

**METRO VANCOUVER REGIONAL DISTRICT  
FINANCE AND INTERGOVERNMENT COMMITTEE**

**REGULAR MEETING**

**Wednesday, July 14, 2021**

**1:00 p.m.**

**28<sup>th</sup> Floor Boardroom, 4730 Kingsway, Burnaby, British Columbia**

**A G E N D A<sup>1</sup>**

**1. ADOPTION OF THE AGENDA**

**1.1 July 14, 2021 Regular Meeting Agenda**

That the Finance and Intergovernment Committee adopt the agenda for its regular meeting scheduled for July 14, 2021 as circulated.

**2. ADOPTION OF THE MINUTES**

**2.1 June 16, 2021 Regular Meeting Minutes**

That the Finance and Intergovernment Committee adopt the minutes of its regular meeting held June 16, 2021 as circulated. *pg. 4*

**3. DELEGATIONS**

**4. INVITED PRESENTATIONS**

**5. REPORTS FROM COMMITTEE OR STAFF**

**5.1 Enhanced 9-1-1 (E911) Call Answering Services – Request for Qualifications Process**

That the MVRD Board receive for information the report dated June 24, 2021 titled “Enhanced 9-1-1 (E911) Call Answering Services – Request for Qualifications Process”. *pg. 8*

**5.2 Award of a Contract Resulting from Request for Proposal (RFP) No. 20-103: Construction Services for Golden Ears Forcemain and River Crossing**

That the GVS&DD Board:

- a) approve a contract in the amount of up to \$83,628,768 (exclusive of taxes) to Pomerleau Inc., resulting from Request for Proposal 20-103: Construction Services for Golden Ears Forcemain and River Crossing, subject to final review by the Commissioner; *pg. 10*

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<sup>1</sup> Note: Recommendation is shown under each item, where applicable.

- b) direct staff to prepare a budget amendment to increase the Northwest Langley Wastewater Treatment Plant Expansion Program by \$39 million;
- c) direct staff to provide detailed options of potential budget reductions to offset, along with related risks, through the completion of the 2022 budget process; and
- d) authorize the Commissioner and the Corporate Officer to execute the required documentation once the Commissioner is satisfied that the award should proceed.

**5.3 Iona Island WWTP Projects – Project Definition Update** *pg. 15*

That the GVS&DD Board receive for information the report titled “Iona Island Wastewater Treatment Plant Projects – Project Definition Update”, dated June 23, 2021.

**5.4 Manager’s Report** *pg. 25*

That the Finance and Intergovernment Committee receive for information the report dated, June 24, 2021, titled “Manager’s Report.”

**6. INFORMATION ITEMS**

**6.1 Engagement Plan for Liquid Waste DCC Program Update** *pg. 28*

**6.2 Engagement Plan for Water DCC Program Implementation** *pg. 34*

**7. OTHER BUSINESS**

**8. BUSINESS ARISING FROM DELEGATIONS**

**9. RESOLUTION TO CLOSE MEETING**

*Note: The Committee 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 Finance and Intergovernment Committee close its regular meeting scheduled for July 14, 2021 pursuant to the *Community Charter* provisions, Section 90 (1) (c) (m) as follows:

- “90 (1) A part of the meeting may be closed to the public if the subject matter being considered relates to or is one or more of the following:
- (c) labour relations or other employee relations; and
  - (m) a matter that, under another enactment, is such that the public may be excluded from the meeting.”

**10. ADJOURNMENT/CONCLUSION**

That the Finance and Intergovernment Committee adjourn/conclude its regular meeting of July 14, 2021.

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Membership:

Buchanan, Linda (C) - North Vancouver City  
Dhaliwal, Sav (VC) - Burnaby  
Booth, Mary-Ann - West Vancouver  
Brodie, Malcolm - Richmond  
Coté, Jonathan - New Westminster

Dingwall, Bill - Pitt Meadows  
Froese, Jack - Langley Township  
Hurley, Mike - Burnaby  
McCallum, Doug - Surrey  
McCutcheon, Jen - Electoral Area A

McEwen, John - Anmore  
Stewart, Kennedy - Vancouver  
Stewart, Richard - Coquitlam  
West, Brad - Port Coquitlam

**METRO VANCOUVER REGIONAL DISTRICT  
FINANCE AND INTERGOVERNMENT COMMITTEE**

Minutes of the Regular Meeting of the Metro Vancouver Regional District (MVRD) Finance and Intergovernment Committee held at 1:00 p.m. on Wednesday, June 16, 2021 in the 28<sup>th</sup> Floor Boardroom, 4730 Kingsway, Burnaby, British Columbia.

**MEMBERS PRESENT:**

Chair, Mayor Linda Buchanan\*, North Vancouver City  
 Vice Chair, Councillor Sav Dhaliwal\*, Burnaby  
 Mayor Mary-Ann Booth\*, West Vancouver  
 Mayor Malcolm Brodie\*, Richmond  
 Mayor Jonathan Coté\*, New Westminster  
 Mayor Bill Dingwall\*, Pitt Meadows  
 Mayor Jack Froese\*, Langley Township  
 Mayor Mike Hurley\*, Burnaby (arrived at 1:05 p.m.)  
 Mayor Doug McCallum\*, Surrey  
 Director Jen McCutcheon\*, Electoral Area A  
 Mayor John McEwen\*, Anmore  
 Mayor Richard Stewart\*, Coquitlam

**MEMBERS ABSENT:**

Mayor Kennedy Stewart, Vancouver  
 Mayor Brad West, Port Coquitlam

**STAFF PRESENT:**

Jerry W. Dobrovoly, Chief Administrative Officer  
 Lauren Cichon, Legislative Services Coordinator, Board and Information Services

**1. ADOPTION OF THE AGENDA**

**1.1 June 16, 2021 Regular Meeting Agenda**

**It was MOVED and SECONDED**

That the Finance and Intergovernment Committee:

- a) amend the agenda for its regular meeting scheduled for June 16, 2021 by adding Item 3.1 Late Delegation – Nathan Davidowicz; and
- b) adopt the agenda as amended.

**CARRIED**

\*denotes electronic meeting participation as authorized by Section 3.6.2 of the *Procedure Bylaw*

**2. ADOPTION OF THE MINUTES**

**2.1 May 12, 2021 Regular Meeting Minutes**

**It was MOVED and SECONDED**

That the Finance and Intergovernment Committee adopt the minutes of its regular meeting held May 12, 2021 as circulated.

**CARRIED**

1:05 p.m. Mayor Hurley arrived to the meeting.

**3. DELEGATION**

**3.1 Nathan Davidowicz**

Nathan Davidowicz spoke to the Finance and Intergovernment Committee in relation to Item 5.1 requesting information on capital expenditures by TransLink, suggesting external consultants review the current public transit system, and emphasized that the MVRD, local jurisdictions, and TransLink work together with respect to ongoing projects and governance structure.

**4. INVITED PRESENTATIONS**

No items presented.

**5. REPORTS FROM COMMITTEE OR STAFF**

**5.1 Greater Vancouver Regional Fund – 2020 Annual Report**

Report dated June 2, 2021, from Mark Seinen, Senior Planner, Regional Planning and Housing Services, presenting to the Finance and Intergovernment Committee and MVRD Board TransLink's 2020 annual report on active projects funded by federal gas tax funds through the Greater Vancouver Regional Fund (GVRF) in accordance with the *Federal Gas Tax Fund Expenditures Policy (GVRF Policy)*.

**It was MOVED and SECONDED**

That the MVRD Board receive for information the report dated June 2, 2021, titled "Greater Vancouver Regional Fund – 2020 Annual Report."

**CARRIED**

**5.2 MVRD Procedure Amending Bylaw No. 1322, 2021**

Report dated June 2, 2021, from Chris Plagnol, Corporate Officer, seeking MVRD Board approval of the *Metro Vancouver Regional District Procedure Amending Bylaw Number 1322, 2021*, a bylaw to limit the participation of delegations wishing to speak at board or committee meetings about ongoing contract awards.

**It was MOVED and SECONDED**

That the MVRD Board:

- a) give first, second and third reading to *Metro Vancouver Regional District Procedure Amending Bylaw Number 1322, 2021*; and
- b) pass and finally adopt *Metro Vancouver Regional District Procedure Amending Bylaw Number 1322, 2021*.

**CARRIED**

**5.3 Manager's Report**

Report dated May 31, 2021, from Jerry Dobrovlny, Chief Administrative Officer, updating members on the Committee Work Plan.

**It was MOVED and SECONDED**

That the Finance and Intergovernment Committee receive for information the report dated, May 31, 2021, titled "Manager's Report."

**CARRIED**

**6. INFORMATION ITEMS**

No items presented.

**7. OTHER BUSINESS**

No items presented.

**8. BUSINESS ARISING FROM DELEGATIONS**

No items presented.

**9. RESOLUTION TO CLOSE MEETING**

**It was MOVED and SECONDED**

That the Finance and Intergovernment Committee close its regular meeting scheduled for June 16, 2021 pursuant to the *Community Charter* provisions, Section 90 (1) (c), (g) and 90 (2) (b) as follows:

- "90 (1) A part of the meeting may be closed to the public if the subject matter being considered relates to or is one or more of the following:
  - (c) labour relations or other employee relations;
  - (g) litigation or potential litigation affecting the regional district; 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 and a third party."

**CARRIED**

**10. ADJOURNMENT/CONCLUSION**

**It was MOVED and SECONDED**

That the Finance and Intergovernment Committee adjourn its regular meeting of June 16, 2021.

**CARRIED**

(Time: 1:09 p.m.)

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Lauren Cichon,  
Legislative Services Coordinator

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Linda Buchanan, Chair

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To: Finance and Intergovernment Committee

From: Greg Smith, Senior Director, Corporate Services

Date: June 24, 2021 Meeting Date: July 14, 2021

Subject: Enhanced 9-1-1 (E911) Call Answering Services - Request for Qualifications Process

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**RECOMMENDATION**

That the MVRD Board receive for information the report dated June 24, 2021 titled “Enhanced 9-1-1 (E911) Call Answering Services – Request for Qualifications Process”.

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**EXECUTIVE SUMMARY**

Metro Vancouver’s current contract with E-Comm, the E911 service provider will expire in the next 18 months and Metro Vancouver is planning to enter a competitive process to replace the contract. The current contract requires Metro Vancouver to provide a 12-month notice period should there be a change in providers. The total value of the existing E911 contract is approximately \$4.5 million per year.

**PURPOSE**

To provide an update to the MVRD Board on the E-Comm 9-1-1 Call Answer Service contract and Metro Vancouver’s intent to issue an open Request For Qualifications (RFQ) for this service and award a new five (5) year contract before December 31, 2021.

**BACKGROUND**

Metro Vancouver provides E911 service for the region through a service agreement with E-Comm. E-Comm provides inter-related emergency communication services and over the last several years has developed significant infrastructure to support not only the Metro Vancouver area, but most of the Province.

In 2011, a 9-1-1 call answer service procurement process commenced. E-Comm was awarded a five (5) year contract with an option to extend for a second five (5) year term. This option was taken, and the contract will expire on December 31, 2022. The contract has a 12-month notice period provision, and therefore the replacement contract should be in place on or before December 31, 2021.

As Metro Vancouver is required to provide 12-months’ notice prior to termination of contract, and there is no guarantee E-Comm will be chosen through the RFQ, we require a replacement contract in place on or before December 31, 2021. In addition, there is utility in providing E-Comm as much notice as possible to give Metro Vancouver and E-Comm ample time to cut over to a new provider if that is the RFQ outcome.

**ALTERNATIVES**

This is an information report. No alternatives are presented.

**FINANCIAL IMPLICATIONS**

The current contract cost to provide E911 Call Answering Services is approximately \$4.5 million annually.



**CONCLUSION**

This report provides the MVRD Board an update on the E-Comm 9-1-1 Call Answering Services contract and Metro Vancouver's intent to issue an open RFQ for this service and award a new contract before December 31, 2021.

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To: Finance and Intergovernment Committee

From: Marie-Liesse Marc, Director Major Projects, Project Delivery  
Roy Moulder, Director, Purchasing and Risk Management, Financial Services

Date: July 7, 2021 Meeting Dates: July 14, 2021

Subject: **Award of a Contract Resulting from Request for Proposal No. 20-103: Construction Services for Golden Ears Forcemain and River Crossing**

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### RECOMMENDATION

That the GVS&DD Board:

- a) approve a contract in the amount of up to \$83,628,768 (exclusive of taxes) to Pomerleau Inc., resulting from Request for Proposal 20-103: Construction Services for Golden Ears Forcemain and River Crossing, subject to final review by the Commissioner;
- b) direct staff to prepare a budget amendment to increase the Northwest Langley Wastewater Treatment Plant Expansion Program by \$39 million;
- c) direct staff to provide detailed options of potential budget reductions to offset, along with related risks, through the completion of the 2022 budget process; and
- d) authorize the Commissioner and the Corporate Officer to execute the required documentation once the Commissioner is satisfied that the award should proceed.

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### EXECUTIVE SUMMARY

This report is to advise the GVS&DD Board of the results of Request for Proposal (RFP) No. 20-103: Construction Services for the Golden Ears Forcemain and River Crossing (the Project), and to recommend award of the contract to Pomerleau Inc. (Pomerleau), in an amount of up to \$83,628,768 (exclusive of taxes) with adjustment to the budget to accommodate the award. This project is one of the phased design bid build projects forming the Northwest Langley Wastewater Treatment Plant Expansion Program.

Request for Proposal No. 20-103 was issued in January 2021 for Construction Services for the Project. Three compliant proposals were received on April 21st, 2021 from Michels Canada Co., Pomerleau Inc., and Peter Kiewit Sons ULC. The proposal submitted by Pomerleau was the highest ranked submission on technical merits, and the financial submission with the lowest price.

Although all three proposals were significantly above the engineer's estimate of \$57 million, based on the on the critical function of the infrastructure being built, it is recommended that the GVS&DD Board authorize the Commissioner and Corporate Officer to award the contract to Pomerleau, in the amount of up to \$83,628,768 (exclusive of taxes).

Options to reduce costs were explored with the preferred proponent, leading to the award of a \$2,926,281 early works contract to Pomerleau. The majority of this early works award is for the acquisition of steel pipe coil to mitigate escalating steel pricing. The Project team will continue to

explore value engineering opportunities on the Project post award, as well as in the following phases of the Program design.

**PURPOSE**

This report is to advise the GVS&DD Board of the results of Request for Proposal No. 20-103: Construction Services for the Golden Ears Forcemain and River Crossing, and to recommend award of the contract in the amount of up to \$83,628,768 (exclusive of taxes).

**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 Finance and Intergovernment Committee to consider a recommendation to the GVS&DD Board to authorize award of a contract for the construction of the Golden Ears Forcemain and River Crossing.

**PROJECT DESCRIPTION**

The Fraser Servicing study identified significant cost savings by re-directing all the sewage generated in Pitt Meadows and Maple Ridge across the Fraser River to an upgraded wastewater treatment plant in the Township of Langley (the Northwest Langley Wastewater Treatment Plant Expansion Program). These flows currently are pumped 25 km to Annacis Island Wastewater Treatment Plant for treatment. The Project is one of the 5 projects forming the Northwest Langley Wastewater Treatment Plant Expansion Program.

The scope of work for the Project includes installation of 1,600 meters of twin steel pipe river crossings using horizontal directional drilling methods, 525 meters of steel and high density polyethylene (HDPE) pipe using open cut construction, and 125 meters of trenchless construction for road crossings. Construction of a blowdown chamber and air valve chambers are also required. The new conveyance system will be known as the Golden Ears Forcemain and River Crossing.

As a result of Request for Qualifications (RFQ) No. 20-102 that was publically advertised on the Metro Vancouver’s and BC Bid websites, three (3) experienced firms were invited to respond to RFP No. 20-103 for Construction Services for the Project. Three proposals were received on April 21, 2021 from Michels Canada Co., Peter Kiewit Sons ULC and Pomerleau Inc. The proposed prices are noted below.

<b>Proponent</b>	<b>Total Proposal Price (Exclusive of Taxes)</b>
Pomerleau Inc.	\$ 84,963,891
Michels Canada Co.	\$ 94,562,154
Peter Kiewit Sons ULC	\$ 117,614,500

The Construction Services proposals were evaluated on their commercial and technical merits. The proposal submitted by Pomerleau was the highest ranked submission on technical merits, as well as the financial submission with the lowest price.

As is allowed for under the RFP competition terms, negotiations were conducted with the highest ranked proponent, Pomerleau, in efforts to bring the proposed fee more in line with the Project budget as well as address some changes in available road access to the Project site and early work agreement benefits:

- Options to amend risk transfer, relax schedule and/or delay the installation of one of the two steel pipe river crossing to 2045 were explored, but none of these options were deemed acceptable due to long term operational risk and overall cost impact, or feasible in the time allowed before bid validity would be lost. The Project team will continue to explore whether some of those changes could be implemented post award.
- An Early Work Agreement was awarded to Pomerleau on July 2, 2021 to partly mitigate steel price escalation risk and certain permit related schedule risks. The contract was awarded for an amount of \$2,926,281 (excluding taxes) and includes the purchase of one steel pipe coil, the preparation of steel pipe submittals, environmental protection plans, traffic management plans as well as archaeological test pits, tree removal, and contaminated soils investigation. The Early Work Agreement price has been subtracted from the total proposal price put forward for approval.
- An amount of up \$1,591,158 was added to the contract price to account for steel indexation between June 20, 2021 and contract award date as well as changes in road access available to the Project site.

#### PROJECT BUDGET

All three proposals significantly exceeded the engineer's estimate for the work, with financial submissions being between \$28 million and \$60 million above the engineer's estimate. Construction inflation due to the ramp up of work in the market, commodity costs has been challenging to estimate in the current economic conditions. The Engineer's estimate, completed in January 2021, did not anticipate the levels of cost escalations being reflected in the bids and the level of activity for competing projects. For instance, steel prices (based on steel index) have increased by over 130% since the engineers' estimate was completed.

To move forward with this contract as proposed and to continue progress on the Northwest Langley Wastewater Treatment Plant Expansion Program, the Program budget will need to be increased as follows:

Construction (per contract award)	\$ 29.3 million
Contingency, Risk Reserves and Owners Cost (per Cost Estimating Framework)	\$ 9.7 million
Total	<u>\$ 39.0 million</u>

## **ALTERNATIVES**

1. That the GVS&DD Board:
  - a) approve a contract in the amount of up to \$83,628,768 (exclusive of taxes) to Pomerleau Inc., resulting from Request for Proposal (RFP) 20-103: Construction Services for Golden Ears Forcemain and River Crossing, subject to final review by the Commissioner;
  - b) direct staff to:
    - i. prepare a budget amendment to increase the Northwest Langley Wastewater Treatment Plant Expansion Program by \$39 million; and
    - ii. provide detailed options of potential budget reductions to offset, along with related risks, through the completion of the 2022 budget process; and
  - c) authorize the Commissioner and the Corporate Officer to execute the required documentation once the Commissioner is satisfied that the award should proceed.
  
2. That the GVS&DD Board not approve the award of Construction Services to Pomerleau Inc. resulting from RFP No. 20-103: Construction Services for the Golden Ears Forcemain and River Crossing 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 in the amount of up to up to \$83,628,768 (exclusive of taxes) will be awarded to Pomerleau Inc. and staff will adjust the Northwest Langley Wastewater Treatment Plant Expansion Program budget with an additional \$39 million. While the Northwest Langley Wastewater Treatment Plant Expansion Program is a growth project and will be primarily funded by Development Cost Charges, there will be upward pressure on future levies and therefore the Household Impact due to the DCC assist factor.

The majority of the investment for this Program will be made in 2023 and 2024. As part of the 2022-2026 LWS Capital Plan, staff will be recommending a risk allowance increase. An early risk assessment indicates an increase of \$250 million is required to better account for unforeseen cost escalations, and technical risks related to the wastewater treatment plant upgrade project. The additional \$39 million budget needed to fund the Golden Ears Forcemain and River Crossing Project would come in addition to that risk allowance, bringing the overall Program budget to \$1,625 million. The Program team is also in the process of conducting a value engineering exercise to inform cost saving opportunities and the final value of the recommended risk allowance increase for the Program.

The GVS&DD Board has the choice not to proceed with Alternative 1, but staff will need further direction in relation to the Project.

Alternative 2 will result in delays and proposal cost escalation for the Program. In the current competitive procurement environment and commodity escalation price, a nine-month delay to the Project is estimated to increase Program costs by approximately \$10 million. Furthermore, delaying the Project until a later date will inevitably impact contractor responses given the backlog of competing infrastructure work within the region and expected as part of the economic recovery following the pandemic.

## **CONCLUSION**

Request for Proposal No. 20-103 was issued for Construction Services of the Golden Ears Foremain and River Crossing. Pomerleau was identified as the highest ranked and lowest cost proposal. Based on the evaluation of the proposals and on the critical function of the infrastructure being built, it is recommended that the GVS&DD Board increase the Northwest Langley Wastewater Treatment Plant Expansion Program Budget by \$39 million to cover the financial commitments made through existing and future contracts, and authorize the Commissioner and Corporate Officer to award the contract to Pomerleau Inc., in the amount of up to \$83,628,768 (exclusive of taxes).

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To: Finance and Intergovernment Committee

From: Bryan Shoji, Director, Policy, Planning and Analysis, Liquid Waste Service  
Brett Young, Director, Major Projects, Project Delivery

Date: June 23, 2021 Meeting Date: July 14, 2021

Subject: **Iona Island Wastewater Treatment Plant Projects – Project Definition Update**

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### RECOMMENDATION

That the GVS&DD Board receive for information the report dated June 23, 2021, titled “Iona Island Wastewater Treatment Plant Projects – Project Definition Update”.

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### EXECUTIVE SUMMARY

At its July 31, 2020 meeting, the GVS&DD Board endorsed the Design Concept for the Iona Island Wastewater Treatment Plant Project – one of Canada’s most dynamic and transformative urban sustainability projects. Since then, a number of challenges have been identified related to constructability and schedule constraints, all contributing to higher estimated costs. In advancing the Design Concept, the preliminary project schedule indicates secondary wastewater treatment is anticipated to be operational by 2034, four years after the regulatory deadline of December 31, 2030. Applying Metro Vancouver’s new cost estimating framework, total project costs for the Design Concept are estimated at a present value of \$6.7 billion. When escalation and a risk reserve are included, the estimated total cost is \$10.4 billion.

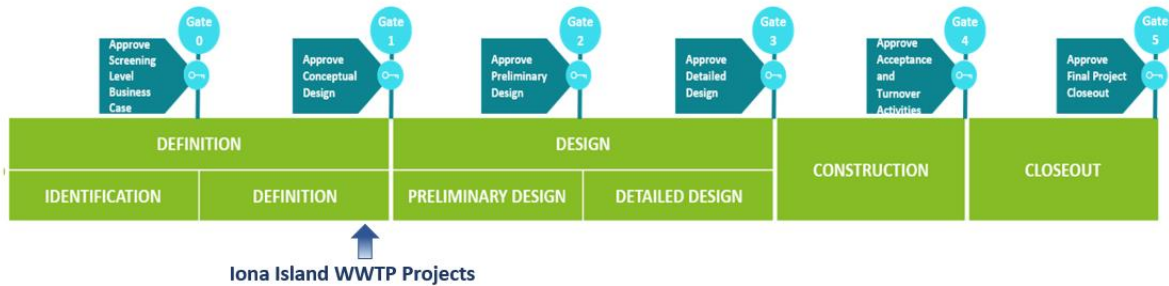
Next steps will focus on addressing the challenges, and will include a revised structured decision-making process for alternate design concepts that will consider technology, layout, implementation and other aspects of the projects identified through an independent value engineering exercise. Metro Vancouver will also re-engage member jurisdictions, key stakeholders, the public and First Nations on any revised aspects of the projects. Staff plan to report back with a recommended Revised Design Concept in November 2021. Following Board endorsement of the recommended Revised Design Concept, staff will target finalizing the Project Definition Report and Indicative Design in early 2022, including a recommended schedule, budget and delivery strategy.

### PURPOSE

To provide the Board with an update on the Iona Island Wastewater Treatment Plant Projects, including recently identified challenges, and how staff are addressing these challenges through:

- completion of value engineering;
- further consideration of technology, layout and implementation options to address the challenges; and
- conducting public and First Nations engagement on aspects of the projects being considered for potential revision.

The Iona Island Wastewater Treatment Plant Projects are still in the project definition phase with the above steps to be addressed before the final Project Definition Report is presented to the Board for approval as part of Gate 1 in Metro Vancouver’s Stage Gate Approval Process.



**BACKGROUND**

Since its opening in 1963, the Iona Island Wastewater Treatment Plant (IIWWTP) has provided primary wastewater treatment to residents and businesses in the Vancouver Sewerage Area (currently parts of the Cities of Vancouver, Richmond, Burnaby, the University of British Columbia and the University Endowment Lands). For a brief video history of the IIWWTP, click [here](#).

In May 2011, Metro Vancouver’s *Integrated Liquid Waste and Resource Management Plan* was approved by the BC Minister of Environment. The plan requires that the IIWWTP upgrade be completed within 20 years of plan adoption. The Federal *Wastewater Systems Effluent Regulation* that became law in 2012 requires the plant be upgraded to meet regulatory requirements no later than December 31, 2030.

At its July 31, 2020 meeting, the GVS&DD Board endorsed a Design Concept for upgrading the existing wastewater treatment facility as presented in the report dated June 23, 2020, titled “Iona Island Wastewater Treatment Plant Project Design Concept”.

The July 2020 Board-endorsed Design Concept includes tertiary level treatment for the new plant, resource recovery opportunities, integration with Iona Beach Regional Park and surrounding communities, and a range of ecological projects designed to improve water quality, restore fish habitat, protect bird habitat and enhance terrestrial ecosystems. The recommended Design Concept was identified after a comprehensive evaluation of three short-listed concepts, which included consideration of input from public and First Nations engagement.

The intent following July 2020 Board endorsement was for staff to advance the Design Concept and report back with a final Indicative Design and Project Definition Report, including budget, schedule and a procurement strategy, for Board approval.

Since then, a number of challenges were identified as the project definition work progressed.

**TRANSITION TO DELIVERY AND EMERGING CHALLENGES**

Following Board endorsement, staff advanced the Design Concept and developed a Class 3 cost estimate (Association for the Advancement of Cost Engineering International - AAECI) as the basis for the project budget. As part of this process and in anticipation of the transition of the project to the new Project Delivery department, staff also conducted further reviews of project scheduling, off-site



requirements, constructability issues, and undertook an initial risk assessment for this major project. This work identified several significant challenges that had not been fully identified or addressed during the early planning stages, related to:

- solids management;
- constructability; and,
- schedule constraints; all contributing to:
- higher estimated costs.

### **Challenge - Solids Management**

To help reduce costs and the footprint, the Design Concept included re-use of the existing solids digesters at IWWTP for an interim period, with future new digesters to be located on the site of the current primary sedimentation tanks. An advantage to this approach was to allow for the potential addition of new solids treatment technologies such as hydrothermal liquefaction, currently being piloted by Metro Vancouver.

The existing digesters at IWWTP only have sufficient capacity to handle the sludge – undigested solids – from the primary treatment process. Upgrading the liquid stream process to secondary and tertiary treatment will produce approximately twice the volume of sludge. Without additional digestion capacity at IWWTP, this additional sludge needs to be transported to other Metro Vancouver wastewater treatment plants (e.g. Annacis Island WWTP) which themselves would require digestion capacity expansions. It is estimated that transportation of the sludge would average 35 trucks per day for six years, increasing operations costs and risks.

A regional solids management study, initiated in fall 2020, recommends that additional digestion capacity be constructed at IWWTP to coincide with the upgraded secondary and tertiary liquid waste treatment facilities. To accomplish this, and avoid six years of trucking undigested sludge, the current Design Concept footprint would need to be expanded to provide a location for the new digesters.

### **Challenge - Constructability**

The upgrade of the IWWTP involves very complex projects presenting multiple constructability challenges, including:

- Accessibility – a single-lane road to a remote location for heavy construction logistics that must be coordinated with cyclists and Iona Beach Regional Park users presents a significant safety and traffic management challenge;
- Limited working space – the constrained site reduces opportunities for construction staging which could also impact site safety;
- Construction during plant operations – culminating in multiple tie-ins to the existing, aged facilities;
- Minimizing impacts – to nearby residents and Musqueam Indian Band, whose primary lands are directly across the North Arm of the Fraser River, while protecting the unique and sensitive ecosystems on Iona Island/x<sup>w</sup>əyeyət.

The resulting tight layout for the Design Concept not only poses challenges during construction but also makes it more difficult to separate the work out into smaller discrete packages and contracts that would allow for increased bid competition, and additional local participation. Space and access

constraints also impact the duration of construction activities as a result of practical limits on the labour and materials that can be safely and effectively handled at any one time.

### **Challenge – Schedule Constraints**

As noted above, solids management and constructability challenges will have an impact on the overall project schedule. There are also several constraints on the existing site that must be addressed before the main plant construction work can start, including:

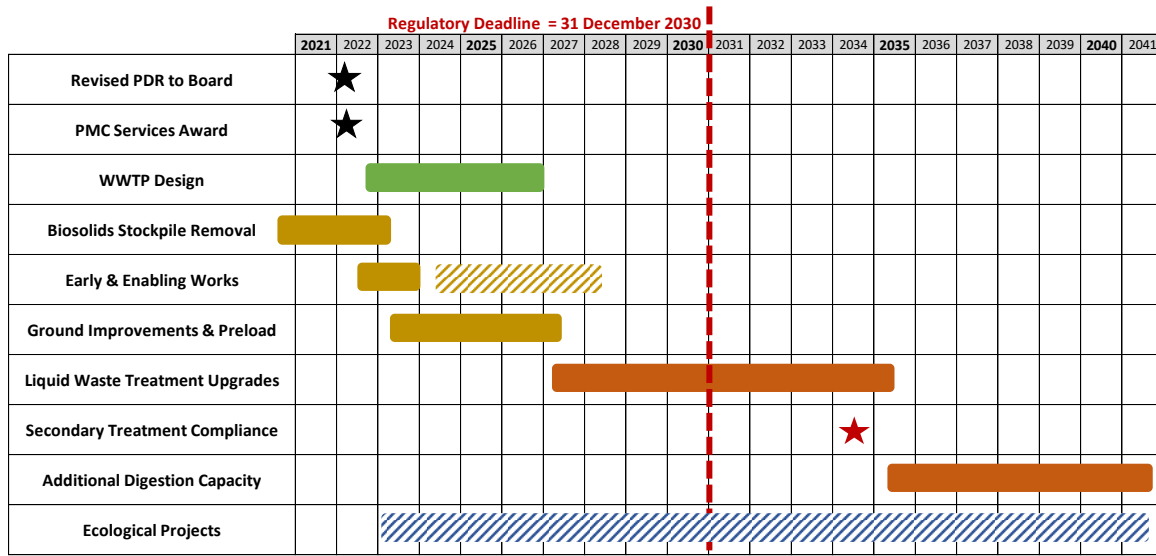
- dewatering of the four sludge lagoons west of the plant, which will take approximately four years;
- continued removal of the biosolids stockpiles east of the plant, scheduled for completion in early 2023;
- several years of ground improvements including the import, placing and removal of pre-load materials that can only be started once the existing biosolids stockpiles are removed; and,
- multiple complex permitting, approvals, and land tenure issues.

The scale and complexity of the treatment plant facilities also impact both the timing and duration of construction activities. The large number of permits and approvals required from various agencies also poses a significant challenge and risk of delays. These challenges were not fully taken into consideration in the Design Concept presented to the Board in July 2020.

### Preliminary Project Delivery Schedule

A preliminary delivery schedule has been developed that considers the challenges identified above and a summary is shown in the figure below. Key points to note include:

- secondary wastewater treatment is anticipated to be operational by 2034, assuming all approvals are received in a timely manner – this is four years after the regulatory deadline of December 31, 2030;
- construction of the WWTP upgrades can only start after several years of ground improvements, which can only begin after the existing biosolids stockpiles are removed;
- the current Design Concept layout only allows for additional digestion capacity at IWWTP after the new liquid stream treatment is operational; the additional digesters will take roughly six years to build with construction completion forecast by 2041 which will result in higher operational and environmental costs including the need for trucking sludge to another treatment facility during this period; and,
- the ecological restoration projects will be undertaken before, during, and after construction of the treatment plant upgrades, depending on their location, permitting requirements and coordination with other construction activities.



Preliminary Delivery Schedule (IIWWTP Projects)

**Challenge – Cost Estimates and Impact**

An updated AAECI Class 3 cost estimate was prepared following further advancement of the Design Concept and consideration of the schedule and other challenges noted above. Given the difficult geotechnical conditions for a project of this scale within the Fraser River Delta, extensive and costly ground improvements are required for the treatment plant upgrades, as encountered by other Metro Vancouver wastewater treatment plants with similarly challenging ground conditions.

The ground improvement requirements, other challenges noted above, and refinements to the Design Concept all impacted the updated cost estimates. In addition, different approaches to the treatment of risk, escalation and project contingency resulted in Class 3 cost estimates that are significantly higher than anticipated at the outset of project definition in 2018 and higher than the Class 4 cost estimates prepared in the project definition process.

Class 3 Cost Estimates

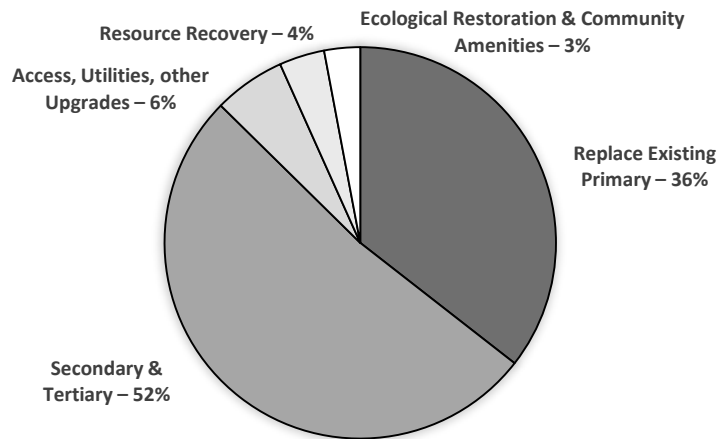
The preliminary cost estimates for the July 2020 Design Concept using Metro Vancouver’s new cost estimating framework show:

- cost estimate present value (2021 dollars) is \$6.7 billion;
- including escalation and risk reserve, the total estimate is \$10.4 billion; with,
- an estimating range from a low of \$8.7 billion to a high of \$11.4 billion.

This is the first major capital project to use Metro Vancouver’s newly adopted *Best Practice Project Estimating Framework* cost estimating framework at such an early stage. The framework includes a more rigorous approach to addressing challenges inherent in estimating future costs on large, complex and lengthy projects, including using forecast cash flows to estimate escalation, as well as the inclusion of a project risk reserve and appropriate contingency amounts. The purpose of the framework is to provide a more complete and realistic estimate of the project with a greater probability of actual costs at completion being within the original budget estimates. The framework also provides for consistent application across projects and with different consultants supporting these projects.

A breakdown of the cost estimate by components of the overall upgrade projects is shown in the figure below. Key points to note are:

- the costs to replace the existing preliminary and primary treatment facilities, which are largely past their useful service life and do not meet seismic standards, are over one-third of the total costs;
- upgrading to secondary (~50%) and tertiary (~2%) wastewater treatment is just over half of the total costs;
- while not broken out separately in Figure 2, the cost of ground improvements needed to meet geotechnical and seismic design standards is estimated to be roughly 20% of total costs; and,
- the resource recovery and the ecological restoration and community integration costs are each less than 5% of the total costs.



Cost estimate by key component

The table below, shows the total costs by phase with key activities noted for each phase.

PHASE 1 2021 – 2025	PHASE 2 2026 – 2034	PHASE 3 2035 – 2042
<b>\$750 M</b>	<b>\$6.7 B</b>	<b>\$3.0 B</b>
<ul style="list-style-type: none"> <li>• Early works</li> <li>• Ground improvements</li> <li>• Access roads and utilities</li> <li>• Ecological projects</li> </ul>	<ul style="list-style-type: none"> <li>• Continue early works</li> <li>• Replace preliminary and primary liquid treatment facilities</li> <li>• Upgrade liquid stream to secondary/tertiary treatment</li> <li>• Re-use of existing solids treatment facilities</li> <li>• Ecological projects</li> </ul>	<ul style="list-style-type: none"> <li>• Two new digesters for extra sludge from treatment process upgrades</li> <li>• Ecological projects</li> </ul>

Total costs by phase, with key activities, for July 2020 Design Concept

Preliminary Household Impacts

Determining ratepayer impacts for such a complex project is challenging given the number of assumptions that must be made to allow for financial risks and uncertainty over its multi-year life. Using the existing rate-setting methodology as set out in the *Greater Vancouver Sewerage and*

*Drainage District Act* as well as current Board policy, the average impact on a household in the Vancouver Sewerage Area, based on the costs and cash flows set out above, is estimated to be in the order of an average additional \$400 to \$500 annually calculated on a present value basis.

Further analysis on the financial impact will continue to be undertaken on an incremental basis as the project definition work continues to be refined.

### **ADDRESSING THE CHALLENGES**

The next steps in project definition will be focused on addressing the challenges identified so that the best possible projects can be presented to the Board for consideration in early 2022. These activities include a revised structured decision-making process on alternate concepts that will also consider technology, layout, implementation and other aspects of the projects identified through an independent value engineering exercise.

#### **Value Engineering**

An independent panel of global experts is undertaking a value engineering exercise in June and July 2021 to challenge the Design Concept and identify potential cost-saving and value-added opportunities. This process is being led by specialists who have not been involved in the process to date with expertise in:

- wastewater treatment process design;
- operations and maintenance of large scale municipal plants;
- geotechnical engineering, ground improvements and seismic design;
- landscape architecture and ecological restoration projects; and,
- constructability and delivery of large infrastructure projects.

The expert panel has a broad mandate to review not only the challenges identified by the project team, but to also identify other potential concerns with the current Design Concept, and recommend opportunities to improve the value of the project in terms of improved operations and reduced cost of construction and ownership.

#### **Development of a Revised Design Concept**

The value engineering findings will be incorporated into the evaluation of options to address the challenges and a revised structured decision-making process will be undertaken to recommend a Revised Design Concept for consideration by the Board.

The goals and objectives remain the same as those established at the outset of project definition in 2018 and the decision criteria stemming from these objectives will be used in the revised structured decision-making process, but with increased emphasis on:

- optimizing rate impacts;
- regional solids management; and,
- local participation and economic development.

#### **Priority Delivery Activities**

Because the latest project schedule indicates a completion date beyond the regulatory deadline, it is critical that any further delays be mitigated to the extent possible. Therefore, the delivery team is proceeding with priority activities to prepare the site and advance the preliminary design, where these activities will not be influenced by a Revised Design Concept.

These activities include:

- continued lagoon dewatering and removal of the biosolids stockpiles;
- geotechnical and environmental investigations;
- technical studies for ecological restoration projects;
- design of a temporary wharf for materials transportation to accelerate the schedule and mitigate traffic impacts;
- planning and preliminary design for access road upgrades in partnership with YVR;
- addressing land tenure issues and critical permitting requirements;
- exploring synergies with other projects;
- initiating procurement for a Program Management Consultant to support the Metro Vancouver team in the delivery of the organization’s largest ever capital project; and,
- developing an agreement with Musqueam Indian Band for ongoing collaboration and engagement through the subsequent phases of the projects.

**Public and First Nations Engagement**

Extensive project definition engagement was conducted between June 2018 and February 2021 with member jurisdictions, key stakeholders, regulatory agencies, members of the public, and First Nations.

Further engagement is required because the work described in this report includes the evaluation of options that could result in revisions to the Design Concept that was presented during previous engagement and endorsed by the Board in July 2020.

From August to October of this year, Metro Vancouver will conduct stakeholder, public and First Nations engagement, providing an update on the projects and seeking feedback on aspects of the projects being considered for revision. This timeline does not impact the schedule for finalizing the Project Definition Report and Indicative Design. The following activities will occur, by audience:

Audience	Engagement Activity
VSA member jurisdictions <ul style="list-style-type: none"> <li>• City of Richmond</li> <li>• City of Vancouver</li> <li>• City of Burnaby</li> <li>• UEL</li> <li>• UBC</li> </ul>	<ul style="list-style-type: none"> <li>• Provide project update to:                             <ul style="list-style-type: none"> <li>– Municipal councils, as requested</li> <li>– Monthly Vancouver Sewerage Area staff meetings</li> <li>– REAC, RFAC, and RAAC</li> </ul> </li> </ul>
First Nations	<ul style="list-style-type: none"> <li>• Provide project update letters to 14 First Nations, with offer to meet</li> <li>• Meet with First Nations, as requested</li> </ul>
Musqueam Indian Band	<ul style="list-style-type: none"> <li>• Staff-to-staff meeting(s)</li> <li>• Meet with Chief and Council, as requested</li> <li>• Meet with community members, as requested</li> </ul>

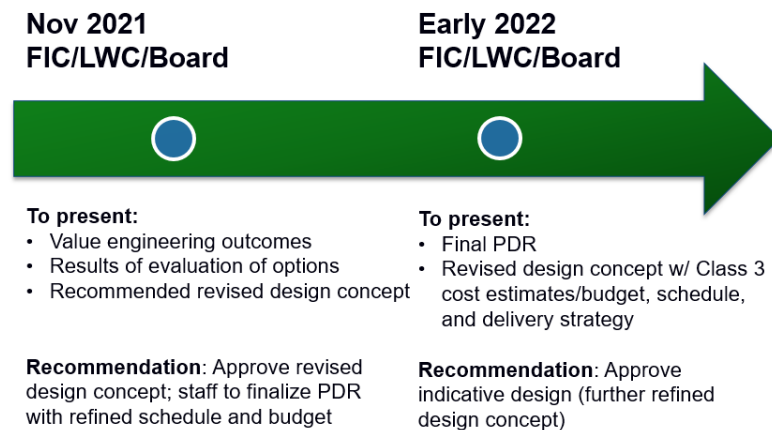
Audience	Engagement Activity
<ul style="list-style-type: none"> <li>• Business and industry neighbours</li> <li>• Residential neighbours</li> <li>• Environmental and special interest groups</li> <li>• Iona Beach Regional Park users</li> <li>• Community associations</li> </ul>	<ul style="list-style-type: none"> <li>• Notify of start of engagement period, with offer to meet</li> <li>• Meetings, as requested</li> <li>• Invite to attend online public meetings</li> <li>• Host online public meetings (2)</li> </ul>
Regulatory agencies	<ul style="list-style-type: none"> <li>• Provide project updates and confirm permitting/approval processes</li> </ul>

Staff plan to report the results from this engagement period to the Board in November with the staff-recommended Revised Design Concept. All feedback received during project definition will be reported to the Board, with the Project Definition Report and Indicative Design in early 2022.

Additional engagement activities will take place to support ongoing priority delivery tasks and related permitting requirements.

**Finalizing the Project Definition Report**

As indicated in the figure below, the intent is to complete the work described in this report so that a recommended and potentially Revised Design Concept, can be presented to the Board in November for consideration. If endorsed, staff would then finalize the Project Definition Report and Indicative Design, including a recommended schedule, budget and delivery strategy. Staff is targeting early 2022 for presentation of the report to the Board, but this may not be achievable if significant revisions to the Design Concept are recommended.



*Timeline for Finalizing the Project Definition Report (PDR)*

**ALTERNATIVES**

This is an information report. No alternatives are presented.

## **FINANCIAL IMPLICATIONS**

The additional work required to address the challenges identified and finalize the Project Definition Report will cost an additional \$3.95 million in consulting fees. With this increase, the total cost of the project definition phase, including initial planning studies done in 2008 and 2009, will be approximately \$20.5 million and is incorporated into the overall project budget.

While this is a material increase to the budget for this phase of the project, the total cost of the project definition is well below 0.5% of the preliminary cost estimates and is funded within the 2021 budget.

Addressing these challenges as early as possible is the most cost-effective approach to mitigating negative impacts on the overall budget and schedule and is critical to identifying the best possible projects to present to the Board for consideration.

## **CONCLUSION**

At its July 31, 2020 meeting, the GVS&DD Board endorsed the Design Concept for the Iona Island Wastewater Treatment Plant Projects. Since then, a number of challenges have been identified related to solids management, constructability and schedule constraints, all contributing to higher estimated costs. In advancing the Design Concept, the preliminary project schedule indicates secondary wastewater treatment is anticipated to be operational by 2034, four years after the federal and provincial regulatory deadline of December 31, 2030. Applying Metro Vancouver's new cost estimating framework, total project costs for the Design Concept are estimated at a present value of \$6.7 billion, and with escalation and a risk reserve, the estimated total cost is \$10.4 billion. Next steps in the project definition will be focused on addressing the challenges identified so that the best possible projects can be presented to the Board for consideration in early 2022. These activities include a revised structured decision-making process on alternate concepts that will also consider technology, layout, implementation and other aspects of the projects identified through an independent value engineering exercise. Metro Vancouver will also engage member jurisdictions, key stakeholders, the public and First Nations on aspects of the Project being considered for revision. Staff plans to report the findings of value engineering, other considerations, and public and First Nations engagement to the Board along with a Revised Design Concept in November 2021. Following Board endorsement of the recommended design concept, staff will target finalizing the Project Definition Report and Indicative Design in early 2022 for presentation to the Board, including a recommended schedule, budget and delivery strategy.

## **References**

1. [July 2020 Board-endorsed Design Concept](#)

45889766



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To: Finance and Intergovernment Committee

From: Jerry Dobrovolny, Commissioner/Chief Administrative Officer

Date: June 24, 2021 Meeting Date: July 14, 2021

Subject: **Manager's Report**

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**RECOMMENDATION**

That the Finance and Intergovernment Committee receive for information the report dated, June 24, 2021, titled "Manager's Report."

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**Finance and Intergovernment Committee Work Plan**

Attachment 1 to this report sets out the Committee's Work Plan for 2021. The status of the Committee's key priorities is shown as pending, in progress, or complete together with the quarter that each is expected to be considered by the Committee.

**Attachment**

1. 2021 Finance and Intergovernment Committee Work Plan (*Doc# 42574503*)

## Finance and Intergovernment Committee 2021 Work Plan

Report Date: June 24, 2021

## Priorities

<b>1<sup>st</sup> Quarter</b>	<b>Status</b>
2021 Standing Committee Events	Complete
Board Strategic Planning Session	Complete
TransLink Federal Gas Tax Application	Complete
Intergovernmental Relations Strategy	Complete
North Shore Wastewater Treatment Plant Update	Complete
Project Delivery Update	Complete
Procurement Policy Update	In Progress
National Zero Waste Council Update	Complete
2020 Zero Waste Conference	Complete
Forums on Systemic Racism Report Out and Next Steps	Complete
Tier III Cost Apportionment Bylaw Amendments	Complete
Litigation Updates	Complete
Fraser Basin Council Update	Complete
Lower Mainland Flood Management Strategy Update	Complete
Poplar Landing Update	Pending
Intergovernmental Communications and Engagement Update	Complete
Metro Vancouver Comments on from External Agency Projects (As Required/Applicable)	Pending
Board Policies (As Required/Applicable)	Pending
<b>2<sup>nd</sup> Quarter</b>	
Vancouver Airport Authority Update and Board Appointment	Complete
Resilient Region Strategic Framework	Complete
Waste-to-Energy Facility District Energy	Complete
Burrard Inlet Environmental Action Program – Fraser River Estuary Management Program (BIEAP – FREMP) Partnership Update	Pending
2020 Statement of Financial Information	Complete
Status of Reserves	Pending
Major Project Updates	Complete
Project Delivery Update	Complete
Municipal Finance Reform Update	Pending
Intergovernmental Communications and Engagement Update	Complete
UBC Cliff Interagency Steering Committee Update	Pending
Major Projects from External Agencies (As Required/Applicable)	Pending
Board Policies (As Required/Applicable)	Complete
<b>3<sup>rd</sup> Quarter</b>	
Environmental, Social and Governance (ESG) and Socially Responsible Investment (SRI) Strategy Update	Pending
TransLink Federal Gas Tax Report	Complete
Project Delivery Update	In Progress

Litigation Updates	Pending
Intergovernmental Communications and Engagement Update	Pending
Major Projects from External Agencies (As Required/Applicable)	Pending
Board Policies (As Required/Applicable)	In Progress
<b>4<sup>th</sup> Quarter</b>	
Annual Budget and Five Year Financial Plan – Regional District Service Areas and Corporate Support	Pending
School and Youth Leadership Program Update	Pending
Major Project Updates	Pending
Project Delivery Update	Pending
Intergovernmental Communications and Engagement Update	Pending
Major Projects from External Agencies (As Required/Applicable)	Pending
Board Policies (As Required/Applicable)	Pending

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To: Finance and Intergovernment Committee

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

Date: June 25, 2021 Meeting Date: July 14, 2021

Subject: **Engagement Plan for Liquid Waste DCC Program Update**

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The attached report titled “Engagement Plan for Liquid Waste DCC Program Update” will be considered by the Liquid Waste Committee at its meeting of July 15, 2021 and is presented here to the Finance and Intergovernment Committee for its information.

**Attachment:**

Engagement Plan for Liquid Waste DCC Program Update, dated June 25, 2021 (*orbit #45702764*)

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To: Liquid Waste Committee

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

Date: June 25, 2021 Meeting Date: July 15, 2021

Subject: **Engagement Plan for Liquid Waste Development Cost Charge Program Update**

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**RECOMMENDATION**

That the GVS&DD Board direct staff to proceed with engagement on the proposed update to the liquid waste development cost charge program as described in the report dated June 25, 2021, titled “Engagement Plan for Liquid Waste Development Cost Charge Program Update”.

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**EXECUTIVE SUMMARY**

As part of a plan to update the liquid waste development cost charge (DCC) program every three to five years, a program review was initiated in 2020. An internal cross-departmental DCC Steering Committee has been leading this review concurrently with planning the implementation of a new water DCC program.

Work to date has involved initial engagement, including meetings with relevant advisory committees, industry capacity analysis, and rate modelling, now resulting in a set of draft DCC *rates in principle*. Following Board review of the rates in principle and engagement plan in this report, there will be further engagement with relevant levels of government, First Nations, stakeholders, and the public, before finalizing the update for Board approval.

**PURPOSE**

To receive feedback and authorization for further engagement from the Liquid Waste Committee on the proposed update to the liquid waste DCC program, consisting of rate adjustments, and the proposed engagement plan which will solicit input on the DCC program update from relevant levels of government, First Nations, stakeholders, and the public.

**BACKGROUND**

The liquid waste DCC program of the GVS&DD was implemented in 1997 via a DCC Bylaw. The purpose of the program is to ensure that new development in the region helps fund the cost of the liquid waste infrastructure expansion required to service that development. Rates are calculated based on regional growth projections, projected costs of growth projects, projected interest rates, and assist factors, among other variables.

After the initial DCC rates were set in 1997, a review of the DCC program was carried out starting in 2014 and resulting in a 2017 amendment to the DCC Bylaw (Reference 1), updating the rates for each sewerage area. The 2017 review also noted a recommendation to ensure that DCC rate updates occur every three to five years, to ensure that increases can be more predictable and easier to absorb, and to ensure that revenue continues to support the increasing need for system expansion and increasing cost of infrastructure.

The current liquid waste DCC program update process was initiated to ensure the timely implementation of a rate update to the liquid waste DCC program and to align with the timing of the implementation of a brand new water DCC program, so that engagement with relevant parties could be undertaken concurrently.

### **DCC POLICY FRAMEWORK**

The liquid waste DCC policy framework is structured around the following factors:

- **Land use categories.** The DCC Bylaw charges DCCs based on four separate land use categories: single-family dwelling, townhouse, apartment, and non-residential.
- **Sewerage areas.** The DCC program is separated into four sewerage areas: Vancouver, Lulu Island West, North Shore, and Fraser. Each sewerage area has its own unique fee structure based on its development requirements.
- **Units for charging DCCs.** Residential developments are charged per unit/dwelling, while a DCC for a non-residential development is charged per square foot.
- **DCC waivers.** The DCC Bylaw includes a waiver for the development of affordable housing; the definitions and criteria for this waiver were updated in the 2017 review process.
- **Assist factors.** The assist factor is the portion of the growth project that is funded from the sewer user fees (levy) rather than DCCs. Increasing the assist factor shifts more of the cost of system expansion (growth) from DCCs to the sewer levy.

As there had not been a full program review in 20 years, the liquid waste DCC program review of 2017 included a review of all of these factors of the policy framework. The current update process has focused on preparing an adjustment to DCC rates.

### **LIQUID WASTE DCC PROGRAM UPDATE PROCESS OF 2020/21**

The current DCC program update process has been driven by a DCC Steering Committee of representatives of the Metro Vancouver finance, liquid waste, and water departments. This Steering Committee is overseeing both the liquid waste DCC program update as well as the water DCC program implementation. The Steering Committee's work has included:

- **Engagement.** Developing and implementing approaches to information sharing and engagement with members, the Province, First Nations, relevant industry stakeholders, and the public, as described in detail in a subsequent section.
- **Industry capacity analysis.** The procurement of a report on the development industry's capacity to absorb DCC rate increases in the four sewerage areas.
- **Rate modelling.** The modelling of DCC rates necessary to support growth projects, with consideration of variables including planning horizon, application of interest costs, assist factor, and methodology.
- **Preparing rates in principle.** Development of proposed *rates in principle*, following consideration of engagement to date, industry capacity analysis, and rate modelling; these rates are being brought forward for Board approval to use in further engagements with relevant parties.

### **PROPOSED ADJUSTMENTS TO LIQUID WASTE DCC RATES**

The existing DCC rates, in effect since 2017, are as follows:

Sewerage Area	Single-Family	Townhouse	Apartment	Non-Residential
Fraser	\$5,428 / unit	\$4,695 / unit	\$3,531 / unit	\$2.67 / ft <sup>2</sup> of floor area
Lulu Island West	\$2,214 / unit	\$1,915 / unit	\$1,388 / unit	\$1.05 / ft <sup>2</sup> of floor area
North Shore	\$2,300 / unit	\$2,076 / unit	\$1,416 / unit	\$1.20 / ft <sup>2</sup> of floor area
Vancouver	\$1,811 / unit	\$1,618 / unit	\$1,072 / unit	\$0.93 / ft <sup>2</sup> of floor area

A set of proposed DCC rates in principle has been developed and is being brought for Board approval for use in further engagement with relevant parties. The DCC rates in principle have been calculated to include:

- Interest on project costs
- A 17.5% assist factor, which is up from the current 1% assist factor; this is recommended to ensure that DCC rates are within the capacity of industry’s ability to pay
- A 30-year planning horizon

The proposed DCC rates in principle are:

Sewerage Area	Single-Family	Townhouse	Apartment	Non-Residential
Fraser	\$6,254 / unit	\$5,390 / unit	\$4,269 / unit	\$3.30 / ft <sup>2</sup> of floor area
Lulu Island West	\$3,313 / unit	\$2,756 / unit	\$2,042 / unit	\$1.54 / ft <sup>2</sup> of floor area
North Shore	\$3,300 / unit	\$2,786 / unit	\$2,030 / unit	\$1.67 / ft <sup>2</sup> of floor area
Vancouver	\$3,335 / unit	\$2,983 / unit	\$1,988 / unit	\$1.63 / ft <sup>2</sup> of floor area

**ENGAGEMENT PROCESS**

Engagement to date has been undertaken jointly on this project to update the liquid waste DCC program, as well as on the implementation of a new water DCC program.

The consultation process to date has involved:

- Q4 2020: Letters to members, the University Endowment Lands, and First Nations, outlining the DCC projects and inviting initial comments. Preliminary discussions with the Province.
- Q4 2020: Initial contact with industry groups, with feedback showing that discussions would be more appropriate once draft DCC rates were developed.
- Q1 2021: Development of a dedicated webpage (Reference 2) and FAQ document (Reference 3) on metrovancover.org to provide information on both DCC projects. Initiation of a DCC email address and a DCC mailing list on metrovancover.org to allow for convenient channels of communication.
- Q2 2021: Presentations to the Regional Engineers Advisory Committee (REAC), Regional Administrative Advisory Committee (RAAC), and Regional Finance Advisory Committee (RFAC), with discussions indicating substantial support from members for both water and liquid waste programs. Direct follow up with each of the region’s First Nations.

Feedback on the rates thus far has been supportive. REAC expressed a desire for higher rates (via reduced assist factor), while RAAC articulated more caution, recognizing the impact of rate increases both to the market, as well as to their own municipal DCCs. RFAC focused primarily on how to move

toward a model where growth is contributing to more of the costs, as well as how Metro Vancouver, TransLink, and members can collaborate in the future on DCCs. Perhaps not surprisingly, Metro Vancouver received renewed calls for annual incremental increases, much like the *Community Charter* regulation (*Development Cost Charge Amendment Bylaw Approval Exemption Regulation*) that exempts a DCC Bylaw from the approval requirements in the *Local Government Act* once each year for up to four years as long as increases do not exceed the Vancouver Consumer Price Index.

With this report, the proposed rates in principle will be reviewed with the Metro Vancouver Liquid Waste Committee, Finance and Intergovernment Committee, and with the GVS&DD Board prior to broader engagement with relevant levels of government, First Nations, industry stakeholders, and the public over the next three months. The next steps in the engagement process will include:

- Continued discussions with the Province on the liquid waste DCC program update and in getting the necessary legislation passed to implement the water DCC program
- Continued discussions with First Nations
- Ongoing updates to the dedicated DCC webpage and FAQ document
- Q3 2021: A series of online forums by sewerage area, and one in-person forum central to the region, with specific invitations sent out to Metro Vancouver members, members of the development community (including the Urban Development Institute, the Greater Vancouver Home Builders' Association, regional boards of trade and chambers of commerce), and promoted to industry through industry associations and to the public through the metrovancover.org website and relevant Metro Vancouver mailing lists
- Q3 2021: Reports to the Metro Vancouver Liquid Waste Committee, Finance and Intergovernment Committee, and the GVS&DD Board, to provide findings of the engagement process and recommendations for moving forward with an update to the liquid waste DCC program

## ALTERNATIVES

1. That the GVS&DD Board direct staff to proceed with engagement on the proposed update to the liquid waste development cost charge program as described in the report dated June 25, 2021, titled "Engagement Plan for Liquid Waste Development Cost Charge Program Update".
2. That the GVS&DD Board provide alternate direction to staff regarding the draft development cost charge rates in principle and/or the engagement plan as described in the report dated June 25, 2021, titled "Engagement Plan for Liquid Waste Development Cost Charge Program Update".

## FINANCIAL IMPLICATIONS

If the Liquid Waste Committee approves Alternative 1, the report will be forwarded to the GVS&DD Board for approval. The cost of the engagement process will be funded through the existing liquid waste function budget.

If the Liquid Waste Committee approves Alternative 2, the Committee may wish to recommend changes to the proposed DCC rates in principle or engagement plan. Further analysis may be required to determine the resulting financial impacts.



## **OTHER IMPLICATIONS**

While DCCs are an important tool for local governments to use in funding infrastructure driven by growth, it is important to consider the cumulative impact that they have on developers' abilities to pay for sites, which can in turn have effects on the real estate market including reduced supply and price increases. The proposed draft DCC rates in principle have been prepared with consideration given to industry's capacity for increased costs. However, the increases may affect the potential for other local governments in the region to raise their own DCC rates without significantly impacting the financial viability of development in the region.

## **CONCLUSION**

Following a review of the liquid waste DCC program four years ago that saw a more comprehensive update to components of the policy framework, an internal cross-departmental DCC Steering Committee is currently recommending that this iteration of the liquid waste DCC program update comprise solely of rate adjustments. The draft DCC rates in principle contained in this report have been developed based on initial engagement, industry capacity analysis, and rate modelling.

The engagement plan in this report to discuss the rates in principle with relevant levels of government, First Nations, stakeholders, and the public, will be central to finalizing the proposed update to the DCC program before going for Board approval.

To ensure that DCC rate increases occur in a timely fashion, such that they are more predictable and easier to absorb, and such that they continue to support the increasing need for system expansion and increasing cost of infrastructure, staff recommend Alternative 1.

## **References**

1. [DCC Bylaw](#)
2. [Development Cost Charges Webpage](#)
3. [FAQ Document](#)

45702764

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To: Finance and Intergovernment Committee

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

Date: June 18, 2021 Meeting Date: July 14, 2021

Subject: **Engagement Plan for Water DCC Program Implementation**

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The attached report titled “Engagement Plan for Water DCC Program Implementation” will be considered by the Water Committee at its meeting of July 15, 2021 and is presented here to the Finance and Intergovernment Committee for its information.

**Attachment:**

Engagement Plan for Water DCC Program Implementation, dated June 18, 2021 (*orbit #46289921*)

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To: Water Committee

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

Date: June 18, 2021 Meeting Date: July 15, 2021

Subject: **Engagement Plan for Water DCC Program Implementation**

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**RECOMMENDATION**

That the GVWD Board direct staff to proceed with engagement on the proposed implementation of a water DCC program as described in the report dated June 18, 2021, titled “Engagement Plan for Water DCC Program Implementation”.

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**EXECUTIVE SUMMARY**

The Greater Vancouver Water District (GVWD) Act does not currently allow Metro Vancouver to have development cost charges (DCCs) as a funding mechanism for its water function. In the current *Board Strategic Plan*, the Metro Vancouver Board committed to pursuing the adoption of a water DCC program. In 2020, an internal cross-departmental DCC Steering Committee took up leading this project concurrently with undertaking an update of the existing liquid waste DCC program.

Work to date has included initial engagement, industry capacity analysis, and rate modelling, resulting in a set of draft DCC *rates in principle*. Following Board review of the rates in principle and engagement plan in this report, there will be further engagement with relevant levels of government, First Nations, stakeholders, and the public, before finalizing the proposal and seeking Board approval to request that the Province of British Columbia enact the required legislation that would allow the GVWD to charge water DCCs.

**PURPOSE**

To receive feedback and authorization for further engagement from the Water Committee on the proposed implementation of a water development cost charge (DCC) program, and the proposed engagement plan which will solicit input on the DCC program implementation from relevant levels of government, First Nations, stakeholders, and the public.

**BACKGROUND**

While Metro Vancouver has operated a liquid waste DCC program of the Greater Vancouver Sewerage and Drainage District (GVS&DD) since 1997, there has never been a water DCC program in place, as the Greater Vancouver Water District (GVWD) Act does not currently permit it. DCCs are a mechanism to fund the cost of infrastructure expansion required for new development in addition to other revenues sources. The provincial *Local Government Act* allows local governments to charge DCCs for growth-driven costs, but since the GVWD operates under its own unique act, special legislation is required to introduce DCCs. The concept of Metro Vancouver funding the growth portion of its regional water infrastructure through DCCs has been encouraged by most members for several years, and in the *2019-22 Board Strategic Plan* (Reference 1), the Metro Vancouver Board committed

to pursuing the adoption of water DCCs. With growth projects comprising 54% of the long-term water capital program, ensuring a diverse and robust revenue model is critical.

### WATER DCC PROGRAM IMPLEMENTATION PROCESS

The DCC program implementation process has been driven by a DCC Steering Committee of representatives of the Metro Vancouver finance, liquid waste, and water departments. This Steering Committee is simultaneously overseeing both this implementation of a water DCC program as well as an update to the liquid waste DCC program, so that engagement with relevant parties can be undertaken concurrently. The Steering Committee's work has included:

- **Engagement.** Developing and implementing approaches to information sharing and engagement with members, the Province, First Nations, relevant industry stakeholders, and the public, as described in detail in a subsequent section.
- **Industry capacity analysis.** The procurement of a report on the development industry's capacity to absorb a new water DCC.
- **Rate modelling.** The modelling of DCC rates necessary to support growth projects, with consideration of variables including planning horizon, application of interest costs, assist factor, and methodology.
- **Preparing rates in principle.** Development of proposed *rates in principle*, following consideration of engagement to date, industry capacity analysis, and rate modelling; these rates are being brought forward for Board approval to use in further engagements with relevant parties.

### DCC POLICY FRAMEWORK

The water DCC policy framework has been designed to align with the liquid waste DCC policy framework in most respects, including the following factors:

- **Land use categories.** DCCs are to be based on four separate land use categories: single-family dwelling, townhouse, apartment, and non-residential.
- **Units for charging DCCs.** Residential developments will be charged per unit/dwelling, while a DCC for a non-residential development will be charged per square foot.
- **Assist factor.** The assist factor is the portion of the growth project that is to be funded from water sales to GVWD members rather than DCCs. Increasing the assist factor shifts more of the cost of system expansion (growth) from DCCs to water sales.

There is one significant point of difference between the proposed water DCC policy framework and the existing liquid waste DCC policy framework:

- **Sub-regional areas.** The liquid waste DCC program is separated into four sewerage areas: Vancouver, Lulu Island West, North Shore, and Fraser. Each sewerage area has its own unique fee structure based on its development requirements. The water DCC program will operate at the regional level, with one fee structure.

Given this framework, rates are then calculated based on growth projections, projected costs of growth projects, projected interest rates, and assist factors, among other variables.

One key lesson learned in past engagement on the liquid waste DCC program shows that regular reviews of about every three to five years of the DCC program, and in particular the rates, is helpful

to members and other stakeholders to ensure that increases can be more predictable and easier to absorb. This practice will be built in to the management of the water DCC program.

### PROPOSED WATER DCC RATES AND ASSIST FACTOR

A set of proposed DCC rates in principle has been developed and is being brought for Board approval for use in further engagement with relevant parties. The water DCC rates in principle have been calculated to include:

- Interest on project costs
- A 90% assist factor; this is recommended to ensure that DCC rates are within the capacity of industry's ability to pay
- A 30-year planning horizon

The proposed water DCC rates in principle are:

Single-Family	Townhouse	Apartment	Non-Residential
\$1,338 / unit	\$1,139 / unit	\$852 / unit	\$0.68 / ft <sup>2</sup> of floor area

### ENGAGEMENT PROCESS

Engagement to date has been undertaken jointly on this project to implement the new water DCC program, as well as on the update to the liquid waste DCC program.

The consultation process to date has involved:

- Q4 2020: Letters to members, the University Endowment Lands, and First Nations, outlining the DCC projects and inviting initial comments. Preliminary discussions with the Province.
- Q4 2020: Initial contact with industry groups, with feedback showing that discussions would be more appropriate once draft rates were developed.
- Q1 2021: Development of a dedicated webpage (Reference 2) and FAQ document (Reference 3) on metrovancover.org to provide information on both DCC projects. Initiation of a DCC email address and a DCC mailing list on metrovancover.org to allow for convenient channels of communication.
- Q2 2021: Presentations to the Regional Engineers Advisory Committee (REAC), Regional Administrative Advisory Committee (RAAC), and Regional Finance Advisory Committee (RFAC), with discussions indicating substantial support from members for both water and liquid waste programs. Direct follow up with each of the region's First Nations.

Feedback on the rates thus far has been supportive. REAC expressed a desire for higher rates (via reduced assist factor), while RAAC articulated more caution, recognizing the impact of rate increases both to the market, as well as to their own municipal DCCs. RFAC focused primarily on how to move toward a model where growth is contributing to more of the costs, as well as how Metro Vancouver, TransLink, and members can collaborate in the future on DCCs. Perhaps not surprisingly, Metro Vancouver received renewed calls for annual incremental increases, much like the *Community Charter* regulation (*Development Cost Charge Amendment Bylaw Approval Exemption Regulation*) that exempts a DCC Bylaw from the approval requirements in the *Local Government Act* once each year for up to four years as long as increases do not exceed the Vancouver Consumer Price Index.

With this report, the proposed rates in principle will be reviewed with the Metro Vancouver Water Committee, Finance and Intergovernment Committee, and with the GVWD Board prior to broader engagement with relevant levels of government, First Nations, industry stakeholders, and the public over the next three months. The next steps in the engagement process will include:

- Continued discussions with the Province on passing the necessary legislation to implement the water DCC program, and on the liquid waste DCC program update
- Continued discussions with First Nations
- Ongoing updates to the dedicated DCC webpage and FAQ document
- Q3 2021: A series of online forums and one in-person forum with specific invitations sent out to Metro Vancouver members, members of the development community (including the Urban Development Institute, the Greater Vancouver Home Builders Association, boards of trade and chambers of commerce in the region), and promoted to industry through industry associations and to the public through the metrovancover.org website and relevant Metro Vancouver mailing lists
- Q3 2021: Reports to the Metro Vancouver Water Committee, Finance and Intergovernment Committee, and the GVWD Board, to provide findings of the engagement process and recommendations for moving forward with the implementation of a water DCC program
- Q3/4 2021: Submission of the draft bylaw and report to the Province

#### **ALTERNATIVES**

1. That the GVWD Board direct staff to proceed with engagement on the proposed implementation of the water DCC program as described in the report dated June 18, 2021, titled “Engagement Plan for Water DCC Program Implementation”.
2. That the GVWD Board provide alternate direction to staff regarding the proposed water DCC policy framework, rates and assist ratio, and/or the engagement plan as described in the report dated June 18, 2021, titled “Engagement Plan for Water DCC Program Implementation”.

#### **FINANCIAL IMPLICATIONS**

If the Water Committee approves alternative 1, the report will be forwarded to the GVWD Board for approval. The cost of the engagement process will be funded through the existing water function budget.

If the Water Committee approves alternative 2, the Committee may wish to recommend changes to the proposed water DCC policy framework, rates, or engagement plan. Further analysis may be required to determine the resulting financial impacts.

#### **OTHER IMPLICATIONS**

While DCCs are an important tool for local governments to use in funding infrastructure driven by growth, it is important to consider the cumulative impact that they have on developers’ abilities to pay for sites, which can in turn have effects on the real estate market including reduced supply and price increases. The proposed draft DCC rates in principle have been prepared with consideration given to industry’s capacity for increased costs. However, the increases may affect the potential for

other local governments in the region to raise their own DCC rates without significantly impacting the financial viability of development in the region.

## CONCLUSION

Following up on a commitment to pursue the adoption of a water DCC program in the current *Board Strategic Plan*, an internal cross-departmental DCC Steering Committee is recommending the implementation of a DCC policy framework for the water function that closely aligns with the existing liquid waste DCC policy framework, but with fees set out at the regional level rather than at a sub-regional level. Draft DCC rates in principle contained in this report have been developed based on initial engagement, industry capacity analysis, and rate modelling.

The engagement plan in this report to discuss the rates in principle with relevant levels of government, First Nations, stakeholders, and the public, will be central to finalizing the proposed DCC policy framework and draft DCC rates, before seeking Board approval to request that the Province of BC enact the required legislation to allow for water DCCs.

To advance the implementation of an important funding mechanism for growth-driven projects as the region experiences an increasing need for system expansion and increasing costs of infrastructure, staff recommend Alternative 1.

## REFERENCES

1. [Metro Vancouver Board Strategic Plan 2019-2022](#)
2. [Development Cost Charges webpage](#)
3. [FAQ Document](#)

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