- “90 (1) A part of a board meeting may be closed to the public if the subject matter being considered relates to or is one or more of the following:
- (g) litigation or potential litigation affecting the regional district; and
 - (k) negotiations and related discussions respecting the proposed provision of a regional district service that are at their preliminary stages and that, in the view of the board or committee, could reasonably be expected to harm the interests of the regional district if they were held in public.”

CARRIED

ADJOURNMENT

The GVS&DD Board adjourned its regular meeting of June 28, 2019 at 9:12 a.m. to convene a closed meeting.

RECONVENE

The GVS&DD Board reconvened its regular meeting of June 28, 2019 at 1:08 p.m. with the following members being in attendance:

MEMBERS PRESENT:

Burnaby, Chair, Director Sav Dhaliwal
North Vancouver City, Vice Chair Director
Linda Buchanan
Burnaby, Director Pietro Calendino
Coquitlam, Director Craig Hodge
Coquitlam, Director Richard Stewart
Delta, Director George Harvie
Electoral Area A, Director Jen McCutcheon
Langley City, Alternate Director Gayle Martin for
Val van den Broek
Langley Township, Alternate Director Petrina
Arnason for Jack Froese
North Vancouver District, Director Lisa Muri
Port Coquitlam, Director Brad West
Richmond, Director Malcolm Brodie
Richmond, Director Harold Steves

Surrey, Director Doug Elford
Surrey, Director Laurie Guerra
Surrey, Director Jack Singh Hundial
Surrey, Director Brenda Locke
Vancouver, Director Christine Boyle
Vancouver, Director Adriane Carr
Vancouver, Director Melissa De Genova
Vancouver, Director Lisa Dominato
Vancouver, Alternate Director Pete Fry for
Kennedy Stewart
Vancouver, Director Colleen Hardwick
Vancouver, Director Michael Wiebe
West Vancouver, Director Mary-Ann Booth
White Rock, Director Darryl Walker
Commissioner Carol Mason (Non-voting member)

MEMBERS ABSENT:

Burnaby, Director Mike Hurley
Delta, Director Lois Jackson
Langley Township, Director Kim Richter
Maple Ridge, Director Mike Morden
New Westminster, Director Jonathan Coté

Pitt Meadows, Director Bill Dingwall
Port Moody, Director Rob Vagramov
Surrey, Director Doug McCallum
Surrey, Director Steven Pettigrew

STAFF PRESENT:

Janis Knaupp, Legislative Services Coordinator, Board and Information Services
Chris Plagnol, Corporate Officer

B. ADOPTION OF THE MINUTES

1. May 24, 2019 Regular Meeting Minutes

It was MOVED and SECONDED

That the GVS&DD Board adopt the minutes for its regular meeting held May 24, 2019 as circulated.

CARRIED

C. DELEGATIONS

No items presented.

D. INVITED PRESENTATIONS

No items presented.

Board Meeting Extension

Members were advised that the meeting of the Board has been in session for four hours from the time the meeting was convened, and is deemed adjourned unless the Board resolves to extend the meeting.

It was MOVED and SECONDED

That the GVS&DD Board extend its meeting of June 28, 2019 beyond four hours pursuant to *Greater Vancouver Regional District Procedure Bylaw 1205, 2014*.

CARRIED

E. CONSENT AGENDA

Conflict of Interest

1:10 p.m. Director Elford declared a conflict of interest with respect to Item E1.1 of the agenda noting he was the bylaw enforcement officer being rescinded, and he temporarily left the meeting.

It was MOVED and SECONDED

That the GVS&DD Board adopt the recommendations contained in the following items presented in the June 28, 2019 GVS&DD Board Consent Agenda:

- 1.1 Board Appointments and Rescindments of Bylaw Enforcement Officers
- 1.2 Biennial Report – Integrated Liquid Waste and Resource Management Plan
- 1.3 Review of Trucked Liquid Waste Provisions of the Sewer Use Bylaw
- 1.4 Award of a Contract Resulting from Request for Proposal (RFP) No. 19-007: Northwest Langley Wastewater Treatment Plant – Design and Construction Engineering Services
- 2.1 Support for a Provincial Single-Use Item Reduction Strategy Aligned with Federal Goals for Reduction of Plastic Waste

CARRIED

The items and recommendations referred to above are as follows:

1.1 Board Appointments and Rescindments of Bylaw Enforcement Officers

Report dated June 6, 2019 from Grant McGillivray, Environmental Control Officer, Planning and Environment, seeking that the GVS&DD Board appoint and rescind appointments of Metro Vancouver and City of Vancouver employees as Board-designated municipal sewage control officers.

Recommendation:

That the GVS&DD Board:

- a) pursuant to the *Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw* and the *Environmental Management Act*:

- i. appoint the following Metro Vancouver employees as municipal sewage control officers: Curtis Wan and Brian Kerin; and
 - ii. rescind the appointments of the following former Metro Vancouver employees as municipal sewage control officers: Alexander Clifford, Jeffrey Gogol, Lynne Bosquet, and Donna Hargreaves; and
 - iii. appoint the following City of Vancouver employees as municipal sewage control officers: Shelley Heinrichs, and Ana Nic Lochlainn; and
 - iv. rescind the appointment of James Smith, former City of Vancouver employee, as a deputy sewage control manager; and
 - v. rescind the appointments of the following former City of Vancouver employees as municipal sewage control officers: Brian Kerin, David Robertson, Douglas Elford, and Vanessa Koo.
- b) pursuant to the *Offence Act* appoint the following staff for the purpose of serving summons under section 28 of the *Offence Act* for alleged violations under *Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw*:
- i. Metro Vancouver employee Brian Kerin; and
 - ii. City of Vancouver employees Shelley Heinrichs and Ana Nic Lochlainn.
- c) pursuant to the *Offence Act* rescind the appointment of former Metro Vancouver employee Donna Hargreaves for the purpose of serving summons under section 28 of the *Offence Act* for alleged violations under *Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw*.

Adopted on Consent

1.2 **Biennial Report – Integrated Liquid Waste and Resource Management Plan**

Report dated May 28, 2019 from Robert Hicks, Senior Engineer, Policy Planning and Analysis, Liquid Waste Services, seeking GVS&DD Board approval of the “Biennial Report 2017-2018: Integrated Liquid Waste and Resource Management: A Liquid Waste Management Plan for the Greater Vancouver Sewerage and Drainage District and Member Municipalities”, dated May 28, 2019, for submission to the BC Ministry of Environment and Climate Change Strategy in accordance with the requirements of the Metro Vancouver’s *Integrated Liquid Waste and Resource Management Plan*.

Recommendation:

That the GVS&DD Board approve the “Biennial Report 2017-2018”, dated May 28, 2019 and direct staff to:

- a) submit the “Biennial Report: 2017-2018”, dated May 28, 2019, to the Ministry of Environment and Climate Change Strategy in accordance with the requirements of the *Integrated Liquid Waste and Resource Management Plan*; and
- b) post the “Biennial Report: 2017-2018” on the Metro Vancouver website and arrange for the Liquid Waste Committee to receive comments and submissions on the *Integrated Liquid Waste and Resource Management Plan* progress, as described in the Biennial Report, at the September 19, 2019 meeting.

Adopted on Consent

1.3 Review of Trucked Liquid Waste Provisions of the Sewer Use Bylaw

Report dated May 28, 2019 from Linda Parkinson, Source Control Program Manager, Liquid Waste Services, seeking GVS&DD Board endorsement to review *Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw No. 299, 2007* and to initiate public engagement on the Bylaw review with respect to trucked liquid waste provisions.

Recommendation:

That the GVS&DD Board initiate a review of the trucked liquid waste provisions of the Sewer Use Bylaw, as presented in the report dated May 28, 2019, titled "Review of Trucked Liquid Waste Provisions of the Sewer Use Bylaw".

Adopted on Consent

1.4 Award of a Contract Resulting from Request for Proposal (RFP) No. 19-007: Northwest Langley Wastewater Treatment Plant – Design and Construction Engineering Services

Report dated June 5, 2019 from Roy Moulder, Director, Purchasing and Risk Management, Financial Services and Paul Wilting, Program Manager, Northwest Langley Wastewater Treatment Projects, Liquid Waste Services, advising the GVS&DD Board of the results of RFP No. 19-007: Northwest Langley Wastewater Treatment Plant – Design and Construction Engineering Services, and recommending the Board award the contract for Phases A and B, for an amount of up to \$35,327,087 (exclusive of taxes), to CH2M Hill Canada Limited.

On-table replacement page 2 of the report was distributed to members and is retained with the June 28, 2019 GVS&DD Board agenda.

Recommendation:

That the GVS&DD Board:

- a) approve the award of a contract for an amount of up to \$35,327,087 (exclusive of taxes) to CH2M Hill Canada Limited for Phase A, Indicative Design Revalidation and Phase B, Detailed Design resulting from Request for Proposal (RFP) No. 19-007 Northwest Langley Wastewater Treatment Plant – Design and Construction Engineering Services; and
- b) authorize the Commissioner and the Corporate Officer to execute the contract.

Adopted on Consent

2.1 Support for a Provincial Single-Use Item Reduction Strategy Aligned with Federal Goals for Reduction of Plastic Waste

Report dated June 14, 2019 from the Zero Waste Committee recommending that the GVS&DD Board write a letter to the Province in BC in support of the development of a Provincial Single-Use Item Reduction Strategy, aligned with the Federal government's recent goals for reduction of plastic waste, as requested by the City of Vancouver.

Recommendation:

That the GVS&DD Board write a letter to the Province of BC in support of the development of a Provincial Single-Use Item Reduction Strategy, aligned with the Federal government's recent goals for reduction of plastic waste, as requested by the City of Vancouver in correspondence dated May 14, 2019.

Adopted on Consent

1:10 p.m. Director Elford returned to the meeting.

F. ITEMS REMOVED FROM THE CONSENT AGENDA

No items presented.

G. REPORTS NOT INCLUDED IN CONSENT AGENDA

No items presented.

H. MOTIONS FOR WHICH NOTICE HAS BEEN GIVEN

1. Wastewater Treatment Plants – Tertiary Treatment

Director Lois Jackson, Delta, provided the following Notice of Motion on May 24, 2019 for the Board's consideration:

"That the GVS&DD Board request staff to provide a presentation on the region's wastewater treatment plants in terms of tertiary treatment and cost benefit considerations."

The sponsor of the Notice of Motion was not present and the Board agreed that sufficient information had been provided and the presentation was no longer required.

I. OTHER BUSINESS

1. GVS&DD Board Committee Information Items and Delegation Summaries

It was MOVED and SECONDED

That the GVS&DD Board receive for information the GVS&DD Board Committee Information Items and Delegation Summaries, dated June 28, 2019.

CARRIED

J. BUSINESS ARISING FROM DELEGATIONS

No items presented.

K. RESOLUTION TO CLOSE MEETING

This item was previously considered.

L. RISE AND REPORT (Items Released from Closed Meeting)

No items presented.

M. ADJOURNMENT/CONCLUSION

It was MOVED and SECONDED

That the GVS&DD Board conclude its regular meeting of June 28, 2019.

CARRIED

(Time: 1:12 p.m.)

CERTIFIED CORRECT

Chris Plagnol, Corporate Officer

Sav Dhaliwal, Chair

To: Performance and Audit Committee

From: Dean Rear, Director, Financial Planning & Operations

Date: June 25, 2019

Meeting Date: July 4, 2019

Subject: **Appointment of External Auditors**

RECOMMENDATION

That the MVRD, GVS&DD, GVWD and MVHC Boards appoint BDO Canada LLP as external auditors for the fiscal years 2019 to 2023.

PURPOSE

This report is to advise the Board(s) of the results of Request for Proposal (RFP) No. 19-096: External Audit Services and to recommend the appointment of the highest ranked proponent, BDO Canada LLP.

BACKGROUND

Legislation requires that Metro Vancouver's financial statements be audited annually by an external audit firm appointed by the Boards of the respective entities. The contract with our incumbent external auditors, BDO Canada LLP, expired with the completion of the financial statement audit for the 2018 fiscal year. In May, a process to award a new five-year contract for external audit services was commenced.

REQUEST FOR PROPOSAL PROCESS

As a result of Request for Proposal (RFP) No. 19-096 for External Audit Services for 2019 to 2023 that was publically advertised on Metro Vancouver's and BC Bid websites, three (3) firms responded prior to the closing date on May 31, 2019.

The evaluation criteria stipulated in the RFP were 1) Qualifications and Experience of both the audit firm and the proposed audit team, 2) Audit Methodology and 3) Financial. A panel of three staff in the Financial Services Department evaluated the RFP proposals and scored each based on the above criteria, the results of which are shown below:

Proponent	Total Proposed Fees over Five Years (Exclusive of taxes)
BDO Canada LLP	\$617,465.00
PricewaterhouseCoopers LLP	\$593,626.00
KPMG LLP	\$627,385.00

The top ranked proponent, BDO Canada LLP, is very experienced in public sector audit engagements, which requires specialized knowledge, is currently the external auditor for 9 of our member municipalities and has been the external auditor for Metro Vancouver for the past five fiscal years.

The differentiating factor between the three firms was primarily in experience of the proposed audit team and in conducting audits of similar size and complexity within the BC local government sector. The panel feels that BDO's experience and approach will provide Metro Vancouver with best value and a more efficient audit which will reduce the effort required by Metro Vancouver's staff.

As is allowed for under the terms of the RFP and following the proposal evaluation, a meeting was held with the highest ranked proponent, BDO Canada LLP to confirm the scope of work and allocation of resources. Through this negotiation with the proponent, the evaluation team was able to identify reduction in annual hours which resulted in a cost reduction of \$25,000.00 (exclusive of taxes) over the five (5) year term. The recommended award value for the five (5) year term is \$592,465.00 (exclusive of taxes).

ALTERNATIVES

1. That the MVRD, GVS&DD, GVWD and MVHC Boards appoint BDO Canada LLP as external auditors for the fiscal years 2019 to 2023.
2. That the Performance and Audit Committee receive the report titled "Appointment of External Auditors" dated June 25, 2019 and provide alternate direction.

FINANCIAL IMPLICATIONS

Should the respective Boards choose Alternative 1, a contract will be awarded to BDO Canada LLP., for an amount of up to \$592,465.00 (exclusive of taxes) for External Audit Services. This amount includes a one-time estimated fee to ensure the organization is compliant with new PSAS requirement for Asset Retirement Obligations of \$21,665. For comparison, total fixed price fees over the past five years of the prior contract for external audit services were \$529,390.00.

SUMMARY / CONCLUSION

Metro Vancouver is required to have an audit of its financial statements performed by an external audit firm appointed by the Boards of the respective entities. Request for Proposal (RFP) No. 19-096 for External Audit Services for 2019 to 2023 was advertised on Metro Vancouver's and BC Bid websites. The highest ranked proponent, BDO Canada LLP, is very experienced in public sector audit engagements, which requires specialized knowledge, is currently the external auditor of record for 9 of our member municipalities and has been the external auditor for Metro Vancouver for the past five fiscal years. The fixed fee cost for external audit services provided by BDO Canada LLP over the five-year contract period will be \$592,465.00 (exclusive of taxes).

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To: Liquid Waste Committee

From: Bryan Shoji, Director, Project Delivery, Liquid Waste Services

Date: July 3, 2019 Meeting Date: July 11, 2019

Subject: **Liquid Waste Services Capital Program Expenditure Update as at April 30, 2019**

RECOMMENDATION

That the GVS&DD Board receive for information the report dated July 3, 2019, titled "Liquid Waste Services Capital Program Expenditure Update as at April 30, 2019".

PURPOSE

To report on the status of the Liquid Waste Services' capital program for the period ending April 30, 2019.

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 June/July and October/November, and a final year-end report to the Committees and the GVWD and GVS&DD Boards in April of each year.

This is the first in a series of three reports for 2019 and looks at both the overall capital program for the utilities with a multi-year view of capital projects and the actual capital spending for the 2019 fiscal year in terms of comparison to the annual budget.

2019 CAPITAL EXPENDITURES**Capital Program Funding**

The capital spending for Liquid Waste Services is funded through the Liquid Waste 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. As a result, the annual impact on the ratepayers is significantly less than the level of budgeted capital expenditures.

Overall Capital Program

The overall capital program for Liquid Waste 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.

It is projected that the capital spending on all Liquid Waste capital projects completed in 2019 or ongoing at some point in 2019 will be under budget by \$14.7 million, or within 0.2% of budget.

Table 1 in Attachment 1 provides a summary of Liquid Waste capital expenditures for both ongoing and completed projects. 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.

Attachment 2 provides the details behind the summary information including specific capital projects and their various project phases while Attachment 3 provides additional project status information of some of the key projects included in Attachment 1 – Table 1.

2019 Capital Program Progress

The Metro Vancouver financial planning process included 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 comprises the projected spending for a list of capital projects either continuing or to be started within the calendar year. Projecting the spending on these projects represents somewhat of a timing exercise which is often subject to uncontrollable circumstances. These uncontrollable circumstances are more likely when projects are in certain phases of completion. Where a project is in the definition, pre-design or detailed design phases, it is more likely that a project may be subject to delays from necessary permitting, access, or procurement complexities which will result in a lag in spending. Conversely, when a project is within the construction phase where a contractor is in place and working effectively on site, actual spending is usually very close to budgeted expectations.

In the first four months of 2019, capital expenditures for Liquid Waste Services were \$64.3 million compared to a prorated budget of \$188.4 million. Projecting forward to year end, it is estimated that capital expenditures will be \$335.3 million compared to a total capital budget of \$565.1 million. This underspend projection is primarily due to delays with the North Shore WWTP construction and several projects in the pre-construction phases experiencing resource shortages and third party delays.

Table 2 in Attachment 1 provides a summary of the 2019 actual capital spending compared to the Board approved Capital Budget.

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 for the year, this surplus, per policy, will be used in future years to fund capital and avoid debt.

SUMMARY / CONCLUSION

This is the first in a series of three capital expenditure progress reports for 2019. Liquid Waste Services is projecting to underspend its annual Capital Budget by \$229 million (40%). The variance is primarily due to construction delays with a major project and obtaining third party approvals in a timely manner.

Although the 2019 Liquid Waste Services Capital Budget is projecting a year-end underspend, the variance is a result of cash flow timing. It is projected that in aggregate, ongoing capital projects will be close to or less than the overall budget for that project.

Attachments

1. Liquid Waste Services Capital Expenditure Summary as at April 30, 2019
2. Detailed Capital Expenditure Summary – Liquid Waste Services
3. Liquid Waste Services Capital Project Status Information

30022248

Metro Vancouver

Capital Expenditure Summary

Liquid Waste Services

As at April 30, 2019

Table 1 – Ongoing and Completed Project Summary

	Total Projected to Completion	Total Budget	Projected Variance
Liquid Waste Services			
Ongoing	\$ 6,695,776,000	\$ 6,731,876,000	\$ 36,100,000
Completed	38,612,000	17,229,000	(21,383,000)
Not Started	573,755,000	573,755,000	-
	\$ 7,308,143,000	\$ 7,322,860,000	\$ 14,717,000

Table 2 – 2019 Capital Spending Summary

	2019 Budget	2019 Budget to April 30, 2019	Actual Expenditures to April 30, 2019
Liquid Waste Services			
Infrastructure Growth Capital	\$ 225,350,000	\$ 75,117,000	\$ 44,881,733
Infrastructure Maintenance Capital	83,815,000	27,938,000	9,520,098
Infrastructure Resilience Capital	32,200,000	10,733,000	5,124,757
Infrastructure Upgrade – Secondary Treatment	182,100,000	60,700,000	3,342,212
Infrastructure Upgrade Capital	32,000,000	10,667,000	1,030,442
Opportunity Capital	9,600,000	3,200,000	399,007
	\$ 565,065,000	\$ 188,355,000	\$ 64,298,249

		Lifetime									
		Total	Total	Remaining	Projected	Projected	Percent		Project		
Project Name	Project Location	Budget	Expenditures to Date	Budget	Expenditures	Remaining Budget	Complete	Status	Schedule	Note	Comments
Infrastructure Growth Capital											
AIWWTP Site Construction Layout	Delta	600,000	30,933	569,067	600,000	-	5%	Ongoing	N		Slow start to earlier phase.
Albert Street Trunk Sewer	Port Moody	5,550,000	355,243	5,194,757	6,245,000	(695,000)	6%	Ongoing	N		Project costs for future work (Phase 2) are uncertain due to property and adjacent development issues.
Annacis Outfall System	Delta	378,000,000	45,646,536	332,353,464	378,000,000	-	12%	Ongoing	Y		
Annacis Stage 5 Expansion Phase 1 T1 & T2	Delta	243,500,000	207,570,165	35,929,835	243,500,000	-	85%	Ongoing	Y		
Annacis Stage 5 Expansion Phase 2	Delta	22,000,000	12,756,432	9,243,568	22,000,000	-	58%	Ongoing	Y		
Annacis Stage 5 Expansion Phase 2a	Delta	180,000,000	89,999,261	90,000,739	180,000,000	-	50%	Ongoing	Y		
Annacis Stage 5 Expansion Phase 2b	Delta	150,000,000	87,107	149,912,893	150,000,000	-	0%	Ongoing	Y		
Annacis Stage 5 Expansion Phase 2c	Delta	90,000,000	-	90,000,000	90,000,000	-	0%	Not Started	N		Construction anticipated to start in Q1 2020 due to site congestion
Burnaby Lake North Interceptor Cariboo Section	Burnaby	41,000,000	-	41,000,000	41,000,000	-	0%	Not Started	N		Delayed to prioritize the Winston (upstream) section.
Burnaby Lake North Interceptor Winston Section	Burnaby	116,950,000	2,939,002	114,010,998	116,950,000	-	3%	Ongoing	Y		
Burnaby South Slope Interceptor Main Branch	Burnaby	9,500,000	-	9,500,000	9,500,000	-	0%	Not Started	N		Scheduled to start in 2020
Burnaby South Slope Interceptor West Branch Extension	Burnaby	13,200,000	-	13,200,000	13,200,000	-	0%	Not Started	N		Scheduled to start in 2022
Cloverdale PS Upgrade	Surrey	31,100,000	166,487	30,933,513	31,100,000	-	1%	Ongoing	N		Project delayed to confirm scope.
Cloverdale Trunk Sewer Upgrade	Surrey	29,000,000	-	29,000,000	29,000,000	-	0%	Not Started	N		Scheduled to start in 2020
Collingwood Trunk Sewer	Vancouver	5,415,000	5,249,619	165,381	5,615,000	(200,000)	97%	Ongoing	Y		Final restoration resulted in budget exceedance.
Glenbrook Combined Trunk Kingsway Sanitary Section	Burnaby	3,000,000	140,239	2,859,761	3,000,000	-	5%	Ongoing	Y		
Golden Ears Forcemain and River Crossing	Maple Ridge	86,000,000	2,555,785	83,444,215	86,000,000	-	3%	Ongoing	Y		
Golden Ears Pump Station	Maple Ridge	50,200,000	2,596,303	47,603,697	50,200,000	-	5%	Ongoing	Y		
Golden Ears SSO Storage	Maple Ridge	51,500,000	2,827,354	48,672,646	51,500,000	-	5%	Ongoing	Y		
Hastings Sanitary Trunk Sewer	Burnaby	15,031,000	3,035,226	11,995,774	15,031,000	-	20%	Ongoing	Y		
Hastings Sanitary Trunk Sewer No. 2	Burnaby	20,000,000	2,283,880	17,716,120	20,000,000	-	11%	Ongoing	Y		
Hastings-Cassiar Intake Connection	Vancouver	750,000	70,156	679,844	750,000	-	9%	Ongoing	N		Project delayed to confirm scope and consider improved functionality.
Lozells Sanitary Trunk Golf Course Section	Burnaby	27,650,000	-	27,650,000	27,650,000	-	0%	Not Started	N	(3)(4)	Project delayed to confirm scope of replacement and potential alternate alignments.
Lulu Island WWTP Digester No 3	Richmond	53,300,000	45,583	53,254,417	53,300,000	-	0%	Ongoing	N	(4)	Waiting for completion of regional digester capacity study
Marshend Pump Station Capacity Upgrade	Burnaby	10,025,000	447,419	9,577,581	10,025,000	-	4%	Ongoing	Y		
NLWWTP Clarifiers	Langley Township	64,300,000	53,791,064	10,508,936	64,300,000	-	84%	Ongoing	Y		
NLWWTP Ground Improvements	Langley Township	83,000,000	10,148,537	72,851,463	83,000,000	-	12%	Ongoing	Y		
NLWWTP Outfall	Langley Township	159,000,000	-	159,000,000	159,000,000	-	0%	Not Started	N		Scheduled to start in 2020
NLWWTP Property Purchase	Langley Township	12,000,000	-	12,000,000	12,000,000	-	0%	Not Started	N		Scheduled to start in 2021
NLWWTP Stage 1	Langley Township	889,000,000	1,423,522	887,576,478	889,000,000	-	0%	Ongoing	Y		
North Road Trunk Sewer	Coquitlam	7,675,000	684,151	6,990,849	11,675,000	(4,000,000)	9%	Ongoing	Y		Project budget increase requested for 2020.
North Road Trunk Sewer Phase 2	Coquitlam	3,938,000	573,441	3,364,559	3,938,000	-	15%	Ongoing	Y		
North Vancouver Interceptor - Lynn Branch Pre-build	Dist of North Van	3,950,000	281,465	3,668,535	3,950,000	-	7%	Ongoing	Y		
NSI Flow Management	Surrey	42,500,000	3,489,488	39,010,512	42,500,000	-	8%	Ongoing	N		Project is proceeding, but was delayed to improve scope definition and delivery method.
Port Moody PS Upgrade	Port Moody	9,755,000	314,309	9,440,691	9,755,000	-	3%	Ongoing	N		Project delayed to confirm scope
Port Moody South Interceptor Upgrade	Port Moody	3,450,000	-	3,450,000	3,450,000	-	0%	Not Started	N		Scheduled to start in 2020
Rosemary Heights Pressure Sewer Upgrade	Surrey	10,750,000	-	10,750,000	10,750,000	-	0%	Not Started	N		Scheduled to start in 2020
Sapperton Forcemain Pump Station Connections	New Westminster	10,000,000	9,712,237	287,763	10,250,000	(250,000)	97%	Completed	Y		Budget exceeded due to issues during construction.
Sapperton Pump Station	New Westminster	82,003,000	49,951,373	32,051,627	73,003,000	9,000,000	61%	Ongoing	Y	(1)	
South Surrey Interceptor Johnston Section	Surrey	66,176,000	37,799,694	28,376,306	64,991,000	1,185,000	57%	Ongoing	Y		
Sperling PS Increase Pump Capacity	Burnaby	3,150,000	2,170,341	979,659	2,590,000	560,000	69%	Ongoing	Y	(2)	
SSI - King George Section - Odor Control Facility (OCF) and Grit Chamber	Surrey	19,500,000	6,335,542	13,164,458	19,500,000	-	32%	Ongoing	Y		Project is proceeding, but at a slower pace than expected due to contractor issues.
Surrey Central Valley Upgrade	Surrey	60,800,000	-	60,800,000	60,800,000	-	0%	Not Started	N		Scheduled to start in 2021.
		3,164,218,000	555,477,893	2,608,740,107	3,158,618,000	5,600,000					
Infrastructure Maintenance Capital											
AIWWTP Fibre Optic Infrastructure	Delta	1,500,000	51,293	1,448,707	1,500,000	-	3%	Ongoing	Y		
AIWWTP Gravity Thickner and DAF Steel Repair and Recoating	Delta	2,000,000	1,790,916	209,084	1,800,000	200,000	100%	Completed	Y	(2)	
AIWWTP IPS Pump Building Roof Replacement Phase 2	Delta	830,000	-	830,000	830,000	-	0%	Not Started	N	(4)	Deferred to 2024 based on results of detailed condition assessment.
AIWWTP Outfall Repair	Delta	2,300,000	-	2,300,000	2,300,000	-	0%	Not Started	Y		
AIWWTP Replacement of CDAC Equipment in Galleries	Delta	2,895,000	1,151,481	1,743,519	2,895,000	-	40%	Ongoing	Y		
AIWWTP Scheduled 64kV Potential & Current Transformer Replacements	Delta	800,000	-	800,000	800,000	-	0%	Not Started	N		Anticipated to start in Q1 2020.

Project Name	Project Location	Lifetime					Percent Complete	Status	Project Schedule	Note	Comments
		Total Budget	Total Expenditures to Date	Remaining Budget	Projected Expenditures	Projected Remaining Budget					
AIWWTP SCL Flow Balancing	Delta	2,450,000	913,895	1,536,105	2,450,000	-	37%	Ongoing	Y		
AIWWTP SCL Flow Control	Delta	63,500,000	420,846	63,079,154	31,500,000	32,000,000	1%	Ongoing	Y	(1)(2)	
AIWWTP Secondary Effluent Discharge Flowmeter Replacement	Delta	400,000	13,418	386,582	400,000	-	3%	Ongoing	N		Design anticipated to start in Q1 2020
AIWWTP Spare Trickling Filter Pump & Motor Purchase	Delta	1,950,000	-	1,950,000	1,950,000	-	0%	Not Started	N	(3)	Pump motor purchased this year as spares.
AIWWTP Station Battery Replacement - PHASE 2	Delta	400,000	47,626	352,374	400,000	-	12%	Ongoing	Y		
AIWWTP Trickling Filter Media & Distributor Arms & Ducting Replacement	Delta	57,900,000	292,559	57,607,441	57,900,000	-	1%	Ongoing	Y		
Annacis Island WWTP - CDAC Component Replacement and Upgrade Program	Delta	1,500,000	978,787	521,213	1,500,000	-	65%	Ongoing	Y		
Annacis MCC 80 051, 80 070, 80 071 Replacement	Delta	2,844,000	1,062,510	1,781,490	2,844,000	-	37%	Ongoing	Y		
Annacis Secondary Clarifier Corrosion Repair	Delta	2,534,000	1,941,316	592,684	1,944,000	590,000	100%	Completed	Y	(2)	
Annacis Secondary Clarifier Corrosion Repair and Leveling Phase 2	Delta	22,000,000	7,672,038	14,327,962	22,000,000	-	35%	Ongoing	Y		
Cambie Trunk Sewer Relocation for Translink Millennium Broadway Extension	Vancouver	4,500,000	-	4,500,000	4,500,000	-	0%	Not Started	N		Project scope under review.
Cost Allocation Billing Network (Combined 96 F4)	Regional	5,230,000	5,079,257	150,743	5,230,000	-	97%	Ongoing	Y		
Crescent Beach FM - Replacement	Surrey	21,515,000	774,584	20,740,416	21,515,000	-	4%	Ongoing	Y		
English Bay/Balaclava Outfalls Improvement	Vancouver	900,000	-	900,000	900,000	-	0%	Not Started	N		Scheduled to start in 2021.
Gilbert/Brighthouse Trunk Pressure Sewer Twinning Phase 2	Richmond	50,501,000	16,919,447	33,581,553	50,501,000	-	34%	Ongoing	Y		
Gilbert/Brighthouse Trunk Pressure Sewer Twinning Phase 3	Richmond	44,400,000	1,030,136	43,369,864	44,400,000	-	2%	Ongoing	Y		
Gilbert/Brighthouse Trunk Pressure Sewer Twinning Phase 4	Richmond	41,400,000	574,954	40,825,046	41,400,000	-	1%	Ongoing	Y		
Gilbert/Brighthouse Trunk Pressure Sewer Rehab Phase 5	Richmond	23,200,000	-	23,200,000	23,200,000	-	0%	Not Started	N		Scheduled to start in 2023.
Glen Eagles Force mains Replacement Phase 2	West Vancouver	7,750,000	158,299	7,591,701	7,750,000	-	2%	Ongoing	Y		
Glen Eagles Pump Stations Phase 1	West Vancouver	17,500,000	104,734	17,395,266	17,500,000	-	1%	Ongoing	Y		
Glen Eagles Pump Stations Phase 2	West Vancouver	25,000,000	-	25,000,000	25,000,000	-	0%	Not Started	N		Scheduled to start in 2020 – but is delayed due to the delay in Phase 1 work
Harbour West & East Interceptors Reloc & Protect	Vancouver	19,500,000	-	19,500,000	19,500,000	-	0%	Not Started	Y		
IIWWTP CDAC IPS Control Replacement	Richmond	1,750,000	-	1,750,000	1,750,000	-	0%	Ongoing	Y		
IIWWTP Digester 4 Roof Replacement & Mixing Upgrade	Richmond	24,800,000	11,324,327	13,475,673	24,800,000	-	46%	Ongoing	Y		
IIWWTP HVAC upgrade	Richmond	2,095,000	2,017,702	77,298	2,018,000	77,000	100%	Completed	Y	(2)	
IIWWTP Influent Gate Refurbishment	Richmond	1,350,000	1,250	1,348,750	1,350,000	-	0%	Ongoing	Y		
IIWWTP Maintenance and Administration Building HVAC	Richmond	550,000	442,054	107,946	550,000	-	80%	Ongoing	Y		
IIWWTP MCC/Power Distribution Assess/Replace - Phase 2	Richmond	1,000,000	595,292	404,708	1,000,000	-	60%	Ongoing	Y		
IIWWTP PA-Sed Tank & Gallery Wall Refurbishment	Richmond	1,375,000	-	1,375,000	1,375,000	-	0%	Not Started	N		Anticipate repairs completed by November 2019.
IIWWTP Replacement of CoGen Control System	Richmond	2,470,000	385,422	2,084,578	2,470,000	-	16%	Ongoing	Y		
IIWWTP Sed Tank Trough Replacement	Richmond	1,600,000	1,498,627	101,373	1,600,000	-	94%	Ongoing	Y		
IIWWTP Siphon Chamber Refurbishment	Richmond	2,200,000	-	2,200,000	2,200,000	-	0%	Not Started	N		Project delayed to allow improved coordination of other related works and improve safe operating conditions for work site.
IIWWTP Water Supply	Richmond	6,500,000	78,954	6,421,046	6,500,000	-	1%	Ongoing	N		On hold until YVR realigns Ferguson Rd northward.
Iona Grit System Upgrade	Richmond	8,100,000	7,478,171	621,829	8,100,000	-	92%	Ongoing	Y		
Iona Island Control & Instrumentation Replacement 2011	Richmond	2,750,000	1,478,859	1,271,141	2,750,000	-	54%	Ongoing	Y		
Iona MCC/Power Distribution Assess/Replace 2010	Richmond	953,000	770,838	182,162	953,000	-	81%	Ongoing	Y		
Iona MCC/Power Distribution Assess/Replace Future Years	Richmond	1,965,000	1,304,442	660,558	1,965,000	-	66%	Ongoing	Y		
Iona Solids Handling Upgrade Project	Richmond	30,500,000	29,602,590	897,410	30,500,000	-	97%	Ongoing	Y		
Lions Gate Control and Instrumentation Replacement 2011	West Vancouver	600,000	163,823	436,177	600,000	-	27%	Ongoing	Y		
LIWWTP - Process Waste Drainage (PWD) Replacement	Richmond	600,000	539,096	60,904	600,000	-	90%	Completed	Y		
LIWWTP CCT Isolation Gates	Richmond	2,050,000	24,275	2,025,725	2,050,000	-	1%	Ongoing	Y		
LIWWTP CDAC Component Upgrade	Richmond	360,000	146,627	213,373	360,000	-	41%	Ongoing	Y		
LIWWTP Fibre Optic Infrastructure	Richmond	600,000	91,004	508,996	600,000	-	15%	Ongoing	Y		
LIWWTP High Efficiency Boiler	Richmond	730,000	12,309	717,691	730,000	-	2%	Ongoing	Y		
LIWWTP PA-Sed Tank Refurbishment	Richmond	4,115,000	6,832	4,108,168	4,115,000	-	0%	Ongoing	Y		
Marshend PS Rehab	Burnaby	7,000,000	814,200	6,185,800	7,000,000	-	12%	Ongoing	Y		
New West Interceptor Grit Chamber	New Westminster	8,250,000	214,125	8,035,875	8,250,000	-	3%	Ongoing	Y		
New Westminster Interceptor Repair Columbia St. Section	New Westminster	10,882,000	886,005	9,995,995	10,882,000	-	8%	Ongoing	Y		
NLWWTP Screw Pump Replacement	Langley City	1,550,000	8,053	1,541,947	1,550,000	-	1%	Ongoing	Y		
NSI Rehab or Replacement	Surrey	24,750,000	298,611	24,451,389	24,750,000	-	1%	Ongoing	N		Project delayed to improve scope definition, and coordination with other works.
NWI - Annacis Section 2 Improvement	Delta	45,000,000	104,836	44,895,164	45,000,000	-	0%	Ongoing	N		Project delayed to improve scope definition, and coordination with other works.
NWL WWTP 25 kV Substation Replacement	Langley Township	10,025,000	1,422,622	8,602,378	10,025,000	-	14%	Ongoing	Y		
NWL WWTP CDAC System Hardware Upgrade	Langley Township	1,500,000	1,171,945	328,055	1,500,000	-	78%	Ongoing	Y		
Ocean Park Trunk Manholes Lining	Surrey	550,000	-	550,000	550,000	-	0%	Not Started	N		Scheduled to start in 2021
Royal Ave. Sewer Pump Station (RYA) Building Expansion & Electrical Upgrade	New Westminster	4,218,000	1,013,957	3,204,043	4,218,000	-	24%	Ongoing	Y	(4)	Scope to be reviewed pending final result of hydraulic study
Sewer Relocations and Protections at Fraser Surrey Docks	Surrey	24,200,000	-	24,200,000	24,200,000	-	0%	Not Started	N		
Sewer Relocations and Protections for Pattullo Bridge Replacement Project	New Westminster	7,000,000	-	7,000,000	7,000,000	-	0%	Not Started	N		Scheduled to start in 2020

		Lifetime									
Project Name	Project Location	Total Budget	Total Expenditures to Date	Remaining Budget	Projected Expenditures	Projected Remaining Budget	Percent Complete	Status	Project Schedule	Note	Comments
South Surrey Interceptor Fraser River Crossing Scour Protection	Delta	2,200,000	1,074,649	1,125,351	3,200,000	(1,000,000)	49%	Ongoing	Y		Project over budget due to tender prices higher than expected.
Surrey H2S Control Facility Replacement	Surrey	2,900,000	9,137	2,890,863	2,900,000	-	0%	Ongoing	Y		
Westridge FM Replacement	Burnaby	3,650,000	221,225	3,428,775	3,350,000	300,000	6%	Ongoing	Y		Design work done in house resulting in lower end costs.
Westridge PS 1 & 2 Upgrades	Burnaby	15,950,000	239,908	15,710,092	15,950,000	-	2%	Ongoing	Y		
WWTPs Electrical System Studies & Upgrades	Regional	1,900,000	-	1,900,000	1,900,000	-	0%	Not Started	N		Awaiting completion of AI Stage 5 Ph1 and AI Cogen projects studies.
		697,737,000	106,419,864	591,317,136	665,570,000	32,167,000					
Infrastructure Resilience Capital											
AIWWTP 69 kV Substation Modifications	Delta	8,500,000	-	8,500,000	8,500,000	-	0%	Ongoing	Y		
AIWWTP Automation of Influent Gates	Delta	3,700,000	3,446,231	253,769	3,700,000	-	93%	Ongoing	Y		
AIWWTP Cogeneration Backup Power	Delta	75,003,000	54,621,778	20,381,222	75,003,000	-	73%	Ongoing	N		Schedule slippage due to issues with OEM equipment & KCL supplied chillers
AIWWTP Influent System Remediation	Delta	82,600,000	8,144	82,591,856	82,600,000	-	0%	Ongoing	Y		
AIWWTP PST Area Walkway & Column Remediation	Delta	3,100,000	832,649	2,267,351	3,050,000	50,000	27%	Ongoing	Y		
FSA Easement Acquisition	Regional	1,500,000	1,161,122	338,878	1,500,000	-	77%	Ongoing	Y	(3)	
FSA Sewer Seismic Upgrades Implementation	Regional	187,100,000	550,023	186,549,977	187,100,000	-	0%	Ongoing	Y	(4)	
Highbury Interceptor Air Treatment Facilities	Vancouver	11,500,000	8,583,378	2,916,622	12,000,000	(500,000)	75%	Ongoing	N		\$500K budget shortfall projected due to construction related issues. Project delayed due to contractor issues.
IIWWTP - Biogas Lines Relocation	Richmond	5,780,000	978,495	4,801,505	5,780,000	-	17%	Ongoing	Y		
IIWWTP Standby Diesel Generators	Richmond	8,500,000	-	8,500,000	8,500,000	-	0%	Ongoing	Y		
New CSO Management Gates for New Westminster Interceptor	New Westminster	5,925,000	43,123	5,881,877	5,925,000	-	1%	Ongoing	N	(3)(4)	Consulting Engineer being procured for summer design start.
Ocean Park Trunk Crescent Section (OPC) Pipe Rehabilitation/Replacement	Surrey	4,953,000	114,870	4,838,130	4,953,000	-	2%	Ongoing	N		Project delayed due to protracted property issues.
SSI Sulfide Odour and Corrosion Control	Delta	7,700,000	691,420	7,008,580	7,700,000	-	9%	Ongoing	Y		
VSA Easement Acquisition Program	Vancouver	670,000	458,784	211,216	670,000	-	68%	Ongoing	Y	(3)	
VSA Emergency Backup Power	Vancouver	20,510,000	3,008,283	17,501,717	20,510,000	-	15%	Ongoing	Y		
		427,041,000	74,498,299	352,542,701	427,491,000	(450,000)					
Infrastructure Upgrade - Secondary Treatment Capital											
Iona Secondary Treatment Upgrade	Richmond	1,904,500,000	5,761,091	1,898,738,909	1,904,500,000	-	0%	Ongoing	Y	(5)	
North Shore WWTP Secondary Upgrade and Conveyance	Dist of North Van	777,900,000	34,446,053	743,453,947	777,900,000	-	4%	Ongoing	Y	(5)	
Property Rights	Dist of North Van	-	22,000,000	(22,000,000)	22,000,000	(22,000,000)	100%	Completed	Y		
		2,682,400,000	62,207,145	2,620,192,855	2,704,400,000	(22,000,000)					
Infrastructure Upgrade Capital											
8th Avenue Interceptor Air Treatment Facilities	Vancouver	14,200,000	232,368	13,967,632	14,200,000	-	2%	Ongoing	N	(4)	Pre-design in progress with construction deferred beyond 10 year capital plan.
AIWWTP Ammonia Removal	Delta	112,900,000	735,519	112,164,481	112,900,000	-	1%	Ongoing	Y		
AIWWTP Biosolids Dryer	Delta	14,700,000	-	14,700,000	14,700,000	-	0%	Ongoing	N		Property purchase delayed.
AIWWTP DAF Polymer Building Replacement	Regional	550,000	9,995	540,005	550,000	-	2%	Ongoing	Y		
AIWWTP Electrical Distribution System Protection Control and Monitoring	Delta	2,650,000	-	2,650,000	2,650,000	-	0%	Ongoing	Y		
AIWWTP Replacement of Protective Relays	Delta	3,258,000	1,795,392	1,462,608	3,258,000	-	55%	Ongoing	Y		
AIWWTP Secondary Bypass	Delta	1,725,000	1,449,102	275,898	1,725,000	-	84%	Ongoing	Y		
All WWTPs Power Quality Monitoring & Outage Alarming Network	Regional	2,870,000	900,369	1,969,631	2,870,000	-	31%	Ongoing	Y		
Big Bend Forcemain - Gate Replacement	Richmond	2,680,000	67,091	2,612,909	2,680,000	-	3%	Ongoing	Y		
Combined Sewer Overflow Sampling Station Enhancements	Regional	1,900,000	16,441	1,883,559	1,900,000	-	1%	Ongoing	Y		
FSA Flow Metering Program – Phase 1	Regional	2,700,000	103,060	2,596,940	2,700,000	-	4%	Ongoing	Y		
FSA Wastewater Meter Upgrades	Regional	600,000	414,576	185,424	600,000	-	69%	Ongoing	Y		
Glenbrook Combined Trunk Sewer Separation	New Westminster	74,950,000	45,566	74,904,434	74,950,000	-	0%	Ongoing	Y		Current scope is conceptual level. Construction scheduled to start around 2030 or later.
IIWWTP Biosolids Dewatering Facility	Richmond	61,300,000	2,273,666	59,026,334	61,300,000	-	4%	Ongoing	Y		
IIWWTP Provision of a Redundant 12.5 kV Feeder to Switch House	Richmond	850,000	225,610	624,390	850,000	-	27%	Ongoing	Y		
Lions Gate Sludge Thickener No. 2	West Vancouver	3,380,000	3,307,734	72,266	3,380,000	-	98%	Ongoing	Y		
LIWSA Wastewater Meter Upgrades	Richmond	300,000	76,181	223,819	300,000	-	25%	Ongoing	Y		
LIWWTP Ammonia Removal	Richmond	600,000	199,949	400,051	600,000	-	33%	Ongoing	Y		
LIWWTP Power Reliability	Richmond	5,702,000	316,220	5,385,780	5,702,000	-	6%	Ongoing	Y		
NSA Flow Metering Program – Phase 1	West Vancouver	300,000	-	300,000	300,000	-	0%	Ongoing	Y		
NSSA Wastewater Meter Upgrades	Regional	300,000	63,849	236,151	300,000	-	21%	Ongoing	Y		
Sperling Pump Station Upgrade	Burnaby	7,500,000	7,063,806	436,194	7,500,000	-	94%	Ongoing	Y		

		Lifetime									
Project Name	Project Location	Total	Total	Remaining	Projected	Projected	Percent Complete	Status	Project Schedule	Note	Comments
		Budget	Expenditures to Date	Budget	Expenditures	Remaining Budget					
SSI Influent Control Chamber Repair and Replace Gates	Delta	1,305,000	13,554	1,291,446	1,305,000	-	1%	Ongoing	Y	(3)(4)	
VSA Flow Metering Program – Phase 1	Regional	3,200,000	33,664	3,166,336	3,200,000	-	1%	Ongoing	Y		
VSA Wastewater Meter Upgrades	Vancouver	464,000	300,159	163,841	464,000	-	65%	Ongoing	Y		
		320,884,000	19,643,873	301,240,127	320,884,000	-					
Opportunity Capital											
AIWWTP Hydrothermal Processing Pilot	Delta	8,980,000	12,863	8,967,137	8,980,000	-	0%	Ongoing	Y		
Fraser Sewerage Area Integrated Resource Recovery (IRR) Study	Regional	1,200,000	-	1,200,000	1,200,000	-	0%	Not Started	Y		
LIWWTP Biogas Clean-up Project	Richmond	10,400,000	1,809,093	8,590,907	10,400,000	-	17%	Ongoing	Y		
LIWWTP Pilot Digestion Optimization Facility	Richmond	2,500,000	253,404	2,246,596	3,100,000	(600,000)	10%	Ongoing	Y		Project budget increase requested for 2020.
North Surrey Interceptor - Port Mann Section - Odour Control	Surrey	7,500,000	94,756	7,405,244	7,500,000	-	1%	Ongoing	Y		
		30,580,000	2,170,116	28,409,884	31,180,000	(600,000)					
Grand Total Liquid Waste Services		7,322,860,000	820,417,189	6,502,442,811	7,308,143,000	14,717,000					

- Notes:
- (1) Project will be completed under budget - savings due to competitive pricing.
 - (2) Full contingency not required.
 - (3) Funds will be spent if/when opportunity arises.
 - (4) Project on hold.
 - (5) Separate quarterly status reports for the Secondary Wastewater Treatment Upgrade projects are being provided to the Liquid Waste Committee and Board.

Capital Project Status Information April 30, 2019

GREATER VANCOUVER SEWERAGE & DRAINAGE DISTRICT (Liquid Waste Services)

Major GVS&DD liquid waste capital projects are generally proceeding on schedule and within budget. The following capital program items and exceptions are highlighted:

i) Infrastructure Growth Program

- **FSA – Burnaby Lake North Interceptor** (also known as the Winston Street Sewer) – Phase 1 of the sewer along Lougheed Highway west of Sperling Street is complete. Phase 2 and 3, with diameters of 1050 mm to 1800 mm, involves 2 km of tunneled sewer and 1.2 km of open cut sewer. It is currently under design, and will be located along Winston Street from Sperling to east of Piper Street. The open cut portion of the work is expected to be tendered in mid-2019, with the tunneling to be tendered in 2020. Construction is scheduled to be complete in 2022. Phase 4, which continues to Cariboo Street, will be completed at a later date.
- **FSA – South Surrey Interceptor Johnston Road Section** – This involves approximately 2.2 km of 3 m diameter corrosion resistant sewer, to provide additional capacity to serve Surrey and Langley. Construction of the twinning started in 2015, and is being completed in 5 separate construction contracts. The first two involved approximately 1.1 km of open cut sewer from King George Boulevard to Panorama Drive. The third contract involves 820 m of tunnel and was awarded in April 2018. As of the end of April 2019, all the access shafts and 80% of the tunneling has been completed. It is expected to be substantially complete in the summer of 2019. The last two contracts, involving 220 m of open cut and a large junction chamber, will be tendered later in 2019 and 2020 respectively. Total completion is expected in 2021.
- **FSA – Sapperton Pump Station** – The construction contract was award in September 2016 and is expected to be substantially complete in 2020. Construction is currently 75% complete, with the below grade concrete structure completed. The above grade building, Brunette River foreshore restoration work and electrical work underway.
- **FSA – Annacis Island WWTP Stage 5 Expansion Phase 1** – This work involves expansion of treatment process units including primary sedimentation tanks, secondary clarifiers, solid contact tanks and odour control facilities. The \$253 million construction contract was awarded to Graham and AECON Joint Venture in April 2017. Construction of the Phase 1 main contract is 73% completed and the anticipated substantial completion date is August 2021.
- **FSA – Annacis Island WWTP Outfall** – This project builds a new outfall with increased capacity to support population growth. The 4.2 m diameter outfall will be tunneled at a depth of approximately 40 m, and convey treated effluent approximately 1 km from the Plant to the Fraser River where it will discharge from a 2.5 m diameter, 250 m long diffuser manifold buried in the river bed. Detailed design of the new outfall is complete and Requests for Proposals for construction from prequalified contractors were submitted in December 2018. The construction

contract is scheduled to be awarded on May 24, 2019, and construction will start shortly, with completion by Spring 2024.

- **FSA – Northwest Langley Treatment Projects** – This work involves expansion of the treatment plant from serving 30,000 people to 230,000 people. It also includes a new river crossing, new pump station and SSO storage tank. The estimated construction cost is \$1.3 billion. Award of a \$35M contract for the detailed design of the new treatment plant is scheduled for the June 28, 2019 Board meeting. Design of the pump station and storage tank is nearing completion and should be ready for tendering by the end of June. The river crossing design is approximately 30% complete, with construction tendering projected for spring 2020. Phase 1 ground improvements had some early delays, with the planned May 2019 completion delayed to August 2019. The overall project is currently on schedule.
- **VSA – Hastings Trunk Sewer** – The Hastings Trunk sewer (also known as the Douglas Trunk Sewer) will be constructed to provide additional capacity to support rapid development and population growth in Brentwood Mall and Gilmour areas. The sewer will follow the Halifax and Douglas Road alignment. It will be 1.8 km long and range from 750 mm to 1200 mm in diameter, with a 1 km length constructed using tunneling methods. The first and longest of three tunnel drives has been completed. The work is to be completed in 2020.
- **VSA – Collingwood Trunk Sewer** - The existing sewer will be removed and replaced with a new 750 mm and 900 mm diameter PVC sewer with the total length of 440 meters. The work includes bypassing of all sewage and completion of tie-ins necessary to commission the system. The tender was awarded in May of 2018 and the project is substantially complete. Final paving work planned for May and planting of replacement trees will occur in the Fall.

ii) Infrastructure Maintenance Program

- **LSA – Gilbert Trunk Sewer Twinning** - Construction of the 3.5 km long Phase 1 is complete. The remaining 3 Phases have a total length of 6.5 km consisting of 1.5 m and 1.8 m diameter sewers. Phase 2 is under construction from Blundell to north of Westminster Highway and is approximately 20% complete, with completion projected for early 2020. Phase 4, from Steveston Highway to the Lulu Island WWTP, will be tendered in the second half of 2019 with construction starting in late 2019 or early 2020. Phase 3, which extends from Blundell Road south to the Steveston Highway will be completed last, with construction likely starting in late 2020.
- **VSA – Iona Island WWTP Solids Handling Upgrade** – This project involves improving the existing grit removal and sludge screening systems, increasing sludge thickening capacity, and improving the digester sludge mixing systems. Construction to refurbish the existing sludge thickener was initiated in October 2015 and was completed on schedule by April 2016 and is back in full operation. The construction of the new Screening, Degritting and Thickening facility was initiated in the summer of 2015 and has been in operation since August 2017. The Digester Mixing Upgrade contract started in November 2015, and is expected to be complete by February 2021. Of the four digesters, Digesters No. 2 and No. 4 upgrades are complete and the digesters are back in service. Digester No. 3 is currently in start-up mode, with all construction activity complete. Work on the last and final Digester No. 1 is starting late June and should be complete by February 2021.

- **FSA – Annacis Island WWTP Secondary Clarifier Corrosion Repair** – This project involves replacing 12 secondary clarifier mechanisms that have been damaged by corrosion and are at the end of their service life. The construction contract for this project includes the Secondary Clarifier Flow Control and Secondary Bypass projects which involve the addition of 12 new influent flow balancing gates, and the replacement of 3 existing secondary bypass gates. To date, 7 mechanisms, 3 flow balancing gates and all 3 secondary bypass gates have been replaced. A tender for the remaining 5 mechanism units, and the replacement of the 12 existing effluent launders and weirs, was awarded in March 2019 for construction work in the 2020-2023 timeframe, in coordination with the Stage 5 Expansion construction.
- **FSA – South Surrey Interceptor Fraser River Crossing Scour Protection** – The South Surrey Interceptor crosses the Fraser River just downstream of the Alex Fraser Bridge in three pipes. Erosion of the river bed downstream of the crossing has created a scour hole roughly 20 m deep in the river bed, and placed the sewer crossing at risk. This project involved placing additional rip rap (large rock) on the river bed to stabilize it and prevent further erosion. The work was tendered in December 2018, and awarded in January 2019. Construction was completed in early April, and involved placing about 25,000 tonnes of rock.

iii) Infrastructure Resilience Program

- **FSA – Annacis Island WWTP Cogeneration System** – The objective of this \$75 million resiliency project is to install four new larger capacity cogeneration units (2000 kW each) complemented by two new emergency stand-by diesel generators (3000 kW each) in order to: 1) provide rapid response (< 60 seconds) emergency back-up power in case of BC Hydro utility outages, 2) optimize the use of digester gas produced at the plant, 3) increase the cogeneration capacity, 4) minimize the amount and cost of electricity imported from BC Hydro costs, and 5) minimize digester gas flaring. The project started in Q4 2017 and currently the construction is approximately 95% complete. The new cogeneration engines and diesel gensets are anticipated to be commissioned in Q4 2019 and in service by Q1 2020.
- **VSA – Highbury Interceptor Air Treatment Facilities** – Construction of this odour control station located in Musqueam Park in Vancouver started in February 2018. Construction of the facility is 80% complete and should be completed by the end of 2019.
- **VSA – Emergency Backup Power** - This project involves design, supply and installation of standby emergency backup generators at Chilco, Columbia, Harbour, Hudson, Jervis, Kent and Willingdon pump stations so that in the event of a power failure the stations will remain operating and reduce the risk of a spill. The upgrades for Columbia, Harbour, Hudson, Kent and Willingdon are in design with construction scheduled for the latter half of 2019. The generators for these stations have been purchased and contractor prequalification completed. For the Chilco and Jervis facilities, permitting and planning with the Vancouver Parks Board are still underway prior to start of detailed design phase.

iv) Infrastructure Upgrade Program

- **FSA – Sperling Pump Station** - The Sperling Pump Station Upgrading Project involves the upgrading and expansion of the existing aging and under capacity facility. The construction tender was

awarded to NAC Constructors Ltd., with construction started in February 2017 and currently substantially complete, with only minor deficiencies to be remedied.

- **VSA – Iona Island WWTP Temporary Biosolids Dewatering Facility** – Decommissioning of the four existing digested sludge lagoons and the sludge drying area must occur prior to the construction of the new treatment plant. A mechanical dewatering facility is needed to dewater on-going plant production of biosolids so that they can be transported for beneficial reuse or disposal. The RFP for the design-build of this facility closed in September 2018. Three pre-qualified proposals were received and the proposal considered most advantageous to the Corporation (\$55 million) was approved by the GVS&DD Board for award in April 2019. The design phase of the design-build contract has commenced with an anticipated construction completion date in Q1 2021.

30020599

To: Liquid Waste Committee

From: Roy Moulder, Director, Purchasing and Risk Management, Financial Services
Jeff Chan, Division Manager, Project Delivery, Liquid Waste Services

Date: July 2, 2019 Meeting Date: July 11, 2019

Subject: **Award of Contract Resulting from Request for Proposal No. 19-011: Annacis Island Wastewater Treatment Plant Trickling Filter Media, Rotary Distributor and Ducting Replacement**

RECOMMENDATION

That the GVS&DD Board:

- a) approve the award of a contract for an amount of up to \$32,870,400 (exclusive of taxes) to Maple Reinders Constructors Ltd., resulting from Request for Proposal No. 19-011: Annacis Island Wastewater Treatment Plant Trickling Filter Media, Rotary Distributor and Ducting Replacement; and
 - b) authorize the Commissioner and the Corporate Officer to execute the contract.
-

PURPOSE

This report is to advise the GVS&DD Board of the results of Request for Proposal (RFP) No. 19-011: Annacis Island Wastewater Treatment Plant (AIWWTP) Trickling Filter Media, Rotary Distributor and Ducting Replacement and to recommend award of the contract in an amount of up to \$32,870,400 (exclusive of taxes) to Maple Reinders Constructors Ltd.

BACKGROUND

Pursuant to the *GVS&DD Officers and Delegation Bylaw No. 284, 2014 (Bylaw)* and the *Procurement and Real Property Contracting Authority Policy (Policy)*, procurement contracts which exceed a value of \$5 million require the approval of the GVS&DD Board of Directors.

This report is being brought forward to the Liquid Waste Committee to consider a recommendation to the GVS&DD Board to authorize the award of a contract to install replacement plastic media, rotary distributor and foul odor air (FOA) ducting in two of the four existing trickling filters at the AIWWTP.

PROJECT DESCRIPTION

The four trickling filters at the AIWWTP were constructed as part of the Stage 4 upgrades and have been in service since 1999. The major components of the trickling filters (plastic media, rotary distributor arms, and FOA ducting) are now reaching the end of their service life. The rotary distributor arms and FOA ducting have experienced significant corrosion due to the operating environment, resulting in recent equipment failures requiring emergency maintenance. The plastic media in the four trickling filters are also experiencing various levels of degradation that will eventually impact the performance of the trickling filters.

As a result of Request for Qualifications No. 18-375 that was publicly advertised on Metro Vancouver's and BC Bid websites, five (5) experienced firms were shortlisted and invited to respond

to RFP No. 19-011 for construction services. The RFP closed on April 25, 2019 with four firms submitting proposals as follows:

Table 1: Proponent Submission Pricing

Company	Total Cost (exclusive of taxes)
Maple Reinders Constructors Ltd.	\$31,977,400.00
Pomerleau Inc.	\$35,674,777.50
Graham-Aecon Joint Venture	\$36,337,500.00
Flatiron Constructors Canada Ltd.	\$43,758,500.00

The proposed scope of work consists of the following, to be completed in trickling filters TF1 and TF3:

- Removal and reinstallation of the geodesic domes to provide construction access to the trickling filters
- Refurbishment of the geodesic domes after removal
- Demolition, removal and disposal of the existing rotary distributor, plastic media and FOA ducting
- Refurbishment of the existing concrete liner, interior concrete walls, center column, and trickling filters portion of the effluent channel
- Supply and installation of new plastic media
- Supply and installation of new rotary distributor
- Supply and installation of new FOA ducting

RFP No. 19-011 also includes provisional items as risk mitigation measures for potential construction risks.

The refurbishment work for the first two trickling filters will be completed in two phases; TF1 in 2020 and TF3 in 2021. The refurbishment work on the remaining two trickling filters will be completed under a future separate contract.

The technical component of RFP No. 19-011 was evaluated by staff from Liquid Waste Services and the design consultants. The financial component was evaluated by staff from the Purchasing and Risk Management Division. Maple Reinders Constructors Ltd., was identified as the highest ranked proponent both technically and commercially.

Following identification of the highest ranked proposal, negotiations ensued as allowed for in the RFP.

A summary of the proposal price and negotiation cost items is included in Table 2 below.

Table 2: Proposal Price Breakdown

Item	Description	Cost
1	Part A – Trickling Filter 1	\$19,829,500
2	Part B – Trickling Filter 3	\$7,372,500
3	Part C – Provisional Items	4,775,400
	Total Cost before Negotiation (exclusive of taxes)	\$31,977,400
4	Negotiated Item 1: Electrical Cabling	\$15,000
5	Negotiated Item 2: Mechanical Connections for Media Support Beams	\$140,000
6	Negotiated Item 3: Foul Odor Air Pipe Modifications	\$178,000
7	Negotiated Item 4: Provisional Item Cost Allowance for Construction Sequence & Schedule Change	\$560,000
	Contract Total (exclusive of taxes)	\$ 32,870,400

ALTERNATIVES

1. That the GVS&DD Board:
 - a) approve the award of a contract for an amount of up to \$32,870,400 (exclusive of taxes) to Maple Reinders Constructors Ltd., resulting from Request for Proposal No. 19-011: Annacis Island Wastewater Treatment Plant Trickling Filter Media, Rotary Distributor and Ducting Replacement; and
 - b) authorize the Commissioner and Corporate Officer to execute the contract.
2. That the GVS&DD Board terminate RFP No. 19-011: Annacis Island Wastewater Treatment Plant Trickling Filter Media, Rotary Distributor and Ducting Replacement, and direct staff to report back to the GVS&DD Board with options for an alternate course of action.

FINANCIAL IMPLICATIONS

If the GVS&DD Board approves Alternative 1, a contract will be awarded to Maple Reinders Constructors Ltd., in the amount of up to \$32,870,400 (exclusive of taxes). Maple Reinders Constructors Ltd., is the highest ranked proponent based on the evaluation criteria established in the RFP and also provided the lowest cost proposal.

The total anticipated contract value is \$32,870,400 (exclusive of taxes) and there is sufficient budget in the \$57.9M total project cost presented in the 2019-2023 Financial Plan. Project expenditures in 2019 are expected to be within the amount approved in the 2019 Budget, with 2020 and future year expenditures adjusted in the upcoming 2020 Budget and 2020-2024 Financial Plan to match the anticipated annual expenditures for this project.

Under Alternative 2, staff will need further direction in relation to the project as the delay associated with Alternative 2 is anticipated to pose a substantial risk to the operation of the AIWWTP secondary treatment system and Operational Certificate compliance of the treatment plant.

SUMMARY / CONCLUSION

Request for Proposal No. 19-011 was issued for construction of the Annacis Island Wastewater Treatment Plant Trickling Filter Media, Rotary Distributor and Ducting Replacement. Maple Reinders

Constructors Ltd., has been identified as the highest ranked proponent based on the evaluation criteria established in the RFP and also submitted the lowest cost proposal.

It is recommended that the GVS&DD Board authorize the Commissioner and the Corporate Officer to award and execute a contract with Maple Reinders Constructors Ltd., in the amount of up to \$32,870,400 (excluding taxes).

30251062

To: Liquid Waste Committee

From: Fred Nenninger, Director, Policy, Planning and Analysis, Liquid Waste Services

Date: July 5, 2019 Meeting Date: July 11, 2019

Subject: **Regional Sewerage Services – Village of Anmore**

RECOMMENDATION

That the GVS&DD Board direct staff to review the *GVS&DD Cost Apportionment Bylaw No. 283, 2014* with respect to how growth charges are calculated and apportioned to Anmore.

PURPOSE

To respond to a request from the Liquid Waste Committee for further information on extending the sewerage system to service properties in the Village of Anmore.

BACKGROUND

At the March 29, 2019 GVS&DD Board meeting, the Board received the report titled “Support for the Village of Anmore’s Membership in the Greater Vancouver Sewerage and Drainage District” and endorsed the following motion:

That the GVS&DD Board

- a) support the Village of Anmore’s application to the Province of British Columbia for membership in the Greater Vancouver Sewerage and Drainage District (GVS&DD), and*
- b) agree to provide sewerage services to the Village of Anmore subject to the following conditions:*
 - i. that the Province grants GVS&DD membership to the Village of Anmore;*
 - ii. that the Metro Vancouver Regional District Board resolves that the Village of Anmore’s request for regional sewerage services meets the provisions of Metro 2040: Shaping Our Future;*
 - iii. that the existing agreement between the Village of Anmore, the City of Port Moody and the GVS&DD to service Eagle Mountain Middle School be terminated and the Village of Anmore enter into a servicing agreement with the City of Port Moody to convey Anmore wastewater through Port Moody Infrastructure; and*
 - iv. that an appropriate flow-based billing protocol be developed and implemented to facilitate annual GVS&DD servicing levies.*

At their June 13, 2019 meeting, the Liquid Waste Committee received a delegation from the Village of Anmore that made the following request (see Attachment 1 – Delegation Summary).

On behalf of the 51 property owners and SD43, the Village of Anmore is asking that the Liquid Waste Committee recommend to the GVS&DD Board of Directors that the current servicing agreement not be terminated and be extended to include the new properties being connected at AGE. This is the only fair solution given there are no current opportunities for additional properties within the Village to be connected to the regional

sewerage system, therefore there is no growth. This sewer connection is not being implemented as a result of new development or a community wide change to our rural designation, but to resolve a problem that is affecting the health and well-being of the public, in particular school children attending the adjacent schools.

This report responds to the Liquid Waste Committee's request for further information on the request for extension of the sewerage system to service properties in the Village of Anmore.

ANMORE GREEN ESTATES SEWER SERVICING

Anmore Green Estates is a 51 unit strata property located in the Village of Anmore adjacent to Port Moody and Eagle Mountain Middle School. The site is currently serviced by an on-site treatment system which was permitted by the Ministry of Environment in 1978 (amended in 2002). The property was originally bordered by an undeveloped and sloped forested area. In the early 2000's, and again in 2014, School District 43 developed the adjacent properties to accommodate 2 new schools.

The Ministry of Environment and Climate Change Strategy issued Pollution Abatement Orders in November 2017 and April 2018 after leaching effluent was detected on the school property. In the Orders, Anmore Green Estates was required to implement pollution abatement activities and to retain a professional engineer to prepare a report addressing options for continued on-site disposal.

The subsequent report, submitted to the Ministry, examined multiple options including:

- repairing the existing septic system;
- constructing a tertiary treatment plant;
- pump and haul (trucking) services;
- modifying the groundwater regime; and,
- disposal to the regional sewer system.

The report concluded that *"While the Abatement Order only requires the review of 'on-site disposal' we must bring to the attention that, from a purely Engineering perspective the only solution that is sustainable in all three areas, Social, Environmental and Financial is to tie into the existing Municipal Sewer Collection System adjacent to the development"*. A second engineer, retained to review the findings of the first report, came to a similar conclusion that disposal to the regional sewer system provided *"the least risk to public health and the environment"*.

On January 8, 2019, the Village of Anmore passed the following resolution seeking GVS&DD support for Anmore's application to the Province of BC for membership in the GVS&DD:

That Council:

- d. Request the Greater Vancouver Sewerage and Drainage District Board support the Village of Anmore becoming a member of the Greater Vancouver Sewerage and Drainage District and, subject to becoming a member, expand the sewerage area to include the footprints of the existing 51 homes at Anmore Green estates.*

GVS&DD MEMBERSHIP

The *Greater Vancouver Sewerage & Drainage Act* operates on the principle that members collectively own and operate the system and apportion current and future costs on a cost allocation model determined by the “Greater Vancouver Sewerage and Drainage District Cost Apportionment Bylaw No. 283, 2014”. The Act provides the GVS&DD with all the rights and is subject to all the liabilities of a corporation including the right to exercise and carry out all the powers, rights and duties conferred and imposed by the Act.

To join the GVS&DD, new members are required to pay the incremental infrastructure costs associated with the GVS&DD expanding capacity to meet the demand of the new member. After joining the GVS&DD, paying the upfront servicing costs and assuming all the obligations of membership, new members will also pay the GVS&DD sewer rate based on the formula established in Bylaw No. 283, as amended from time to time.

Unlike the GVWD, which has a Board Policy that has permitted connections on an exception basis to the service without requiring membership, the GVS&DD does not have a similar Board Policy.

GVWD Water Rates for Non-Members Policy

The Greater Vancouver Water District Board Policy has allowed water connections outside of service area boundaries in rare instances on an exception basis. Pursuant to the *GVWD Water Rates for Non-Members Policy*, non-members are required to pay a retail water rate based on the wholesale water rate set annually by the GVWD Board, plus an additional charge of 20%. This additional charge is included to reflect the following costs and obligations which are not incurred or assumed by a non-member of the GVWD:

- **Legal Liabilities of Members.** GVWD members are legally liable for all obligations of the GVWD including debt, risks to infrastructure, legal suits or actions, or spills to the environment. GVWD members are, therefore, subject to additional charges should circumstances arise while non-members are not;
- **Obligations of Members.** GVWD members are obliged to comply with the *GVWD Act* and the plans, policies, authorities, regulations, and bylaws of the GVWD such as the *Drinking Water Management Plan*, the *Regional Water Shortage Response Plan*, and the *GVWD Lawn Sprinkling Regulations*;
- **Upfront Costs of Membership.** To join the GVWD, new members pay the incremental cost associated with the GVWD expanding capacity to meet the demand of the new member. These costs include the initial connections and the expansion of infrastructure required to meet the incremental demand as determined as part of the entry or membership agreement; and
- **Member Commitments.** Non-members do not have the same commitments, interests, obligations and investments in the success of the GVWD as members. In addition, non-members do not contribute to the stature of the GVWD (ability to influence matters of

regional significance) in discussions with other groups and senior governments to the same extent as a member.

The favourable cost of borrowing for the GVWD is the result of the commitment, financial position and stability of its collective membership. Non-members do not contribute to this position despite benefiting from the lower debt service costs included within the wholesale water rate.

GVS&DD COST APPORTIONMENT BYLAW 283, 2014

The GVS&DD cost apportionment funding model varies significantly from the GVWD financial model. Unlike the GVWD which operates as a single water service area and uses a single method of apportioning costs to member jurisdictions, the GVS&DD is separated into four sewerage areas with differing profiles of cost apportionment for each sewer area.

The GVS&DD provides regional sewerage services (conveyance and treatment) to its member municipalities, and apportions costs through an annual levy to each member. The GVS&DD provides sewerage services only to its member jurisdictions with costs levied through the *GVS&DD's Cost Apportionment Bylaw 283, 2014*. The Bylaw establishes the GVS&DD's method of apportioning annual sewerage and drainage expenditures among member municipalities. In each of the GVS&DD's Sewerage Areas, costs are based on three components:

1. Operating Costs
 - Costs associated with day-to-day operation of the regional sewerage system
 - Levy is allocated annually based on flows
2. Non-growth Charges
 - Non-growth charges cover capital expenditures for replacing expired assets of the GVS&DD and are allocated annually based on flows
3. Growth Charges
 - Growth charges cover the capital expenditures for new and expanded assets of the GVS&DD and are apportioned annually through a population based formula defined in the Bylaw
 - Development Cost Charges (DCCs) are normally part of growth charges, but Anmore Green Estates will not be apportioned DCCs as new development is not anticipated on the property.

Currently, all municipalities that receive regional sewerage services from the GVS&DD are members and are subject to the Cost Apportionment Bylaw and annual cost levies. Each member municipality establishes its own process for allocating the GVS&DD levies to its residents.

GVS&DD NON-MEMBER SEWER SERVICE AGREEMENT

In 2010, the Village of Anmore approached the GVS&DD to request sewer services at a new middle school to be constructed within the Village. Due to the constrained site, an on-site treatment system was not considered feasible and the GVS&DD Board agreed to support Anmore's request to provide sewerage services to Eagle Mountain Middle School subject to Anmore becoming a member of the GVS&DD.

In 2014 Anmore requested that the GVS&DD Board reconsider its position of requiring GVS&DD membership and, alternatively, requested that regional sewerage services be provided to the middle

school on an exception basis without requiring Anmore to become a member of the GVS&DD in recognition of *unique present circumstances*. The Board agreed to recognize the school as a regionally significant institution and authorized staff to negotiate and enter into a 25-year sewer services agreement under which the GVS&DD provided regional sewerage services to the school by way of Port Moody's municipal sewer system under a non-member sewer service agreement.

The Board used the *GVWD Water Rates for Non-Members Policy* to guide how an agreement with Anmore and Port Moody could be structured to service a single property on an exception basis. Port Moody agreed to convey Anmore's wastewater to the GVS&DD system, as the GVS&DD does not own any infrastructure within 3 km of Anmore. The agreement avoided the cost for Anmore or the School District to pay for the upfront infrastructure cost to connect directly to the GVS&DD sewerage collection system. The agreement prohibits any additional users or persons to connect through Port Moody to the regional system.

Anmore Green Estates Amendment Agreement (Exception) Request

The current request to amend the Eagle Mountain Middle School agreement to permit a connection from Anmore Green Estates without requiring Anmore to become a member of the GVS&DD differs significantly from the previous request. As noted above, the previous request was granted on an exception basis due to the fact that it was a single property that served a regional benefit and had intergovernmental interests. In this case, the 'exception' is being requested to support a private residential development, inconsistent with the collective principles of GVS&DD membership.

ESTIMATED COST FOR ANMORE MEMBERSHIP IN THE GVS&DD

As presented to the GVS&DD Board in March 2019, the projected GVS&DD costs that would be levied to Anmore in 2020 are approximately \$60,000. By 2023, the estimated annual costs are expected to increase to approximately \$125,000. The increase is primarily due to projected increases in the overall GVS&DD capital budget.

Non-Growth & Operating Costs. As sewer flow meters are unreliable at the low flow volumes expected from Anmore, a formula has been developed with water-use as a proxy for sewer flows. Anmore's operating and non-growth capital sewer charges will be based on 80% of the annual water-use of the serviced properties. The calculation is based on the average annual water-use for Anmore Green Estates and the middle school as supplied to the GVS&DD by Anmore.

Anmore's delegation reported that Anmore Green Estates has agreed to pay for all connection costs, capacity studies and other required costs related to sewer servicing

Growth Costs. Anmore has indicated that they intend to distribute all GVS&DD sewer levy costs to their sewer serviced properties only. The concern raised by the delegation at the last Liquid Waste Committee is that the growth component of the sewer levy allocated to Anmore will place a significant financial burden on Anmore Green Estates property owners due to how the costs will be apportioned within the municipality to only the 51 strata units and the Eagle Mountain middle school.

The Anmore delegation did not agree that the growth levy should apply as there are a fixed number of units within the strata development that have no potential for growth. Anmore's situation is

unusual in that most growth in Anmore will occur outside of the sewer serviced area, unlike most member municipalities where the majority of growth is occurring within the sewer serviced areas. However, it is anticipated that growth-related projects in Anmore will come forward in future years that may require connection to the GVS&DD sewer system, such as the proposed development of the loco Lands.

It should also be noted that while many of the costs associated with membership in the GVS&DD are directly related to the cost of current and future capital and to operations and maintenance, if Anmore does become a member of the GVS&DD, the Liquid Waste Management Plan and associated programs required to be undertaken by Metro Vancouver will apply to both the serviced and non-serviced properties of the Village of Anmore.

LIQUID WASTE MANAGEMENT PLAN REQUIREMENTS

In response to the failed on-site treatment system at Anmore Green Estates, the Province ordered Anmore to develop a Liquid Waste Management Plan (LWMP). In April of this year, Anmore submitted a draft LWMP to the Province. The Province did not approve the plan and extended the deadline for submittal of a Plan to December 31, 2019.

Should Anmore become a member of the GVS&DD, the Province's requirement for Anmore to complete an LWMP will be fulfilled as the GVS&DD's current *Integrated Liquid Waste and Resource Management Plan* (ILWRMP) would apply. The GVS&DD's current ILWRMP offers benefits to all members, urban and rural, including, stormwater management for the protection of streams, source controls, inflow and infiltration management, wastewater treatment, resource recovery, trucked liquid waste management for on-site systems, marina pump-out facilities, greenhouse gas reduction, and biosolids management.

LWMP benefits, targeting stormwater management and stream protection, will ensure that Anmore residents and the region will continue to enjoy healthy productive streams. Also, all Anmore residents employ a trucked liquid waste carrier that has access privileges at regional treatment plants. The region's biosolids management program includes the solids received from urban residents through the trucked liquid waste program.

Along with the ongoing benefits, membership in the GVS&DD will offer Anmore direct involvement in reviewing and updating the ILWRMP as it is revised in the coming years.

OTHER CONSIDERATIONS

Other options available to address the Ministry of Environment's requirement to correct the failed on-site treatment system and to address the impasse on the apportionment of costs between Anmore Green Estates and the Village are provided below.

On-site treatment plant. The first option considers Anmore Green Estates exploring the possibility of engaging engineering services to design and construct a new on-site treatment plant. While it has been suggested that this option is not technically feasible, other areas within the Province have successfully constructed on-site treatment systems where existing systems have failed and regional sewerage systems are not available. The cost of this option is unknown.

Municipal boundary amendment. A second option considers a municipal boundary amendment to include the proposed sewer area, which would include Eagle Mountain middle school and Anmore Green Estates, within the City of Port Moody. In November 2017, the City of Port Moody offered to consider a municipal boundary change to include Anmore Green Estates as part of Port Moody, only if Anmore was interested in this change. Anmore declined this offer and has indicated that it has no plans to extend sewer services to other properties within its municipal boundaries.

GVS&DD cost apportionment bylaw amendment. A third option considers an amendment to the GVS&DD Cost Apportionment Bylaw No. 283 to lessen the impact of the growth charges on properties that are contemplated to be included in the proposed sewer area. The current cost apportionment formula assumes that a sewer area will grow and share in the cost to pay for the service, however, in this situation the sewer benefitting area has no opportunity to grow.

The Board may wish to direct staff to review the cost apportionment bylaw and, in particular, how growth charges are allocated, and report back to the Liquid Waste Committee and GVS&DD Board with options for consideration.

ALTERNATIVES

1. That the GVS&DD Board direct staff to review the *GVS&DD Cost Apportionment Bylaw No. 283, 2014* with respect to how growth charges are calculated and apportioned to Anmore.
2. That the Liquid Waste Committee receive for information the report dated July 5, 2019, titled "Regional Sewerage Services – Village of Anmore".

FINANCIAL IMPLICATIONS

If the Board approves Alternative 1, staff will undertake a review of how the growth charges would be apportioned to Anmore if it becomes a GVS&DD member to determine if the formula is equitable within the context of the principles of membership within the GVS&DD or, alternatively, whether some adjustments to the bylaw may be appropriate.

Under the current bylaw, if Anmore becomes a member of the GVS&DD, annual levied costs for 2020 would be approximately \$60,000. By 2023, the estimated annual costs are expected to be approximately \$125,000, primarily due to projected increases in the GVS&DD capital budget which would only be distributed to Anmore Green Estates and Eagle Mountain middle school.

Under Alternative 2, Anmore will need to consider its options to address the failing on-site treatment system.

SUMMARY / CONCLUSION

On March 3, 2019 the GVS&DD Board resolved to support Anmore's request to the Province for membership in the GVS&DD. On June 13, 2019, the Liquid Waste Committee received a delegation from Anmore requesting that the existing agreement to service the middle school be extended to include the Anmore Green Estates property. This report responds to the Committee's request for further information on extending the sewer system to service properties in Anmore.

In 2014, the GVS&DD Board granted a one-time special situation exception to Anmore and allowed sewer services to be extended to Eagle Mountain Middle School in Anmore through a 3-way servicing agreement with Anmore, Port Moody and the GVS&DD. Due to a failing on-site system, and a Provincial Pollution Abatement Order, Anmore has requested that additional properties be serviced by the sewer system.

As a GVS&DD member, Anmore would receive the required sewer services. Anmore's requirement to complete a Liquid Waste Management Plan will be fulfilled as the GVS&DD's current *Integrated Liquid Waste and Resource Management Plan* would apply to Anmore. Benefits for all Anmore residents that relate to the ILWRMP include stormwater management and stream protection, the GVS&DD's trucked liquid waste and biosolids management program and general liquid waste planning.

To facilitate their membership request, the GVS&DD supplied Anmore with estimated costs for sewer services based on the GVS&DD Cost Allocation Bylaw. As with all GVS&DD members, Anmore will be subject to operations and maintenance, non-growth, and growth charges based on a combination of sewer flows, and population. Anmore's delegation to the Committee reported that Anmore Green Estates has agreed to pay for all connection costs, capacity studies and other required costs related to sewer servicing but feel that the growth levy should not apply as they have a fixed number of units and are not growing.

Staff do not recommended that the GVS&DD Board agree to amend the sewer servicing agreement to service Eagle Mountain middle school, as the extension of sewer services to a non-member municipality to support residential connections is inconsistent with the membership requirements of the GVS&DD Act. However, as a means of finding a solution to the impasse between the strata and the Village of Anmore, staff recommend that the Board approve Alternative 1 and direct staff to undertake a review of how the growth charges would be apportioned to Anmore if it becomes a GVS&DD member to determine if the formula is equitable within the context of the principles of membership within the GVS&DD or, alternatively, whether some adjustments to the bylaw may be appropriate.

Attachment:

1. Village of Anmore Delegation Summary, Metro Vancouver, Liquid Waste Committee dated June 13, 2019

30103886

DELEGATION SUMMARY

METRO VANCOUVER, LIQUID WASTE COMMITTEE
JUNE 13, 2019



In fall 2017, Anmore Green Estates Strata was initially issued a pollution abatement order in relation to reports of leachate from their septic treatment system onto adjacent middle and secondary school properties being reported to the Ministry of Environment and Climate Change Strategy (MOE). The MOE's preferred option to rectify the issue is to connect the 51 properties serviced by the septic treatment system (AGE) to the regional sewerage system.

The Village of Anmore has completed a number of key requirements to move forward with a sewer connection for the AGE properties. Given the Village of Anmore is designated a rural community (as per our Regional Context Statement), is not currently a member of the GVS&DD and does not operate any public sewage treatment facilities, there are a number of agencies that are required to provide approvals; including: Village of Anmore, Province of BC (via Ministry of Municipal Affairs and Housing), City of Port Moody, School District No. 43 (SD43) and Metro Vancouver.

The Village of Anmore amended our Official Community Plan (OCP) on April 9, 2019 to allow for sewer connection for the 51 properties and has received support from Metro Vancouver to become a member of the GVS&DD. At the March 29, 2019 regular meeting of the Board of Directors of the Greater Vancouver Sewerage & Drainage District, the following resolution was passed:

That the GVS&DD Board:

- a) Support the Village of Anmore's application to the Province of British Columbia for membership in the Greater Vancouver Sewerage & Drainage District (GVS&DD), and*
- b) Agree to provide sewerage services to the Village of Anmore subject to the following conditions:*
 - i. That the Province grants GVS&DD membership to the Village of Anmore;*
 - ii. That the Metro Vancouver Regional District Board resolves that the Village of Anmore's request for regional sewerage services meets the provisions of Metro 2040: Shaping Our Future;*
 - iii. That the existing agreement between the Village of Anmore, the City of Port Moody and the GVS&DD to service Eagle Mountain Middle School be terminated and the Village of Anmore enter into a servicing agreement with the City of Port Moody to convey Anmore wastewater through Port Moody infrastructure; and*
 - iv. That appropriate flow-based billing protocol be developed and implemented to facilitate annual GVS&DD servicing levies*

The Village of Anmore has calculated the allocation of the GVS&DD servicing levies by using the last 3 years of water usage data (the Village operates on water meters at each property) to determine the total estimated sewer

flow between the SD43 (Eagle Mountain Middle School) and the 51 properties to be connected (AGE). The allocation is currently 9% SD43 and 91% AGE.

When applied to the Metro Vancouver Fraser Sewerage Area Levy Estimates, as provided by staff at Metro Vancouver, the following is how the annual servicing levies would be allocated:

Metro Vancouver Fraser Sewerage Area Levy Estimates*					
	2019	2020	2021	2022	2023
Non growth					
AGE (91%)	21,352	22,258	23,704	25,460	26,394
SD43 (9%)	2,065	2,152	2,292	2,462	2,552
Total	\$23,417	\$24,410	\$25,996	\$27,922	\$28,946
Growth					
AGE (91%)	32,883	46,149	65,510	86,532	106,131
SD43 (9%)	3,179	4,462	6,334	8,367	10,262
Total	\$36,062	\$50,611	\$71,844	\$94,899	\$116,393
Total annual levy	\$59,479	\$75,021	\$97,840	\$122,821	\$145,339

*as provided November 21, 2018

On a per household basis for AGE, the annual costs for GVS&DD servicing levies alone would rise from an estimated \$1,063 in 2019 to \$2,599 in 2023 (91% of total annual levy/51).

The non-growth levy is attributable to the annual operational costs associated with the regional sewerage system. The growth levy portion contributes to the added needs of the regional system based on required expansion (from regional growth) and new regulatory requirements and is based on the proportion of the Village's overall growth (3 year average) in relation to the rest of the region.

The current servicing agreement between the Village, City of Port Moody and GVS&DD for Eagle Mountain Middle School, does not include the growth levy as part of the annual costs to be paid. Only the non-growth levy is currently charged by the GVS&DD (via the City of Port Moody).

On behalf of the 51 property owners and SD43, the Village of Anmore is asking that the Liquid Waste Committee recommend to the GVS&DD Board of Directors that the current servicing agreement not be terminated and be extended to include the new properties being connected at AGE. This is the only fair solution given there are no current opportunities for additional properties within the Village to be connected to the regional sewerage system, therefore there is no growth. This sewer connection is not being implemented as a result of new development or a community wide change to our rural designation, but to resolve a problem that is affecting the health and well-being of the public, in particular school children attending the adjacent schools.

To: Zero Waste Committee

From: Sarah Evanetz, Division Manager, Solid Waste Programs and Public Involvement,
Solid Waste Services

Date: July 3, 2019 Meeting Date: July 12, 2019

Subject: **Organics and Paid Recyclables Management at Metro Vancouver Transfer Stations**

RECOMMENDATION

That the GVS&DD Board:

- a) approve setting tipping fees for paid recyclables to recover operational costs, except where the risk of illegal dumping or other negative impacts exist, alternate fees structures will be considered;
 - b) approve providing municipal organics transfer services upon request and under contract with full cost recovery;
 - c) direct staff to initiate procurement for processing services for municipal organics from the North Shore Transfer Station; and
 - d) direct staff to develop a business case for the provision of commercial organics transfer services at Metro Vancouver transfer stations and report back on options.
-

PURPOSE

The purpose of this report is to propose a funding and service model for organics and paid recyclables (including yard trimmings, clean wood, new gypsum and mattresses) at Metro Vancouver transfer stations.

BACKGROUND

Since 2017, Metro Vancouver has been working closely with municipal staff on regional organics and paid recyclables management options, and in late 2018 the GVS&DD Board requested staff to report back with a funding approach for paid recyclables. This report, identified in the Zero Waste Committee's work plan, proposes a funding and service model for organics and paid recyclables at Metro Vancouver transfer stations.

RECYCLING SERVICES AT TRANSFER STATIONS

Metro Vancouver provides a full-service transfer station network of recycling and disposal facilities conveniently located for the region's 2.5 million residents. Guided by the recycling goals of the *Integrated Solid Waste and Resource Management Plan*, the facilities provide important recycling services, along with reuse and garbage disposal. In collaboration with other levels of government, member jurisdictions, Extended Producer Responsibility (EPR) programs, not-for-profits, and the private sector, the regional transfer station network helps make the region's solid waste and recycling systems one of the most successful and resilient in North America.

While recyclables such as metal and paper products along with EPR materials can be recycled for free at recycling depots co-located at some transfer stations, other recyclables (including organics, yard

trimmings, clean wood, new gypsum and mattresses) are accepted for a fee. Typically, these recycling fees have been set lower than garbage fees to encourage recycling.

Free Recycling at Recycling Depots at Transfer Stations

Metro Vancouver locates recycling depots at some of its transfer stations, where a range of recycling services, including recyclables such as metal and paper products along with EPR materials such as batteries and electronics, are provided free to residents. The net cost of the recycling depots, after revenues, is paid for by the communities served by the depots. This recycling service diverts over 10,000 tonnes of recyclables a year and is an important element of Metro Vancouver's full-service transfer station model. Residents expect to be able to recycle these items free of charge and the convenient and accessible service at Metro Vancouver facilities helps increase recycling in the region.

Currently, recycling depots are in place at the North Shore and Coquitlam transfer stations. Recycling depots are planned for the new Coquitlam Transfer Station and the Surrey Recycling and Waste Drop-Off Facility.

Paid Recycling

Metro Vancouver provides a range of paid recycling services, such as yard trimmings, clean wood, gypsum and mattresses at all of its transfer stations to promote recycling and improve convenience for customers as recycling options for many of these services are limited across the region. Residents and small businesses such as landscapers rely heavily on this service in their communities. Approximately 65,000 tonnes of paid recyclables are collected at Metro Vancouver transfer stations each year, equivalent to about 10% of all materials collected at transfer stations. Typically, fees for paid recyclables recover operational costs and are set lower than garbage fees.

An exception is mattress fees because recycling costs have increased in the past few years due to limited recycling options. The mattress fee of \$15 does not cover operational costs. Costs are kept low to help reduce illegal dumping. Garbage tipping fees contribute approximately \$1 million a year to mattress recycling costs at regional facilities. Metro Vancouver has written to the Province on a number of occasions requesting an EPR program for mattresses.

The status quo approach would be to continue to provide a range of paid recyclable services at Metro Vancouver transfer stations charging operational costs so a financial incentive exists for recycling over disposal. In cases where risks of illegal dumping or other negative impacts exist, alternate fees structures would be considered.

Organics Recycling

Metro Vancouver's overall diversion rate is 63% with an organics diversion rate of 68% or almost 450,000 tonnes a year. Organics recycling increased by 60% between 2013 and 2017 as a result of municipalities implementing municipal organics programs, private sector hauling partnerships and Metro Vancouver's Organics Disposal Ban. Today, there is very little organics remaining in single family garbage. The greatest opportunity for increasing organics recycling lies in the commercial and multi-family residential sectors.

Metro Vancouver's regulatory and policy framework have supported waste reduction and diversion, private sector investment, economic growth and innovation in the region. Currently, there are a number of facilities licensed by Metro Vancouver under the *Solid Waste and Recyclable Material Regulatory Bylaw No. 181, 1996* receiving yard and food waste in the region. There are also a number of organics processing facilities in other areas of the province.

Most Metro Vancouver municipalities contract for organics processing services directly from processors. The City of Surrey's organics are processed at Surrey Biofuel. The North Shore municipalities deliver municipal organics to the North Shore Transfer Station for processing. Metro Vancouver contracts with Sea-to-Sky Soils in Pemberton to process municipal organics delivered to the North Shore Transfer Station. That contract expires in June 2020.

The significant improvements in organics recycling have not been without challenges such as odour and processing capacity constraints. Prices for organics processing have increased in the past two years. Price and capacity uncertainty have been a significant challenge for municipal budgets, businesses and multi-family residents in the region and puts government and community efforts to increase organics diversion at risk.

Single-Family Organics

Organics transfer services could be provided to municipalities on a full-cost recovery basis. This approach differs from the status quo in that currently municipalities are charged based on the Tipping Fee Bylaw with no contribution to facility fixed costs. A contract approach will provide more planning certainty for Metro Vancouver, member municipalities and processors. Given North Shore municipal organics are already processed at the North Shore Transfer station, under this approach, Metro Vancouver would contract with the North Shore municipalities to provide organics processing services, and then initiate a procurement process for managing the organics. A new contract would replace the current processing contract that expires in June 2020. A shift to full-cost recovery would add approximately \$20 per tonne to the cost of organics management for the North Shore municipalities. North Shore municipalities' costs would then align with costs for a number of other municipalities that directly contract for services.

Commercial Organics

To respond to the processing challenges in the commercial and multi-family sectors, a business case could be developed for the provision of commercial organics transfer services at Metro Vancouver transfer stations. As part of the business case, generators, private sector haulers and processors would be engaged on assessing the need for the service, expected costs, and contracting options. Similar to Metro Vancouver's contingency disposal contracts, Metro Vancouver could enter into contracts with organics processors to transfer commercial organics from Metro Vancouver transfer stations to processors in-region or elsewhere in the province.

Longer-term Options

Metro Vancouver development of organics processing facilities could provide benefits through economies of scale and assurance of high quality infrastructure. Currently, Metro Vancouver directly manages a relatively small portion of the region's organics, and as such facility development would likely be expensive and create substantial risk for the region. If Metro Vancouver enters into contracts

with the North Shore municipalities to process municipally collected organics, Metro Vancouver with those municipalities could explore longer term options. If other municipalities enter into contracts with Metro Vancouver to process organics and substantial commercial organics are received at Metro Vancouver Transfer Stations, more opportunities for facility development would be possible.

A range of longer term facility development options exist. One option if large volumes of commercial organics are received at Metro Vancouver transfer stations would be processing the organics at wastewater treatment plants to produce biogas. Additional digester capacity may be required, and only food waste could be processed in this manner. Various other options could be considered.

ALTERNATIVES

1. That the GVS&DD Board:
 - a) approve setting tipping fees for paid recyclables to recover operational costs, except where the risk of illegal dumping or other negative impacts exist, alternate fees structures will be considered;
 - b) approve providing municipal organics transfer services upon request and under contract with full cost recovery;
 - c) direct staff to initiate procurement for processing services for municipal organics from the North Shore Transfer Station; and
 - d) direct staff to develop a business case for the provision of commercial organics transfer services at Metro Vancouver transfer stations and report back on options.
2. That the Zero Waste Committee receive for information the report dated July 3, 2019 titled "Organics and Paid Recyclables Management at Metro Vancouver Transfer Stations" and provide alternate direction.

FINANCIAL IMPLICATIONS

If the Board approves Alternative 1, no increases to the Solid Waste Services budgets would be required. Recycling depots would continue to be provided when requested and funded by municipalities. Paid recycling services would recover operational costs through recycling tipping fees. Tipping Fees would continue to be used to help reduce the cost of mattress recycling in advance of an EPR program being put in place. Municipal organics would be accepted on request under contract at full-cost recovery.

A business case for commercial organics transfer services at Metro Vancouver transfer stations would be conducted by staff and can be accommodated within the Solid Waste Services annual budget.

For Alternative 2, staff could report back on the financial implications relating to the alternate direction.

SUMMARY / CONCLUSION

Metro Vancouver has a 63% overall diversion rate including approximately 450,000 tonnes per year of organics. Organics recycling increased by 60% between 2013 and 2017 as a result of municipalities implementing organics programs, private sector hauling partnerships and Metro Vancouver's

Organics Disposal Ban. These improvements in organics recycling have not been without challenges such as odour, processing capacity constraints and increasing prices.

Staff recommend proceeding with Alternative 1, including providing paid recyclable services at Metro Vancouver transfer stations and charging operational costs so a financial incentive exists for recycling over disposal. In cases where risks of illegal dumping or other negative impacts exist, alternate fees structures would be considered. To help achieve our regional organics goals, staff recommend providing organics transfer services to municipalities upon request and under contract with full cost recovery. Staff recommend initiating procurement for processing services for municipal organics from the North Shore Transfer Station. To address the challenges and diversion opportunities in the commercial and multi-family sectors, staff recommend developing a business case for the provision of commercial organics transfer services at Metro Vancouver transfer stations.

30033741

To: Zero Waste Committee

From: Sarah Wellman, Senior Engineer, Solid Waste Services

Date: July 5, 2019 Meeting Date: July 12, 2019

Subject: **Initiating Procurement for Bottom Ash Beneficial Use**

RECOMMENDATION

That the GVS&DD Board direct staff to initiate a procurement process for bottom ash beneficial use.

PURPOSE

The purpose of this report is to seek GVS&DD Board approval to initiate a procurement process for bottom ash beneficial use.

BACKGROUND

The Metro Vancouver Waste-to-Energy Facility produces approximately 42,000 tonnes of bottom ash each year. Historically, the material has been managed at the Vancouver Landfill and contributed to the total amount of waste disposed at that facility. The bottom ash is currently being used at the Coquitlam Landfill as aggregate as part of the construction of the new transfer station.

The beneficial use of bottom ash from the Waste-to-Energy Facility could result in a reduction of up to 42,000 tonnes per year of material requiring disposal. The non-ferrous metal recovery system is now fully operational. Implementation of this system has improved both the physical and chemical characteristics of the ash, increasing options for beneficial use of the material.

This report seeks approval from the Board to initiate a procurement process for bottom ash beneficial use.

BOTTOM ASH MANAGEMENT

Bottom ash is beneficially used in many jurisdictions. A range of beneficial uses for the bottom ash are possible. The ash has characteristics consistent with mineral aggregate so could be used as an aggregate substitute in various applications including use as a raw material in cement manufacturing, geotechnical fill material or in concrete production.

A key requirement of any beneficial use opportunity is assurance that use of the ash will not lead to human health or environmental impacts. Any beneficial use of the bottom ash would require approval of the Ministry of Environment and Climate Change Strategy.

Non-Ferrous Metal Recovery

The non-ferrous metal recovery system at the Waste-to-Energy Facility was commissioned in the fall of 2018, and is now fully operational. The system recovers recyclable metal (both ferrous and non-ferrous) from bottom ash while also improving the physical and chemical properties of the ash. Non-ferrous metal recovery complements the ferrous recovery system that has been in place since the facility opened in 1988. Initial results show increased ferrous metals recovery of approximately 500

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tonnes per year and non-ferrous metals recovery of approximately 500 tonnes per year, which is on target with project expectations.

2019 year-to-date bottom ash data show that removal of non-ferrous and additional ferrous metals from the bottom ash has improved both chemical and physical characteristics of the ash making it more suitable for beneficial use.

Procurement Process

A procurement process for beneficial use of the bottom ash would be a multi-stage process. The first stage of the process would solicit information on possible approaches to utilize the bottom ash as well as information on risks and risk mitigation measures associated with each possible approach. The goal of the process would be to shortlist viable options for further consideration.

ALTERNATIVES

1. That the GVS&DD Board direct staff to initiate a procurement process for bottom ash beneficial use.
2. That the Zero Waste Committee receive for information the report dated July 5, 2019, titled "Initiating Procurement for Bottom Ash Beneficial Use" and provide alternative direction.

FINANCIAL IMPLICATIONS

If the Board approves Alternative 1, staff will initiate a procurement process for beneficial use of the bottom ash. Subject to approval by the Board, a contract or contracts for processing bottom ash could be entered into by Metro Vancouver with a third party processor(s). Metro Vancouver would deliver the bottom ash to a third party site for processing, and the contractor would take responsibility for managing the ash on receipt of the material. The cost of beneficially using the ash compared to disposal would be brought forward to the Board for consideration along with any recommendation for beneficial use.

Under Alternative 2, if the Board directs staff to not initiate a procurement process for bottom ash beneficial use at this time, bottom ash will be managed either at the Vancouver Landfill or at a remote disposal site and contribute to waste disposal quantities for the region.

SUMMARY / CONCLUSION

Approximately 42,000 tonnes of bottom ash are produced at the Waste-to-Energy Facility annually. Historically, the ash has been managed at the Vancouver Landfill, and for the last approximately two years, the ash has been used as part of the construction of the new Coquitlam Transfer Station. Implementation of the non-ferrous metal recovery system has improved the physical and chemical characteristics of the ash making it more suitable for beneficial use. Staff recommend Alternative 1 that a procurement process for beneficial use of the ash be initiated. Any contract for beneficial use of the ash would require Board approval.

29991250

To: GVS&DD Board of Directors

From: Zero Waste Committee

Date: July 12, 2019

Meeting Date: July 26, 2019

Subject: **Support for Municipal Jurisdiction to Regulate Single-Use Items**

ZERO WASTE COMMITTEE RECOMMENDATION

That the GVS&DD Board write a letter to the Province of BC and the Union of British Columbia Municipalities in support of municipal jurisdiction to regulate single use items, as it relates to the June 24, 2019 District of West Vancouver Council resolution.

At its July 12, 2019 meeting, the Zero Waste Committee considered the attached District of West Vancouver June 24, 2019 Regular Council Meeting Minutes excerpt, which includes a Council resolution requesting the Province of BC to provide specific authority to local governments to regulate reducing and banning single-use items within their municipality respectively, and submitting the resolution to the Union of British Columbia Municipalities (UBCM) for consideration at the 2019 Annual UBCM Convention. The Committee subsequently passed the recommendation as presented above.

This matter is now before the Board for its consideration.

Attachment:

1. District of West Vancouver Regular Council Meeting Minutes Excerpt, dated June 24, 2019, regarding "Confirming Municipal Jurisdiction to Regulate Single-Use Items"

30438317

EXCERPT
THE CORPORATION OF THE DISTRICT OF WEST VANCOUVER
REGULAR COUNCIL MEETING MINUTES
MUNICIPAL HALL COUNCIL CHAMBER
JUNE 24, 2019

The following is an excerpt from the Regular Meeting of the Corporation of the District of West Vancouver Council held on June 24, 2019 at 6:00 pm.

6. Councillor's Motion regarding Confirming Municipal Jurisdiction to Regulate Single-Use Items (File: 0120-06)

MOVED by Cameron, seconded by Gambioli:

THAT WHEREAS single-use items increase waste, are often not recyclable, and have various negative impacts on communities across British Columbia;

AND WHEREAS citizens in West Vancouver and other communities have indicated that they would like to see regulations to restrict the use of single-use items in the District of West Vancouver;

AND WHEREAS over the past 10 years there have been several UBCM resolutions calling for the Province of British Columbia ("the Province") to regulate single-use items, including UBCM Resolution B126 in 2018, which read:

Therefore be it resolved that the Province of British Columbia develop a provincial Single-Use Item Reduction Strategy as part of a provincial Zero Waste Strategy, which would include but not necessarily be limited to plastic and paper shopping bags, polystyrene foam cups and polystyrene foam containers, other hot and cold drink cups and take-out containers, straws and utensils, but would exclude all single use items needed for medical use or for people with disabilities.

AND WHEREAS the Province has not acted to restrict the use of single-use items at the provincial level, and responded to UBCM Resolution B126 as follows:

The Ministry commends the actions taken by local governments to develop single-use item strategies and other related initiatives to reduce plastic in the environment.

AND WHEREAS Metro Vancouver has taken the position that it does not have jurisdiction to regulate the use of single-use items;

AND WHEREAS several municipalities in British Columbia recently have acted or are in the process of acting to restrict the use of single-use items, including Victoria, Squamish, Salmon Arm, Qualicum Beach, and Tofino;

AND WHEREAS the ability of municipalities to regulate to protect the environment is specifically circumscribed by s. 9 of the *Community Charter*, S.B.C. 2003, c. 26, which states that a municipality may not adopt a bylaw for the protection of the natural environment unless the bylaw is established in accordance with a regulation made by the Province, is established in accordance with an agreement by the Province, or is approved by the Minister responsible (and there are no applicable regulations, agreements or approvals);

AND WHEREAS, as a result of the *Community Charter*, the ability of municipalities to regulate the reduction or banning of single-use items may be constrained and is uncertain even after the British Columbia Supreme Court decision in *Canadian Plastic Bag Association v. Victoria (City)*, 2018, BCSC 1007 (which is under appeal);

AND WHEREAS even if the City of Victoria prevails in the legal challenge under appeal, different bylaws regulating single-use items in different municipalities may still face costly and time-consuming legal challenges given the uncertain legal context;

AND WHEREAS municipalities should have clear and unambiguous jurisdiction to pass bylaws to protect the natural environment on matters wholly within the boundaries of the municipality and that do not adversely impact the interests of other municipalities or other levels of government and, more specifically, every municipality should have the jurisdiction to regulate the use of single-use items within the municipality at it sees fit;

THEREFORE BE IT RESOLVED THAT:

- (1) The Mayor, on behalf of Council, request that the Province enter into an agreement to allow the District of West Vancouver (and any other municipality that so chooses) to regulate reducing and banning single-use items within the municipality; or pass a regulation which has the same effect; or that the Minister responsible give his or her approval to bylaws which attempt to regulate or restrict single-use items within municipalities that pass such bylaws; and
- (2) The District of West Vancouver submit a Resolution to the Union of British Columbia Municipalities (UBCM) for consideration at the 2019 annual UBCM convention requesting that the Province specifically allow municipalities to regulate or restrict single-use items by the Province's agreement, by regulation, or by approval of the Minister.

CARRIED



MEMORANDUM

Date: May 29, 2019
To: Council
From: Councillor Cameron and Councillor Gambioli
Re: **Notice of Motion regarding Confirming Municipal Jurisdiction to Regulate Single-Use Items**

File: 0120-06

Notice of the following motion regarding "Confirming Municipal Jurisdiction to Regulate Single-Use Items" will be given at the June 10, 2019, regular Council meeting. At the June 24, 2019, regular Council meeting, after the proposed motion is moved and seconded, discussion on the proposed motion may be held.

Take notice that at the June 24, 2019, regular Council meeting, Councillor Cameron, with Councillor Gambioli as seconder, will move:

WHEREAS single-use items increase waste, are often not recyclable, and have various negative impacts on communities across British Columbia;

AND WHEREAS citizens in West Vancouver and other communities have indicated that they would like to see regulations to restrict the use of single-use items in the District of West Vancouver;

AND WHEREAS over the past 10 years there have been several UBCM resolutions calling for the Province of British Columbia ("the Province") to regulate single-use items, including UBCM Resolution B126 in 2018, which read:

Therefore be it resolved that the Province of British Columbia develop a provincial Single-Use Item Reduction Strategy as part of a provincial Zero Waste Strategy, which would include but not necessarily be limited to plastic and paper shopping bags, polystyrene foam cups and polystyrene foam containers, other hot and cold drink cups and take-out containers, straws and utensils, but would exclude all single use items needed for medical use or for people with disabilities.

AND WHEREAS the Province has not acted to restrict the use of single-use items at the provincial level, and responded to UBCM Resolution B126 as follows:

The Ministry commends the actions taken by local governments to develop single-use item strategies and other related initiatives to reduce plastic in the environment.

AND WHEREAS Metro Vancouver has taken the position that it does not have jurisdiction to regulate the use of single-use items;

AND WHEREAS several municipalities in British Columbia recently have acted or are in the process of acting to restrict the use of single-use items, including Victoria, Squamish, Salmon Arm, Qualicum Beach, and Tofino;

AND WHEREAS the ability of municipalities to regulate to protect the environment is specifically circumscribed by s. 9 of the *Community Charter*, S.B.C. 2003, c. 26, which states that a municipality may not adopt a bylaw for the protection of the natural environment unless the bylaw is established in accordance with a regulation made by the Province, is established in accordance

with an agreement by the Province, or is approved by the Minister responsible (and there are no applicable regulations, agreements or approvals);

AND WHEREAS, as a result of the *Community Charter*, the ability of municipalities to regulate the reduction or banning of single-use items may be constrained and is uncertain even after the British Columbia Supreme Court decision in *Canadian Plastic Bag Association v. Victoria (City)*, 2018, BCSC 1007 (which is under appeal);

AND WHEREAS even if the City of Victoria prevails in the legal challenge under appeal, different bylaws regulating single-use items in different municipalities may still face costly and time-consuming legal challenges given the uncertain legal context;

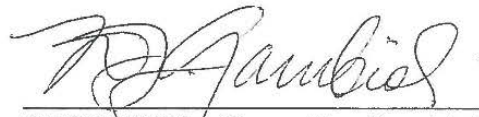
AND WHEREAS municipalities should have clear and unambiguous jurisdiction to pass bylaws to protect the natural environment on matters wholly within the boundaries of the municipality and that do not adversely impact the interests of other municipalities or other levels of government and, more specifically, every municipality should have the jurisdiction to regulate the use of single-use items within the municipality at it sees fit;

THEREFORE BE IT RESOLVED THAT:

- (1) The Mayor, on behalf of Council, request that the Province enter into an agreement to allow the District of West Vancouver (and any other municipality that so chooses) to regulate reducing and banning single-use items within the municipality; or pass a regulation which has the same effect; or that the Minister responsible give his or her approval to bylaws which attempt to regulate or restrict single-use items within municipalities that pass such bylaws; and
- (2) The District of West Vancouver submit a Resolution to the Union of British Columbia Municipalities (UBCM) for consideration at the 2019 annual UBCM convention requesting that the Province specifically allow municipalities to regulate or restrict single-use items by the Province's agreement, by regulation, or by approval of the Minister.



MOVER: Councillor Cameron



SECONDER: Councillor Gambioli

Information Supporting the Notice of Motion

Community Charter, S.B.C. 2003, c. 26, s. 9

Canadian Plastic Bag Association v. Victoria (City), 2018, BCSC 1007

2018 UBCM Resolution B126

To: GVS&DD Board of Directors

From: Finance and Intergovernment Committee

Date: July 17, 2019

Meeting Date: July 26, 2019

Subject: **Proposed Amendments to GVS&DD Cost Apportionment Bylaw No. 283, 2014**

FINANCE AND INTERGOVERNMENT COMMITTEE RECOMMENDATION

That the GVS&DD Board:

- a) give first, second and third reading to *Greater Vancouver Sewerage and Drainage District Cost Apportionment Amending Bylaw No. 328, 2019*; and
 - b) pass and finally adopt *Greater Vancouver Sewerage and Drainage District Cost Apportionment Amending Bylaw No. 328, 2019*.
-

PURPOSE

To present to the GVS&DD Board for consideration, amendments to the *Greater Vancouver Sewerage and Drainage District Cost Apportionment Bylaw No. 283, 2014* as recommended by the Finance and Intergovernment Committee to allow for the direct application of Development Cost Charge (DCC) revenues, the allocation of revenue from Tier I and Tier II capital projects, and the establishment of a cost apportionment formula for the purpose of applying growth charges to the University of British Columbia (UBC) to cover their proportionate share of the liquid waste system growth costs within the Vancouver Sewerage Area.

BACKGROUND

At its July 17, 2019 meeting, the Finance and Intergovernment Committee considered the attached report titled "Proposed Amendments to GVS&DD Cost Apportionment Bylaw No. 283, 2014", dated July 11, 2019 (Attachment 1). The Committee passed the below recommendation and directed staff to prepare an amending bylaw with the proposed changes for consideration at the July 26, 2019 GVS&DD Board meeting.

That the Finance and Intergovernment Committee:

- a) *approve the following amendments to the Greater Vancouver Sewerage and Drainage District Cost Apportionment Bylaw No. 283, 2014:*
 - i. *application of DCC revenues;*
 - ii. *application of Tier I and Tier II capital project revenues; and*
 - iii. *application of growth charges to UBC.*
- b) *direct staff to prepare an Amending Bylaw with the changes as proposed for consideration at the GVS&DD Board meeting on July 26, 2019.*

Greater Vancouver Sewerage and Drainage District Cost Apportionment Amending Bylaw No. 328, 2019 has been prepared (Attachment 2) and reflects the amendments proposed in the Blackline Version Highlighting Proposed Amendments (Attachment 3) which was provided on table at the Finance and Intergovernment Committee Meeting.

ALTERNATIVES

1. That the GVS&DD Board:
 - a) give first, second and third reading to *Greater Vancouver Sewerage and Drainage District Cost Apportionment Amending Bylaw No. 328, 2019*; and
 - b) pass and finally adopt *Greater Vancouver Sewerage and Drainage District Cost Apportionment Amending Bylaw No. 328, 2019*.
2. That the GVS&DD Board receive for information the report dated July 17, 2019, titled “Proposed Amendments to GVS&DD Cost Apportionment Bylaw No. 283, 2014”, and provide alternate direction.

FINANCIAL IMPLICATIONS

If the Board approves Alternative 1, *Greater Vancouver Sewerage and Drainage District Cost Apportionment Amending Bylaw No. 328, 2019* will be adopted and provide authority to apply DCC’s using a ‘pay as you go model’ which will result in the reduction of borrowing, thereby providing savings in interest costs and reducing the overall household impact. Changes in language with respect to the application of Tier I and Tier II capital project revenues will enhance the equity of the system by ensuring that the revenue from capital projects is allocated in the same way that the related expenditures have been apportioned.

The amendments which apportion the costs of liquid waste system growth to UBC are based on a prorated formula using the combined UBC resident and student population in comparison to the overall population of the Vancouver Sewerage Area. These changes will ensure that there is equity within the regional liquid waste system by reducing the amount of development that is not contributing to infrastructure growth. It is estimated that the increased cost to UBC through this amendment is expected to range between \$150,000 and \$600,000 annually depending upon the annual growth calculation.

Under Alternative 2, the GVS&DD Board may wish to provide alternate direction which would require further analysis.

SUMMARY / CONCLUSION

At its July 17, 2019 meeting, the Finance and Intergovernment Committee considered and passed a recommendation directing staff to bring forward amendments to *Greater Vancouver Sewerage and Drainage District Cost Apportionment Bylaw No. 283, 2014*. Staff have prepared *Greater Vancouver Sewerage and Drainage District Cost Apportionment Amending Bylaw No. 328, 2019* which reflects amendments for the application of DCC revenues, the application of Tier I and Tier II capital project revenues; and the application of growth charges to UBC. Staff recommend approval of alternative one.

Attachments (Doc #30589012)

1. *Greater Vancouver Sewerage and Drainage District Cost Apportionment Amending Bylaw No. 328, 2019*
2. “Proposed Amendments to GVS&DD Cost Apportionment Bylaw No. 283, 2014”, dated July 11, 2019

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT
BYLAW NO. 328, 2019
A Bylaw to Amend Bylaw No. 283, 2014 to Update Allocation of Capital Project Revenue,
Application of Development Cost Charge Revenue and UBC Cost Apportionment

WHEREAS:

- A. the Board of Directors of the Greater Vancouver Sewerage and Drainage District adopted *Greater Vancouver Sewerage and Drainage District Cost Apportionment Bylaw No. 283, 2014* on March 28th, 2014;
- B. *Greater Vancouver Sewerage and Drainage District Cost Apportionment Bylaw No. 283, 2014* sets out the method of apportioning annual sewerage and drainage expenditures among the member municipalities, as permitted by section 55(4) of the Greater Vancouver Sewerage and Drainage District Act; and
- C. the Board of Directors of the Greater Vancouver Sewerage and Drainage District wishes to amend the *Greater Vancouver Sewerage and Drainage District Cost Apportionment Bylaw No. 283, 2014*.

NOW THEREFORE the Board of the Greater Vancouver Sewerage and Drainage District enacts as follows:

Citation

- 1. This Bylaw may be cited as the “Greater Vancouver Sewerage and Drainage District Cost Apportionment Amending Bylaw No. 328, 2019”.

Effective Date

- 2. This bylaw will come into effect on January 1, 2020.

Amendment of Bylaw

- 3. Greater Vancouver Sewerage and Drainage District Cost Apportionment Bylaw, No. 283, 2014 is hereby amended as follows:
 - (a) In the recitals, at paragraph “C”, the word “and” is deleted;
 - (b) In the recitals, at paragraph “D”, the period at the end of that paragraph is deleted and replaced with a semi-colon;
 - (c) In the recitals, after paragraph “D”, the following paragraphs are added, in alphabetical order, as follows:

- E. Section 6(5) of the Act provides that the Corporation and the University of British Columbia may enter into agreements for the carrying-out of the objects of the Corporation within the university site;
 - F. Section 6(6) of the Act authorizes that if, by January 31 of any year there is no agreement under subsection (5) in force with respect to that year, the Corporation may apportion sums to the University of British Columbia under the Act as if the university were a member municipality of the Corporation and as if the university site were the area of a member municipality of the Corporation; and
 - G. Section 6(7) of the Act provides that the University of British Columbia must pay to the Corporation those sums apportioned to it under section 6(6) as if the university were a member municipality of the Corporation.
- (d) the definition “**Regional Share**” is deleted and replaced as follows:
- “**Regional Share**” means 70% of Tier II Non-Growth Component;
- (e) the definition “**Sewerage Area Share**” is deleted and replaced as follows:
- “**Sewerage Area Share**” means 30% of Tier II Non-Growth Component;
- (f) the definition “**Tier I Growth Component**” is deleted and replaced as follows:
- “**Tier I Growth Component**” means all of the capital expenditures, net of revenue, incurred by the Corporation for Tier I Projects that are primarily “growth” projects, as provided for in the applicable annual budgets of the Corporation or in the supporting documentation to such annual budgets;
- (g) the definition “**Tier I Growth Component Payments**” is deleted;
- (h) the definition “**Tier I Non-Growth Component**” is deleted and replaced as follows:
- “**Tier I Non-Growth Component**” for any 12-month period, means the aggregate of those capital expenditures, net of revenue, for Tier I Projects not constituting the Tier I Growth Component;
- (i) the definition “**Tier I Non-Growth Financing**” is deleted;
- (j) the definition “**Tier II Growth Component**” is deleted and replaced as follows:
- “**Tier II Growth Component**” means all of the capital expenditures, net of revenue, incurred by the Corporation for Tier II Projects that are primarily “growth” projects, as provided for in the applicable annual budgets of the Corporation or in the supporting documentation to such annual budgets;

- (k) the definition “**Tier II Growth Component Payments**” is deleted;
- (l) the definition “**Tier II Non-Growth Component**” is deleted and replaced as follows:

“**Tier II Non-Growth Component**” for any 12-month period, means the aggregate of those capital expenditures, net of revenue, for Tier II Projects not constituting the Tier II Growth Component;
- (m) the definition “**Tier II Non-Growth Financing**” is deleted;
- (n) the definition “**UEL Dry Weather Flow**” is amended to delete the word “and” at the end of sub-paragraph (ii);
- (o) the definition “**University Endowment Lands**” is deleted and replaced as follows:

“**University Endowment Lands**” means the area of the University Endowment Lands (as referred to in section 5(2) of the Act); and
- (p) the definition “**University Site**” is added to the definitions in section 1 in alphabetic order as follows:

“**University Site**” means the area of the University of British Columbia (as referred to in section 6(11) of the Act);
- (q) The entirety of section 4 is deleted and replaced as follows:
 - 4. Apportionment of Growth Costs
 - 4.1 The Corporation will raise sufficient monies to pay the Growth Component in each year, as capital expenditures are incurred.
 - 4.2 The Corporation will apportion to each Sewerage Area:
 - (a) 100% of the Tier I Growth Component that is attributable to that Sewerage Area; and
 - (b) 30% of the Tier II Growth Component that is attributable to that Sewerage Area.
 - 4.3 The Corporation will apportion among the Sewerage Areas the total costs incurred in respect of 70% of Tier II Growth Component on the basis of the following formula:

$$\frac{\text{Sewerage Area Population Growth}}{\text{District Population Growth}} \times \text{The total costs incurred in respect of 70\% of Tier II Growth Component}$$

4.4 The Corporation will apply the development cost charge monies (the “**DCC Monies**”) received under Greater Vancouver Sewerage and Drainage District Development Cost Charge Bylaw No. 254, 2010 (as amended or replaced from time to time) in any year and apportioned to a particular Sewerage Area to pay up to 99% of the sum of the Tier I Growth Component and Tier II Growth Component apportioned to that Sewerage Area pursuant to sections 4.2 and 4.3.

4.5 The Corporation will further apportion among the member municipalities within each Sewerage Area (including, in the case of the Vancouver Sewerage Area, the University Endowment Lands) the total of:

- (a) 1% of the sum of the amounts apportioned to the Sewerage Area pursuant to sections 4.2 and 4.3; and
- (b) the amount by which the DCC Monies are insufficient to pay 99% of the sum of the amounts apportioned to the Sewerage Area pursuant to sections 4.2 and 4.3;

on the basis of the following formula:

$$\frac{\text{Member Population Growth}}{\text{Sewerage Area Population Growth}} \times \text{The sum of amounts (a) and (b)}$$

4.6 For the purposes of the formulae set out in sections 4.3 and 4.5, the Member Population Growth, the Sewerage Area Population Growth and the District Population Growth will be the applicable (rolling) average annual population growth (as published in the most recent edition, as determined by the Corporation, of British Columbia Municipal and Regional District Population Estimates of BC Stats, of the Government of the Province of British Columbia) in each respective area for the five-year period that precedes and ends on December 31 of the calendar year that is two years prior to December 31 of the calendar year in respect of which the calculation is made. Despite the foregoing, the Member Population Growth for the University Endowment Lands will be deemed to be equal to 0.9% of the Member Population Growth for the City of Vancouver.

4.7 Special Apportionment for the Vancouver Sewerage Area

- (a) If by January 31 of any year there is no agreement under subsection 6(5) of the Act in force with respect to that year, and for the purpose of further apportioning costs apportioned to the Vancouver Sewerage Area under sections 4.2 and 4.3, the Corporation will further apportion to the University of British Columbia an amount equal to:

$A \times [(B + C)/D]$, where:

A = 90% of the sums of the amounts apportioned to the Vancouver Sewerage Area as calculated in Sections 4.5 (a) and (b)

B = University of British Columbia residential population (the population as published in the most recent edition, as determined by the Corporation, of British Columbia Municipal and Regional District Population Estimates of BC Stats, of the Government of the Province of British Columbia)

C = University of British Columbia student population (the total student enrolment for the Vancouver campus, reported/published annually by the University's Provost and Vice-President Academic)

D = Vancouver Sewerage Area total population (the total member population for that Area's member municipalities as published in the most recent edition, as determined by the Corporation, of British Columbia Municipal and Regional District Population Estimates of BC Stats, of the Government of the Province of British Columbia, and where the member population for the University Endowment Lands will be deemed to be equal to 0.9% of the member population for the City of Vancouver).

This sum of money to be paid by the University of British Columbia will be due and payable on the fifteenth day of August in such year, with any sum of money apportioned but not paid by such due date bearing interest pursuant to section 6(8) of the Act.

- (b) Despite section 4.4, for the Vancouver Sewerage Area, the Corporation will apply, to pay up to 99% of the Tier I Growth Component and Tier II Growth Component apportioned to the Vancouver Sewerage Area pursuant to sections 4.2 and 4.3:

- (1) Monies received from the University of British Columbia pursuant to section 4.7(a); and
 - (2) DCC Monies received under Greater Vancouver Sewerage and Drainage District Development Cost Charge Bylaw No. 254, 2010 (as amended or replaced from time to time) in any year and apportioned to the Vancouver Sewerage Area.
- (r) Section 6.2 is deleted and replaced as follows:
 - 6.2 The Sewerage Area Share will be apportioned to those Sewerage Areas for which the Corporation has incurred Tier II Non-Growth Component, in the proportion that Tier II Non-Growth Component incurred for services within a Sewerage Area bears to 100% of Tier II Non-Growth Component.
- (s) Section 6.3 is deleted and replaced as follows:
 - 6.3 The Tier I Non-Growth Component will be apportioned to the Sewerage Area for which the costs were incurred.
- (t) Section 7.1 subsection (c) is deleted and replaced as follows:
 - (c) the Tier I Non-Growth Component apportioned to the Vancouver Sewerage Area under section 6.3; and
- (u) Section 7.2 subsection (c) is deleted and replaced as follows:
 - (c) the Tier I Non-Growth Component apportioned to the Lulu Island West Sewerage Area under section 6.3; and
- (v) Section 7.3 subsection (c) is deleted and replaced as follows:
 - (c) the Tier I Non-Growth Component apportioned to the North Shore Sewerage Area under section 6.3; and
- (w) Section 7.4 subsection (c) is deleted and replaced as follows:
 - (c) the Tier I Non-Growth Component apportioned to the Fraser Sewerage Area under section 6.3; and

- (x) Sections 12 and 12.1, Effective Date, are renumbered to be 13 and 13.1.
- (y) Sections 11 and 11.1, Citation, are renumbered to be 12 and 12.1.
- (z) A new Section 11, Severability, is added as follows:

11. Severability

- 11.1 If a section, subsection, sentence, clause or phrase of this Bylaw is for any reason held to be invalid or unenforceable by a decision of a court of competent jurisdiction, such decision shall not affect the validity or enforceability of the remaining portions of the Bylaw.

Read a first time this _____ day of _____, _____

Read a second time this _____ day of _____, _____

Read a third time this _____ day of _____, _____

Passed and finally adopted this _____ day of _____, _____

Sav Dhaliwal, Chair

Chris Plagnol, Corporate Officer

To: Finance and Intergovernment Committee

From: Dean Rear, Acting Chief Financial Officer

Date: July 11, 2019

Meeting Date: July 17, 2019

Subject: **Proposed Amendments to GVS&DD Cost Apportionment Bylaw No. 283, 2014**

RECOMMENDATION

That the GVS&DD Board:

- a) approve the following amendments to the *Greater Vancouver Sewerage and Drainage District Cost Apportionment Bylaw No. 283, 2014*:
 - i. application of DCC revenues;
 - ii. application of Tier I and Tier II capital project revenues; and
 - iii. application of growth charges to UBC.
 - b) direct staff to prepare an Amending Bylaw with the changes as proposed for consideration at the GVS&DD Board meeting on July 26, 2019.
-

PURPOSE

To present to the Finance and Intergovernment Committee and to the GVS&DD Board for consideration, proposed amendments to the *Greater Vancouver Sewerage and Drainage District Cost Apportionment Bylaw No. 283, 2014* to allow for the direct application of Development Cost Charge (DCC) revenues, the allocation of revenue from Tier I and Tier II capital projects, and the establishment of a cost apportionment formula for the purpose of applying growth charges to the University of British Columbia (UBC) to cover their proportionate share of the liquid waste system growth costs within the Vancouver Sewerage Area.

BACKGROUND

Staff have been undertaking a review of the *Greater Vancouver Sewerage and Drainage District Cost Apportionment Bylaw No. 283, 2014* to explore potential amendments to the Bylaw that would improve and clarify how the Bylaw is applied. Specifically, amendments have been examined that would address the following three areas:

- i. application of DCC revenues;
- ii. application of Tier I and Tier II capital project revenues; and
- iii. application of growth charges to UBC.

This report brings forward proposed bylaw amendments for the Finance and Intergovernment Committee and the GVS&DD Board consideration to address these deficiencies in the bylaw, provide flexibility and accountability in the apportionment of DCC revenues and ensure a transparent and accountable cost allocation formula to collect growth charges with respect to UBC lands.

GVS&DD COST APPORTIONMENT BYLAW NO. 283, 2014

Under section 55(4) of the *Greater Vancouver Sewerage and Drainage District Act* the GVS&DD may, by bylaw, establish the method of cost apportionment among the member municipalities. The cost apportionment formula was first implemented by bylaw in 1995. The *Greater Vancouver Sewerage and Drainage District Cost Apportionment Bylaw No. 283, 2014* is the Bylaw which establishes the formula under which members are apportioned the annual allocation of sewerage expenditures in each of the four sewerage districts, in addition to apportioning costs to other users and beneficiaries of the sewerage system.

The following sections explain the objectives and rationale for the three proposed sections to be amended in the *Greater Vancouver Sewerage and Drainage District Cost Apportionment Bylaw No. 283, 2014*.

I. Application of Development Cost Charge Revenues

The current wording of the Bylaw stipulates that Development Cost Charges are to only be applied against 99% of the principal and short-term interest growth component payments. This wording prohibits the ability of the GVS&DD to also apply DCC monies directly to growth capital. Amending the Bylaw to enable the use of DCC's on a 'pay as you go' basis towards capital for growth projects would provide greater flexibility in funding capital expenditures and would directly support the objectives of the Board's *Financial Management Policy*, which aims to provide financial flexibility to meet future financial requirements, mitigate borrowing and avoid debt.

As noted in the *Financial Management Policy*, funding capital expenditures on a pay-as-you-go basis and avoiding long-term debt provides significant benefits to Metro Vancouver. The avoidance of debt eliminates the risk associated with fluctuating interest rates, reduces the overall cost to the organization through the savings of interest payments and provides financial capacity should unforeseen funding needs be required.

The proposed amendments involve removing the references to "component payments" and "non-growth financing" and only reference "growth component" and "non-growth component," which provides flexibility for Metro Vancouver to use DCCs to either fund capital directly or fund growth debt as the current practice. Specifically, the proposed bylaw states that the Metro Vancouver will apply the development cost charge monies in any year and apportioned to a particular Sewerage Area to pay up to 99% of the sum of the Tier I Growth Component and Tier II Growth Component apportioned to that Sewerage Area.

II. Application of Tier I and Tier II Capital Project Revenues

The proposed amendment to Section 4 will address a shortcoming in the Bylaw in that the current wording does not articulate how revenue is to be applied when it is generated from a Tier I or Tier II capital project.

Under the Definitions section of the Bylaw, Tier I projects include all capital projects undertaken within a sewerage area, other than Tier II projects, which generally apply to wastewater treatment plant capital projects. A Tier II project is defined in the Bylaw as follows:

“Tier II Project” means a capital infrastructure project at any of the Corporation’s wastewater treatments plants, other than:

- (i) any portion of the project that is a Community Benefit; or*
- (ii) any portion of the upgraded Lions Gate wastewater treatment plant and the upgraded Iona wastewater treatment plant that is primary treatment infrastructure equivalent to primary treatment infrastructure that was in place at Annacis wastewater treatment plant and Lulu Island wastewater treatment plant prior to those plants being upgraded to secondary treatment, namely the primary treatment tanks; [underline added]*

Tier I projects are funded 100% by the sewerage area while Tier II projects are cost shared by member municipalities with 70% of the capital cost shared on a regional basis and 30% of the capital cost apportioned to the individual sewerage area. The *Greater Vancouver Sewerage and Drainage District Cost Apportionment Bylaw No. 283, 2014* is silent on the allocation of revenues that might be generated by a Tier I or Tier II project.

Some liquid waste capital projects have the potential to generate revenue in the future. For example, in March 2019 the Board awarded a contract for the Lulu Island Wastewater Treatment Plant Biogas Cleanup Project. This project involves biogas production, which in the event that it exceeds plant energy requirements, will be upgraded to pipeline quality biomethane and sold into the FortisBC natural gas grid for additional revenue for GVS&DD. There is an additional biogas project in the long-term capital plan at Iona Island Wastewater Treatment Plant, which has yet to be awarded, that also has the potential to generate revenue for the GVS&DD.

The proposed amendments will clarify how revenues will be allocated and stipulate that Tier I projects and Tier II projects that generate revenue will be allocated in the same manner that the capital costs for those projects are allocated. The proposed amendments to the Cost Apportionment Bylaw will update the definitions of Tier I and Tier II Growth and Non-Growth Component (capital expenditures) to ensure the appropriate application of revenues. With the proposed amendment, revenue from a Tier I Project will be 100% allocated to the Sewerage Area while revenue from a Tier II Project will be shared by member municipalities with 70% of the revenue shared on a regional basis and 30% of the revenue apportioned to the individual sewerage area.

III. Application of Growth Charges to UBC

In 1997, the DCC Program was implemented for the Liquid Waste function of the GVS&DD. The purpose of the implementation of the DCC Bylaw was to ensure that new development in the region would fund the cost of the liquid waste infrastructure expansion required to service that development. The DCC Program is separated into four sewer areas: Vancouver, Lulu Island, North Shore and Fraser. While the policy aspects of the program are consistent across the function, each sewer area has a separate unique fee structure based on the requirements of that sewer area.

Seventeen Metro Vancouver municipalities are members of the GVS&DD. The University Endowment Lands are also deemed to be part of the area of membership of the GVS&DD. Under the Act, the Director representing Electoral Area A (University Hill) is a voting member of the GVS&DD Board.

The *GVS&DD Act* also gives specific authorization to provide services within the lands of UBC by way of agreement. Under section 6(5) of the *Act*, the GVS&DD and UBC may enter into agreements for

the purpose of carrying out the objects of the GVS&DD within the university site. The Act states, at section 6(6), that if by January 31 of any year there is no agreement in force with respect to that year, the GVS&DD may apportion sums to UBC as if:

- (a) the university were a member municipality of the Corporation; and*
- (b) the university site were the area of a member municipality of the Corporation.*

The Act further states that UBC must pay the GVS&DD those sums apportioned “as if the university were a member municipality of the Corporation”.

Payment of Liquid Waste System Growth Charges by UBC

UBC has been allocated and paid for its share of operating and non-growth costs through the cost apportionment process since 1996. However, UBC has only partially contributed to growth costs since that time, providing a DCC-like ‘voluntary contribution’ for market based non-institutional development at the campus. This is due to UBC’s legislative interpretation that it is not a member of the GVS&DD and therefore not subject to the DCC Bylaw. Through 2018, a total of \$2,503,883 has been received from UBC as a voluntary contribution for DCC-like charges on market based non-institutional development.

However, other development occurring at UBC to meet rising population growth at the University Site over the same period has not contributed to the costs of growth of liquid waste system infrastructure and is not insignificant. Since 1997 the resident population has increased by approximately 183% to 12,856 (2016 census) and student enrollment has increased by over 60% to 52,721 (2016/17). UBC’s own estimate is that there has been over 2,000 units of non-market and student housing and almost 3.9 million square feet of non-residential space for which no ‘DCC like’ voluntary contributions have been made. At past DCC rates, had such development occurred in a member municipality it would have resulted in an additional \$2.9 million in DCC revenue.

Although UBC has not been paying DCC’s on student housing, it recently joined other post-secondary institutions in the region in requesting relief from DCC’s for student housing. Last fall the Board agreed to reduce the DCC rate for eligible student housing by 50%.

The UBC Point Grey Campus is the only post-secondary institution in the region that has not been paying its proportional share of the costs of growth impacting the regional sewer system. If UBC was located within a municipality, DCC’s would have been collected through subdivision or through the building permit issuance stage of development.

Proposed Bylaw Amendment

All GVS&DD municipal members collect applicable DCCs either at the time of approval of subdivision or at the issuance of a building permit authorizing construction. To collect growth related charges from UBC, a proposed amendment to Section 4 of the Bylaw has been drafted. The proposed amendment would apportion a share of the liquid waste system growth costs to UBC based on a prorated formula using the combined UBC resident and student population relative to the overall population of the Vancouver Sewerage Area. This is represented in the formula below.

$A \times [(B + C)/D]$, where:

A = 90% of the VSA Growth Costs as calculated in Section 4 of the *Greater Vancouver Sewerage and Drainage District Cost Apportionment Bylaw No. 283, 2014*

B = University of British Columbia residential population

C = University of British Columbia student population

D = Vancouver Sewerage Area total population

Pursuant to the *GVS&DD Act*, if an agreement is entered into between GVS&DD and UBC, the new provisions of Section 4 regarding apportionment of growth costs to UBC (set out in the proposed section 4.7) would not apply.

OTHER CONSIDERATIONS

As each of the amendments described above require changes to the *Greater Vancouver Sewerage and Drainage District Cost Apportionment Bylaw No. 283, 2014*, all three amendments have been presented in a single report with the proposed Amending Bylaw attached.

ALTERNATIVES

1. That the GVS&DD Board:
 - a) approve the following amendments to the *Greater Vancouver Sewerage and Drainage District Cost Apportionment Bylaw No. 283, 2014*:
 - i. application of DCC revenues;
 - ii. application of Tier I and Tier II capital project revenues; and
 - iii. application of growth charges to UBC.
 - b) direct staff to prepare an Amending Bylaw with the changes as proposed for consideration at the GVS&DD Board meeting on July 26, 2019
2. That the Finance and Intergovernment Committee receive the report dated July 11, 2019, titled "Proposed Amendments to GVS&DD Cost Apportionment Bylaw No. 283, 2014" and provide alternate direction to staff.

FINANCIAL IMPLICATIONS

If the Board approves Alternative 1, staff will prepare an Amending Bylaw for consideration at the July 26, 2019 GVS&DD Board meeting. The Amending Bylaw would allow for the application of DCC's using a 'pay as you go model' which will result in the reduction of borrowing, thereby providing savings in interest costs and reducing the overall household impact. Changes in language with respect to the application of Tier I and Tier II capital project revenues will enhance the equity of the system by ensuring that the revenue from capital projects is allocated in the same way that the related expenditures have been apportioned.

Finally, with respect to the proposed amendment which apportions the costs of liquid waste system growth to UBC based on a prorated formula using the combined UBC resident and student population in comparison to the overall population of the Vancouver Sewerage Area, the proposed changes will ensure that there is equity within the regional liquid waste system by reducing the amount of development that is not contributing to infrastructure growth. It is estimated that the increased cost

to UBC through this amendment is expected to range between \$150,000 and \$600,000 annually depending upon the annual growth calculation.

Under Alternative 2, the Committee may wish to provide alternate direction or request further analysis on one or more of the proposed amendments. Alternatively, the Committee may wish to recommend to the Board to proceed with only one some of the proposed bylaw amendments.

SUMMARY / CONCLUSION

A review of the *Greater Vancouver Sewerage and Drainage District Cost Apportionment Bylaw No. 283, 2014* has been underway to explore potential amendments to the Bylaw that would improve and clarify how the Bylaw is applied. Specifically, amendments have been examined that would address the following three areas:

- i. application of DCC revenues;
- ii. application of Tier I and Tier II revenues; and
- iii. application of growth charges to UBC.

The proposed amendment to the bylaw to change the application of DCC's using a 'pay as you go model' would allow for the reduction of borrowing, thereby providing savings in interest costs and reducing the overall household impact. The second amendment with respect to the application of Tier I and Tier II revenues, requires a changes in language to address this gap. The proposed change will enhance the equity of the system by ensuring that the revenue from capital projects is allocated in the same way that the related expenditures have been apportioned.

Finally, with respect to the proposed amendment regarding apportionment of growth costs to UBC, the proposed changes will ensure that there is equity within the regional liquid waste system by ensuring that UBC is paying an equivalent amount relative to the growth occurring at UBC proportional to the Vancouver Sewerage Area. It is estimated that the increased cost to UBC through this amendment will range between \$150,000 and \$600,000 annually depending upon the annual growth calculation.

This report has brought forward proposed bylaw amendments that will address the areas noted above and will provide flexibility and accountability in the apportionment of DCC revenues and ensure a transparent and accountable cost allocation formula to collect applicable growth charges on UBC lands.

Staff recommend the approval of Alternative 1.

On Table Attachment:

Blackline version highlighting proposed amendments

25415319

BLACKLINE version highlighting proposed amendments to
GVSDD Cost Apportionment Bylaw No. 283, 2014 (proposed to take effect January 1, 2020)

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

BYLAW NUMBER 283, 2014

A BYLAW TO APPORTION ANNUAL EXPENDITURES

WHEREAS:

- A. Section 55(2) of the *Greater Vancouver Sewerage and Drainage District Act* (the “**Act**”) provides that the amount for annual expenditures of a sewerage area that is entirely within a municipality shall be apportioned to that municipality, unless a bylaw under section 55(4) applies;
- B. Section 55(3) of the Act provides that the amount for annual expenditures of a sewerage area that includes two or more municipalities shall be apportioned among them on the basis of the converted value of land and improvements, unless a bylaw under section 55(4) applies;
- C. Section 55(4) of the Act authorizes the Administration Board by bylaw to establish a different method of apportionment of costs among the member municipalities;~~and~~
- D. This bylaw sets out the Greater Vancouver Sewerage and Drainage District’s method of apportioning annual sewerage and drainage expenditures among the member municipalities, as permitted by section 55(4) of the Act~~;~~
- E. Section 6(5) of the Act provides that the Corporation and the University of British Columbia may enter into agreements for the carrying-out of the objects of the Corporation within the university site;
- F. Section 6(6) of the Act authorizes that if, by January 31 of any year there is no agreement under subsection (5) in force with respect to that year, the Corporation may apportion sums to the University of British Columbia under the Act as if the university were a member municipality of the Corporation and as if the university site were the area of a member municipality of the Corporation; and
- G. Section 6(7) of the Act provides that the University of British Columbia must pay to the Corporation those sums apportioned to it under section 6(6) as if the university were a member municipality of the Corporation.

NOW THEREFORE the Administration Board of the Greater Vancouver Sewerage and Drainage District in open meeting assembled of which and for the purpose of which due notice was given, enacts as follows:

1. Definitions

In this bylaw:

“Assessed Value” as applied in any calendar year in respect of any particular area, means the aggregate ‘converted value of land and improvements’ (as that term is defined in the *Community Charter*) within such area for the immediately preceding calendar year, as provided by the assessment commissioner of the British Columbia Assessment Authority pursuant to section 804.2 of the *Local Government Act*;

“Community Benefit” means any aspect of any of the Corporation’s wastewater treatment plants that is unrelated to the Corporation’s activities;

“Corporation” means the Greater Vancouver Sewerage and Drainage District;

“Dry Weather Flow” in respect of any 12 month period means:

- (i) for a Sewerage Area, the 25th percentile of the average daily flows of sewage and wastewater, as determined by the Corporation, measured at whichever (one or more) of the Corporation’s five wastewater treatment plants (being Annacis Island, Iona, Lions Gate, Lulu Island and North-West Langley) providing service to that Sewerage Area;
- (ii) for a member municipality of the Fraser Sewerage Area for the purposes of sections 3.1 and 7.4, the 25th percentile of the average daily flows of sewage and wastewater discharged from that member municipality as measured at the flow metering stations for that member municipality, or where there is insufficient data from flow metering stations, as determined by the Corporation, based on (A) discharge rates applicable to land use, land area and population data based on the design criteria for wastewater discharges in the Rawn Report of September 1953, as updated by the Corporation from time to time, (B) temporary flow monitoring from mobile meters, (C) data from pump stations or, (D) such other data deemed appropriate by the Corporation for making such determination;

“Growth Component” means, together, the Tier I Growth Component and the Tier II Growth Component;

“Industrial Assessed Value” in respect of any particular area, means the aggregate of the Assessed Values attributed by the Corporation to all lands and improvements within such area which are the subject of an Industrial Permit or Industrial Permits;

“Industrial Flows” in respect of any 12-month period, for a Sewerage Area or any member municipality thereof, means the average daily flows of sewage and wastewater discharged within the Sewerage Area or member municipality during such 12 month period under an Industrial Permit or Industrial Permits, as determined by the Corporation;

“Industrial Treatment Costs” means the costs as determined by the Corporation to treat and dispose of sewage and wastewater discharged pursuant to an Industrial Permit;

“Industrial Permit” means a permit issued by the Corporation under Greater Vancouver Sewerage and Drainage District Sewer Use Bylaw No.299, 2007, as amended or replaced from time to time, and **“Industrial Permittee”** means a person holding a valid Industrial Permit;

“Operation and Maintenance Costs” means the costs of operating and maintaining the Corporation’s sewerage infrastructure;

“Regional Share” means 70% of Tier II Non-Growth ~~Financing Component~~;

“Sewerage Area” means any of the Fraser Sewerage Area, the Lulu Island West Sewerage Area, the North Shore Sewerage Area and the Vancouver Sewerage Area, being respectively the sewerage areas established by the Corporation under the Act;

“Sewerage Area Share” means 30% of Tier II Non-Growth ~~Financing Component~~;

“Tier I Growth Component” means all of the capital expenditures, net of revenue, incurred by the Corporation for Tier I Projects that are primarily “growth” projects, as provided for in the applicable annual budgets of the Corporation or in the supporting documentation to such annual budgets;

~~“Tier I Growth Component Payments” means the payments of principal and interest due and payable in each year in respect of the Tier I Growth Component (excluding interest payable on any borrowing that has a term in excess of 12 months);~~

“Tier I Non-Growth Component” for any 12-month period, means the aggregate of those capital expenditures, net of revenue, for Tier I Projects not constituting the Tier I Growth Component;

~~“Tier I Non-Growth Financing” for any 12-month period, means the aggregate amount of principal and interest payments (except where specifically excluded) and other financing costs in respect of monies borrowed by the Corporation to pay for the Tier I Non-Growth Component;~~

“Tier I Project” means any capital project provided for in an annual budget of the Corporation or in the supporting documentation to any such annual budget, other than a Tier II Project;

“Tier II Growth Component” means all of the capital expenditures, net of revenue, incurred by the Corporation for Tier II Projects that are primarily “growth” projects, as provided for in the applicable annual budgets of the Corporation or in the supporting documentation to such annual budgets;

~~“Tier II Growth Component Payments” means the payments of principal and interest due and payable in each year in respect of the Tier II Growth Component (excluding interest payable on any borrowing that has a term in excess of 12 months);~~

“Tier II Non-Growth Component” for any 12-month period, means the aggregate of those capital expenditures, net of revenue, for Tier II Projects not constituting the Tier II Growth Component;

~~“Tier II Non-Growth Financing” for any 12-month period, means the aggregate amount of principal and interest payments (except where specifically excluded) and other financing costs in respect of monies borrowed by the Corporation to pay for the Tier II Non-Growth Component;~~

“Tier II Project” means a capital infrastructure project at any of the Corporation’s wastewater treatment plants, other than:

- (i) any portion of the project that is a Community Benefit; or
- (ii) any portion of the upgraded Lions Gate wastewater treatment plant and the upgraded Iona wastewater treatment plant that is primary treatment infrastructure equivalent to primary treatment infrastructure that was in place at Annacis wastewater treatment plant and Lulu Island wastewater treatment plant prior to those plants being upgraded to secondary treatment, namely the primary treatment tanks;

“Total Dry Weather Flows” means the aggregate of the Dry Weather Flows for all of the Corporation’s Sewerage Areas;

“UBC Dry Weather Flow” in respect of any 12-month period means the 25th percentile of the average daily flows of sewage and wastewater discharged from the university site, as determined by the Corporation, and based upon:

- (i) flow monitoring meters for the University of British Columbia, and
- (ii) such other data deemed relevant by the Corporation for making such determination;

“UEL Dry Weather Flow” in respect of any 12-month period means the 25th percentile of the average daily flows of sewage and wastewater discharged from the University Endowment Lands, as determined by the Corporation, and based upon:

- (i) temporary flow monitoring by mobile flow meters for the University Endowment Lands, and
- (ii) such other data deemed relevant by the Corporation for making such determination; ~~and~~

“University Endowment Lands” means the area of the University Endowment Lands (as referred to in section 5(2) of the Act ~~); and~~

“University Site” means the area of the University of British Columbia (as referred to in section 6(11) of the Act).

2. DELETED by Bylaw 301. 2016

3. DELETED by Bylaw 301, 2016

4. Apportionment of Growth Costs

4.1 The Corporation will, ~~by way of borrowing,~~ raise sufficient monies to pay the Growth Component in each year, as capital expenditures are incurred.

4.2 The Corporation will apportion to each Sewerage Area:

(a) 100% of the Tier I Growth Component ~~Payments~~ that are is attributable to that Sewerage Area; and

(b) 30% of the Tier II Growth Component ~~Payments~~ that are is attributable to that Sewerage Area.

4.3 The Corporation will apportion among the Sewerage Areas the total costs incurred in respect of 70% of Tier II Growth Component on the basis of the following formula:

$$\frac{\text{Sewerage Area Population Growth}}{\text{District Population Growth}} \times \frac{\text{The total costs incurred in respect of 70\% of Tier II Growth Component}}{\text{Component}}$$

4.34.4 The Corporation will apply the development cost charge monies (the “**DCC Monies**”) received under Greater Vancouver Sewerage and Drainage District Development Cost Charge Bylaw No. 254, 2010 (as amended or replaced from time to time) in any year and apportioned to a particular Sewerage Area to pay up to 99% of the sum of the Tier I Growth Component ~~Payments~~ and Tier II Growth Component ~~Payments~~ apportioned to that Sewerage Area pursuant to sections 4.2 and 4.3.

~~4.4 The Corporation will apportion to each Sewerage Area the total of the interest payable on any borrowing having a term of more than 12 months, incurred in respect of:~~

~~(a) 100% of the Tier I Growth Component that is attributable to that Sewerage Area; and~~

~~(b) 30% of the Tier II Growth Component that is attributable to that Sewerage Area.~~

~~4.5 The Corporation will apportion among the Sewerage Areas the total of:~~

~~(a) the interest payable on any borrowing that has a term of more than 12 months incurred in respect of 70% of Tier II Growth Component; and~~

~~(b) 1% of the amount that is equal to 70% of the Tier II Growth Component Payments, on the basis of the following formula:~~

$$\frac{\text{Sewerage Area Population Growth}}{\text{District Population Growth}} \times \text{Amount to be apportioned among Sewerage Areas}$$

~~4.6 After complying with sections 4.2, 4.3, 4.4 and 4.5 above, the Corporation will apply DCC Monies to pay the unapportioned balance of the Tier II Growth Component Payments. In the event that there is a shortfall in the amount of DCC Monies required to pay the unapportioned balance of the Tier II Growth Component Payments, the amount of such shortfall will be apportioned among the Sewerage Areas on the basis of the formula set out in section 4.5.~~

4.74.5 The Corporation will further apportion among the member municipalities within each Sewerage Area (including, in the case of the Vancouver Sewerage Area, the University Endowment Lands) the total of:

- (a) 1% of the ~~amount~~sum of the amounts apportioned to the Sewerage Area pursuant to section ~~s 4.2; and 4.3; and~~
- ~~(b) the amount by which the DCC Monies are insufficient to pay 99% of the amount apportioned to the Sewerage Area pursuant to section 4.2;~~
- ~~(c) sum of the amounts~~s apportioned to the Sewerage Area pursuant to section ~~s 4.2 and 4;~~
- ~~(d) the amount apportioned to the Sewerage Area pursuant to section 4.5; and~~
- ~~(e)(b) the amount by which DCC Monies are insufficient to pay the unapportioned balance of the Tier II Growth Component Payments apportioned to the Sewerage Area pursuant to section 4.6, 3;~~

on the basis of the following formula:

$$\frac{\text{Member Population Growth}}{\text{Sewerage Area Population Growth}} \times \frac{\text{Amount to be apportioned among Member municipalities of the Sewerage Area}}{\text{The sum of amounts (a) and (b)}}$$

4.84.6 For the purposes of the formulae set out in sections ~~4.53~~ and ~~4.75~~, the Member Population Growth, the Sewerage Area Population Growth and the District Population Growth will be the applicable (rolling) average annual population growth (as published in the most recent edition, as determined by the Corporation, of British Columbia Municipal and Regional District Population Estimates ~~of the Demographic Analysis Section~~ of BC ~~Stats~~STATS, ~~Ministry of Technology, Innovation and Citizens' Services~~ of the Government of the Province of British Columbia) in each respective area for the five-year period that precedes and ends on December 31 of the calendar year that is two years prior to December 31 of the calendar year in respect of which the calculation is made. Despite the foregoing, the Member Population

Growth for the University Endowment Lands will be deemed to be equal to 0.9% of the Member Population Growth for the City of Vancouver.

4.7 Special Apportionment for the Vancouver Sewerage Area

(a) If by January 31 of any year there is no agreement under subsection 6(5) of the Act in force with respect to that year, and for the purpose of further apportioning costs apportioned to the Vancouver Sewerage Area under sections 4.2 and 4.3, the Corporation will further apportion to the University of British Columbia an amount equal to:

$A \times [(B + C)/D]$, where:

A = 90% of the sums of the amounts apportioned to the Vancouver Sewerage Area as calculated in Sections 4.5 (a) and (b)

B = University of British Columbia residential population (the population as published in the most recent edition, as determined by the Corporation, of British Columbia Municipal and Regional District Population Estimates of BC Stats, of the Government of the Province of British Columbia)

C = University of British Columbia student population (the total student enrolment for the Vancouver campus, reported/published annually by the University's Provost and Vice-President Academic)

D = Vancouver Sewerage Area total population (the total member population for that Area's member municipalities as published in the most recent edition, as determined by the Corporation, of British Columbia Municipal and Regional District Population Estimates of BC Stats, of the Government of the Province of British Columbia, and where the member population for the University Endowment Lands will be deemed to be equal to 0.9% of the member population for the City of Vancouver).

This sum of money to be paid by the University of British Columbia will be due and payable on the fifteenth day of August in such year, with any sum of money apportioned but not paid by such due date bearing interest pursuant to section 6(8) of the Act.

(b) Despite section 4.4, for the Vancouver Sewerage Area, the Corporation will apply, to pay up to 99% of the Tier I Growth Component and Tier II Growth Component apportioned to the Vancouver Sewerage Area pursuant to sections 4.2 and 4.3:

(1) Monies received from the University of British Columbia pursuant to section 4.7(a); and

(2) DCC Monies received under Greater Vancouver Sewerage and Drainage District Development Cost Charge Bylaw No. 254, 2010 (as amended or replaced from time to time) in any year and apportioned to the Vancouver Sewerage Area.

5. Industrial Treatment Costs

- 5.1 The Corporation will charge its Industrial Treatment Costs directly to Industrial Permittees and Industrial Treatment Costs will not be apportioned to the Sewerage Areas or member municipalities pursuant to this Bylaw.
- 5.2 For the purpose of section 7.1, all Assessed Values will be reduced by an amount equal to the Industrial Assessed Value within each relevant area for Industrial Permits (Permittees).

6. Apportionment of Non-Growth Costs

- 6.1 Except as otherwise provided in this bylaw, the Regional Share will be apportioned among the Sewerage Areas in the same proportion that the Dry Weather Flow for each Sewerage Area during the twelve month period ending June 30 of the immediately preceding year bears to the Total Dry Weather Flows during that same period.
- 6.2 The Sewerage Area Share will be apportioned to those Sewerage Areas for which the Corporation has incurred Tier II Non-Growth FinancingComponent, in the proportion that Tier II Non-Growth FinancingComponent incurred for services within a Sewerage Area bears to 100% of Tier II Non-Growth FinancingComponent.
- 6.3 The Tier I Non-Growth FinancingComponent will be apportioned to the Sewerage Area for which the costs were incurred.

7. Apportionment of Non-Growth Costs Among Member Municipalities

- 7.1 Except as otherwise provided in this bylaw, the total of:
- (a) the portion of the Regional Share apportioned to the Vancouver Sewerage Area under section 6.1;
 - (b) the Sewerage Area Share apportioned to the Vancouver Sewerage Area under section 6.2;
 - (c) the Tier I Non-Growth FinancingComponent apportioned to the Vancouver Sewerage Area -under section 6.3; and
 - (d) all other costs apportioned to the Vancouver Sewerage Area pursuant to section 9,
- will, except for the amount apportioned under section 8.1, be further apportioned among the member municipalities within the Vancouver Sewerage Area in the same proportion that the Assessed Value (as adjusted in accordance with section 5.2) of the lands of each member municipality within the Vancouver Sewerage Area bears to the Assessed Value (as adjusted in accordance with section 5.2) of all lands within the Vancouver Sewerage Area.
- 7.2 Except as otherwise provided in this bylaw, the total of:

- (a) the portion of the Regional Share apportioned to the Lulu Island West Sewerage Area under section 6.1;
- (b) the Sewerage Area Share apportioned to the Lulu Island West Sewerage Area under section 6.2;
- (c) the Tier I Non-Growth FinancingComponent apportioned to the Lulu Island West Sewerage Area under section 6.3; and
- (d) all other costs apportioned to the Lulu Island West Sewerage Area pursuant to section 9,

will be further apportioned entirely to the City of Richmond, being the sole member municipality within that Sewerage Area.

7.3 Except as otherwise provided in this bylaw, the total of:

- (a) the portion of the Regional Share apportioned to the North Shore Sewerage Area under section 6.1;
- (b) the Sewerage Area Share apportioned -to the North Shore Sewerage Area under section 6.2;
- (c) the Tier I Non-Growth FinancingComponent apportioned to the North Shore Sewerage Area under section 6.3; and
- (d) all other costs apportioned to the North Shore Sewerage Area pursuant to section 9,

will be further apportioned among the member municipalities within the North Shore Sewerage Area as follows:

The Corporation of the District of West Vancouver	30%
The Corporation of the District of North Vancouver	45%
City of North Vancouver	25%

7.4 Except as otherwise provided in this bylaw, the total of:

- (a) the portion of the Regional Share apportioned to the Fraser Sewerage Area under section 6.1;
- (b) the Sewerage Area Share apportioned -to the Fraser Sewerage Area under section 6.2;
- (c) the Tier I Non-Growth FinancingComponent apportioned to the Fraser Sewerage Area under section 6.3; and
- (d) all other costs apportioned to the Fraser Sewerage Area pursuant to section 9,

will be apportioned among the member municipalities of the Fraser Sewerage Area in the proportion that 100% of the Dry Weather Flow for each member municipality during the five

year period ending June 30 of the previous year, less 100% of the Industrial Flows for each such member during the same period, bears to 100% of the Dry Weather Flow for the entire Fraser Sewerage Area, less 100% of the Industrial Flows for the entire Fraser Sewerage Area, during the same period.

8. Special Apportionment for Vancouver Sewerage Area

8.1 For the purpose of further apportioning costs apportioned to the Vancouver Sewerage Area, under section 7.1:

- (a) the amount to be apportioned to the University Endowment Lands in respect of the University Endowment Lands will be equal to that portion of the costs apportioned to the Vancouver Sewerage Area that the UEL Dry Weather Flow bears to 100% of the Dry Weather Flow for the Vancouver Sewerage Area less 100% of the Industrial Flows for the Vancouver Sewerage Area, during the 12 month period ending June 30 of the immediately preceding year; and
- (b) the amount to be apportioned to the University of British Columbia in respect of the university site will be equal to that portion of the costs apportioned to the Vancouver Sewerage Area that the UBC Dry Weather Flow bears to 100% of the Dry Weather Flow for the Vancouver Sewerage Area less 100% of the Industrial Flows for the Vancouver Sewerage Area, during the 12 month period ending June 30 of the immediately preceding year.

9. Apportionment of Operation and Maintenance Costs and Previously Unapportioned Capital Costs

9.1 Operation and Maintenance Costs attributable to a particular Sewerage Area will be apportioned to the Sewerage Area for which such costs will be incurred, and will be further apportioned within each Sewerage Area on the basis set out in sections 7 and 8.

9.2 Operation and Maintenance Costs that are not attributable to a particular Sewerage Area and relate to region wide programs will be apportioned among the Sewerage Areas in the same proportion that the Dry Weather Flow for each Sewerage Area during the twelve month period ending June 30 of the immediately preceding year bears to the Total Dry Weather Flows during that same period, and will be further apportioned within each Sewerage Area on the basis set out in sections 7 and 8.

9.3 Operation and Maintenance Costs that are not attributable to a particular Sewerage Area and comprise administration and corporate service costs will be apportioned among the Sewerage Areas in the same proportion that the Operation and Maintenance Costs apportioned to each Sewerage Area for the previous year bears to the total Operation and Maintenance Costs for the same period, and will be further apportioned within each Sewerage Area on the basis set out in sections 7 and 8.

9.4 All principal, interest and other financing costs (excluding costs referred to in section 10.1) arising out of capital expenditures which have not already been apportioned pursuant to any other section of this bylaw and can equitably be apportioned (in the sole discretion of the

Corporation) to a single Sewerage Area will be apportioned entirely to that Sewerage Area and further apportioned within that Sewerage Area on the basis set out in sections 7 and 8. If any principal, interest and other financing costs (excluding costs referred to in section 10.1) arising out of capital expenditures which have not already been apportioned pursuant to any other section of this bylaw cannot equitably be attributed to a single Sewerage Area, such costs will be apportioned among the Sewerage Areas on the basis set out in section 6.1 and further apportioned within each Sewerage Area on the basis set out in sections 7 and 8.

10. Apportionment of Drainage Area Costs

10.1 Despite any other section of this bylaw, all costs relating to the three drainage areas of the Corporation, being the Still Creek/Brunette River Drainage Area, the Port Moody/Coquitlam Drainage Area, and University Drainage Area, will be apportioned among the member municipalities in the same proportion that the Assessed Value within each member municipality bears to the total Assessed Value within all member municipalities.

11. Severability

11.1 If a section, subsection, sentence, clause or phrase of this Bylaw is for any reason held to be invalid or unenforceable by a decision of a court of competent jurisdiction, such decision shall not affect the validity or enforceability of the remaining portions of the Bylaw.

12. Effective Date

12.1 This bylaw shall take effect on the _____ day of _____, 2014.

13. Citation

~~11~~13.1 This bylaw shall be cited for all purposes as "Greater Vancouver Sewerage and Drainage District Cost Apportionment Bylaw No. 283, 2014".

~~12. Effective Date~~

~~12.1 This bylaw shall take effect on the _____ day of _____, 2014.~~

READ A FIRST, SECOND AND THIRD TIME this _____ day of _____, 2014.

PASSED AND FINALLY ADOPTED this _____ day of _____, 2014.

Paulette Vetleson
Corporate Officer

Greg Moore
Chair

COMMITTEE INFORMATION ITEMS AND DELEGATION SUMMARIES

Greater Vancouver Sewerage and Drainage District

Board Meeting Date – Friday, July 26, 2019

This information item, listing recent information received by committee, is provided for the GVS&DD Board's information. Please access a complete PDF package [here](#).

Zero Waste Committee – July 12, 2019*Delegation Summaries:*

3.1 Nicholas Ponce and Jim Hutchinson, Republic Services

Information Items:

5.4 Alternative Fuel and Recyclables Recovery Project Update

5.5 2018 Single Use Items Waste Composition Study

5.6 Status of Solid Waste Services Capital Expenditures to April 30, 2019

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