

**METRO VANCOUVER REGIONAL DISTRICT
PERFORMANCE AND AUDIT COMMITTEE**

REGULAR MEETING

Thursday, April 14, 2022

9:15 a.m.

**Meeting conducted electronically pursuant to the Procedure Bylaw
28th Floor Boardroom, 4515 Central Boulevard, Burnaby, British Columbia
Webstream available at <http://www.metrovanancouver.org>**

A G E N D A¹

1. ADOPTION OF THE AGENDA

1.1 April 14, 2022 Regular Meeting Agenda

That the Performance and Audit Committee adopt the agenda for its regular meeting scheduled for April 14, 2022 as circulated.

2. ADOPTION OF THE MINUTES

2.1 January 13, 2022 Regular Meeting Minutes

That the Performance and Audit Committee adopt the minutes of its regular meeting held January 13, 2022 as circulated.

pg. 4

3. DELEGATIONS

4. INVITED PRESENTATIONS

5. REPORTS FROM COMMITTEE OR STAFF

5.1 2021 Metro Vancouver Final Audit Findings Report

That the Performance and Audit Committee receive for information the report dated April 7, 2022, titled "2021 Metro Vancouver Final Audit Findings Report" from BDO Canada LLP Chartered Professional Accountants.

pg. 9

¹ Note: Recommendation is shown under each item, where applicable.

- 5.2 Audited 2021 Financial Statements** *pg. 40*
That the MVRD Board approve the Audited 2021 Consolidated Financial Statements for the Metro Vancouver Regional District;
- That the GVS&DD Board approve the Audited 2021 Financial Statements for the Greater Vancouver Sewerage and Drainage District;
- That the GVWD Board approve the Audited 2021 Financial Statements for the Greater Vancouver Water District;
- That the MVHC Board approve the Audited 2021 Financial Statements for the Metro Vancouver Housing Corporation.
- 5.3 2021 Financial Results Year-End** *pg. 169*
That the MVRD Board receive for information the report dated April 1, 2022, titled “2021 Financial Results Year-End”.
- 5.4 Capital Program Expenditure Update as at December 31, 2021** *pg. 186*
That the Performance and Audit Committee receive for information the report dated March 24, 2022, titled “Capital Program Expenditure Update as at December 31, 2021”.
- 5.5 Investment Position and Returns – September 1, 2021 to February 28, 2022** *pg. 217*
That the Performance and Audit Committee receive for information the report dated March 24, 2022 titled “Investment Position and Returns – September 1, 2021 to February 28, 2022”.
- 5.6 Tender/Contract Award Information – December 2021 to February 2022** *pg. 227*
That the Performance and Audit Committee receive for information the report dated March 28, 2022 titled “Tender/Contract Award Information – December 2021 to February 2022”.
- 5.7 Manager’s Report** *pg. 266*
That the Performance and Audit Committee receive for information the report dated April 7, 2022, titled “Manager’s Report”.
- 6. INFORMATION ITEMS**
- 7. OTHER BUSINESS**
- 8. BUSINESS ARISING FROM DELEGATIONS**

9. RESOLUTION TO CLOSE MEETING

That the Performance and Audit Committee close its regular meeting scheduled for April 14, 2022 pursuant to the *Community Charter* provisions, Section 90 (1) (d)(j) 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:
- (d) the security of the property of the regional district; and
 - (j) information that is prohibited, or information that if it were presented in a document would be prohibited, from disclosure under section 21 of the Freedom of Information and Protection of Privacy Act.”

10. ADJOURNMENT/CONCLUSION

That the Performance and Audit Committee adjourn/conclude its regular meeting of April 14, 2022.

Membership:

Dominato, Lisa (C) – Vancouver
Harvie, George (VC) – Delta
Brodie, Malcolm – Richmond
Dingwall, Bill – Pitt Meadows

Hu, Tina – North Vancouver City
Madsen, Hunter – Port Moody
Marsden, Dennis – Coquitlam
Morden, Mike – Maple Ridge

Muri, Lisa – North Vancouver
District
Nagra, Mandeep – Surrey
Walker, Darryl – White Rock

**METRO VANCOUVER REGIONAL DISTRICT
PERFORMANCE AND AUDIT COMMITTEE**

Minutes of the Regular Meeting of the Metro Vancouver Regional District (MVRD) Performance and Audit Committee held at 9:00 a.m. on Thursday, January 13, 2022 in the 28th Floor Boardroom 4515 Central Boulevard, Burnaby, British Columbia.

MEMBERS PRESENT:

Chair, Councillor Lisa Dominato*, Vancouver
 Mayor Malcolm Brodie*, Richmond
 Mayor Bill Dingwall*, Pitt Meadows
 Councillor Tina Hu*, North Vancouver City
 Councillor Hunter Madsen*, Port Moody
 Councillor Dennis Marsden*, Coquitlam
 Mayor Mike Morden*, Maple Ridge
 Councillor Lisa Muri*, North Vancouver District
 Mayor Darryl Walker*, White Rock

MEMBERS ABSENT:

Vice Chair, Mayor George Harvie, Delta
 Councillor Mandeep Nagra, Surrey

OTHERS PRESENT:

Director Sav Dhaliwal*, Board Chair

STAFF PRESENT:

Dean Rear, Chief Financial Officer/General Manager, Financial Services
 Manveer Atwal, Legislative Services Coordinator, Board and Information Services

OPENING REMARKS

Director Sav Dhaliwal, Board Chair and Ex Officio committee member, acknowledged the contributions of the Metro Vancouver Standing Committee members in what has been a challenging time for the region due to the on-going COVID-19 pandemic along with unprecedented weather events and recognized the vital role this Committee will play in moving forward.

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

1. ADOPTION OF THE AGENDA

1.1 January 13, 2022 Regular Meeting Agenda

It was MOVED and SECONDED

That the Performance and Audit Committee adopt the agenda for its regular meeting scheduled for January 13, 2022 as circulated.

CARRIED

2. ADOPTION OF THE MINUTES

2.1 October 6, 2021 Regular Meeting Minutes

It was MOVED and SECONDED

That the Performance and Audit Committee adopt the minutes of its regular meeting held October 6, 2021 as circulated.

CARRIED

3. DELEGATIONS

No items presented.

4. INVITED PRESENTATIONS

No items presented.

5. REPORTS FROM COMMITTEE OR STAFF

5.1 MVRD Audit Plan from BDO Canada LLP

Report dated December 16, 2021, from Joe Sass, Deputy Chief Financial Officer, providing the Performance and Audit Committee with the external auditor's plan for the completion of the annual external audit for the Metro Vancouver Districts' and Housing Corporation for fiscal year 2021.

Members were provided with a verbal presentation from BDO Canada LLP highlighting the 2021 external audit of the Metro Vancouver Districts' and the Metro Vancouver Housing Corporation.

It was MOVED and SECONDED

That the Performance and Audit Committee receive for information the report dated December 16, 2021, titled "MVRD Audit Plan from BDO Canada LLP".

CARRIED

5.2 2022 Performance and Audit Committee Meeting Schedule and Work Plan

Report dated December 16, 2021, from Dean Rear, General Manager, Financial Services/Chief Financial Officer, providing the Performance and Audit Committee with its Terms of Reference, the 2022 Work Plan, and the Annual Meeting Schedule.

It was MOVED and SECONDED

That the Performance and Audit Committee:

- a) receive for information the Performance and Audit Committee Terms of Reference and the 2022 Annual Meeting Schedule, as presented in the report dated December 16, 2021 titled "2022 Performance and Audit Committee Meeting Schedule and Work Plan"; and
- b) endorse the 2022 work plan, as presented in the report dated December 16, 2021, titled "2022 Performance and Audit Committee Meeting Schedule and Work Plan".

CARRIED

5.3 MFA Spring 2022 Borrowing for City of Langley – MVRD Security Issuing Bylaw No. 1338, 2021

Report dated December 16, 2021, from Joe Sass, Deputy Chief Financial Officer, seeking the MVRD Board's approval of a Security Issuing Bylaw to authorize a borrowing request from the City of Langley in the amount of \$7,500,000 for the Spring 2022 MFA long term debt issue.

It was MOVED and SECONDED

That the MVRD Board:

- a) give consent to the request for financing from the City of Langley in the amount of \$7,500,000 pursuant to Sections 182(1)(b) and 182(2)(a) of the *Community Charter*;
- b) give first, second and third reading to *Metro Vancouver Regional District Security Issuing Bylaw No. 1338, 2021* being a bylaw to authorize the entering into an Agreement respecting financing between the Metro Vancouver Regional District and the Municipal Finance Authority of British Columbia;
- c) pass and finally adopt *Metro Vancouver Regional District Security Issuing Bylaw No. 1338, 2021*; and forward it to the Inspector of Municipalities for Certificate of Approval.

CARRIED

5.4 Tender/Contract Award Information – September 2021 to November 2021

Report dated December 15, 2021, from Roy Moulder, Director, Purchasing and Risk Management, Financial Services, providing the Performance and Audit Committee information with regards to contracts, handled through the Purchasing and Risk Management Division, with a total anticipated value at or in excess of \$500,000 (exclusive of taxes).

It was MOVED and SECONDED

That the Performance and Audit Committee receive for information the report dated December 15, 2021 titled "Tender/Contract Award Information – September 2021 to November 2021".

CARRIED

5.5 Manager's Report

Report dated January 7, 2022, from Dean Rear, General Manager, Financial Services/Chief Financial Officer, informing the Performance and Audit Committee of the 2022 Work Plan and reporting out on trends in change orders, sole sources and archaeological monitoring activity.

It was MOVED and SECONDED

That the Performance and Audit Committee receive for information the report dated January 7, 2022, 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 Performance and Audit Committee close its regular meeting scheduled for January 13, 2022 pursuant to the *Community Charter* provisions, Section 90 (1) (j) 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:

- (j) information that is prohibited, or information that if it were presented in a document would be prohibited, from disclosure under section 21 of the Freedom of Information and Protection of Privacy Act.

CARRIED

10. ADJOURNMENT/CONCLUSION

It was MOVED and SECONDED

That the Performance and Audit Committee adjourn its regular meeting of January 13, 2022.

CARRIED

(Time: 9:45 a.m.)

Manveer Atwal,
Legislative Services Coordinator

Lisa Dominato, Chair

50154283 FINAL

To: Performance and Audit Committee

From: Linda Sabatini, Acting Director, Financial Operations

Date: April 7, 2022 Meeting Date: April 14, 2022

Subject: **2021 Metro Vancouver Final Audit Findings Report**

RECOMMENDATION

That the Performance and Audit Committee receive for information the report dated April 7, 2022, titled "2021 Metro Vancouver Final Audit Findings Report" from BDO Canada LLP Chartered Professional Accountants.

EXECUTIVE SUMMARY

Under provincial legislation, an external audit must be undertaken annually for all Metro Vancouver Districts' and the Housing Corporation. The attached report, prepared by Metro Vancouver's external auditors, BDO Canada LLP Chartered Professional Accountants, summarizes the results of the annual audit for fiscal year 2021.

PURPOSE

To provide the committee with our external auditor's final report related to the annual audit for the Metro Vancouver Districts' and Housing Corporation for fiscal year 2021.

BACKGROUND

It is required, under provincial legislation, that an external audit be undertaken annually for all Metro Vancouver Districts' and the Housing Corporation. This audit must be conducted by a public accounting firm that is licensed to conduct such audits. The attached report summarizes the results of the annual audit for fiscal year 2021.

BDO Canada LLP Chartered Professional Accountants were appointed by the Board in July 2019 as our external auditors for a five-year period. Fiscal year 2021 is the third year of that five-year period.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

The annual audit fulfills our statutory responsibility.

CONCLUSION

As prepared by BDO Canada LLP Chartered Professional Accountants, our external auditors, the final report for the 2021 external audit of the Metro Vancouver Districts' and the Housing Corporation is presented to the committee for information.

Attachments:

1. 2021 Metro Vancouver Final Audit Findings Report

49178236

Metro Vancouver Regional District

Audit Findings Report to the Performance and Audit Committee for the year ended December 31, 2021

Dated April 6, 2022 for presentation on April 14, 2022

START



To the Performance and Audit Committee of Metro Vancouver Regional District

We are pleased to provide you with this report to highlight and explain key issues which we believe to be relevant to the audit of Metro Vancouver Regional District (“MVRD”), Greater Vancouver Sewerage and Draining District (“GVSD”), Greater Vancouver Water District (“GVWD”), and Metro Vancouver Housing Corporation (“MVHC”) (together referred to as the “Districts”) financial statements for the year ended December 31, 2021.

The enclosed report includes our approach to your audit, including: significant risks identified, the nature, extent, timing, and results of our audit work, and the terms of our engagement. We will also report any significant internal control deficiencies identified during our audit and confirm our independence.

During the course of our audit, management made certain representations to us—in discussions and in writing. We documented these representations in the audit working papers.

The business environment has changed for us all during the time of COVID-19. Cash flow, strategy, operations: each has received a rethink. As your auditors, we have relied on our digital audit suite to stay connected—among ourselves, with management, and with you.

We look forward to discussing our report with you. In the meantime, please feel free to contact us if you have any questions or concerns.

Yours truly,

BDO Canada LLP

BDO Canada LLP





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For the year ended December 31, 2021



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Audit at a glance

Preliminary materiality as communicated to you in our Planning Report to the Performance and Audit Committee, and final materiality are set out as follows:

	Preliminary materiality	Final Materiality
MVRD (consolidated)	\$17,000,000	\$17,000,000
MVRD (non-consolidated)	\$15,300,000	\$15,300,000
GVSD	\$13,600,000	\$10,200,000
GVWD	\$13,600,000	\$5,500,000
MVHC	\$2,000,000	\$1,070,000

Overall materiality has been determined based on expenses. For our audit work over tangible capital assets (“TCA”) and other assets and liabilities related to TCA, we have set a higher materiality based on the net book value of TCA. This is to recognize the fact that the Districts have a significant value of TCA which is much larger in comparison to its operating activities.

We are not aware of any fraud affecting the Districts. If you have become aware of changes to processes or are aware of any instances of actual, suspected, or alleged fraud since our discussions held at planning, please let us know.

We have complied with relevant ethical requirements and are not aware of any relationships between Metro Vancouver Regional District and our Firm that may reasonably be thought to bear on our independence.

LEAD PARTNER
ON YOUR AUDIT

Brian Szabo, CPA, CA

Email: bszabo@bdo.ca

Direct: 604 646-3389



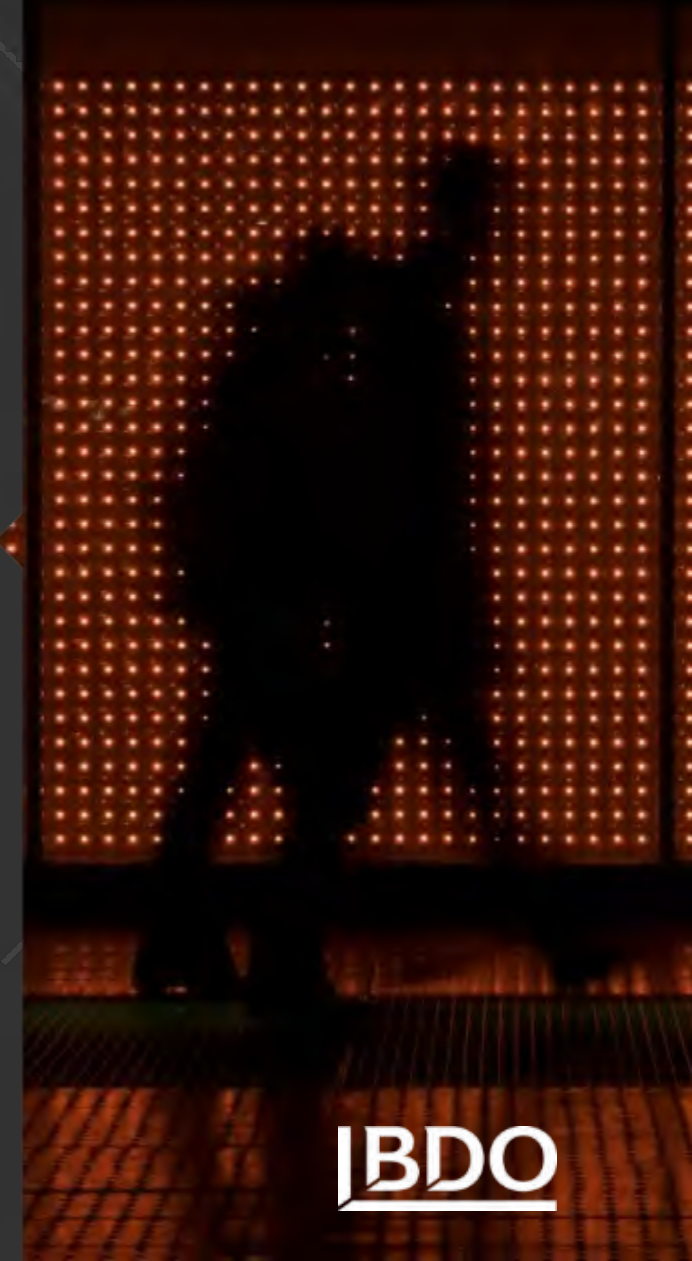
Status of the audit

We have substantially completed our audit of the year ended December 31, 2021 consolidated financial statements, pending completion of the following items:

- ▶ Receipt of outstanding legal confirmations
- ▶ Approval of consolidated financial statements by the Board of Directors.
- ▶ Subsequent events review through to the consolidated financial statements approval date
- ▶ Obtain signed management representation letter

We conducted our audit in accordance with Canadian generally accepted auditing standards. The objective of our audit was to obtain reasonable, not absolute, assurance about whether the consolidated financial statements are free from material misstatement. See [Appendix A](#) for our draft independent auditor's report.

The scope of the work performed was substantially the same as that described in our Planning Report to the Performance and Audit Committee dated January 13, 2022.





Audit findings

We identified the following areas of focus and significant risks that, in our judgment, require special audit consideration.

Areas of focus arise mainly because of complexity of the accounting rules, the extent of estimation and judgment involved in the valuation of these financial statement areas, and the existence of new accounting pronouncements that affect them. We request your input on the following areas of focus and whether there are any other areas of concern that the Performance and Audit Committee has identified.

MANDATORY AUDIT RISKS

The following areas of focus are mandatory areas of audit consideration required for all audits conducted under Canadian Audit Standards and are not specific to the Districts. As such, we are required to document and discuss these areas of focus with you:

Financial statement areas	Audit approach	Audit findings
<p>Management Override of Internal Controls</p> <p>Management is in a unique position to perpetrate fraud because of their ability to directly or indirectly manipulate accounting records and prepare fraudulent financial statements by overriding controls that otherwise appear to be operating effectively.</p> <p>This is a mandatory risk to be addressed for all audits pursuant to Canadian audit standards</p>	<ul style="list-style-type: none">• Reviewed transactions recorded in the various ledgers for unusual or non-recurring adjustments not addressed by other audit procedures.• Tested the appropriateness of journal entries recorded in the general ledger.• Reviewed key estimates and other adjustments made in the preparation of the financial statements.	<p>All audit testing in this area was executed as planned with no issues to be reported.</p>



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Audit findings (cont'd)

MANDATORY AUDIT RISKS (CONT'D)

Financial statement areas	Audit approach	Audit findings
<p>Risk of Fraudulent Revenue Recognition</p> <p>Under Canadian auditing standards, we are required to consider whether there is a risk of material misstatement due to fraudulent revenue recognition in all audits. Based on our understanding of the Districts' significant revenue streams, we have rebutted this risk.</p> <p>However, there continues to be a risk of misstatement, unrelated to fraud, with respect to revenue as accounting standards over revenue recognition are complex and subject to variation in application.</p>	<ul style="list-style-type: none">Grant funding received was confirmed through a review of agreements, which ensured that the amounts recorded exist. We also ensured the revenue was recorded accurately in accordance with the settlement of any stipulations.Other revenues streams were reviewed to ensure revenue recognition was recorded in accordance with the latest revenue recognition standards.	<p>We have proposed immaterial adjustments related to timing of revenue recognition and classification of revenue. Certain adjustments have not been recorded by management. Please refer to the Summary of Adjusted Differences and Summary of Unadjusted Differences.</p> <p>All other audit testing in this area was executed as planned with no issues to be reported.</p>



Audit findings (cont'd)

OTHER AREAS OF FOCUS

Financial statement areas	Audit approach	Audit findings
<p>Operational Impacts of COVID-19</p> <p>The global health crisis known as 'COVID-19' continues to cause significant disruptions to workforces, financial markets, and the economy at large.</p> <p>Management has made changes to operations as a response to COVID-19' which continues to disrupt workforces, financial markets, and the economy at large. COVID-19 has impacted virtually all organizations across the world. Due to the nature of the Districts' operations, this continues to present unique risks and challenges that may impact its financial reporting.</p>	<ul style="list-style-type: none">• Continued to make enquiries with management relating to the impact of COVID-19 on operations to date, as well as other significant or unusual transactions that have occurred as a result of COVID-19.• We continued to review COVID-19 reporting prepared by management to the Committee to identify any items that may have a financial reporting implication.• We reviewed specific balances that may be susceptible to COVID-19 impacts such as investments, accounts receivable, and cost centers where incremental COVID-19 expenditures have been recorded.• We also reviewed financial statement disclosures to ensure that the impact of COVID-19 continues to be appropriately disclosed, as required.	<p>All audit testing in this area was executed as planned with no issues to be reported.</p>
<p>Landfill Closure and Post-Closure Costs</p> <p>A complex area that requires much estimation and reliance on expert reports and management assumptions and calculations.</p>	<ul style="list-style-type: none">• We enquired with management regarding any significant changes to the remaining life and associated costs of the landfill. We also evaluated key inputs used in the valuation of the landfill post-closure liability and reviewed of calculations and disclosure prepared by management.	<p>All audit testing in this area was executed as planned with no issues to be reported.</p>



Audit findings (cont'd)

OTHER AREAS OF FOCUS

Financial statement areas	Audit approach	Audit findings
Contaminated Sites and Asset Retirement Obligations The contaminated sites standard is complex and therefore there is a risk that liabilities may not be identified and/or appropriately accounted for. The new standard PS 3280 Asset Retirement Obligations will be implemented by the Districts in F2023.	<ul style="list-style-type: none">• Reviewed potential contaminated sites, and management's assessment of whether a liability exists.• Obtained an update of liabilities recorded for contaminated sites identified in prior years to determine if the accounting treatment continues to be appropriate and accurate.• We continued to work with management to provide guidance as needed towards the future implementation of PS 3280.	All audit testing in this area was executed as planned with no issues to be reported.
Staff Compensation and Employee Future Benefits Staff compensation is a significant expenditure category that covers many employees and departments. As a public body, this figure is often of particular interest to financial statement users (taxpayers). Employee future benefits is a complex area that requires much estimation and reliance on actuarial experts. The Districts record a liability for post-retirement and post-employment liabilities in the consolidated financial statements. As the GVSDD, GVWD and MVHC do not have any employees directly, there is no liability recorded in those financial statements.	<ul style="list-style-type: none">• We performed tests of controls and substantive procedures over payroll transactions and year-end accruals.• We reviewed actuarial reports and audited the significant assumptions and data inputs provided by the Districts for completeness and accuracy.• We directly communicated with the external actuary.• We reviewed the consistency and appropriateness of allocations of staff costs and liabilities from Metro Vancouver Regional District to the other Districts and MVHC.	All audit testing in this area was executed as planned with no issues to be reported.



Audit findings (cont'd)

OTHER AREAS OF FOCUS

Financial statement areas	Audit approach	Audit findings
<p>Contingent Liabilities</p> <p>There are various lawsuits pending against the Districts, arising in the ordinary course of business and from specific events. There is a risk that potential losses related to these lawsuits have not been appropriately accrued for, or disclosed in, the financial statements. The Districts carry insurance to minimize the overall financial impacts of adverse outcomes.</p>	<ul style="list-style-type: none">• We enquired with management of ongoing litigation, and potential claims that have an impact on the Districts.• We obtained confirmations from external solicitors of any potential contingent liabilities.• We also reviewed financial statement disclosures to ensure that disclosures are complete and in accordance with Canadian public sector accounting standards.	<p>All audit testing in this area was executed as planned with no issues to be reported.</p> <p>See below regarding discussion over the NSWWTTP.</p>



Audit findings (cont'd)

OTHER AREAS OF FOCUS

Financial statement areas	Audit approach	Audit findings
<p>North Shore Wastewater Treatment Plant</p> <p>The North Shore Wastewater Treatment Plant (“NSWWTP”) is a new tertiary treatment facility being built by GVSDD on the North Shore. The project design and construction began in 2014. On October 15, 2021, the District served notice to terminated its contract with the vendor hired to design, build and commission the NSWWTP, having determined that the vendor was in breach of contract. As of December 31, 2021, the District has paid \$309.5 million, net of GST rebates, to the vendor for work completed, which reflects management’s best estimate of the cost of work in progress.</p> <p>Subsequent to yearend, the District drew on an irrevocable letter of credit of \$50.0 million available in the case of breach of contract. Also subsequent to yearend, the vendor commenced legal action against the District as a result of the termination of the contract.</p>	<ul style="list-style-type: none">• We enquired with management of the current status of the NSWWTP capital project and ongoing litigation and claims.• We obtained confirmations from external solicitors over the existence of claims to date.• We obtained an understanding of the environmental obligations and potential consequences of non-compliance with respect to Federal regulations over wastewater treatment.• We discussed with management the impact of the termination of contract over the valuation of work-in-progress assets as at December 31, 2021, and corroborated with information from the Project Delivery department.• We reviewed supporting documentation from independent certifiers regarding the status of the last progress draw prior to the termination of contract.• We reviewed supporting documentation regarding the letter of credit which was drawn subsequent to year end.• We reviewed the disclosure management has included in the notes to the financial statements regarding the estimation uncertainty over valuation of assets, contingencies, and subsequent events.	<p>Due to the nature of the contractual payments made to the vendor under the terminated contract, the outstanding litigation and uncertainty surrounding the value of the new contract for completion of the project, the amount recorded as work-in-progress on the NSWWTP project represents management’s best estimate. This amount may be subject to material change as new information becomes available.</p> <p>We agree with management’s approach to disclose this material uncertainty in the notes to the financial statements.</p>



Internal control matters

During the audit, we performed the following procedures regarding the Districts' internal control environment:

- ▶ Documented operating systems to assess the design and implementation of control activities that were relevant to the audit.
- ▶ Discussed and considered potential audit risks with management.

We considered the results of these procedures in determining the extent and nature of audit testing required.



We are required to report to you in writing about any significant deficiencies in internal control that we have identified during the audit.

A significant deficiency is defined as a deficiency or combination of deficiencies in internal control that merits the attention of those charged with governance.

The audit expresses an opinion on the Districts' consolidated financial statements. As a result, it does not cover every aspect of internal controls—only those relevant to preparing the consolidated financial statements and designing appropriate audit procedures. This work was not for the purpose of expressing an opinion on the effectiveness of internal control.

No control deficiencies were noted that, in our opinion, are of significant importance to discuss. We have issued a management letter of observations where we believe improvements can be made; however, none of these items is considered to be significant.



Adjusted and unadjusted differences

Summary of unadjusted differences

The following is a summary of unadjusted differences noted during the course of our audit engagement:

	Increase (Decrease)				
	Assets	Liabilities	Accumulated surplus, opening balance	Revenues	Expenses
MVRD					
Accumulated surplus Other revenue			\$ 10,305,000	\$ (10,305,000)	
<i>To correct revenue recognized in the current year related to a land transfer which occurred in the prior fiscal year.</i>					
GVSD					
Interest income Grant contributions				\$ 1,038,000 \$ (1,038,000)	
<i>To reclassify unrestricted interest income earned from grant revenue to interest revenue.</i>					
GVWD					
Cash Deferred revenue	\$ 325,000	\$ 325,000			
<i>To record deferred rent collected in advance.</i>					



Adjusted and unadjusted differences

Summary of unadjusted differences (cont'd)

	Increase (Decrease)				
	Assets	Liabilities	Accumulated surplus, opening balance	Revenues	Expenses
MVHC					
Operating expenses Accumulated surplus <i>To correct for expenses recorded in 2021 related to 2020.</i>			\$ (390,000)		\$ (390,000)
Amortization expense Accumulated surplus <i>To correct amortization expense for assets put into use in 2020.</i>			\$ (266,000)		\$ (266,000)
Accounts payable Operating expenses <i>To record accrual for expenses.</i>		\$ 90,000			\$ 90,000
Total unadjusted differences	\$ 325,000	\$ 415,000	\$ 9,649,000	\$ (10,305,000)	\$ (566,000)



Adjusted and unadjusted differences

Summary of adjusted differences

The following is a summary of differences that were corrected by management during the course of our audit engagement :

	Increase (Decrease)			
	Assets	Liabilities	Accumulated surplus, opening balance	Annual surplus
GVSD				
Deferred revenue Grant revenue <i>To record grant revenue earned during the year.</i>		\$ (15,420,000)		\$ 15,420,000
Total unadjusted differences	\$ -	\$ (15,420,000)	\$ -	\$ 15,420,000

Summary of disclosure omissions

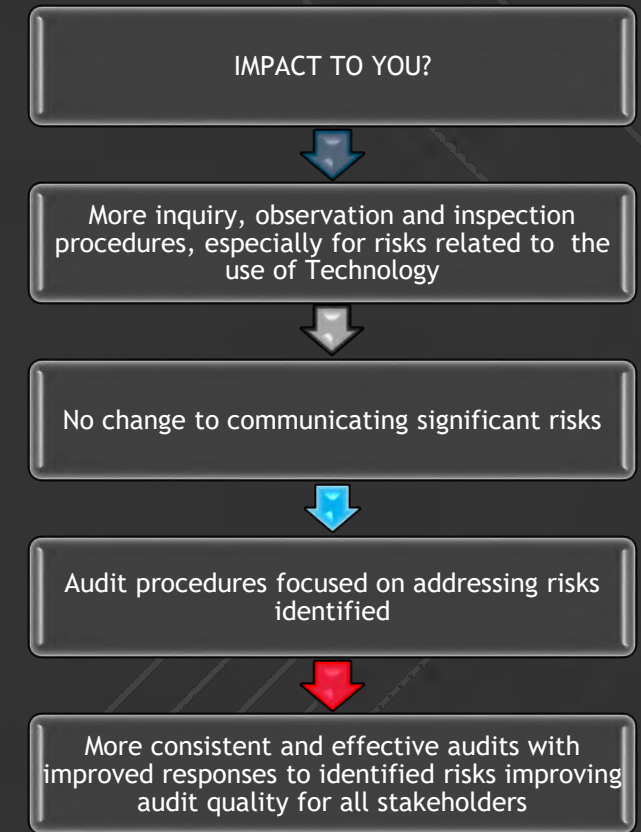
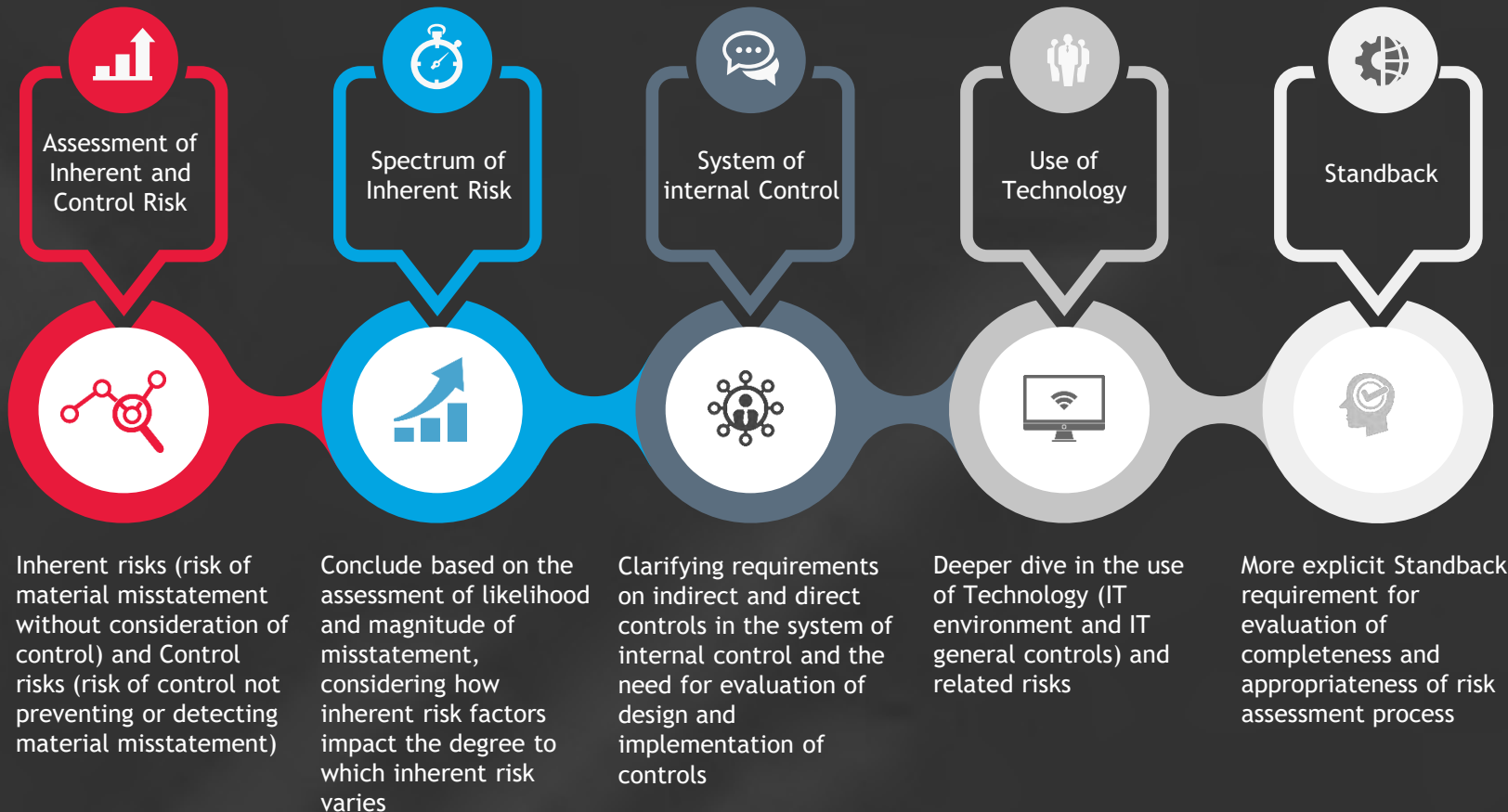
The following is a summary of disclosures that have not been made within the consolidated financial statements :

Disclosure omission	Management's response
None noted.	NA



Coming soon: updates to our audit process

Canadian Auditing Standard 315, *Identifying and Assessing the Risks of Material Misstatement*, was significantly revised with a greater focus on more robust Risk Identification, Assessment and Response procedures. The standard will be effective for periods beginning on or December 15, 2021. The updates described below will impact mainly Steps 1 through 3, of our current six step audit process. Key enhancements include:



BDO's digital audit suite

Our digital audit suite of technologies enables our engagement teams to conduct consistent risk-based audits, both domestically and internationally, with maximum efficiency and minimal disruption to our clients' operations and people.



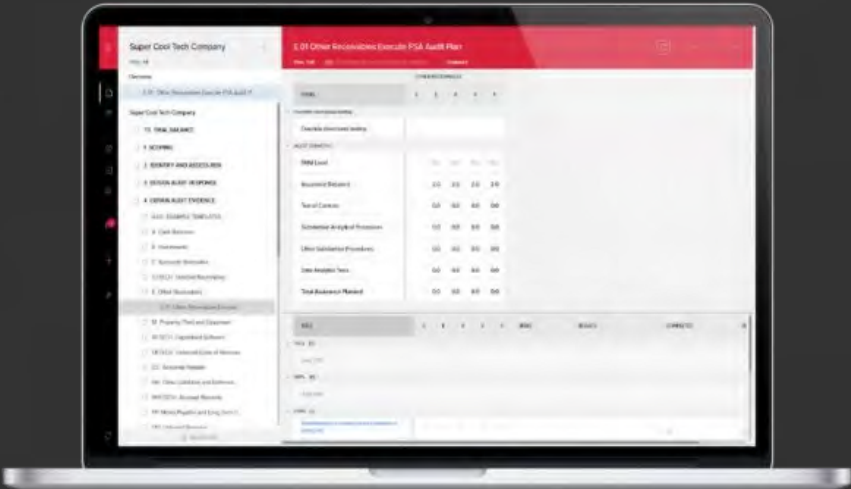
APT Next Gen

Our audit software and documentation tool, APT, is an integral part of our audit methodology. Our professionals engage APT to devise and perform appropriate, risk-based audit procedures and testing based on applicable Canadian Auditing Standards (CASs), as well as to factor in engagement and industry-specific objectives and circumstances.

APT enables us to deliver an audit that fits your organization—whether large or small; complex or basic.

This sophisticated tool also amplifies two key attributes of our audits: consistency and quality. The quality framework that we developed measures our audit performance with hard quality indicators and reflects our indispensable culture for quality. To see our audit quality and consistency in action, look no further than how our teams share best audit practices for continuous improvement.

Through a strategic alliance with Microsoft and the introduction of new technology, this global, cloud-based application can now streamline and focus the audit process in even more ways for BDO professionals and their clients.





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BDO Portal transforms and enhances your digital experience with your BDO advisors. Available at any time, Portal enables you to access all services, tools, apps, and information and to collaborate with your advisors in a seamless way through a flexible, appealing, and secure environment.





Recommended resources

Resuming the public sector in the new normal



The COVID-19 pandemic has created a new working normal for public sector organizations. In this video, BDO discusses some of the biggest challenges facing public sector organizations as Canada enters a new phase of recovery.

BUSINESS NOT AS USUAL

How to protect against fraud and security attacks



Given the current state of vulnerability, hackers are in a prime position to take advantage. Explore optimizing the cloud for data and AI technologies, critically assessing security risks, examining best practices for online collaboration, and more.

FRAUD AND SECURITY

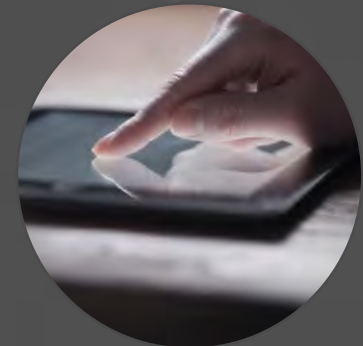
COVID-19: From surviving to thriving



Whether you're building a recovery plan, scanning new opportunities for growth, or revisiting your response—you'll find something to help you in our library of 100-plus webinars, articles, infographics, and videos.

**EXPLORE OUR COVID-19
RESOURCE HUB**

Key changes to financial reporting



When the rules of reporting change, you may need to fine-tune how to present financial statements and govern the organization.

**ACCESS OUR
KNOWLEDGE CENTRE**

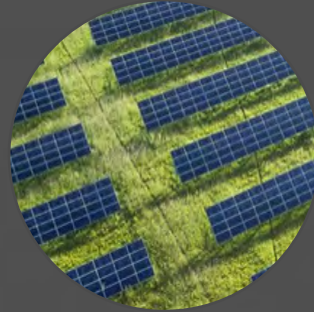


Spotlight on Sustainability

Transformative world events—an international health crisis, social movements, shareholder and investor values, global supply chains, energy transition, smart cities, and sustainable finance—are transforming Canadian business.

Standards and regulations are rapidly changing to reflect the goals of all your stakeholders. Organizations, investors, and customers are embracing environmental, social, and governance (ESG) considerations as important measures of success. Non-financial and financial information is becoming more interconnected.

How climate change became a business issue worth reporting



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Why manufacturers should be reviewing their ESG strategy now



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What executives need to do to align ESG with strategy



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5 reasons why businesses should care about ESG



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How does COVID-19 impact the environment?



[READ ARTICLE](#)

BDO Global Sustainability Resource Hub



[EXPLORE NOW](#)

ESG, and the business case for dealing with climate change



[READ ARTICLE](#)

Appendices

- ▶ Appendix A: Independent auditor's report
- ▶ Appendix B: Representation letter
- ▶ Appendix C: Management letter

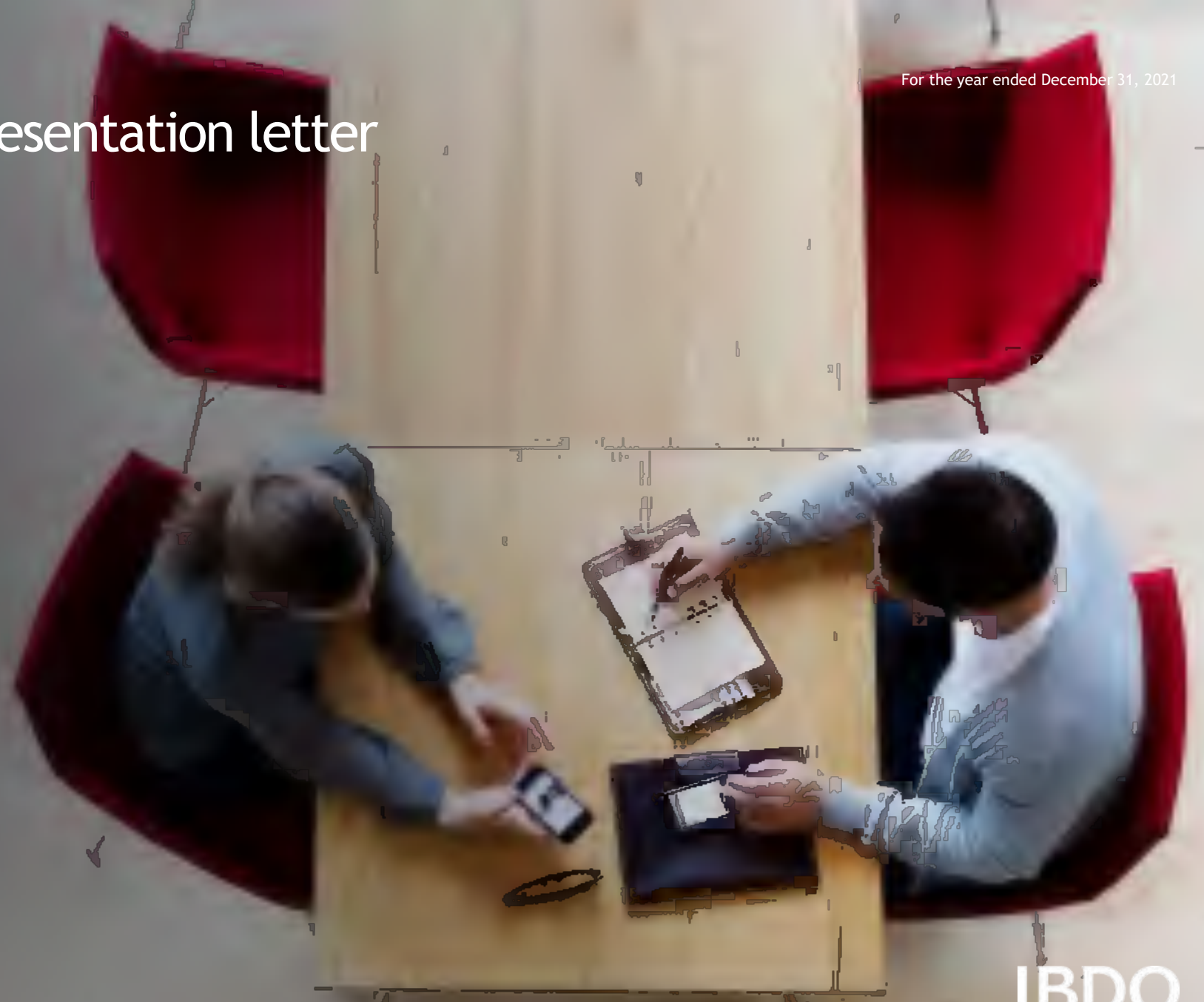


Appendix A: Independent auditor's report

Please refer to the draft financial statements which have our independent auditor's reports attached.



Appendix B: Representation letter



Metro Vancouver Regional District

April 29, 2022

BDO Canada LLP
Chartered Professional Accountants
1055 West Georgia Street PO Box 11101
Vancouver, BC V6E 3P3

This representation letter is provided in connection with your audit of the financial statements of Metro Vancouver Regional District and the following controlled entities (collectively the "Districts") for the year ended December 31, 2021, for the purpose of expressing an opinion as to whether the financial statements are presented fairly, in all material respects, in accordance with Canadian Public Sector Accounting Standards:

- Greater Vancouver Sewerage and Drainage District ("GVSD")
- Granter Vancouver Water District ("GVWD")
- Metro Vancouver Housing Corporation ("MVHC")

We confirm that to the best of our knowledge and belief, having made such inquiries as we considered necessary for the purpose of appropriately informing ourselves:

Financial Statements

We have fulfilled our responsibilities, as set out in the terms of the audit engagement letter dated December 18, 2019, for the preparation of the financial statements in accordance with Canadian Public Sector Accounting Standards; in particular, the financial statements are fairly presented in accordance therewith.

- The methods, significant assumptions, and data used in making accounting estimates and their related disclosures are appropriate to achieve recognition, measurement and/or disclosure that are reasonable in accordance with Canadian Public Sector Accounting Standards.
- Related party relationships and transactions have been appropriately accounted for and disclosed in accordance with the requirements of Canadian Public Sector Accounting Standards.
- All events subsequent to the date of the financial statements and for which Canadian Public Sector Accounting Standards require adjustment or disclosure have been adjusted or disclosed.
- The financial statements of the entity use appropriate accounting policies that have been properly disclosed and consistently applied.
- The effects of uncorrected misstatements are immaterial, both individually and in the aggregate, to the financial statements as a whole. A list of the uncorrected misstatements is attached to the representation letter.
- We have reviewed and approved all journal entries recommended by the practitioners during the audit. A list of the journal entries is attached to the representation letter.

Information Provided

- We have provided you with:
 - access to all information of which we are aware that is relevant to the preparation of the financial statements, such as records, documentation and other matters;
 - additional information that you have requested from us for the purpose of the audit; and
 - unrestricted access to persons within the entity from whom you determined it necessary to obtain audit evidence.
- We are responsible for the design, implementation and maintenance of internal controls to prevent, detect and correct fraud and error, and have communicated to you all deficiencies in internal control of which we are aware.
- All transactions have been recorded in the accounting records and are reflected in the financial statements.
- We have disclosed to you all known instances of non-compliance or suspected non-compliance with laws and regulations whose effects should be considered when preparing the financial statements.
- We have disclosed to you the identity of the entity's related parties and all the related party relationships and transactions of which we are aware.

Fraud and Error

- We have disclosed to you the results of our assessment of the risk that the financial statements may be materially misstated as a result of fraud.
- We have disclosed to you all information in relation to fraud or suspected fraud that we are aware of and that affects the entity and involves:
 - management;
 - employees who have significant roles in internal control; or
 - others where the fraud could have a material effect on the financial statements.
- We have disclosed to you all information in relation to allegations of fraud, or suspected fraud, affecting the entity's financial statements communicated by employees, former employees, analysts, regulators, or others.

General Representations

- Where the value of any asset has been impaired, an appropriate provision has been made in the financial statements or has otherwise been disclosed to you.
- We have provided you with significant assumptions that in our opinion are reasonable and appropriately reflect our intent and ability to carry out specific courses of action on behalf of

the entity when relevant to the use of fair value measurements or disclosures in the financial statements.

- Except as disclosed in the financial statements, there have been no changes to title, control over assets, liens or assets pledged as security for liabilities or collateral.
- The entity has complied with all provisions in its agreements related to debt and there were no defaults in principal or interest, or in the covenants and conditions contained in such agreements.
- There have been no plans or intentions that may materially affect the recognition, measurement, presentation or disclosure of assets and liabilities (actual and contingent).
- The nature of all material uncertainties have been appropriately measured and disclosed in the financial statements, including all estimates where it is reasonably possible that the estimate will change in the near term and the effect of the change could be material to the financial statements.
- There were no direct contingencies or provisions (including those associated with guarantees or indemnification provisions), unusual contractual obligations nor any substantial commitments, whether oral or written, other than in the ordinary course of business, which would materially affect the financial statements or financial position of the entity, except as disclosed in the financial statements.

Other Representations Where the Situation Exists

- We have informed you of all known actual or possible litigation and claims, whether or not they have been discussed with legal counsel. When applicable, these litigation and claims have been accounted for and disclosed in the financial statements.
- We will provide to you, when available and prior to issuance by the entity, the final version of the document(s) comprising the annual report.
- We confirm the accrual related to ongoing expropriation land claims is complete and based on management's best estimate using the appropriate information and assessment of likelihood of outcome as at the date of this letter.
- We have specifically considered the impacts of COVID-19 on the amounts and disclosures in the financial statements. To the best of our knowledge and believe, the disclosures in the financial statements are accurate and complete.
- We confirm we have informed you of all known actual or possible litigation, claims, and penalties with respect to the ongoing North Shore Waste Water Treatment Plant.
- We confirm the amounts recorded as work in progress over the North Shore Waste Water Treatment Plant represents management's best estimate and that amounts may be subject to material change as new information becomes available.

Yours truly,

Jerry W. Dobrovoly, P. Eng., MBA
Commissioner / Chief Administrative Officer

Dean Rear, CPA, CA
General Manager, Chief Financial Officer

Linda Sabatini, CPA, CA
Acting Director, Finance Operations



Appendix C: Management letter



Tel: 604.688.5421
Fax: 604.688.5132
www.bdo.ca

BDO Canada LLP
Unit 1100 - Royal Centre
1055 West Georgia Street
Vancouver, BC V6E 3P3

April 6, 2022

Metro Vancouver Regional District
Mr. Jerry Dobrovlny
Chief Administrative Officer
Metrotower III
4730 Kingsway
Burnaby, BC V5H 0C6

Dear Mr. Dobrovlny:

During the course of our audit of the consolidated financial statements ("financial statements") of Metro Vancouver Regional District (the "District") for the year ended December 31, 2021, we identified matters that may be of interest to management. The objective of an audit is to obtain reasonable assurance whether the financial statements are free of any material misstatement and it is not designed to identify matters that may be of interest to management in discharging its responsibilities. Accordingly an audit would not usually identify all such matters.

The responsibility for producing financial statements and ensuring adequate internal controls and sound business practices is the responsibility of the Board of Directors through management and is a part of management's overall responsibility for the ongoing activities of the District. Policies and procedures developed by the Districts to safeguard its assets and to provide reasonable assurance that errors and irregularities or illegal acts are promptly identified, must be properly monitored to ensure that all staff are complying with the guidelines provided. Where we determined, from our testing, that there exists a need for improvement in existing systems of internal control or if we detected that the District's staff are not complying with the critical accounting policies and procedures provided by management, we increased our year-end testing of account balances to ensure that audit risk was kept to an appropriately low level.

The comments and concerns expressed herein did not have a material effect on the District's financial statements and, as such, our opinion thereon was without reservation. However, in order for the District to ensure the safeguarding of its assets and the accuracy of its records, we believe our comments and concerns should be taken into consideration by management. Our comments are not intended to reflect upon the honesty or competence of the District's employees.

The matters we have identified are discussed in Appendix 1.

This communication is prepared solely for the information of management and is not intended for any other purposes. We accept no responsibility to a third party who uses this communication.

We shall be pleased to discuss with you further any matters mentioned in this report at your convenience.

Yours truly,

Brian Szabo, CPA, CA
Partner through a corporation
BDO Canada LLP
Chartered Professional Accountants

Current Year Management Letter Points

No items identified in the current year.

*Prior Year Management Letter Points***1. Review of journal entries**

In 2020, we noted that all journal entries under \$100,000 are automatically posted into Unit 4. A monthly journal entry report is sent to supervisors to review all journal entries posted to the cost centers under their supervision. The supervisors are not required to send a positive confirmation that they agree with the accuracy and appropriateness of the entries. Though there are compensating controls, we recommend that the finance department require supervisors to provide formal confirmation that they have reviewed and agree with the journal entries posted in their costs centers on a monthly basis. This confirmation should be retained as evidence of review.

In 2021, Finance implemented a process for supervisors to review journal entries to confirm the accuracy and appropriateness of the entries.

2. Risk assessment process

During 2020, we noted that the District did not have a consolidated enterprise risk matrix documenting the potential operating, financial, legal, reputational, and other risks the District is susceptible to, including risks relating to fraud. We recommended that management undertake a formal enterprise risk assessment to identify, document, and categorize the impact of each potential risks.

Management is reviewing its current risk practices and working toward implementing a formal enterprise risk management framework in 2022.

3. Accounting for complex transactions

In the prior year, we recommended management formally document the accounting position on transactions of large dollar value, particularly for large, complex infrastructure projects, before contracts are ratified, in particular where they involve complex or principles based standards. The position memo should include facts of the transaction, relevant agreement terms, a discussion of the appropriate Canadian Public Sector Accounting Standards (“PSAS”) guidance and interpretation, as well as any alternative interpretations, before documenting management’s conclusion. This will ensure the financial reporting impact can be thoroughly understood before the District finalizes an agreement, and will ensure the future impacts of the agreement are understood for subsequent financial reporting periods.

Financial transactions are becoming more complex. Finance continues to work on improvements to processes to ensure conclusions on the accounting for such complex transactions and arrangements are appropriate based on requirements of PSAS.



4. Accruals for outstanding invoices

During 2019, we reviewed the recorded transactions for accruals over invoices that are outstanding but unpaid at year end. These invoices may span multiple departments and are overseen by various department heads. The amounts are recorded in the general ledger primarily through complex journal entries composed of numerous individual invoices.

During the current year audit, we continued to note cut off errors in recording operating expenses.

We continue to recommend reviewing the accrual and accounts payable reporting to explore ways to automate the process, reduce the manual inputs, and provide improved technology controls to reduce the risk for errors.

Management continues to investigate opportunities to improve reporting and the preparation of financial statements, including the implementation of a financial statement compilation tool for fiscal 2022.

To: Performance and Audit Committee

From: Linda Sabatini, Acting Director, Financial Operations

Date: April 7, 2022

Meeting Date: April 14, 2022

Subject: **Audited 2021 Financial Statements**

RECOMMENDATION

That the MVRD Board approve the Audited 2021 Consolidated Financial Statements for the Metro Vancouver Regional District;

That the GVS&DD Board approve the Audited 2021 Financial Statements for the Greater Vancouver Sewerage and Drainage District;

That the GVWD Board approve the Audited 2021 Financial Statements for the Greater Vancouver Water District;

That the MVHC Board approve the Audited 2021 Financial Statements for the Metro Vancouver Housing Corporation.

EXECUTIVE SUMMARY

Although we have encountered unprecedented global conditions, the 2021 Audited Financial Statements illustrate that Metro Vancouver entered this period in a strong financial position with excellent liquidity and solid reserves.

The financial statements have been prepared in accordance with Canadian Public Sector Accounting Standards ("PSAS") and have received an unqualified audit opinion by the external auditors, BDO Canada LLP Chartered Professional Accountants. The statements presented are currently draft and will be finalized upon approval by the Board on April 29, 2022.

PURPOSE

To present, for approval, the Audited 2021 Financial Statements for the Metro Vancouver Districts and the Metro Vancouver Housing Corporation.

BACKGROUND

Legislation requires that annual Audited Financial Statements be prepared for the Metro Vancouver Districts and Metro Vancouver Housing Corporation and presented at a public meeting of the Board of Directors. The Audited Financial Statements for 2021 have been prepared by management in accordance with Canadian Public Sector Accounting Standards ("PSAS") and have received an unqualified audit opinion by the external auditors, BDO Canada LLP Chartered Professional Accountants. The statements presented are currently draft and will be finalized upon approval by the Board on April 29, 2022.

2021 FINANCIAL STATEMENT HIGHLIGHTS

Under PSAS regulations, governments are required to present four statements with explanatory notes - Statement of Financial Position (Exhibit A), Statement of Operations (Exhibit B), Statement of Net Debt (Exhibit C) and Statement of Cash Flows (Exhibit D). It is important to note that there are differences between the presentation in these financial statements and the annual Metro Vancouver budget, which is prepared to determine the annual revenue requirements to meet expenditure obligations. These differences are outlined in note 16 of the consolidated statements.

The complete set of 2021 Audited Financial Statements is attached. These are presented for the Boards' approval and include:

- Audited 2021 Consolidated Financial Statements for the Metro Vancouver Regional District
- Audited 2021 Financial Statements for the Greater Vancouver Sewerage and Drainage District
- Audited 2021 Financial Statements for the Greater Vancouver Water District
- Audited 2021 Financial Statements for the Metro Vancouver Housing Corporation

The consolidated financial statements combine the accounts of the Metro Vancouver Regional District, Greater Vancouver Sewerage and Drainage District, Greater Vancouver Water District and the Metro Vancouver Housing Corporation.

Two statements, the *Summarized Consolidated Statement of Financial Position (Appendix 1)* and the *Consolidated Statement of Operations (Appendix 2)*, similar to the Balance Sheet and Income Statement in private organizations, are the foundation of the audited statements. They contain three key indicators, the accumulated surplus, annual surplus and net debt.

The *Summarized Statement of Financial Position (Appendix 1)* contains two of the indicators, the net debt and the accumulated surplus. The net debt position represents the amount by which the Districts' liabilities exceed the financial assets. Although the amount appears as unfavourable, the vast majority of the organization's liabilities are long-term debt which is repayable over several years. The organization's financial assets are more than sufficient to offset the amount of short-term obligations. The current ratio which is current assets divided by current liabilities and is a measure of an organization's liquidity is 3.2 to 1. A ratio of 2 to 1 is considered to be a measure of favourable liquidity. The net debt position increased by \$198.0 million, while the increase in tangible capital assets was \$633.0 million. This indicates that more of the District's investment in capital infrastructure is being funded through operations and reserves than debt.

The next indicator, also presented in the *Summarized Statement of Financial Position (Appendix 1)* is the accumulated surplus. Commonly thought of as "Net Worth" in private organizations, the District's accumulated surplus is favourable at \$5.9 billion, which indicates that the organization owns (Financial and Non-Financial Assets) more than it owes (Liabilities). This reflects the member municipalities' net investment in the District's consolidated entity. It comprises reserve balances of \$394.8 million and the investment in tangible capital assets (assets less debt owing) of \$5.5 billion.

The accumulated surplus increased by \$435.1 million in 2021 which represents the annual surplus for the year, the final indicator. The annual surplus is calculated as the difference between

revenues and expenses and detailed in Consolidated Statement of Operations (Appendix 2). For PSAS purposes, annual surplus does not include contributions to and from reserves, capital contributions or principal payments on long-term debt.

Additional explanations pertaining to the *Summarized Consolidated Statement of Financial Position (Appendix 1)* and the *Consolidated Statement of Operations (Appendix 2)* are included in the *2021 Financial Statement Highlights (Appendix 3)* and in a separate report titled “5.3 2021 Financial Results Year-End”.

ALTERNATIVES

These financial statements are a statutory requirement prepared in accordance to specific accounting principles. No alternatives are presented.

FINANCIAL IMPLICATIONS

There are no financial implications relative to the approval of the Audited 2021 Financial Statements.

SUMMARY / CONCLUSION

The financial statements are part of the legislated reporting requirements for 2021 and staff recommends their approval. As noted in the Auditor’s Report, it is the Auditor’s opinion that these Financial Statements present fairly the financial position of the Metro Vancouver Districts and the Metro Vancouver Housing Corporation as of December 31, 2021, and the results of their financial activities and changes in their financial position for the year then ended in accordance with Canadian Public Sector Accounting Standards.

Attachments:

- Appendix 1 - Summarized Consolidated Statement of Financial Position
- Appendix 2 - Consolidated Statement of Operations
- Appendix 3 - Management Discussion and Analysis - 2021 Financial Statement Highlights
- Attachment 1 - Metro Vancouver Districts and Metro Vancouver Housing Corporation Financial Statements for the year ended December 31, 2021

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METRO VANCOUVER REGIONAL DISTRICT

Summarized Consolidated Statement of Financial Position

Year ended December 31, 2021

(in thousands of dollars)

	2021	2020
Financial Assets		
Cash, cash equivalents and investments	\$ 1,027,885	\$ 688,902
Accounts receivable	193,051	150,627
Debt reserve fund		
Total debt reserve fund	64,388	59,442
Less Debt reserve fund, member municipalities and Translink	(35,179)	(35,603)
Debt reserve fund, Metro Vancouver Districts	29,209	23,839
	1,250,145	863,369
Liabilities		
Accounts payable and other liabilities	384,234	294,806
Less accrued interest on debt (included in debt below)	(23,429)	(22,098)
Accounts payable and other liabilities	360,805	272,708
Deferred revenue and refundable deposits	341,016	311,451
Debt, Translink and member municipalities		
Debt, net of sinking fund	1,083,106	990,009
Accrued interest on debt	11,034	10,790
	1,094,140	1,000,799
Due from Translink and member municipalities	(1,094,140)	(1,000,799)
	-	-
Debt, Metro Vancouver		
Debt, net of sinking funds	1,851,489	1,385,445
Accrued interest on debt	12,395	11,309
	1,863,884	1,396,754
	2,565,705	1,980,912
Net Debt	(1,315,560)	(1,117,543)
Non-Financial Assets		
Tangible capital assets	7,172,479	6,539,503
Prepays and inventories	24,723	24,624
	7,197,202	6,564,127
Accumulated Surplus (Equity)	\$ 5,881,642	\$ 5,446,584
Accumulated Surplus (Equity), beginning of year	\$ 5,446,584	\$ 4,888,771
Revenue	1,080,455	1,162,441
Expenses	645,397	604,628
Annual surplus	435,058	557,813
Accumulated Surplus (Equity), end of year	\$ 5,881,642	\$ 5,446,584
Accumulated Surplus (Equity) consists of		
Reserves	\$ 394,831	\$ 325,079
Non-financial assets (net of debt and capital funds)	5,486,811	5,121,505
	\$ 5,881,642	\$ 5,446,584

APPENDIX 2

METRO VANCOUVER REGIONAL DISTRICT

Consolidated Statement of Operations

Year ended December 31, 2021

(in thousands of dollars)

	2021 Budget	2021 Actual	2020 Actual
Revenue			
MVRD property tax requisitions	\$ 82,714	\$ 82,714	\$ 73,528
Metered sale of water	316,341	319,989	297,781
Sewerage and drainage levy	288,226	288,226	274,237
Tipping fees	108,517	112,610	100,880
Housing property rentals	41,303	42,416	41,607
BODTSS industrial charges	11,756	12,157	11,568
Development cost charges	88,145	42,204	81,653
Electricity sales	6,240	5,779	5,309
Grants and other contributions	263,811	76,174	184,641
User fees, recoveries and other revenue	26,619	37,124	33,425
Sinking fund and interest income	28,940	32,840	29,734
Sinking fund income, members and TransLink	28,698	28,222	28,078
	1,291,310	1,080,455	1,162,441
Expenses			
Sewer operations	229,598	199,788	191,431
Waste disposal, recycling and regulatory services	111,370	103,102	95,274
Water operations	151,627	146,841	139,227
Housing rental operations	38,890	33,682	27,211
Regional parks	36,440	33,747	29,670
General government services	5,674	5,376	5,221
Air quality	11,178	9,198	9,374
Regional employers services	2,856	2,378	2,459
911 emergency telephone system	4,543	4,452	4,364
Regional planning	3,797	2,809	3,128
Housing planning and policy	1,490	1,020	881
Invest Vancouver	1,500	1,526	206
Electoral areas	436	423	515
Regional global positioning system	304	221	204
Sasamat volunteer fire department	849	238	195
Regional emergency management	218	67	125
Corporate costs	64,440	55,343	51,473
Building operations	16,851	16,964	15,592
Sinking fund income attributed to members and TransLink	28,698	28,222	28,078
	710,759	645,397	604,628
Annual surplus	580,551	435,058	557,813
Accumulated surplus, beginning of year	5,446,584	5,446,584	4,888,771
Accumulated surplus, end of year	\$ 6,027,135	\$ 5,881,642	\$ 5,446,584

Management Discussion and Analysis – 2021 Financial Statement Highlights

Summarized Consolidated Statement of Financial Position

The purpose of the *Consolidated Statement of Financial Position (Appendix 1)* is to present the organization's assets, liabilities, net debt position and accumulated surplus or equity position. The accumulated surplus could also be interpreted as the net worth of the organization.

Relevant explanations pertaining to the Summarized Consolidated Statement of Financial Position are as follows:

Accumulated Surplus The key performance indicator on Statement of Financial Position is the Accumulated Surplus. The accumulated surplus for the District is favourable at \$5.9 billion, which indicates that the organization owns (Financial and Non-Financial Assets) more than it owes (Liabilities). This amount is often referred to in private organizations as "Net Worth", and reflects the member municipalities' net investment in the District's consolidated entity. It comprises reserve balances of \$394.8 million and the investment in tangible capital assets (assets less debt owing) of \$5.5 billion.

The accumulated surplus increased by \$435.1 million in 2021 which represents the annual surplus for the year, calculated as the difference between revenues and expenses and detailed in Appendix 2. For PSAS purposes, annual surplus does not include contributions to and from reserves, capital contributions or principal payments on long-term debt.

Financial Assets

Cash, Cash Equivalents and Investments Cash, cash equivalents and investments consist of cash and both long and short-term investments. The 2021 balance was significantly higher than 2020 as a result of lower than expected capital spending for utility infrastructure projects that are funded from grants and reserves held in cash and investments.

Accounts Receivable Accounts receivable are amounts due through the normal course of District business and are net of any allowance for doubtful accounts, which is negligible. The balance at December 31, 2021 comprises mainly of tipping fees due from commercial solid waste haulers, development cost charge (DCC) income, industrial sewer charges from commercial customers and payments due from our member municipalities for water sales. The 2021 receivable is higher than 2020 as it includes a \$38 million grant claim receivable at year end from the Province for eligible costs relating to the North Shore Waste Water Treatment Plant project.

Financial Assets (continued)

<i>Debt Reserve Fund</i>	<p>The debt reserve fund represents the amount required, under agreement with the Municipal Finance Authority (MFA), as security for debt service obligations related to MFA debentures issued to the Districts and its members. This represents 1% of the debenture issues. These amounts are refundable, with interest, upon debenture maturity. This balance fluctuates upward with new debt issues and downward as issues mature. The total debt reserve fund balance can be segregated into two components:</p> <ol style="list-style-type: none">1) Member Municipalities and Translink (\$35.2 million). This amount is related to debt service obligations for these organizations and is fully refundable to them. Therefore, it has no impact on Metro Vancouver's financial position.2) Metro Vancouver (\$29.2 million). This amount is related to debt incurred to fund infrastructure projects in GVWD and GVS&DD.
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Liabilities

<i>Accounts Payable and Other Liabilities</i>	<p>Accounts payable and other liabilities consists of amounts owing:</p> <ul style="list-style-type: none">• to suppliers for goods received and services rendered, primarily those relating to capital projects;• to employees for future benefits which represent the potential payments to employees of entitled benefits, such as banked vacation;• to MFA and mortgage providers for interest accrued on debt; and• for the District's share of landfill closure and post closure costs at the Vancouver and Cache Creek landfills.
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The increase of \$88.1 million is mainly a result of \$96.0 million more in trade payables and construction holdbacks due to timing of payments; offset by decreases payments made in 2021 for collective bargaining settlements of \$7.0 million and contaminated site remediation work of \$2.1 million paid.

<i>Deferred Revenue and Refundable Deposits</i>	<p>Deferred revenue and refundable deposits include:</p> <ul style="list-style-type: none">• \$258.6 million of restricted funds raised through the collection of development cost charges (DCCs), which will be used to fund future liquid waste growth capital projects;• \$69.7 million for the Provincial grant associated with the construction of the new North Shore Wastewater Treatment plant;• \$3.4 million of restricted funds in MVHC which will be used for the replacement of equipment and specified building components and to offset future operating deficits in specific programs;• \$6.4 million in security deposits in MVHC and Regional Parks; and• \$2.9 million from miscellaneous deferred grants and revenues in other programs.
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The increase of deferred revenue for the year of \$29.6 million is largely from the reduction DCCs and grant application funding in 2021, due to capital project delays. In 2020, \$42 million of DCCs was directly applied to project funding.

Liabilities (continued)

Debt Debt, net of sinking funds reflects the amount of long term borrowing outstanding at the end of 2021. Sinking funds consist of principal payments made over the term of the debt issue. These payments are invested which along with the interest earned will offset the debt repayment at maturity.

TransLink and Member Municipalities The debt owing to MFA for TransLink and member municipalities reflects borrowing on behalf of these entities to fund major capital projects. The amount is completely offset reflecting the fact that these entities are responsible for the debt. Therefore, the impact on Metro Vancouver's financial position is nil.

Overall debt for these entities increased by \$93.3 million. New long-term borrowing during the year was \$179.6 million relating to debt borrowed on behalf of the Surrey (\$150.6 million) and Maple Ridge (\$29 million). This increase is offset by debt and sinking fund payments of \$58.3 million and sinking fund interest earned of \$28.0 million. In addition, there was \$72.1 million in debt maturities with an equal offsetting amount of sinking fund retirements.

Metro Vancouver The debt owing on behalf of the Metro Vancouver Districts and Metro Vancouver Housing Corporation reflects borrowing to fund major infrastructure projects. The net amount owing for Metro Vancouver at the end of 2021 is \$1.9 billion. To put this in context, Metro Vancouver has tangible capital assets of \$7.2 billion and an investment in non-financial assets (assets less debt owing) of \$5.5 billion.

The debt increased by \$467.1 million. New long-term borrowing during the year was \$600.0 million (\$370.0 million for GVS&DD and \$230.0 million for GVWD). This increase is offset by debt and sinking fund payments of \$108.2 million and sinking fund interest earned of \$24.7 million. In addition, there was \$70.0 million in debt maturities with an equal offsetting amount of sinking fund retirements.

Net Debt The net debt position indicates the amount by which the organizations' liabilities exceed the financial assets. Although the amount appears as unfavourable, the vast majority of the organization's liabilities are long-term debt which is repayable over several years. The organization's financial assets are more than sufficient to offset the amount of short-term obligations. The current ratio which is current assets divided by current liabilities and is a measure of an organization's liquidity is 3.2 to 1. A ratio of 2 to 1 is considered to be a measure of favourable liquidity.

The net debt position increased by \$198.0 million, while the increase in tangible capital assets was \$633.0 million. This indicates that more of the District's investment in capital infrastructure is being funded through operations and reserves than debt.

Non-Financial Assets Non-financial assets represent the value of tangible capital assets, inventories of supplies held by the organization, the prepaid portion of land leases on housing properties, and prepaid expenses for items such as insurance.

The Tangible Capital Assets balance represents the historical cost of the asset less accumulated amortization. The increase in 2021 is the direct result of the capital expenditures made during the year, the majority of which were for water and sewer infrastructure projects.

Consolidated Statement of Operations

The *Consolidated Statement of Operations (Appendix 2)* identifies the results of the organization's financial activities for the year by presenting revenues less expenses, which is the annual surplus. This statement consolidates the revenues and expenses of the Districts and MVHC.

The annual surplus of \$435.1 million serves as the 2021 addition to the organization's overall accumulated surplus position or net worth of \$5.9 billion. The accumulated surplus in this statement is also articulated in the *Summarized Consolidated Statement of Financial Position and Equity (Appendix 1)*.

As noted above, the annual surplus as presented under PSAS is different from the annual surplus as determined in the context of the annual budget, which is \$47.2 million. The primary difference is that the PSAS framework excludes contributions to and from reserves as well as capital contributions and principal payments on long-term debt. These excluded items form a significant part of the annual approved budget. A reconciliation of the PSAS surplus to the budgeted surplus is provided in a separate report titled "5.3 2021 Financial Results Year-End".

Relevant explanations pertaining to the Consolidated Statement of Operations are as follows:

Revenue

Metered Sale of Water Metered water sales for 2021 were higher than budget and prior year due to 0.7% more consumption than anticipated.

Tipping Fees Tipping fee revenues in Solid Waste were higher than budgeted and prior year due to greater than expected waste flows during 2021.

Development Cost Charges Development cost charges (DCCs) applied against growth capital project are lower than budget due to delays in capital spending. This resulted in a reduced direct application of DCCs to project funding in 2021. In 2020, \$42 million of DCCs was directly applied to project funding.

Revenue (continued)

<i>Housing Property Rentals</i>	Property rentals in the Housing Corporation were \$1.1 million higher than budget and \$0.8 million higher prior year as rental assistance subsidies were lower than anticipated. The vacancy rate was higher than expected for 2021 as limitations due to COVID-19 resulted in slower than expected unit turnovers.
<i>BODTSS Industrial Charges</i>	BODTSS industrial charges were slightly higher than anticipated and higher than the prior year due to higher discharge than was anticipated.
<i>Electricity Sales</i>	Electricity sales related to Solid Waste Operations were slightly lower than anticipated due to lower electricity production from unplanned maintenance and downtime of the turbine.
<i>Grants and Other Contributions</i>	Grants and other contributions of \$76.2 million are from GVS&DD capital projects (\$61.0 million), Parks land contribution (\$11.0 million), the COVID-19 British Columbia Restart grant (\$1.3 million), grants-in-lieu of taxes (\$1.0 million), and MVHC's subsidies and contributions (\$1.9 million). Grants are significantly lower than budget and prior year due to less spending on the North Shore Wastewater Treatment project and therefore less grant application than anticipated. In addition, the prior year included \$6.7 million from funds received for Heather Place redevelopment project.
<i>User fees, Recoveries and Other Revenue</i>	User fees, recoveries and other revenue are amounts collected from Metro Vancouver's various functions, including property and facility rentals, parking and user fees, regulatory permits, trucked liquid waste fees, source control fees and cost sharing income. The amount is \$10.5 million higher than anticipated due to unplanned revenue from cost sharing income for capital projects in GVWD of \$8.3 million; higher parking revenue in Parks of \$.6 million and higher other revenue from property rentals and leases of \$1.6 million.
<i>Sinking fund and Interest Income</i>	Sinking fund and interest income are funds earned on Metro Vancouver's sinking funds for debt and income earned on its investment portfolio balance. The income is higher than anticipated and the prior year due to delays in capital spending resulting in a higher than expected average investment balances for the year.
<i>Sinking Fund Income, Members and TransLink</i>	Sinking fund income, members and TransLink is income earned on sinking funds for debt incurred on behalf of these organizations. This income, although recognized in the Financial Statements, is income attributed to the other organizations. There is an offsetting item under expenses, so the net impact to Metro Vancouver is nil.

Expenses

<i>Liquid Waste Services</i>	Expenses for Liquid Waste services were \$29.8 million lower than budget primarily due to deferral and cancellation of some projects in minor capital, residuals, and research and innovation, resulting in lower than anticipated in consulting and contracting expenses of \$17.9 million and other operating costs (materials, supplies, utilities and permits) of \$3.9 million. Staff vacancies, where recruitment efforts continue, attributed to \$2.0 million in lower costs. In addition, due to delays in capital spending, amortization of capital assets was \$2.7 million lower than anticipated and interest costs on debt were \$0.5 million lower budget.
<i>Solid Waste Services</i>	Expenditures in Solid Waste services were lower than budget by \$8.2 million primarily due to lower costs related to City of Vancouver facilities (\$1.7 million), lower tonnage throughput at the Waste-to-Energy Facility (\$1.4 million), new lower cost contracts for organics and disposal ban inspections (\$1.2 million), timing of the opening the new United Boulevard Recycling and Waste Centre (\$1.0 million), decreased bottom ash disposal costs due to beneficial use (\$0.8 million) and other miscellaneous operational costs of (\$2.1 million).
<i>Water Services</i>	Water services were comparable to prior year but lower than budget by \$4.8 million due to delays in Sustainability Innovation Fund (SIF) project work, equipment purchases, corrosion control implementation and easement acquisitions. Staff vacancies where recruitment efforts continue contributed to \$3.2 million in lower expenditures.
<i>Housing Rental Operations</i>	Housing expenditures were \$5.2 million lower than budget mainly due to lower than anticipated costs for utilities, permits and taxes (\$2.3 million). In addition, delays in larger building envelope projects resulted in lower than expected costs of \$2.9 million.
<i>Regional Parks</i>	Regional Parks expenses were \$2.7 million lower than budget primarily as a result of lower than anticipated consulting and contract services as a result of delays in hiring contractors and changes to project timelines. The 2021 expenditures were higher than prior year, as 2020 saw reduced program offerings, event cancellations and filming disruptions due to the COVID-19 pandemic.
<i>General Government Services</i>	General government services were \$300,000 lower as projects and initiatives were delayed due to COVID-19. The program expenditures are in line with the prior year.

Expenses (continued)

<i>Air Quality</i>	Air Quality expenditures were \$2.0 million lower than budget and \$200,000 lower than prior year primarily as a result of unspent consulting and legal fees due to delays in climate policy and extensions for regulation development.
<i>Regional Employers Services</i>	Expenditures in Regional Employers Services were \$760 thousand lower than anticipated due to staff vacancies and lower consulting costs as a result of limited activity due to COVID-19 pandemic. The expenditures are in line with 2020.
<i>911 Emergency Telephone System</i>	E911 expenditures were slightly lower than budget for the year primarily due to translation costs being lower than anticipated. The expenditures are comparable to the prior year.
<i>Regional Planning</i>	Regional Planning ended the year slightly under budget and lower than prior year primarily due to staff vacancies and lower than planned consulting expenditures due to project delays.
<i>Housing Planning and Policy</i>	Housing Planning and Policy was lower than budget mainly due to consulting projects related to SIF funding delayed. Expenditures were higher than prior year due to fewer staff vacancies in 2021 versus 2020.
<i>Invest Vancouver</i>	Invest Vancouver was slightly higher than budget due to staffing structural changes and external resource requirements. Expenditures were significantly higher than 2020 due to staff vacancies in the prior year as the function was being established.
<i>Electoral Areas</i>	Electoral Areas expenditures were slightly lower than budget due to lower consulting expenditures than anticipated. Expenditures were lower than 2020 as the prior year included higher program spending that was offset by one-time grant revenue.
<i>Regional Global Positioning System (RGPS)</i>	The RGPS program was underspend by \$80 thousand due to lower than expected equipment and consulting costs. The amount spent in 2021 was slightly higher than 2020 expenditures.
<i>Sasamat Volunteer Fire Department</i>	The Sasamat Volunteer Fire expenditures were significantly lower than budget as a result of procurement delays for a new fire truck budgeted at \$600 thousand. It is anticipated the equipment will be delivered in 2022.
<i>Regional Emergency Management</i>	Regional Emergency Management's expenditures for 2021 were significantly lower than anticipated mainly due to COVID restrictions and difficulties in hiring staff.

Expenses (continued)

<i>Corporate Program Costs</i>	Corporate Program Costs represent expenditures for centralized services such as Finance, Human Resources, External Relations, Corporate Services, Legal and Indigenous Relations. Expenditures for the programs were lower than budget mainly due to labour underspends as a result of staff vacancies and underspends on travel, training and tuition as a result of COVID-19.
<i>Building Operations</i>	Building Operations shows expenditures slightly higher than budget by \$110 thousand due to higher than anticipated repairs and maintenance, including cleaning and janitorial to address COVID-19 protocols. Although expenses are over budget, the overall program had a surplus of \$98,000 as revenues were also higher than anticipated.

**METRO VANCOUVER DISTRICTS
AND METRO VANCOUVER HOUSING CORPORATION**
(OPERATING AS METRO VANCOUVER)

Financial Statements

Year ended December 31, 2021

April 7, 2022

Consolidated Financial Statements of

**METRO VANCOUVER
REGIONAL DISTRICT**

(OPERATING AS METRO VANCOUVER)

Year ended December 31, 2021

April 7, 2022

METRO VANCOUVER REGIONAL DISTRICT

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December 31, 2021

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Independent Auditor's Report

To the Members of the Board of Directors of the Metro Vancouver Regional District

Opinion

We have audited the consolidated financial statements of the Metro Vancouver Regional District (the "Consolidated Entity"), which comprise the consolidated Statement of Financial Position as at December 31, 2021, and the consolidated Statements of Operations, Change in Net Debt and Cash Flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Consolidated Entity as at December 31, 2021 and the results of its operations, change in net debt, and cash flows for the year then ended in accordance with Canadian public sector accounting standards.

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Consolidated Entity in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with Canadian public sector accounting standards, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Consolidated Entity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Consolidated Entity or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Consolidated Entity's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Consolidated Entity's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Consolidated Entity's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Consolidated Entity to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Other Matter – Supplementary Information

We draw attention to the fact that the supplementary information included in Schedule 1 does not form part of the audited financial statements. We have not audited or reviewed this supplementary information and, accordingly, we do not express any opinion, review conclusion or any other form of assurance on this supplementary information.

Chartered Professional Accountants

Vancouver, British Columbia

DATE

METRO VANCOUVER REGIONAL DISTRICT

Exhibit A

Consolidated Statement of Financial Position

Year ended December 31, 2021

(in thousands of dollars)

	2021	2020
Financial Assets		
Cash and cash equivalents	\$ 738,303	\$ 271,510
Accounts receivable (note 2)	193,051	150,627
Due from TransLink and member municipalities (note 3)	1,094,140	1,000,799
Investments (note 4)	289,582	417,392
Debt reserve fund (note 5)	64,388	59,442
	2,379,464	1,899,770
Liabilities		
Accounts payable and accrued liabilities (note 6)	337,420	249,272
Employee future benefits (note 7)	13,907	13,369
Landfill closure and post-closure liability (note 8)	32,907	32,164
Deferred revenue and refundable deposits (note 9)	341,016	311,451
Debt reserve fund, member municipalities and TransLink (note 5)	35,179	35,603
Debt (net of sinking funds) (note 10)		
Metro Vancouver Districts and Housing Corporation	1,851,489	1,385,445
TransLink and member municipalities	1,083,106	990,009
Total debt	2,934,595	2,375,454
	3,695,024	3,017,313
Net Debt	(1,315,560)	(1,117,543)
Non-Financial Assets		
Tangible capital assets (note 11)	7,172,479	6,539,503
Inventories of supplies	10,938	10,017
Prepaid land leases (note 12)	5,062	5,257
Prepaid expenses	8,723	9,350
	7,197,202	6,564,127
Accumulated Surplus (note 13)	\$ 5,881,642	\$ 5,446,584

Contractual obligations and rights (note 14)

Contingencies (note 15)

Segmented Information (note 17)

COVID-19 Pandemic (note 18)

Subsequent event (note 19)

The accompanying notes are an integral part of these consolidated financial statements.

Chief Financial Officer

Board Chair

METRO VANCOUVER REGIONAL DISTRICT

Exhibit B

Consolidated Statement of Operations

Year ended December 31, 2021

(in thousands of dollars)

	2021 Budget (note 16)	2021 Actual	2020 Actual
Revenue (note 17)			
MVRD property tax requisitions	\$ 82,714	\$ 82,714	\$ 73,528
Metered sale of water	316,341	319,989	297,781
Sewerage and drainage levy	288,226	288,226	274,237
Tipping fees	108,517	112,610	100,880
Housing property rentals	41,303	42,416	41,607
BODTSS industrial charges	11,756	12,157	11,568
Development cost charges	88,145	42,204	81,653
Electricity sales	6,240	5,779	5,309
Grants and other contributions	263,811	76,174	184,641
User fees, recoveries and other revenue	26,619	37,124	33,425
Sinking fund and interest income	28,940	32,840	29,734
Sinking fund income, members and TransLink	28,698	28,222	28,078
	1,291,310	1,080,455	1,162,441
Expenses (note 17)			
Sewer operations	229,598	199,788	191,431
Waste disposal, recycling and regulatory services	111,370	103,102	95,274
Water operations	151,627	146,841	139,227
Housing rental operations	38,890	33,682	27,211
Regional parks	36,440	33,747	29,670
General government services	5,674	5,376	5,221
Air quality	11,178	9,198	9,374
Regional employers services	2,856	2,378	2,459
911 emergency telephone system	4,543	4,452	4,364
Regional planning	3,797	2,809	3,128
Invest Vancouver	1,500	1,526	206
Housing planning and policy	1,490	1,020	881
Electoral areas	436	423	515
Regional global positioning system	304	221	204
Sasamat volunteer fire department	849	238	195
Regional emergency management	218	67	125
Corporate program costs	64,440	55,343	51,473
Building operations	16,851	16,964	15,592
Sinking fund income attributed to members and TransLink	28,698	28,222	28,078
	710,759	645,397	604,628
Annual surplus	580,551	435,058	557,813
Accumulated surplus, beginning of year	5,446,584	5,446,584	4,888,771
Accumulated surplus, end of year (note 13)	\$ 6,027,135	\$ 5,881,642	\$ 5,446,584

The accompanying notes are an integral part of these consolidated financial statements.

METRO VANCOUVER REGIONAL DISTRICT

Exhibit C

Consolidated Statement of Change in Net Debt

Year ended December 31, 2021

(in thousands of dollars)

	2021 Budget (note 16)	2021 Actual	2020 Actual
Annual surplus	\$ 580,551	\$ 435,058	\$ 557,813
Change in tangible capital assets			
Acquisition of tangible capital assets	(1,527,441)	(720,501)	(881,579)
Amortization of tangible capital assets	86,233	86,415	82,429
Net book value of tangible capital assets disposed	-	1,110	98
	(1,441,208)	(632,976)	(799,052)
Change in other non-financial assets			
Acquisition of prepaid expenses	-	(8,723)	(9,350)
Use of prepaid expenses	-	9,350	7,176
Amortization of prepaid land leases	195	195	195
Acquisition of inventories of supplies	-	(10,938)	(10,017)
Consumption of inventories of supplies	-	10,017	7,499
	195	(99)	(4,497)
Change in net debt	(860,462)	(198,017)	(245,736)
Net debt, beginning of year	(1,117,543)	(1,117,543)	(871,807)
Net debt, end of year	\$ (1,978,005)	\$ (1,315,560)	\$ (1,117,543)

The accompanying notes are an integral part of these consolidated financial statements.

METRO VANCOUVER REGIONAL DISTRICT

Exhibit D

Consolidated Statement of Cash Flows

Year ended December 31, 2021

(in thousands of dollars)

	2021	2020
Cash provided by (used in):		
Operating transactions:		
Annual surplus	\$ 435,058	\$ 557,813
Items not involving cash		
Amortization of tangible capital assets	86,415	82,429
Amortization of prepaid land leases	195	195
Sinking fund income	(53,932)	(50,917)
Debt reserve fund income	(1,065)	(1,173)
Accrued interest and unamortized premium or discount	(2,029)	(1,135)
Gain on disposal of tangible capital assets and asset held for sale	743	(481)
Employee future benefit expense	2,868	2,929
Change in landfill closure and post-closure liability	743	(874)
Change in non-cash financial assets and liabilities		
Accounts receivable	(42,424)	4,872
Due from Translink and member municipalities	(93,341)	(6,091)
Accounts payable and accrued liabilities	88,148	(12,483)
Employee future benefits paid	(2,330)	(3,401)
Deferred revenue and refundable deposits	29,565	(78,594)
Debt reserve fund, member municipalities and TransLink	(424)	1,521
Inventories of supplies	(921)	(2,518)
Prepaid expenses	627	(2,174)
Net change in cash from operating transactions	447,896	489,918
Capital transactions:		
Proceeds on sale of tangible capital assets	367	579
Acquisition of tangible capital assets	(720,501)	(881,579)
Net change in cash from capital transactions	(720,134)	(881,000)
Investing transactions:		
Acquisition of investments	(160,752)	(424,726)
Investment maturities	290,591	781,046
Net change in cash from investing transactions	129,839	356,320
Financing transactions:		
Debenture debt and mortgages issued	779,600	367,455
Debt reserve fund issuances	(7,796)	(3,541)
Debt reserve fund maturity	3,915	139
Sinking fund payments	(158,391)	(139,563)
Principal repayments on housing mortgages and serial debt maturity	(8,136)	(14,268)
Sinking fund retirement	142,080	7,450
Debenture debt maturity	(142,080)	(7,450)
Net change in cash from financing transactions	609,192	210,222
Net change in cash and cash equivalents	466,793	175,460
Cash and cash equivalents, beginning of year	271,510	96,050
Cash and cash equivalents, end of year	\$ 738,303	\$ 271,510

The accompanying notes are an integral part of these consolidated financial statements.

**METRO VANCOUVER DISTRICTS
AND METRO VANCOUVER HOUSING CORPORATION
(Operating as Metro Vancouver)
MANAGEMENT REPORT**

The Consolidated Financial Statements contained in this report have been prepared by management in accordance with Canadian public sector accounting standards. The integrity and objectivity of these statements are management's responsibility. Management is responsible for all the statements and schedules, and for ensuring that this information is consistent, where appropriate, with the information contained in the financial statements.

Management is also responsible for implementing and maintaining a system of internal controls to provide reasonable assurance that reliable financial information is produced.

The Metro Vancouver Regional District's Board of Directors is responsible for approving the consolidated financial statements and for ensuring that management fulfills its responsibilities for financial reporting and internal control and exercises this responsibility through the Performance and Audit Committee of the Board.

The external auditors, BDO Canada LLP, conduct an independent examination, in accordance with Canadian Auditing Standards, and express their opinion on the consolidated financial statements. Their examination does not relate to the other unaudited schedules attached to the financial statements and statements required by the *Financial Information Act*. The Independent Auditor's Report outlines the scope of the audit for the year ended December 31, 2021.

On behalf of the Metro Vancouver Regional District, Greater Vancouver Sewerage & Drainage District, Greater Vancouver Water District and Metro Vancouver Housing Corporation.

Dean Rear, Chief Financial Officer

Date: April 29, 2022

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 1

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

1. Significant Accounting Policies

The consolidated financial statements of the Metro Vancouver Regional District (the “District”) are prepared by management in accordance with Canadian public sector accounting standards (“PSAS”). Significant accounting policies adopted by the District are as follows:

Government Reporting Entity	The consolidated financial statements reflect the assets, liabilities, revenues and expenses of four legal entities: the Metro Vancouver Regional District (“MVRD”), the Greater Vancouver Sewerage and Drainage District (“GVS&DD”), the Greater Vancouver Water District (“GVWD”) and the Metro Vancouver Housing Corporation (“MVHC”).
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The MVRD was established under the Local Government Act of British Columbia. It provides a number of specific and agreed upon services directly to the public and its member municipalities, the major one of which is the ownership and operation of a network of regional parks. Its Board of Directors comprises mayors and councilors from the member municipalities appointed for that purpose by the municipalities. The number of directors, and the number of votes each may cast, is based upon the population of the municipality. Under the legislation, all staff, even if their work is under the authority of the related legal entities, are employees of the MVRD.

The GVS&DD was established by an Act of the same name in 1956. Its two principal responsibilities are the collection, treatment and discharge of liquid waste for the municipalities of the MVRD, and the disposal of solid waste for the municipalities of the MVRD and the public. GVS&DD owns and operates wastewater treatment plants and a related collection network connected to the municipal collection systems, and several solid waste facilities including a waste to energy facility. Its Board of Directors comprises the same councilors and mayors as appointed to the MVRD Board by the participating municipalities.

The GVWD was established by an Act of the same name in 1924. Its primary responsibility is the supply of potable water to its member municipalities. Its Board of Directors comprises the same councilors and mayors as appointed to the MVRD Board by the participating municipalities. GVWD owns or holds under a 999 year lease from the Province, an extensive closed watershed network as its source of supply. It owns a series of dams, reservoirs, water treatment plants and a distribution network connecting to the municipal distribution systems. GVWD also owns and is responsible for operating and maintaining office buildings that are leased to MVRD and its related entities.

The MVHC is a wholly-owned subsidiary of the MVRD. The MVHC was incorporated under the Business Corporations Act (British Columbia) to own and operate housing sites within the Lower Mainland for the purpose of providing affordable rental housing on a non-profit basis.

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 2

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

1. Significant Accounting Policies (continued)

Basis of Consolidation

The consolidated financial statements reflect the combined assets, liabilities, revenues and expenses of the reporting entity. The reporting entity comprises the MVRD, the GVS&DD, the GVWD and the MVHC. These organizations are controlled by the District. All transactions and balances between these entities have been eliminated on consolidation.

Basis of Accounting

The District follows the accrual method of accounting for revenue and expenses. Revenue is recognized in the year in which it is earned and measurable. Expenses are recognized as they are incurred and measurable as a result of the receipt of goods or services and/or the legal obligation to pay.

Government Transfers

Government transfers, are recognized as revenue in the financial statements when the transfer is authorized and any eligibility criteria are met, except to the extent that transfer stipulations give rise to an obligation that meets the definition of a liability. The transfer of revenue is initially deferred and then recognized in the statement of operations as the stipulation liabilities are settled.

When the District is deemed the transferor, the transfer expense is recognized when the recipient is authorized and has met the eligibility criteria.

Deferred Revenue and Refundable Deposits

Deferred revenue represents licenses, permits, development cost charges, security deposits, restricted contributions and other fees which have been collected, but for which the related services or obligations have yet to be performed. These amounts will be recognized as revenue in the fiscal year the services are performed or obligations and stipulations have been met.

Sinking Fund, Debt Retirement and Interest Income

Interest income is reported as revenue in the period earned. When required, based on external restrictions, interest income earned on deferred revenue is added to and forms part of the deferred revenue balance and is recognized into income when related stipulations are met. Any surpluses received from upon debt retirement are recorded in the year received.

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 3

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

1. Significant Accounting Policies (continued)

Cash Equivalents Cash equivalents include highly liquid financial instruments with a term to maturity of ninety days or less at the date of acquisition. Cash equivalents are recorded at the lower of cost plus accrued interest and market value.

Investments Investments consist of both long and short-term instruments and are recorded at amortized cost using straight-line method.

Employee Future Benefits The District and its employees participate in the Municipal Pension Plan. The Municipal Pension Plan is a multi-employer contributory defined benefit pension plan. Payments made in the year are expensed.

Under the terms of various collective agreements and compensation policies, the District provides paid sick leave to eligible employees and in certain agreements allows unused sick days to accumulate. There are no payouts of unused sick days at termination. In addition, employees acquire certain employee benefits on termination and retirement. These include days for severance based on years of service, vacation based on years of service, Worker's Compensation top-up, and a full year's vacation entitlement in the year of retirement. The costs of these benefits are actuarially determined based on service and best estimates of retirement ages and expected future salary and wage increases. The obligation under these benefit plans is accrued based on projected benefits as the employees render services necessary to earn the future benefits. Actuarial gains and losses are amortized over the expected average remaining service period of the related employee group, commencing the year after the gain or loss arises.

Landfill Closure and Post-Closure Liability The estimated present value of landfill closure and post-closure costs is recognized as a liability. This liability is recognized based on estimated future expenses, including estimated inflation discounted to the current date and accrued based on the proportion of the total capacity of the landfill used as of the date of the statement of financial position. The change in this estimated liability during the year is recorded as an expense in operations. These estimates are reviewed and adjusted annually and any changes are recorded on a prospective basis.

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 4

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

1. Significant Accounting Policies (continued)

Non-Financial Assets

Non-financial assets are not available to discharge existing liabilities and are held for use in the provision of services. They have useful lives extending beyond the current year and are not intended for sale in the ordinary course of operations.

Tangible Capital Assets

Tangible capital assets are recorded at cost which includes amounts that are directly attributable to acquisition, construction, development or betterment of the asset. The cost, less residual value, of the tangible capital assets, except land, is amortized over their estimated useful lives. All assets are amortized on a straight line basis as follows:

Asset	Useful Life – Years
Buildings	
Housing	25 – 35
Parks	50
Watershed	25
Corporate – Head Office	40
Infrastructure	
Sewer	
Wastewater treatment, pumping stations	50
Interceptors and trunk sewer, drainage	100
Solid Waste	25 – 30
Water	
Dams, reservoirs	150
Supply mains	100
Distribution systems, drinking water treatment	50
Parks	
Bridges, culverts, fencing	20 – 40
Trails	100
Roads, erosion protection, water and sewer systems	100
Information technology systems and networks	5 – 10
Vehicles	5 – 20
Machinery, Equipment, Furniture and Fixtures	5 – 20

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 5

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

1. Significant Accounting Policies (continued)

Non-Financial Assets (continued)

Tangible

Capital Assets

a. Annual amortization

Annual amortization begins when the asset is put in service and is expensed over its useful life. Assets under construction are transferred to the appropriate asset class and are amortized from the date the asset is put into productive use.

b. Contributions of tangible capital assets

Contributions of tangible capital assets are recorded at their fair value at the date of receipt and as contribution revenue.

c. Works of art and cultural and historic assets

Works of art and cultural and historic assets are not recorded as assets in these financial statements.

d. Interest capitalization

The Districts do not capitalize interest costs associated with the acquisition or construction of a tangible capital asset.

Inventories of Supplies

Inventories of supplies held for consumption are recorded on a first-in, first-out basis.

Prepaid Land Leases

Prepaid land leases are recorded at historical cost less accumulated amortization. Upon expiration of the lease contract, the property will revert to the lessor. Prepaid land leases are amortized on a straight-line basis over the lease term.

Revenue Recognition

Property tax revenues and sewerage and drainage revenues from member municipalities are recognized in the year they are levied. Metered sale of water, tipping fees, permits, cost sharing and other revenue are recognized as revenue on an accrual basis according to the usage and rates approved and set by the Board. Housing property rental revenue is recognized over the rental period once the tenant commences occupancy, rent is due and collection is assured.

Segmented Information

A segment is defined as a distinguishable activity or group of activities of a government for which it is appropriate to separately report financial information to achieve the objectives of the standard. The District has provided definitions of the District's segments as well as presented financial information in segmented format in note 17.

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 6

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

1. Significant Accounting Policies (continued)

Liability for Contaminated Sites

A liability for remediation of a contaminated site is recognized when the site is no longer in productive use and the following criteria are satisfied: an environmental standard exists; contamination exceeds the standard; the District is either directly responsible or has accepted responsibility for remediation; it is expected that future economic benefits will be given up and a reasonable estimate of the liability can be made. Liabilities for contaminated sites is reported in accounts payable and accrued liabilities (note 6).

Use of Estimates

The preparation of these financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the period. These estimates and assumptions are based on management's best information and judgment and may differ from actual results. Adjustments, if any, will be reflected in the financial statements in the period that the change in estimate is made, as well as in the period of settlement if the amount is different.

Significant areas requiring the use of management's judgment relate to the determination of contaminated sites liabilities, the employee future benefits liability, the estimate of accruals for projects in progress, amortization rates and useful lives for tangible capital assets, the landfill closure and post-closure liability, the assessment of the impairment of tangible capital assets and work in progress, and the assessment of the outcome of contingent liabilities.

2. Accounts Receivable

	2021	2020
GVWD	\$ 48,357	\$ 52,651
GVS&DD	139,016	85,458
MVHC	624	6,227
MVRD	5,054	6,291
	\$ 193,051	\$ 150,627

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 7

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

3. Due from TransLink and Member Municipalities

The District is reimbursed for amounts paid to the Municipal Finance Authority of British Columbia ("MFA") for the obligations incurred on behalf of its member municipalities and TransLink whose undertakings were financed out of the proceeds of these obligations (refer to note 10). The amount recoverable is net of sinking funds and includes accrued interest as follows:

	Net Debt Recoverable	Accrued Interest	2021	2020
TransLink	\$ 281,223	\$ 5,244	\$ 286,467	\$ 337,315
Member Municipalities	801,883	5,790	807,673	663,484
	\$ 1,083,106	\$ 11,034	\$ 1,094,140	\$ 1,000,799

4. Investments

	Yields	Maturity Dates	2021	2020
Bonds:				
Government	1.75 - 3.11%	February 2022 - March 2031	\$ 78,983	\$ 89,081
Corporate	1.97 - 4.81%	March 2022 - March 2028	51,172	95,513
Unamortized premium			3,927	1,898
			134,082	186,492
Term deposits	0.70 - 1.50%	January 2022 – November 2022	98,000	85,500
GICs	0.70 - 3.12%	February 2022 - August 2028	57,500	145,400
Total			\$ 289,582	\$ 417,392

Government bonds include debt securities issued by the federal and provincial governments of Canada, and the Municipal Finance Authority of British Columbia. Corporate bonds include Schedule I and II Chartered Banks of Canada.

Market value of investments at December 31, 2021 was \$294,798,145 (2020 - \$429,413,509).

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 8

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

5. Debt Reserve Fund

The MFA provides financing for regional districts and member municipalities. The MFA is required to establish a Debt Reserve Fund for each debenture issue equal to one-half the average annual installment of principal and interest. The debt reserve fund is comprised of cash deposits equal to 1% of the principal amount borrowed and a non-interest bearing demand note for the remaining requirement. Cash deposits held by the MFA are payable with interest to the ultimate borrower when the final obligations under the respective loan agreements have been made.

If, at any time, the District has insufficient funds to meet payments due on its obligations to the MFA, the payments will be made from the debt reserve fund. The demand notes are callable only if there are additional requirements to be met to maintain the level of the debt reserve fund. At December 31, 2021, \$122,534,444 (2020 - \$105,080,232) in callable demand notes were outstanding and have not been recorded in the statement of financial position.

	2021	2020
Cash deposits held by MFA on behalf of:		
TransLink and member municipalities	\$ 35,179	\$ 35,603
Metro Vancouver Districts	29,209	23,839
	\$ 64,388	\$ 59,442

6. Accounts Payable and Accrued Liabilities

	2021	2020
Trade accounts	\$ 238,340	\$ 128,855
Construction holdbacks	65,180	78,736
Accrued interest on debt	23,429	22,098
Wage accruals	9,709	16,702
Contaminated sites (a)	762	2,881
	\$ 337,420	\$ 249,272

- (a) The District accrued \$761,557 (\$2,881,000 in 2020) for estimated costs to remediate contaminated soils at its properties within the GVS&DD and GVWD. The remediation work for one of the properties identified in 2020 was completed in 2021. It is expected that the work on the sites identified in 2021 will be completed by 2023.

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 9

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

7. Employee Future Benefits

The employee future benefits have been based on the results of an actuarial valuation done by an independent actuarial firm. A full valuation was performed as of December 31, 2019, with results projected to December 31, 2021.

Information about liabilities for the District's employee benefit plans is as follows:

	2021	2020
Accrued benefit obligation:		
Balance, beginning of year	\$ 20,362	\$ 20,844
Current service cost	1,656	1,493
Interest cost	376	514
Benefits paid	(2,330)	(3,401)
Workers compensation top-up	(120)	45
Actuarial loss	(936)	867
Accrued benefit obligation, end of year	19,008	20,362
Unamortized actuarial loss	(5,101)	(6,993)
Accrued benefit liability, end of year	\$ 13,907	\$ 13,369

	2021	2020
Employee future benefit expense:		
Current service cost	\$ 1,656	\$ 1,493
Interest cost	376	514
Workers compensation top-up	(120)	45
Amortization of the actuarial loss	956	877
	\$ 2,868	\$ 2,929

The significant actuarial assumptions adopted in measuring the District's accrued benefit obligation are as follows:

	2021	2020
Discount rate	2.40%	1.80%
Expected future inflation rate	2.00%	2.00%
Expected average remaining service period	11.3 years	11.3 years

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 10

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

8. Landfill Closure and Post-Closure Liability

The District is responsible for its share of closure and post-closure costs at landfill sites as detailed below.

- a) The Vancouver landfill is located in Delta, BC. In accordance with an agreement with the City of Vancouver, the District is responsible for its proportionate share of the closure and post-closure liability based on usage. The present value of the District's estimated future liability for these expenses is recognized as the landfill site's capacity is used and is as follows:

	2021	2020
Landfill closure and post closure liability	\$ 32,907	\$ 32,164

The closure and post-closure liability and annual expense is calculated based on the ratio of actual utilization to total expected utilization of the site's capacity at the date of closure. It is based on estimates and assumptions with respect to events extending over the remaining life of the Vancouver landfill, including provisions contained in Metro Vancouver's Integrated Solid Waste and Resource Management Plan. The significant estimates and assumptions adopted in measuring the District's share of the closure and post-closure liability are as follows:

	2021	2020
Current actual utilization (in 000's tonnes)	22,521	21,795
Expected utilization at closure (in 000's tonnes)	28,219	27,987
Expected remaining capacity (in 000's tonnes)	5,698	6,192
Permitted capacity (in 000's tonnes)	33,039	33,039
Future costs (in \$000's)	\$ 197,189	\$ 203,768
Present value of future costs (in \$000's)	\$ 115,934	\$ 120,497
Proportionate share of liability	35.57%	34.30%
Utilization of total capacity, end of year	79.81%	77.88%
Discount rate	2.73%	2.68%
Expected post-closure period	30 years	30 years
Expected closure date	December 31, 2037	December 31, 2037

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 11

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

8. Landfill Closure and Post-Closure Liability (continued)

- b) The Cache Creek landfill is located in the Village of Cache Creek, BC. The landfill permit obligates the Village of Cache Creek and a third party service provider to undertake closure and post-closure activities. The District, in accordance with an agreement with the Village, was required to contribute quarterly to a trust fund, held with the Province of British Columbia, to a Post Closure Maintenance and Repair Fund at rates consistent with the operational certificate for the landfill. The agreement indemnifies the Village for any post closure liabilities not covered by this fund. At December 31, 2021, the amortized book value of the trust was \$16,261,510 (2020 - \$15,519,407), which approximates the post-closure liability.

The Cache Creek landfill was closed December 2016. The actual utilization at closure was 10,319 thousand tonnes and the permitted capacity was 10,372 thousand tonnes. The post-closure period is expected to be 30 years. The present value of District's estimated future post-closure liability is sufficiently funded by the trust.

9. Deferred Revenue and Refundable Deposits

The deferred revenue consists of the following:

	2021	2020
MVHC externally restricted funds from BCHMC(a)		
i) Rental operations	\$ 47	\$ 46
ii) Replacement projects	3,376	3,246
	3,423	3,292
GVS&DD development cost charges (b)	258,634	213,143
Provincial grant to fund capital expenditures (c)	69,696	88,525
Facility rental security deposits	6,360	3,935
Other	2,903	2,556
Total	\$ 341,016	\$ 311,451

- (a) Amounts received under the following MVHC programs have been recorded as deferred revenue:

- i) Rental Operations: Under operating agreements entered into with Canada Mortgage and Housing Corporation ("CMHC") and administered by BCHMC (Homes BC and Seniors properties), a portion of the funds received from rental operations are restricted and can only be used by MVHC according to the terms of the agreements. Restricted amounts are recorded as deferred revenue and are used when expenditures exceed revenue in the program.

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 12

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

9. Deferred Revenue and Refundable Deposits (continued)

- ii) Replacement Projects: Under operating agreements entered into with Canada Mortgage and Housing Corporation ("CMHC") and administered by BCHMC (Homes BC and Seniors properties), a portion of the funds received from rental operations are restricted for the replacement of equipment and specified building components. These funds are deferred until spent on approved items.
- (b) The GVS&DD Act restricts the District to applying money raised from development cost charges to funding sewer capital projects, including the repayment of debt raised to fund such projects.
- (c) In 2017, the GVS&DD received a grant from the Province of British Columbia in the amount of \$193.0 million for costs associated with the construction of the new North Shore Wastewater Treatment Plant Facility. During 2021, \$20.49 million (2020 - \$67.97 million) was applied against the project and recognized as revenue.

Continuity of deferred revenue and refundable deposits is as follows:

	2021	2020
Balance, beginning of year	\$ 311,451	\$ 390,045
Externally restricted contributions received:		
GVS&DD development cost charges	85,105	62,871
MVHC restricted funds	1,420	2,166
Interest earned	3,627	7,194
Total contributions received	90,152	72,231
Contributions used and recognized in revenue	(63,780)	(151,250)
Net change in externally restricted contributions	26,372	(79,019)
Change in deposits and other deferred revenues	3,193	425
	29,565	(78,594)
Balance, end of year	\$ 341,016	\$ 311,451

10. Debt

- a) The District serves as the borrowing conduit between member municipalities (excluding the City of Vancouver) and the Municipal Finance Authority of British Columbia (MFA). The GVS&DD and GVWD also access MFA through the MVRD. Prior to 2007, the District also served as the borrowing conduit for the Greater Vancouver Transportation Authority (GVTA), commonly referred to as "TransLink". The District, TransLink and the municipalities in the transportation service region are jointly and severally liable for obligations arising under a security issued by the District on behalf of TransLink.

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 13

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

10. Debt (continued)

- b) All monies borrowed are upon the District's credit at large and, in the event of any default, would constitute an indebtedness for which its members are jointly and severally liable.
- c) Debt servicing requirements comprising sinking fund contributions, serial and mortgage principal repayments and interest are funded as incurred by revenue earned during the year.
- d) Sinking fund installments are invested by the MFA and earn income which, together with principal payments, are expected to be sufficient to retire the sinking fund debt at maturity. For sinking fund agreements, the MFA has established either a normal sinking fund or a capital repayment equalization fund.
- e) In addition to debt incurred directly by the District, the District has also incurred long-term debt on behalf of its member municipalities and TransLink through agreements with the MFA. Under the terms of these agreements, the District is required to provide for and pay to the MFA certain sums. Debt incurred on behalf of others is also presented as due from TransLink and member municipalities (note 3). Where the MFA has determined that sufficient resources exist to retire a debenture on its maturity date without further installments, debenture installments are suspended by the MFA. If the sums provided for are not sufficient, such deficiency shall be a liability of the District to the MFA until legally extinguished.

The District is reimbursed for amounts paid to the MFA for the obligations incurred on behalf of the member municipalities and TransLink whose undertakings were financed out of the proceeds of these obligations.

The following summarizes the debt incurred by the District as well as debt incurred on behalf of the member municipalities and TransLink.

	Mortgages and Debenture Debt	Less Sinking Funds	Debt, Net of Sinking Fund	
			2021	2020
GVS&DD	\$ 1,271,000	\$ 176,015	\$ 1,094,985	\$ 779,447
GVWD	1,262,631	551,468	711,163	557,737
MVHC	45,341	-	45,341	48,261
	2,578,972	727,483	1,851,489	1,385,445
TransLink	796,334	515,111	281,223	331,969
Member Municipalities	1,011,448	209,565	801,883	658,040
	1,807,782	724,676	1,083,106	990,009
	\$ 4,386,754	\$ 1,452,159	\$ 2,934,595	\$ 2,375,454

- f) Debt (net of sinking funds) reported on the statement of financial position is comprised of the following and includes varying maturities up to 2050, with interest rates ranging from 0.30% to 5.95%.

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 14

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

10. Debt (continued)

Issue number	Interest rate - %	Maturity date	Authorized to be issued	Debt Outstanding	
				2021	2020
Sinking Fund Agreements					
67	0.70-1.75	November 5, 2022	15,000	\$ 15,000	\$ 15,000
74	1.75	June 1, 2021	168,123	-	54,000
75	1.75	December 1, 2021	62,405	-	18,080
77	0.65-1.75	June 1, 2022	100,100	84,100	84,100
78	2.25	December 3, 2022	89,252	1,252	1,252
79	5.95	June 3, 2023	74,025	225	225
85	2.25-5.47	December 2, 2024	69,760	22,760	22,760
86	5.44	December 2, 2024	50,000	50,000	50,000
95	1.80-4.77	October 13, 2025	10,900	2,300	2,300
96	4.61	April 2, 2026	50,000	50,000	50,000
97	1.53-4.93	April 19, 2036	175,000	153,000	173,000
99	1.75-4.99	October 19, 2026	66,300	16,300	66,300
100	4.59	October 19, 2026	200,000	180,000	180,000
102	2.25-5.09	December 1, 2027	436,395	369,395	369,395
103	2.65	April 23, 2023	40,000	40,000	40,000
104	2.90	November 20, 2028	56,281	56,281	56,281
105	2.25	June 3, 2029	68,300	68,300	68,300
106	2.25	October 13, 2039	140,600	125,000	125,000
110	1.28	April 8, 2030	60,730	60,730	60,730
112	1.28	October 6, 2035	74,775	74,775	74,775
116	1.47-4.2	April 4, 2036	152,292	152,292	152,292
118	3.40	April 11, 2042	96,000	96,000	96,000
120	0.30	June 29, 2022	2,000	2,000	2,000
121	2.90	October 4, 2037	74,961	72,286	72,286
124	3.15	April 8, 2043	3,000	3,000	3,000
126	3.85	September 26, 2043	155,209	155,209	155,209
127	3.30	April 7, 2034	115,415	115,415	115,415
130	3.00	October 14, 2029	50,000	50,000	50,000
131	2.20	April 8, 2035	121,500	121,500	121,500
137	2.60	April 19, 2046	149,772	149,772	149,772
139	2.10	October 5, 2031	55,000	55,000	55,000
141	2.80	April 7, 2047	152,463	152,463	152,463
142	3.15	October 4, 2047	77,983	77,983	77,983
145	3.15	April 23, 2048	122,275	122,275	122,275
146	3.20	September 19, 2048	282,500	282,500	282,500
147	2.66	April 9, 2034	62,000	62,000	62,000
149	2.24	October 9, 2049	140,095	140,095	140,095
150	1.99	April 9, 2050	168,133	168,133	168,133
151	1.28	June 1, 2050	185,987	185,987	185,987
153	2.41	April 15, 2046	129,000	129,000	-
154	2.41	May 28, 2036	500,000	500,000	-
156	2.58	September 27, 2046	150,600	150,600	-
Total sinking fund agreements (carried forward)			\$ 4,954,131	\$ 4,312,928	\$ 3,675,408

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 15

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

10. Debt (continued)

Issue number	Interest rate - %	Maturity date	Authorized to be issued	Debt Outstanding	
				2021	2020
Total sinking fund agreements (brought forward)			\$ 4,954,131	\$ 4,312,928	\$ 3,675,408
Serial Debt					
93	5.10 - 5.65	April 7, 2027	79,014	22,143	26,438
111	3.35	October 1, 2025	3,000	950	1,169
114	3.65	March 29, 2026	6,301	2,486	2,932
122	2.00	November 1, 2032	1,999	1,099	1,199
123	2.00	March 28, 2033	3,142	1,807	1,964
Total serial debt			93,456	28,485	33,702
Total debenture debt			\$ 5,047,587	\$ 4,341,413	\$ 3,709,110
MVHC Mortgages					
	1.30 - 4.87	January 2023 to December 2055		54,519	58,362
	Less MVRD financed mortgages			(9,178)	(10,102)
Total MVHC mortgages				45,341	48,260
Total debt				4,386,754	3,757,370
Less sinking funds				(1,452,159)	(1,381,916)
Total debt, net of sinking funds				\$ 2,934,595	\$ 2,375,454

- f) Principal payments and sinking fund installments due within the next five years and thereafter are as follows:

	Total Long-Term Debt Payments	Less Recoverable from TransLink and Member Municipalities	Net Debt Payments
2022	\$ 201,616	\$ 62,315	\$ 139,301
2023	194,444	59,709	134,735
2024	190,107	59,847	130,260
2025	175,396	53,061	122,335
2026	170,935	49,723	121,212
Thereafter	1,227,084	392,897	834,187
Total payments	2,159,582	677,552	1,482,030
Estimated sinking fund income	775,013	405,554	369,459
Total net debt	\$ 2,934,595	\$ 1,083,106	\$ 1,851,489

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 16

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

11. Tangible Capital Assets

METRO VANCOUVER REGIONAL DISTRICT

Note Disclosure

Tangible Capital Assets

Year ended December 31, 2021

	Cost			Accumulated Amortization				Net Book Value	
	Balance at December 31, 2020	Additions	Disposals	Balance at December 31, 2021	Balance at December 31, 2020	Disposals	Amortization Expense	Balance at December 31, 2021	December 31, 2021
Land									
Sewer and Drainage District	\$ 116,050	\$ 46,822	\$ -	\$ 162,872	\$ -	\$ -	\$ -	\$ -	\$ 162,872
Water District	44,704	8,960	-	53,664	-	-	-	-	53,664
Regional District	889,758	25,869	(1,110)	914,517	-	-	-	-	914,517
Metro Vancouver Housing Corporation	52,274	-	-	52,274	-	-	-	-	52,274
	1,102,786	81,651	(1,110)	1,183,327	-	-	-	-	1,183,327
Infrastructure									
Sewer and Drainage District	1,621,114	547,539	-	2,168,653	676,347	-	31,992	708,339	1,460,314
Water District	2,118,001	127,793	-	2,245,794	402,689	-	34,930	437,619	1,808,175
Regional District	125,581	4,734	(814)	129,501	63,766	(814)	5,182	68,134	61,367
	3,864,696	680,066	(814)	4,543,948	1,142,802	(814)	72,104	1,214,092	3,329,856
Buildings									
Water District	216,476	-	-	216,476	19,225	-	5,463	24,688	191,788
Regional District	26,880	-	-	26,880	9,818	-	540	10,358	16,522
Metro Vancouver Housing Corporation	220,575	(236)	-	220,339	174,054	-	2,491	176,545	43,794
	463,931	(236)	-	463,695	203,097	-	8,494	211,591	252,104
Vehicles									
Regional District	31,093	571	(1,043)	30,621	22,693	(1,043)	2,802	24,452	6,169
	31,093	571	(1,043)	30,621	22,693	(1,043)	2,802	24,452	6,169
Machinery, equipment, furniture & fixtures									
Sewer and Drainage District	8,799	19	-	8,818	7,390	-	485	7,875	943
Water District	13,198	-	-	13,198	6,395	-	1,030	7,424	5,774
Regional District	20,774	500	(106)	21,168	17,561	(106)	974	18,429	2,739
Metro Vancouver Housing Corporation	6,464	480	(504)	6,440	4,720	(504)	527	4,743	1,697
	49,235	999	(610)	49,624	36,066	(610)	3,015	38,471	11,153
Construction in progress									
Sewer and Drainage District	1,707,335	(127,395)	-	1,579,940	-	-	-	-	1,579,940
Water District	717,261	79,201	-	796,462	-	-	-	-	796,462
Regional District	4,939	452	-	5,391	-	-	-	-	5,391
Metro Vancouver Housing Corporation	2,885	5,192	-	8,077	-	-	-	-	8,077
	2,432,420	(42,550)	-	2,389,870	-	-	-	-	2,389,870
	\$ 7,944,161	\$ 720,501	\$ (3,577)	\$ 8,661,085	\$ 1,404,658	\$ (2,467)	\$ 86,415	\$ 1,488,606	\$ 7,172,479
Totals 2021									
Sewer and Drainage District	\$ 3,453,298	\$ 466,985	\$ -	\$ 3,920,283	683,737	\$ -	\$ 32,477	\$ 716,214	\$ 3,204,069
Water District	3,109,640	215,954	-	3,325,594	428,309	-	41,423	469,731	2,855,863
Regional District	1,099,025	32,126	(3,073)	1,128,078	113,838	(1,963)	9,497	121,373	1,006,705
Metro Vancouver Housing Corporation	282,198	5,436	(504)	287,130	178,774	(504)	3,018	181,288	105,842
	\$ 7,944,161	\$ 720,501	\$ (3,577)	\$ 8,661,085	\$ 1,404,658	\$ (2,467)	\$ 86,415	\$ 1,488,606	\$ 7,172,479

Write offs related to discontinued projects were \$nil in 2021 (2020 - \$nil).

Construction in progress includes \$495.7 million (2020 - \$363.9 million) related to the North Shore Wastewater Treatment Plant Project. (note 15)

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 17

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

11. Tangible Capital Assets (continued)

Year ended December 31, 2020

Cost				Accumulated Amortization					Net Book Value
Balance at December 31, 2019	Additions	Disposals	Balance at December 31, 2020	Balance at December 31, 2019	Disposals	Amortization Expense	Balance at December 31, 2020	December 31, 2020	
Land									
Sewer and Drainage District	\$ 89,790	\$ 26,260	\$ -	\$ 116,050	\$ -	\$ -	\$ -	\$ 116,050	
Water District	44,704	-	-	44,704	-	-	-	44,704	
Regional District	886,258	3,500	-	889,758	-	-	-	889,758	
Metro Vancouver Housing Corporation	52,274	-	-	52,274	-	-	-	52,274	
	1,073,026	29,760	-	1,102,786	-	-	-	1,102,786	
Infrastructure									
Sewer and Drainage District	1,541,087	80,027	-	1,621,114	646,804	-	29,543	944,767	
Water District	2,116,289	1,712	-	2,118,001	369,121	-	33,568	1,715,312	
Regional District	123,015	3,128	(562)	125,581	58,132	(562)	6,197	61,814	
	3,780,391	84,867	(562)	3,864,696	1,074,057	(562)	69,308	2,721,893	
Buildings									
Sewer and Drainage District	-	-	-	-	-	-	-	-	
Water District	213,924	2,552	-	216,476	13,788	-	5,436	197,252	
Regional District	26,880	-	-	26,880	9,277	-	540	17,063	
Metro Vancouver Housing Corporation	192,173	28,402	-	220,575	172,633	-	1,420	46,522	
	432,977	30,954	-	463,931	195,698	-	7,396	260,837	
Vehicles									
Regional District	31,462	2,103	(2,472)	31,093	22,281	(2,381)	2,794	8,399	
	31,462	2,103	(2,472)	31,093	22,281	(2,381)	2,794	8,399	
Machinery, equipment, furniture & fixtures									
Sewer and Drainage District	8,310	489	-	8,799	6,928	-	462	1,409	
Water District	12,730	468	-	13,198	5,379	-	1,016	6,803	
Regional District	20,232	616	(74)	20,774	16,642	(67)	987	3,212	
Metro Vancouver Housing Corporation	6,462	436	(434)	6,464	4,688	(434)	466	1,744	
	47,734	2,009	(508)	49,235	33,637	(501)	2,931	13,168	
Construction in progress									
Sewer and Drainage District	1,196,784	510,551	-	1,707,335	-	-	-	1,707,335	
Water District	474,756	242,505	-	717,261	-	-	-	717,261	
Regional District	3,696	1,243	-	4,939	-	-	-	4,939	
Metro Vancouver Housing Corporation	25,298	(22,413)	-	2,885	-	-	-	2,885	
	1,700,534	731,886	-	2,432,420	-	-	-	2,432,420	
	\$ 7,066,124	\$ 881,579	\$ (3,542)	\$ 7,944,161	\$ 1,325,673	\$ (3,444)	\$ 82,429	\$ 6,539,503	
Totals 2020									
Sewer and Drainage District	\$ 2,835,971	\$ 617,327	\$ -	\$ 3,453,298	\$ 653,732	\$ -	\$ 30,005	\$ 2,769,561	
Water District	2,862,403	247,237	-	3,109,640	388,288	-	40,020	2,681,332	
Regional District	1,091,543	10,590	(3,108)	1,099,025	106,332	(3,010)	10,518	985,185	
Metro Vancouver Housing Corporation	276,207	6,425	(434)	282,198	177,321	(434)	1,886	103,425	
	\$ 7,066,124	\$ 881,579	\$ (3,542)	\$ 7,944,161	\$ 1,325,673	\$ (3,444)	\$ 82,429	\$ 6,539,503	

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 18

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

12. Prepaid Land Leases

	2021	2020
Balance, beginning of year	\$ 5,257	\$ 5,452
Amortization	(195)	(195)
Balance, end of year	\$ 5,062	\$ 5,257

The lease terms for the properties are as follows:

Asset	Lease Expiry Dates	Lease Term (Years)
Buildings		
Habitat Villa	February 2029	50
Walnut Gardens	May 2026	42
Other prepaid land leases	May 2036 to June 2062	60

13. Accumulated Surplus

Accumulated surplus consists of individual fund surplus and reserves as follows:

	2021	2020
Reserves	\$ 394,831	\$ 325,079
Capital fund balance	165,821	(32,553)
Investment in tangible capital assets	5,320,990	5,154,058
Total	\$ 5,881,642	\$ 5,446,584

Capital fund balance represents the future expected level of funding required or accumulated.

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 19

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

13. Accumulated Surplus (continued)

The reserves are classified as either operating, discretionary or statutory and are presented in the following schedules:

	December 31, 2020	Interest	Annual Operating Surplus	Transfers	Contributions from (to) Operations	Contributions to Capital	December 31, 2021
Reserve funds							
Operating Reserves							
Metro Vancouver Regional District							
Air Quality	\$ 1,203	\$ 14	\$ 881	\$ -	\$ -	\$ -	\$ 2,098
E911 Emergency Telephone Service	295	3	93	-	-	-	391
Electoral Area Services	22	-	-	-	-	-	22
General Government	3,822	35	3,586	(1,325)	-	-	6,118
Housing Planning and Policy	153	2	155	(112)	-	-	198
Invest Vancouver	-	-	-	20	-	-	20
Regional Employer Services	275	3	265	-	(80)	-	463
Regional Emergency Management	70	1	127	-	-	-	198
Regional Geospatial Reference System	96	1	130	-	-	-	227
Regional Parks	2,789	33	1,810	(1,258)	-	-	3,374
Regional Planning	381	4	480	-	-	-	865
Sasamat Fire Protection Service	68	1	36	-	-	-	105
West Nile Virus	362	4	-	-	-	-	366
MVRD operating reserves	9,536	101	7,563	(2,675)	(80)	-	14,445
Greater Vancouver Water District							
Water Services	19,943	234	8,425	-	-	-	28,602
GVWD operating reserves	19,943	234	8,425	-	-	-	28,602
Greater Vancouver Sewerage and Drainage District							
Liquid Waste Services	22,019	259	10,677	-	-	-	32,955
Solid Waste Services	21,599	254	17,360	-	-	-	39,213
GVS&DD operating reserves	43,618	513	28,037	-	-	-	72,168
MVHC Operating Reserves	32,062	39	15,291	(44,350)	(465)	-	2,577
Total Operating Reserves	105,159	887	59,316	(47,025)	(545)	-	117,792
Discretionary Reserves							
Metro Vancouver Regional District							
Air Quality	1,715	20	-	-	(373)	-	1,362
Electoral Area Service	1,568	19	139	-	(8)	-	1,718
E911 Emergency Telephone Service	594	7	-	-	-	-	601
General Government	7,188	84	-	-	(16)	-	7,256
Invest Vancouver	-	10	(26)	1,304	-	-	1,288
Regional Emergency Management	334	4	-	-	-	-	338
Regional Employer Services	2,296	27	-	-	-	-	2,323
Regional Planning	2,602	31	-	-	(50)	-	2,583
Regional Parks	200	2	-	-	-	-	202
Centralized Support	21,403	252	6,856	-	(3,612)	-	24,899
MVRD discretionary reserves	37,900	456	6,969	1,304	(4,059)	-	42,570
Greater Vancouver Sewerage and Drainage District							
Biosolids Inventory	14,908	175	-	-	4,947	-	20,030
Liquid Waste General Debt Reserve Func	2,098	25	-	-	-	-	2,123
Lions Gate Contingency	1,473	17	-	-	-	-	1,490
Drainage General	5,231	61	-	-	-	-	5,292
Solid Waste General	26,353	210	-	-	-	-	26,563
Landfill Post Closure	11,176	131	-	-	-	-	11,307
GVS&DD discretionary reserves	61,239	619	-	-	4,947	-	66,805
Metro Vancouver Housing Corporation							
MVHC Capital Development	14,751	461	-	33,417	-	(4,859)	43,770
MVHC Capital Replacement	642	35	-	10,934	(6,611)	-	5,000
MVHC discretionary reserves	15,393	496	-	44,351	(6,611)	(4,859)	48,770
Total Discretionary Reserves	114,532	1,571	6,969	45,655	(5,723)	(4,859)	158,145
Operating and Discretionary Reserves (carried forward)	\$ 219,691	\$ 2,458	\$ 66,285	\$ (1,370)	\$ (6,268)	\$ (4,859)	\$ 275,937

METRO VANCOUVER REGIONAL DISTRICT

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Year ended December 31, 2021

(tabular amounts in thousands of dollars)

13. Accumulated Surplus (continued)

	December 31, 2020	Interest	Annual Operating Surplus	Transfers	Contributions from (to) Operations	Contributions to Capital	December 31, 2021
Operating and Discretionary Reserves							
Reserves (brought forward)	\$ 219,691	\$ 2,458	\$ 66,285	\$ (1,370)	\$ (6,268)	\$ (4,859)	\$ 275,937
Statutory Reserves							
Metro Vancouver Regional District							
Electoral Area Community Works	435	6	-	-	123	-	564
Electoral Area Election	30	-	-	-	30	-	60
MVRD Sustainability Innovation Fund	12,311	145	-	-	(84)	-	12,372
Grants Reserve Fund	2,232	77	-	-	(150)	-	2,159
Housing Planning and Policy	3,104	37	-	112	1,000	-	4,253
Housing Planning and Policy Development	4,000	47	-	-	4,000	-	8,047
Regional Geospatial Reference System	1,069	13	-	-	12	-	1,094
Regional Parks Infrastructure	5,551	69	-	1,258	1,438	(1,490)	6,826
Parkland Acquisition	8,269	108	-	-	-	1,110	9,487
Parkland Acquisition and Development	11,592	140	-	-	15,570	(15,980)	11,322
Delta Airpark	136	2	-	-	25	-	163
Regional Parks Legacy	2,691	32	-	-	(56)	-	2,667
Sasamat Fire Protection Services	951	13	-	-	260	-	1,224
Corporate Self Insurance	1,250	14	-	-	(76)	-	1,188
Corporate Fleet	18,086	212	4,356	-	-	(231)	22,423
MVRD statutory reserves	71,707	915	4,356	1,370	22,092	(16,591)	83,849
Greater Vancouver Water District							
Laboratory Equipment	750	9	-	-	26	-	785
Water Services Sustainability	-	-	-	-	-	-	-
Innovation Fund	13,901	166	-	-	243	-	14,310
GVWD statutory reserves	14,651	175	-	-	269	-	15,095
Greater Vancouver Sewerage and Drainage District							
Liquid Waste Laboratory Equipment	1,528	6	-	(1,028)	101	-	607
Liquid Waste Services Sustainability	-	-	-	-	-	-	-
Innovation Fund	17,502	222	-	1,028	591	-	19,343
GVS&DD statutory reserves	19,030	228	-	-	692	-	19,950
Total Statutory Reserves	105,388	1,318	4,356	1,370	23,053	(16,591)	118,894
Total Reserves	\$ 325,079	\$ 3,776	\$ 70,641	\$ -	\$ 16,785	\$ (21,450)	\$ 394,831

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 21

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

13. Accumulated Surplus (continued)

Investment in tangible capital assets is calculated as follows:

	2021	2020
Tangible capital assets	\$ 7,172,479	\$ 6,539,503
Amount financed by:		
Long-term debt, net of members, TransLink and sinking fund	(1,851,489)	(1,385,445)
	\$ 5,320,990	\$ 5,154,058
Change in the investment in tangible capital assets		
Acquisition of tangible capital assets	\$ 720,501	\$ 881,579
Amortization of tangible capital assets	(86,415)	(82,429)
Disposal of tangible capital assets (net of book value)	(1,110)	(98)
	632,976	799,052
Less financing (net of members and TransLink debt)		
Sinking fund debt maturity	10,000	-
Sinking fund and debt retirement	(105,326)	(89,746)
Sinking fund and debt retirement income	(25,710)	(22,859)
Debenture debt issued	600,000	278,335
Debenture debt maturity	(10,000)	-
Payment of long-term debt	(2,920)	(9,186)
	466,044	156,544
Change in investment in tangible capital assets	166,932	642,508
Investment in tangible capital assets, beginning of year	5,154,058	4,511,550
Investment in tangible capital assets, end of year	\$ 5,320,990	\$ 5,154,058

14. Contractual Obligations and Rights

a) Contractual Obligations

- i) As at December 31, 2021, the District had the following commitments relating to projects in progress.

	Authorized and Outstanding Projects	Expended at December 31	Total 2021	Total 2020
GVS&DD	\$ 4,040,767	\$ (2,283,629)	\$ 1,757,138	\$ 1,706,716
GVWD	2,541,412	(1,112,159)	1,429,253	1,395,101
MVRD	18,328	(5,482)	12,846	15,708
MVHC	354,400	(8,077)	346,323	79,815
Total	\$ 6,954,907	\$ (3,409,347)	\$ 3,545,560	\$ 3,197,340

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 22

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

14. Contractual Obligations and Rights (continued)

- ii) The District is committed under a number of lease and right-of-way agreements to make minimum annual payments. These agreements have varying terms, including two agreements, with annual payments to perpetuity, with adjustments annually for CPI. Estimated payments over the next ten years are as follows:

	Amount
2022	\$ 2,798
2023	2,708
2024	2,108
2025	2,083
2026	2,116
2027 - 2031	11,098
Total	\$ 22,911

b) Contractual Rights:

The District is party to several property lease agreements that are anticipated to provide it with future revenues. These agreements are with third parties with varying terms to 2027. Amounts anticipated to be received over the future years are as follows:

	Amount
2022	\$ 8,722
2023	8,697
2024	8,543
2025	6,685
2026	4,380
Thereafter	13,892
Total	\$ 50,919

15. Contingencies

Lawsuits

As at December 31, 2021, there were various lawsuits pending against the District arising in the ordinary course of business. The District has retained legal counsel to defend against these lawsuits. Where the outcomes or amounts cannot be reasonably determined, no liability has been recorded. None of these lawsuits are anticipated to result in a material loss to the District. Management is of the opinion that losses, if any, in connection with these lawsuits can be sufficiently funded by reserve funds or covered by insurance. Any expected losses will be accrued and recorded as expenses at the time they are considered likely and amounts are reasonably determinable.

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 23

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

15. Contingencies (continued)

Municipal Pension Plan

The District and its employees contribute to the British Columbia Municipal Pension Plan (the Plan), a jointly trustee pension plan. The board of trustees, representing plan members and employers, is responsible for administering the Plan, including investment of the assets and administration of benefits. The Plan is a multi-employer defined pension plan. Basic pension benefits provided are based on a formula. As at December 31, 2021, the plan has about 220 thousand active members and approximately 112 thousand retired members. Active members include approximately 42 thousand contributors from local government.

Every three years, an actuarial valuation is performed to assess the financial position of the plan and the adequacy of plan funding. The actuary determines an appropriate combined employer and member contribution rate to fund the plan. The actuary's calculated contribution rate is based on the entry-age normal cost method, which produces the long-term rate of member and employer contributions sufficient to provide benefits for average future entrants to the plan. This rate may be adjusted for the amortization of any actuarial funding surplus and will be adjusted for the amortization of any unfunded actuarial liability.

The most recent actuarial valuation for the Municipal Pension Plan as of December 31, 2018, indicated a \$2,866 million funding surplus for basic pension benefits on a going concern basis.

The District paid \$15.8 million for employer contributions (2020 - \$14.3 million) while employees contributed \$13.8 million (2020 - \$12.6 million) to the Plan in fiscal 2021.

The next valuation will be as at December 31, 2021 with results available in 2022.

Employers participating in the plan record their pension expense as the amount of employer contributions made during the fiscal year (defined contribution pension plan accounting). This is because the plan records accrued liabilities and accrued assets for the plan in aggregate resulting in no consistent and reliable basis for allocating the obligation, assets and cost to individual employers participating in the plan.

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 24

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

15. Contingencies (continued)

Self-Insurance Reserve	<p>A self-insurance reserve has been established within accumulated surplus to cover losses resulting from uninsured liability exposures of the District.</p> <p>Each year a review is undertaken to determine if it would be beneficial to purchase additional liability insurance. The District transfers amounts to the reserve depending on the reserve's adequacy to cover retained liability risk.</p> <p>An estimate is made for all costs of investigating and settlement of claims annually and an adjustment is made to the reserve to maintain an adequate balance to cover potential losses in excess of recorded liabilities. These estimates are changed as additional information becomes known during the course of claims settlement. Any likely losses would be expensed at the time the losses are known and the amounts are reasonably determinable.</p>
Debt Reserve Fund	<p>The MFA is required to establish a Debt Reserve Fund for each debenture which is comprised of cash deposits and a non-interest bearing demand note (refer to note 5). If, at any time, the District has insufficient funds to meet payments due on its obligations to MFA, the payments will be made from the debt reserve fund. The demand notes are callable only if there are additional requirements to be met to maintain the level of the debt reserve fund, and therefore have not been recorded in the statement of financial position.</p>
BCHMC Grant Funding	<p>Prior to 2020, MVHC received funding of \$6.7 million from BCHMC relating to the re-development of Heather Place property. The conditions of the funding agreement stipulate that the property must be continuously used for the provision of housing for eligible occupants and there is no default under the loan or operating agreement over 35 years. Should a breach in the agreement occur, the outstanding balance of the funding would need to be repaid to BCHMC (\$6.7 million as at December 31, 2021). The contingent liability is reduced by 1/25th annually, commencing in the 11th year of the agreement. Payments of interest will not be required unless there is a default and consequently interest will be payable on the balance of the principal amount outstanding at prime plus 2% per annum, compounded semi-annually and not in advance.</p>
First Nations Negotiations	<p>The District is currently involved in negotiations with First Nations regarding compensation for the use of their land on which the District's assets reside. The compensation associated with these negotiations cannot be reasonably determined at this times and therefore no liabilities have been recorded at December 31, 2021.</p>

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 25

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

15. Contingencies (continued)

Letters of Credit

At December 31, 2021, the District is the named beneficiary of \$60.37 million (\$76.78 million – 2020) of irrevocable letters of credits from financial institutions related to construction projects and Solid Waste operations. These letters of credit are available under circumstances in which the service provider does not fulfil its obligation to the District and therefore the amount is not recorded as assets.

North Shore Wastewater Treatment Plant

The District is building a new tertiary wastewater treatment plant on a former industrial site in North Vancouver, to replace the primary-only Lions Gate Wastewater Treatment Plant. The deadline for completion of the project under federal regulation was December 31, 2020. On October 15, 2021, the District served notice to terminate its contract with the vendor hired to design, build and commission the future North Shore Wastewater Treatment Plant, having determined that the vendor was in breach of contract. As of December 31, 2021, the District has paid \$309.5 million, net of GST rebates, to the vendor for work completed, which has been recorded as construction in progress (note 11). Subsequent to year-end, the District drew on an irrevocable letter of credit posted by the vendor. Also subsequent to year-end, the vendor commenced legal action by filing a claim against the District in excess of \$250 million. The District intends to file a defence to the action together with a counter-claim against the vendor. The District is proceeding with the selection of a new contractor and designer to deliver the project. At December 31, 2021, the outcome of any legal proceedings related to the terminated contract and the potential consequences of not meeting the current deadline under the federal regulation is undeterminable.

Due to the nature of the contractual payments made to date under the terminated contract, the outstanding litigation and uncertainty surrounding the value of the new contract for completion of the project, the amount recorded as work in progress on the project represents management's best estimate. This amount may be subject to material change as new information becomes available.

16. Budget Information

The annual budget presented in these financial statements is based upon the 2021 operating and capital budgets approved by the District's Board in October 2020, with additional approval in November 2021 for adjustments to the budget as a result of the 2020 fiscal year end results. The budget is based on operational and capital expenditure requirements and their associated funding. Amortization is a non-cash item that is not funded for budget purposes. Also, contributions to or from reserves and debt principal repayments are removed from the approved budget for financial statement presentation. The schedule below reconciles the approved budget to the budget figures reported in these financial statements. Capital expenditures of \$1.53 billion were included in the capital budget approved by the Board.

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 26

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

16. Budget Information (continued)

	2021 Budget	2020 Budget
Budgeted annual surplus per Exhibit B - Statement of Operations	\$ 580,551	\$ 509,662
Additional transfers from reserves, approved by Board	1,575	(1,993)
Adjusted annual surplus, based on October approved budget	582,126	507,669
Items not included in the operating budget		
Amortization of tangible capital assets	86,428	83,890
Contributions from deferred revenue	(251,932)	(188,400)
Sinking fund and debt retirement income	(23,044)	(19,380)
Development cost charge revenue	(45,000)	(53,240)
MVHC development grant	(8,500)	(8,500)
Reserve interest	(6,079)	(4,867)
Items included in budget but not in financial statements		
Sinking fund and debt retirement payments	(108,890)	(93,170)
Transfers to capital fund	(205,371)	(208,649)
Transfers from reserve funds	14,940	20,185
Transfer to reserve funds	(34,678)	(35,538)
Annual surplus per approved budget	-	-

17. Segmented Information and Expenses by Object

The District is a diversified municipal government organization that provides a wide range of services directly to the public and its member municipalities through its four legal entities: the MVRD, the GVS&DD, the GVWD and the MVHC. For management reporting purposes, the District's operations and activities are organized and reported by service areas within the legal entities.

The salaries and benefits reported in the segmented information below do not include \$16.22 million (2020 - \$17.63 million) directly attributable to the construction of tangible capital assets which have been capitalized and included in tangible capital assets in the Statement of Financial Position.

The legal entities disclosed in the segmented information, along with the service areas provided are as follows:

GVS&DD

Liquid Waste Services

The Liquid Waste Management Service is responsible for the collection, treatment and discharge of liquid waste for member municipalities. It operates a number of wastewater treatment plants and a related collection network connected to the member municipalities' systems.

Solid Waste Services

The Solid Waste Management Service is responsible for the disposal of solid waste both for the member municipalities and the public. It owns and operates several solid waste facilities including a waste to energy facility.

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 27

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

17. Segmented Information and Expenses by Object (continued)

GVWD

Water Operations Water Operations is responsible for the supply of potable water to its member municipalities. It owns a series of dams, reservoirs, water treatment plants and a distribution network connected to the member municipalities' systems.

Building Operations Building Operations is responsible for operating and maintaining office buildings owned by GVWD. These facilities are leased to MVRD and its related entities for its head office operations as well as to external parties.

MVHC

Metro Vancouver Housing Corporation is a wholly-owned subsidiary of MVRD, which owns and operates housing sites within the Lower Mainland for the purpose of providing affordable rental housing on a non-profit basis through various housing programs, some federally and some provincially funded. MVHC's portfolio consists of "rent-g geared-to-income", partial rent assistance, and low-end-of-market units.

MVRD

Regional Parks

Regional Parks is responsible for managing, maintaining and protecting a diverse network of Regional Parks and an expanding land base of reserves, ecological conservancy areas and greenways, located throughout the Region.

General Government

General Government includes services responsible for overall direction and monitoring and regional initiatives. This area comprises the Regional Board & Committee Remuneration, Corporate Secretary's Office, Audit, Legal and Insurance costs, Innovation, Regional Emergency Management, Regional Cultural Strategy and External Contributions and Zero Waste Collaborative Initiatives.

Air Quality

Air Quality is responsible for monitoring air quality in the region, controlling industrial, commercial and some residential emissions, creating long-term plans and conducting emission inventories.

Regional Employee Services

Regional Employee Services provides collective bargaining, job evaluation, research and other related labour relations services to those MVRD municipalities who are members of the function.

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 28

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

17. Segmented Information and Expenses by Object (continued)

MVRD (continued)

911 Emergency Telephone Service

The District contracts with E-Comm Corporation to provide 911 service for all municipalities within the region as well as the community of Whistler and the Sunshine Coast Regional District.

Regional Planning

Regional Planning's core responsibilities are focused on regional growth management, utility management and air quality management. Primary activities include development and implementation of a wide range of innovative policies and plans, extensive research, modeling and technical analysis, regulation, business demand management and community education.

Invest Vancouver

Invest Vancouver fosters regional and cross-sectoral collaboration on economic development issues, advises leaders on economic policy and strategy, promotes the region to a global audience, and attracts strategic investment

Housing Planning and Policy

Housing Planning and Policy contributes to processes and decisions related to the development of affordable housing projects, and in particular to the redevelopment of the MVHC portfolio of mixed-income housing complexes and the development of vacant lands owned by local government (including the MVRD).

Electoral Areas

The District is responsible for providing general and local services to one unincorporated area (Electoral Area A) of the regional district. General services provided include a variety of tax-supported, regional services such as 911 emergency telephone, air quality, labour relations, regional parks, strategic planning and general government.

Regional Global Positioning System

The District's Global Positioning System (GPS) Real-Time Service is offered to member municipalities and to the public in partnership with the B.C. Crown Registry and Geographic Base (CRGB) Branch.

Sasamat Volunteer Fire Department

The Sasamat Volunteer Fire Department provides volunteer fire department services to the Villages of Anmore and Belcarra. The cost to support this function is borne completely by the members who receive the service.

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 29

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

17. Segmented Information and Expenses by Object (continued)

MVRD (continued)

Regional Emergency Management

Regional Emergency Management is an intergovernmental partnership between the Province of British Columbia and the District to coordinate regional emergency management planning activities and to engage all levels of government and private sector agencies in regional emergency planning initiatives for the Metro Vancouver region.

Corporate Programs

Corporate programs provide centralized support for Metro Vancouver's four legal entities, including financial services, human resources, external relations, legislative service, indigenous relations, project delivery, self-insurance and information technology.

Members and Translink Sinking Fund Income

The District serves as the borrowing conduit between member municipalities (excluding City of Vancouver) and Translink and the MFA. (Note 10). Sinking fund income earned on debenture issues held on behalf of members and Translink is recorded as revenue earned on the sinking fund with the offsetting expenditure owing to these organizations.

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 30

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

17. Segmented Information and Expenses by Object (continued)

a) Total Consolidated

	Other Districts (note 17(b))	Regional District (note 17(c))	Metro Vancouver Housing Corporation	Inter-district Adjustments	Consolidated Actual 2021	Consolidated Budget 2021	Consolidated Actual 2020
Revenue							
MVRD property tax requisitions	\$ -	\$ 82,714	\$ -	\$ -	\$ 82,714	\$ 82,714	\$ 73,528
Metered sale of water	319,989	-	-	-	319,989	316,341	297,781
Sewerage and drainage levy	288,226	-	-	-	288,226	288,226	274,237
Tipping fees	112,610	-	-	-	112,610	108,517	100,880
Housing property rentals	-	-	42,416	-	42,416	41,303	41,607
BODTSS industrial charges	12,157	-	-	-	12,157	11,756	11,568
Development cost charges	42,204	-	-	-	42,204	88,145	81,653
Electricity sales	5,779	-	-	-	5,779	6,240	5,309
Grants and other contributions	61,062	13,242	1,870	-	76,174	263,811	184,641
User fees, recoveries and other revenue	36,380	9,193	901	(9,717)	36,757	26,619	32,943
Gain on disposal of tangible capital assets	-	367	-	-	367	-	482
Sinking fund and interest income	27,945	4,359	655	(119)	32,840	28,940	29,734
Sinking fund income members and TransLink	-	28,222	-	-	28,222	28,698	28,078
	906,352	138,097	45,842	(9,836)	1,080,455	1,291,310	1,162,441
Expenses							
Salaries and benefits	110,364	91,330	6,411	-	208,105	213,901	190,396
Consulting, contracted and professional services	124,964	20,662	632	-	146,258	176,361	135,201
Asset repairs and maintenance	18,989	7,205	16,866	-	43,060	47,782	41,104
Materials and supplies	27,790	5,775	169	-	33,734	33,998	30,996
Utilities, permits and taxes	24,690	1,405	4,455	-	30,550	34,840	28,070
Other	26,451	40,031	779	(30,874)	36,387	55,683	43,898
Amortization of tangible capital assets and prepaid land leases	73,900	9,497	3,213	-	86,610	86,428	82,624
Interest on long-term debt	59,547	-	1,265	(119)	60,693	61,766	52,339
	466,695	175,905	33,790	(30,993)	645,397	710,759	604,628
Corporate costs (recovery)	57,798	(81,050)	2,095	21,157	-	-	-
	524,493	94,855	35,885	(9,836)	645,397	710,759	604,628
Annual surplus	\$ 381,859	\$ 43,242	\$ 9,957	\$ -	\$ 435,058	\$ 580,551	\$ 557,813

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 31

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

17. Segmented Information and Expenses by Object (continued)

b) Total Other Districts

	Liquid Waste Services	Solid Waste Services	Total Sewerage & Drainage District	Water Operations	Building Operations	Elimination Entry	Total Water District	Total Other Districts Actual 2021	Total Other Districts Budget 2021	Total Other Districts Actual 2020
Revenue										
Metered sale of water	\$ -	\$ -	\$ -	\$ 319,989	\$ -	\$ -	\$ 319,989	\$ 319,989	\$ 316,341	\$ 297,781
Sewerage and drainage levy	288,226	-	288,226	-	-	-	-	288,226	288,226	274,237
Tipping fees	-	112,610	112,610	-	-	-	-	112,610	108,517	100,880
BODTSS industrial charges	12,157	-	12,157	-	-	-	-	12,157	11,756	11,568
Development cost charges	42,204	-	42,204	-	-	-	-	42,204	88,146	81,653
Electricity sales	-	5,779	5,779	-	-	-	-	5,779	6,240	5,309
Grants and other contributions	61,062	-	61,062	-	-	-	-	61,062	251,932	173,536
User fees, recoveries and other revenue	4,755	4,713	9,468	10,390	21,586	(5,064)	26,912	36,380	25,792	36,055
Gain on disposal of tangible capital assets	-	-	-	-	-	-	-	-	-	-
Sinking fund and interest income	5,821	759	6,580	19,577	1,788	-	21,365	27,945	25,798	26,099
	414,225	123,861	538,086	349,956	23,374	(5,064)	368,266	906,352	1,122,747	1,007,118
Expenses										
Salaries and benefits	61,566	6,088	67,654	42,181	529	-	42,710	110,364	115,956	109,180
Consulting, contracted and professional services	32,482	78,139	110,621	12,716	1,627	-	14,343	124,964	149,433	118,199
Asset repairs and maintenance	11,988	645	12,633	3,815	2,541	-	6,356	18,989	19,102	18,966
Materials and supplies	16,124	64	16,188	11,509	93	-	11,602	27,790	31,444	26,850
Utilities, permits and taxes	15,462	421	15,883	7,601	1,206	-	8,807	24,690	26,435	25,671
Other	8,096	9,682	17,778	7,325	1,348	-	8,673	26,451	22,783	22,592
Amortization of tangible capital assets	26,686	5,792	32,478	36,508	4,914	-	41,422	73,900	75,567	70,026
Interest on long-term debt	27,384	2,271	29,655	25,186	4,706	-	29,892	59,547	60,359	51,128
	199,788	103,102	302,890	146,841	16,964	-	163,805	466,695	501,079	442,612
Corporate costs	32,232	4,875	37,107	25,755	-	(5,064)	20,691	57,798	61,141	50,832
	232,020	107,977	339,997	172,596	16,964	(5,064)	184,496	524,493	562,220	493,444
Annual surplus	\$ 182,205	\$ 15,884	\$ 198,089	\$ 177,360	\$ 6,410	\$ -	\$ 183,770	\$ 381,859	\$ 560,527	\$ 513,674

c) Total Regional District

	Regional Parks	General Government	Air Quality	Regional Employee Services	911 Emergency Telephone Service	Regional Planning	Invest Vancouver	Housing Planning and Policy	Regional Sub-total 2021
Revenue									
MVRD property tax requisitions	\$ 51,870	\$ 5,225	\$ 6,483	\$ 2,423	\$ 4,556	\$ 3,511	\$ 1,530	\$ 6,031	\$ 81,629
Grants and other contributions	11,036	1,307	-	-	-	-	-	29	12,372
User fees, recoveries and other revenue	3,145	604	4,019	105	78	-	-	47	7,998
Gain (loss) on disposal of tangible capital assets	-	-	-	-	-	-	-	-	-
Sinking fund and interest income	385	201	34	30	10	35	10	85	790
Sinking fund income, members and Translink	-	-	-	-	-	-	-	-	-
	66,436	7,337	10,536	2,558	4,644	3,546	1,540	6,192	102,789
Expenses									
Salaries and benefits	18,644	2,878	6,680	2,240	-	2,601	1,177	738	34,958
Consulting, contracted and professional services	7,000	1,225	887	98	4,428	130	232	272	14,272
Asset repairs and maintenance	859	35	105	-	-	2	7	-	1,008
Materials and supplies	1,944	7	266	3	-	6	4	-	2,230
Utilities, permits and taxes	622	3	105	10	22	1	6	-	769
Other	2,868	1,228	906	27	-	69	100	10	5,208
Amortization of tangible capital assets	1,810	-	249	-	2	-	-	-	2,061
	33,747	5,376	9,198	2,378	4,452	2,809	1,526	1,020	60,506
Corporate costs (recovery)	3,563	881	884	(35)	91	292	30	65	5,771
	37,310	6,257	10,082	2,343	4,543	3,101	1,556	1,085	66,277
Annual surplus	\$ 29,126	\$ 1,080	\$ 454	\$ 215	\$ 101	\$ 445	\$ (16)	\$ 5,107	\$ 36,512

METRO VANCOUVER REGIONAL DISTRICT

Notes to Consolidated Financial Statements, page 32

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

17. Segmented Information and Expenses by Object (continued)

	Carried forward	Electoral Areas	Regional Global Positioning System	Sasamat Volunteer Fire Department	Regional Emergency Management	Corporate Programs	Members and TransLink, Sinking Fund Income	Regional District Actual 2021	Regional District Budget 2021	Regional District Actual 2020
Revenue										
MVRD property tax requisitions	\$ 81,629	\$ 389	\$ -	\$ 523	\$ 173	\$ -	\$ -	\$ 82,714	\$ 82,714	\$ 73,528
Grants and other contributions	12,372	344	-	-	-	526	-	13,242	1,030	3,349
User fees, recoveries and other revenue	7,998	6	384	15	-	790	-	9,193	7,933	3,720
Gain (loss) on disposal of tangible capital assets	-	-	-	-	-	367	-	367	-	482
Sinking fund and interest income	790	25	14	14	5	3,511	-	4,359	2,383	3,118
Sinking fund income, members and Translink	-	-	-	-	-	-	28,222	28,222	28,698	28,078
	102,789	764	398	552	178	5,194	28,222	138,097	122,758	112,275
Expenses										
Salaries and benefits	34,958	338	177	45	-	55,812	-	91,330	91,608	75,045
Consulting, contracted and professional services	14,272	56	-	59	35	6,240	-	20,662	25,919	16,341
Asset repairs and maintenance	1,008	18	31	34	-	6,114	-	7,205	8,948	7,165
Materials and supplies	2,230	1	-	41	-	3,503	-	5,775	2,365	3,958
Utilities, permits and taxes	769	2	10	21	-	603	-	1,405	1,620	1,315
Other	5,208	8	3	8	-	6,582	28,222	40,031	43,003	38,859
Amortization of tangible capital assets	2,061	-	-	30	32	7,374	-	9,497	8,753	10,517
	60,506	423	221	238	67	86,228	28,222	175,905	182,216	153,200
Corporate costs (recovery)	5,771	32	21	25	11	(86,910)	-	(81,050)	(66,743)	(63,628)
	66,277	455	242	263	78	(682)	28,222	94,855	115,473	89,572
Annual surplus	\$ 36,512	\$ 309	\$ 156	\$ 289	\$ 100	\$ 5,876	\$ -	\$ 43,242	\$ 7,285	\$ 22,703

18. COVID-19 Pandemic

The COVID-19 global pandemic, declared in 2020, continued to impact the global economy in 2021. Throughout the pandemic, the Corporation delivered key services to the Metro Vancouver region in line with its mandate. Management continues to monitor the impacts of the pandemic on taxpayers, suppliers and other third party business associates that could impact the timing and amounts realized on the Corporation's assets and ability to provide services to the region. However, to date, the pandemic has not materially impacted revenue streams, expenses, cash flows or caused significant asset impairments.

19. Subsequent Event

In January 2022, the District drew on an irrevocable letter of credit in the amount of \$50.0 million as a result of the cancellation of a vendor contract for the North Shore Wastewater Treatment Plant. This amount is included in the \$60.37 million disclosed in note 15.

20. Comparative Figures

Certain prior year figures have been reclassified to conform to the presentation of the current year.

METRO VANCOUVER REGIONAL DISTRICT

Schedule 1 (unaudited), page 33

Year ended December 31, 2021

(tabular amounts in thousands of dollars)

The Province of British Columbia, under the “COVID-19 Safe Restart Grant Program”, provided the District with a grant of \$1.476 million in 2021 (\$2.325 in 2020) for increased operating costs arising during the pandemic. The District recognized the grant into income and applied these funds to the programs impacted as follows:

	2021	2020
Balance, beginning of the year	\$ 588	\$ -
BC Restart Grant received	1,476	2,325
	2,064	2,325
Less Eligible Costs Incurred:		
Computer and Technology costs	226	1,300
External Relations	300	-
Head Office Building Operations	271	65
Liquid Waste Services	288	-
Cultural Grants	150	-
Regional Parks Services	32	103
Water Services	58	-
Metro Vancouver Housing Corporation	-	78
Corporate Safety	-	90
Emergency Operations Center, business continuity and PPE supplies	-	101
	1,325	1,737
Balance, end of year	\$ 739	\$ 588

Financial Statements of

**GREATER VANCOUVER SEWERAGE
AND DRAINAGE DISTRICT**

Year ended December 31, 2021

April 8, 2022

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

Index to Financial Statements

December 31, 2021

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METRO VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

MANAGEMENT REPORT

The Financial Statements contained in this report have been prepared by management in accordance with Canadian public sector accounting standards. The integrity and objectivity of these statements are management's responsibility. Management is responsible for all the statements and schedules, and for ensuring that this information is consistent, where appropriate, with the information contained in the financial statements.

Management is also responsible for implementing and maintaining a system of internal controls to provide reasonable assurance that reliable financial information is produced.

The Greater Vancouver Sewerage and Drainage District's Board of Directors is responsible for approving the financial statements and for ensuring that management fulfills its responsibilities for financial reporting and internal control and exercises this responsibility through the Performance and Audit Committee of the Board.

The external auditors, BDO Canada LLP, conduct an independent examination, in accordance with Canadian Auditing Standards, and express their opinion on the financial statements. Their examination does not relate to the other schedules and statements required by the *Financial Information Act*. The Independent Auditor's Report outlines the scope of the audit for the year ended December 31, 2021.

On behalf of Greater Vancouver Sewerage and Drainage District.

Dean Rear, Chief Financial Officer

Date: April 29, 2022

Independent Auditor's Report

To the Members of the Board of Directors of the Greater Vancouver Sewerage and Drainage District

Opinion

We have audited the financial statements of the Greater Vancouver Sewerage and Drainage District (the "District"), which comprise the Statement of Financial Position as at December 31, 2021, and the Statements of Operations, Change in Net Debt and Cash Flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the District as at December 31, 2021, and the results of its operations, change in net debt and cash flows for the year then ended in accordance with Canadian public sector accounting standards.

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the District in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian public sector accounting standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the District's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the District or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the District's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the District's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the District's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the District to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Chartered Professional Accountants

Vancouver, British Columbia

DATE

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

Exhibit A

Statement of Financial Position

Year ended December 31, 2021

	2021	2020
Financial Assets		
Accounts receivable	\$ 139,016,130	\$ 85,458,193
Due from Metro Vancouver Regional District	630,865,561	509,626,566
Debt reserve fund (note 2)	13,562,273	9,811,757
	783,443,964	604,896,516
Liabilities		
Accounts payable and accrued liabilities (note 3)	228,313,571	155,777,532
Landfill closure and post-closure liability (note 4)	32,906,686	32,163,774
Deferred revenue and refundable deposits (note 5)	329,169,804	302,785,287
Debt (net of sinking funds) (note 6)	1,094,984,832	779,446,548
	1,685,374,893	1,270,173,141
Net Debt	(901,930,929)	(665,276,625)
Non-Financial Assets		
Tangible capital assets (note 7)	3,204,067,696	2,769,560,076
Inventories of supplies	6,582,165	5,704,961
Prepaid expenses	2,428,408	3,069,828
	3,213,078,269	2,778,334,865
Accumulated surplus (note 8)	\$ 2,311,147,340	\$ 2,113,058,240

Contractual obligations and rights (note 9)

Contingencies (note 10)

COVID-19 (note 13)

Subsequent Event (note 14)

The accompanying notes are an integral part of these financial statements.

Chief Financial Officer

Board Chair

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

Exhibit B

Statement of Operations

Year ended December 31, 2021

	2021 Budget (note 11)	2021 Actual	2020 Actual
Revenue (note 12)			
Sewerage and drainage levy	\$ 288,225,540	\$ 288,225,540	\$ 274,237,112
Tipping fees	108,516,645	112,609,847	100,880,183
BODTSS Industrial Charges	11,756,424	12,157,191	11,567,862
Development cost charges (note 5)	88,145,119	42,204,285	81,652,979
Electricity sales	6,239,530	5,778,816	5,308,843
User fees, recoveries and other	7,718,634	9,467,977	9,022,842
Sinking fund, debt retirement and interest income	7,490,471	6,579,921	5,775,306
Grants and other contributions (note 5)	251,931,864	61,062,379	173,535,810
	770,024,227	538,085,956	661,980,937
Expenses (note 12)			
Liquid waste services	256,642,850	232,019,605	219,696,797
Solid waste services	116,109,558	107,977,251	99,964,857
	372,752,408	339,996,856	319,661,654
Annual surplus	397,271,819	198,089,100	342,319,283
Accumulated surplus, beginning of year	2,113,058,240	2,113,058,240	1,770,738,957
Accumulated surplus, end of year	\$ 2,510,330,059	\$ 2,311,147,340	\$ 2,113,058,240

The accompanying notes are an integral part of these financial statements.

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

Exhibit C

Statement of Change in Net Debt

Year ended December 31, 2021

	2021 Budget (note 11)	2021 Actual	2020 Actual
Annual surplus	\$ 397,271,819	\$ 198,089,100	\$ 342,319,283
Change in tangible capital assets:			
Acquisition of tangible capital assets	(1,030,778,000)	(466,984,864)	(617,326,606)
Amortization of tangible capital assets	35,014,719	32,477,244	30,005,732
	(995,763,281)	(434,507,620)	(587,320,874)
Change in other non-financial assets:			
Acquisition of prepaid expenses	-	(2,428,408)	(3,069,828)
Use of prepaid expenses	-	3,069,828	3,114,824
Acquisition of inventories of supplies	-	(6,582,165)	(5,704,961)
Consumption of inventories of supplies	-	5,704,961	4,637,990
	-	(235,784)	(1,021,975)
Changes in net debt	(598,491,462)	(236,654,304)	(246,023,566)
Net debt, beginning of year	(665,276,625)	(665,276,625)	(419,253,059)
Net debt, end of year	\$ (1,263,768,087)	\$ (901,930,929)	\$ (665,276,625)

The accompanying notes are an integral part of these financial statements.

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

Exhibit D

Statement of Cash Flows

Year ended December 31, 2021

	2021	2020
Cash provided by (used in):		
Operating transactions:		
Annual surplus	\$ 198,089,100	\$ 342,319,283
Items not involving cash:		
Amortization	32,477,244	30,005,732
Sinking fund income	(5,014,043)	(3,671,561)
Debt reserve fund income	(206,272)	(183,941)
Change in landfill closure and post-closure liability	742,912	(874,232)
Change in non-cash assets and liabilities:		
Accounts receivable	(53,557,937)	(4,448,307)
Prepaid expenses	641,420	44,996
Accounts payable and accrued liabilities	72,536,039	(6,722,326)
Deferred revenue	26,384,517	(79,618,522)
Inventories of supplies	(877,204)	(1,066,971)
Net change in cash from operating transactions	271,215,776	275,784,151
Capital transactions:		
Acquisition of tangible capital assets	(466,984,864)	(617,326,606)
Net change in cash from capital transactions	(466,984,864)	(617,326,606)
Financing transactions:		
Due from Metro Vancouver Regional District	(121,238,995)	186,586,507
Debenture debt issued	370,000,000	195,000,000
Debt reserve fund issuance	(3,700,001)	(1,950,000)
Debt reserve fund maturity	155,757	-
Sinking fund payments	(49,447,673)	(38,171,706)
Debenture debt maturity	(10,000,000)	-
Sinking fund retirement	10,000,000	-
Net change in cash from financing transactions	195,769,088	341,464,801
Net change in cash and cash equivalents	-	(77,654)
Cash and cash equivalents, beginning of year	-	77,654
Cash and cash equivalents, end of year	\$ -	\$ -

The accompanying notes are an integral part of these financial statements.

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

Notes to Financial Statements, page 1
Year ended December 31, 2021

1. Significant Accounting Policies

The Greater Vancouver Sewerage and Drainage District (the “District”) was established by an Act of the same name in 1956. Its two primary responsibilities are the collection, treatment and discharge of liquid waste for the municipalities of the Metro Vancouver Regional District (“MVRD”), and the disposal of solid waste both for the municipalities of the MVRD and the public.

The District owns and operates a number of wastewater treatment plants and a related collection network connected to the municipal collection systems, and several solid waste facilities including a waste to energy facility. Its Board of Directors comprises the same councilors and mayors as appointed to the MVRD Board by the participating municipalities. The member municipalities under the Act are jointly and severally liable for its debts.

The District’s financial statements are prepared by management in accordance with Canadian public sector accounting standards. Significant accounting policies adopted by the District are as follows:

Basis of Accounting The District follows the accrual method of accounting for revenues and expenses. Revenues are recognized in the year in which they are earned and measurable. Expenses are recognized as they are incurred and measurable as a result of receipt of goods or services and/or the legal obligation to pay.

Government Transfers Government transfers are recognized as revenue in the financial statements when the transfer is authorized and any eligibility criteria are met, except to the extent that transfer stipulations give rise to an obligation that meets the definition of a liability. The transfer of revenue is initially deferred and then recognized in the statement of operations as the stipulation liabilities are settled.

When the District is deemed the transferor, the transfer expense is recognized when the recipient is authorized and has met the eligibility criteria.

Deferred Revenue Deferred revenue represents development cost charges and a Provincial grant which have been collected, but for which the related services or obligations have yet to be performed. These amounts will be recognized as revenue in the fiscal year the services are performed or obligations and stipulations have been met.

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

Notes to Financial Statements, page 2
Year ended December 31, 2021

1. Significant Accounting Policies (continued)

Sinking Fund, Debt Retirement and Interest Income

Interest income is reported as revenue in the period earned. When required, based on external restrictions, interest income earned on deferred revenue is added to and forms part of the deferred revenue balance and is recognized into income when related stipulations are met. Any surpluses received from upon debt retirement are recorded in the year received.

Cash and Investments

In order to improve cash management, Metro Vancouver Districts accumulate cash and investment transactions in pooled accounts held by the MVRD. GVS&DD's cash is therefore presented as due from Metro Vancouver Regional District. Investments held by the MVRD consist of bonds issued by governments and Canadian chartered banks, money market instruments and term deposits. Interest earned on GVS&DD's fund balances is included in the amount owing from MVRD and is recorded as interest income in the Statement of Operations.

Employee Future Benefits

Employees who provide services for the District are employees of the MVRD. Employee related costs are allocated by the MVRD to the District based on services rendered. These costs are shown as expenses in the financial statements and are included in amounts owing from MVRD.

Post-employment benefits of the MVRD, including accumulated banked sick and vacation pay, retirement severance and Worker's Compensation top-up benefits for employees pursuant to certain policies and union agreements, are actuarially determined based on service and best estimates of retirement ages and expected future salary and wage increases. The obligation under these benefit plans is allocated to the District based on projected benefits as the employees render services necessary to earn the future benefits and included in amounts owing to MVRD.

Landfill Closure and Post-Closure Liability

The estimated present value of landfill closure and post-closure costs is recognized as a liability. This liability is recognized based on estimated future expenses, including estimated inflation discounted to the current date and accrued based on the proportion of the total capacity of the landfill used as of the date of the statement of financial position. The change in this estimated liability during the year is recorded as an expense in operations. These estimates are reviewed and adjusted annually and any changes are recorded on a prospective basis.

Non-Financial Assets

Non-financial assets are not available to discharge existing liabilities and are held for use in the provision of services. They generally have useful lives extending beyond the current year and are not intended for sale in the ordinary course of operations.

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

Notes to Financial Statements, page 3
Year ended December 31, 2021

1. Significant Accounting Policies (continued)

Non-Financial Assets (continued)

Tangible

Capital Assets

Tangible capital assets are recorded at cost which includes amounts that are directly attributable to acquisition, construction, development or betterment of the asset. The cost, less residual value, of the tangible capital assets, except land, is amortized over their estimated useful lives. All assets are amortized on a straight line basis as follows:

Asset	Useful Life – Years
Infrastructure	
Interceptors and trunk sewers, drainage	100
Wastewater treatment, pumping stations	50
Solid Waste – incinerators, transfer stations	30
Solid Waste – landfills	25 - 30
Information technology systems and networks	5
Machinery, Equipment, Furniture and Fixtures	5 - 20

a. Annual amortization:

Annual amortization begins when the asset is put into service and is expensed over its useful life. Assets under construction are transferred to the appropriate asset class and are amortized from the date the asset is put into productive use.

b. Contributions of tangible capital assets:

Contributions of tangible capital assets are recorded at their fair value at the date of receipt and as contribution revenue.

c. Interest capitalization:

The District does not capitalize interest costs associated with the acquisition or construction of a tangible capital asset.

Inventories of Supplies

Inventories of supplies held for consumption are recorded on a first-in-first-out basis.

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

Notes to Financial Statements, page 4
Year ended December 31, 2021

1. Significant Accounting Policies (continued)

Revenue Recognition

Tipping fees, levies, electricity sales, permits, user fees and other revenue are recognized as revenue on an accrual basis according to the usage and rates approved and set by the Board in various fees and charges bylaws.

Segmented Information

A segment is defined as a distinguishable activity or group of activities of a government for which it is appropriate to separately report financial information to achieve the objectives of the standard. Definitions of the District's segments and their related financial information are presented in note 12.

Liability for Contaminated Sites

A liability for remediation of a contaminated site is recognized when the site is no longer in productive use and the following criteria are satisfied: an environmental standard exists; contamination exceeds the standard; the District is either directly responsible or has accepted responsibility for remediation; it is expected that future economic benefits will be given up and a reasonable estimate of the liability can be made. Liabilities for contaminated sites are reported in accounts payable and accrued liabilities (note 3).

Use of Estimates

The preparation of these financial statements requires management to make estimates and assumptions that affect the reported amounts in the financial statements and the disclosure of contingent liabilities. These estimates and assumptions are based on management's best information and judgment and may differ from actual results. Adjustments, if any, will be reflected in the financial statements in the period that the change in estimate is made, as well as in the period of settlement if the amount is different.

Significant areas requiring the use of management's judgment relate to the determination of landfill closure and post closure liability, contaminated sites liabilities, the estimate of accruals for projects in progress, amortization rates and useful lives of tangible capital assets, the assessment of the impairment of tangible capital assets and work in progress, and the assessment of the outcome of contingent liabilities.

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

Notes to Financial Statements, page 5
Year ended December 31, 2021

2. Debt Reserve Fund

The Municipal Finance Authority of British Columbia ("MFA") provides financing for regional districts and member municipalities. The MFA is required to establish a Debt Reserve Fund for each debenture issue equal to one-half the average annual installment of principal and interest. The debt reserve fund is comprised of cash deposits equal to 1% of the principal amount borrowed and a non-interest bearing demand note for the remaining requirement. Cash deposits held by the MFA are payable with interest to the ultimate borrower when the final obligations under the respective loan agreements have been made.

If, at any time, the District has insufficient funds to meet payments due on its obligations to the MFA, the payments will be made from the debt reserve fund. The demand notes are callable only if there are additional requirements to be met to maintain the level of the debt reserve fund. At December 31, 2021, \$39,493,543 (2020 - \$28,407,748) in callable demand notes were outstanding and have not been recorded in the statement of financial position.

3. Accounts Payable and Accrued Liabilities

	2021	2020
Trade accounts	\$ 182,682,467	\$ 91,353,577
Construction holdbacks	38,907,540	55,960,742
Accrued interest on debt	6,423,564	5,784,008
Contaminated Sites (a)	300,000	2,679,205
	\$ 228,313,571	\$ 155,777,532

(a) The District accrued \$2,679,205 in 2020 for work to be undertaken to remediate contaminated soils for two of its properties. As at December 31 2021, \$300,000 of the work remains to be completed in 2022.

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

Notes to Financial Statements, page 6
Year ended December 31, 2021

4. Landfill Closure and Post-Closure Liability

The District is responsible for its share of closure and post-closure costs at landfill sites as detailed below.

- a) The Vancouver landfill is located in Delta, BC. In accordance with an agreement with the City of Vancouver, the District is responsible for its proportionate share of the closure and post-closure liability based on usage. The present value of the District's estimated future liability for these expenses is recognized as the landfill site's capacity is used and is as follows:

	2021	2020
Landfill closure and post closure liability	\$ 32,906,686	\$ 32,163,774

The closure and post-closure liability and annual expense is calculated based on the ratio of actual utilization to total expected utilization of the site's capacity at the date of closure. It is based on estimates and assumptions with respect to events extending over the remaining life of the Vancouver landfill, including provisions contained in Metro Vancouver's Integrated Solid Waste and Resource Management Plan. The significant estimates and assumptions adopted in measuring the District's share of the closure and post-closure liability are as follows:

	2021	2020
Current actual utilization (in tonnes)	22,521,439	21,795,042
Expected utilization at closure (in tonnes)	28,219,409	27,987,102
Expected remaining capacity (in tonnes)	5,697,970	6,192,060
Permitted capacity (in tonnes)	33,039,183	33,039,183
Future costs	\$ 197,188,990	\$ 203,768,190
Present value of future costs	\$ 115,933,724	\$ 120,497,328
Proportionate share of liability	35.57%	34.28%
Utilization of total capacity, end of year	79.81%	77.88%
Discount rate	2.73%	2.68%
Expected post-closure period	30 years	30 years
Expected closure date	December 31, 2037	December 31, 2037

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

Notes to Financial Statements, page 7
Year ended December 31, 2021

4. Landfill Closure and Post-Closure Liability (continued)

- b) The Cache Creek landfill is located in the Village of Cache Creek, BC. The landfill permit obligates the Village of Cache Creek and a third party service provider to undertake closure and post-closure activities. The District, in accordance with an agreement with the Village, was required to contribute quarterly to a trust fund, held with the Province of British Columbia, to a Post Closure Maintenance and Repair Fund at rates consistent with the operational certificate for the landfill. The agreement indemnifies the Village for any post closure liabilities not covered by this fund. At December 31, 2021, the amortized book value of the trust was \$16,261,510 (2020 - \$15,519,407), which approximates the post-closure liability.

The Cache Creek landfill was closed December 2016. The actual utilization at closure was 10,318,780 tonnes and the permitted capacity was 10,371,594 tonnes. The post-closure period is expected to be 30 years. The present value of District's estimated future post-closure liability is sufficiently funded by the trust.

5. Deferred Revenue and Refundable Deposits

Deferred revenue consists of the following:

	2021	2020
Development cost charges (a)	\$ 258,633,515	\$ 213,143,056
Provincial grant to fund capital expenditures (b)	69,074,393	88,525,295
Refundable deposits	1,461,896	1,116,936
Total	\$ 329,169,804	\$ 302,785,287

- a) The GVS&DD Act restricts the District to applying money raised from development cost charges to funding sewer capital projects, including the repayment of debt raised to fund such projects. The balance of these amounts is included in deferred revenue until spent on approved purposes.
- b) In 2017, the District received a grant from the Province of British Columbia in the amount of \$193,000,000 for future costs associated with the construction of the new North Shore Wastewater Treatment Plant Facility. During 2021, \$20,488,722 (2020 – \$67,970,020) was applied against the project and recognized as revenue. Interest earned on unspent funds in the amount of \$1,037,820 (2020 - \$2,861,912) has been recognized as grant revenue in the year.

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

Notes to Financial Statements, page 8
Year ended December 31, 2021

5. Deferred Revenue and Refundable Deposits (continued)

Continuity of deferred revenue is as follows:

	2021	2020
Balance, beginning of year	\$ 302,785,287	\$ 382,403,809
Development cost charges received	85,104,514	62,871,244
Interest earned	3,628,051	7,193,822
Change in refundable deposits	344,959	(60,589)
Amounts spent and recognized as revenue	(62,693,007)	(149,622,999)
Change in deferred revenue	41,804,896	(79,618,522)
Balance, end of year	\$ 329,169,804	\$ 302,785,287

6. Debt

- a) All borrowings for the District are obtained from MFA by the MVRD on the District's behalf, although the District maintains the right to finance debt without MFA involvement.

Debt, debentures or other security issued by the District is a direct, joint and several obligation and liability of the District and each and every member municipality.

Debt servicing requirements comprising sinking fund contributions, serial repayments and interest are funded as incurred by revenue earned during the year.

- b) Debt (net of sinking funds) reported on the statement of financial position comprises the following and includes varying maturities up to 2036 with interest rates ranging from 1.28% to 4.20%.

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

Notes to Financial Statements, page 9
Year ended December 31, 2021

6. Debt (continued)

Issue number	Interest rate - %	Maturity Date	Debentures authorized to be issued	Debenture debt outstanding	
				2021	2020
99	1.75	October 19, 2021	\$ 10,000,000	\$ -	\$ 10,000,000
104	2.90	November 20, 2023	15,000,000	15,000,000	15,000,000
106	2.25	October 13, 2024	20,000,000	20,000,000	20,000,000
116	1.47-4.2	April 4, 2026	20,000,000	20,000,000	20,000,000
118	3.40	April 11, 2027	20,000,000	20,000,000	20,000,000
139	2.10	October 5, 2031	55,000,000	55,000,000	55,000,000
141	2.80	April 7, 2032	50,000,000	50,000,000	50,000,000
142	3.15	October 4, 2032	50,000,000	50,000,000	50,000,000
145	3.15	April 23, 2033	120,000,000	120,000,000	120,000,000
146	3.20	September 19, 2033	270,000,000	270,000,000	270,000,000
147	2.66	April 9, 2034	40,000,000	40,000,000	40,000,000
149	2.24	October 9, 2034	46,000,000	46,000,000	46,000,000
150	1.99	April 9, 2035	125,000,000	125,000,000	125,000,000
151	1.28	June 1, 2035	70,000,000	70,000,000	70,000,000
154	2.41	May 28, 2036	370,000,000	370,000,000	-
Total debt			\$ 1,281,000,000	\$ 1,271,000,000	\$ 911,000,000
Less sinking funds				(176,015,168)	(131,553,452)
Total net debt				\$ 1,094,984,832	\$ 779,446,548

c) Sinking fund installments due within the next five years and thereafter are as follows:

2022	\$ 70,418,495
2023	70,418,495
2024	69,669,379
2025	68,670,558
2026	68,670,558
Thereafter	547,256,704
Total payments	895,104,189
Estimated sinking fund income	199,880,643
Total net debt	\$ 1,094,984,832

e) Sinking fund installments are invested by the MFA and earn income that, together with principal payments, are expected to be sufficient to retire the sinking fund debt at maturity. For sinking fund agreements, the MFA has established either a normal sinking fund or a capital repayment equalization fund.

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

Notes to Financial Statements, page 10
Year ended December 31, 2021

7. Tangible Capital Assets

Year ended December 31, 2021

	Cost		Balance at December 31, 2021	Accumulated Amortization		Balance at December 31, 2021	Net book value December 31, 2021
	Balance at December 31, 2020	Additions (Net of Transfers)		Balance at December 31, 2020	Amortization Expense		
Land	\$ 116,049,774	\$ 46,822,000	\$ 162,871,774	\$ -	\$ -	\$ -	\$ 162,871,774
Infrastructure							
Utilities	1,614,856,918	547,539,049	2,162,395,967	670,090,806	31,992,381	702,083,187	1,460,312,780
Information technology	6,256,159	-	6,256,159	6,256,159	-	6,256,159	-
Machinery, equipment, furniture & fixtures	8,798,644	19,051	8,817,695	7,389,879	484,863	7,874,742	942,953
Construction in progress	1,707,335,425	(127,395,236)	1,579,940,189	-	-	-	1,579,940,189
	\$ 3,453,296,920	\$ 466,984,864	\$ 3,920,281,784	\$ 683,736,844	\$ 32,477,244	\$ 716,214,088	\$ 3,204,067,696

Write-offs and disposals in 2021 were \$nil (2020 - \$nil).

Construction in progress includes \$495.7 million (2020 - \$363.9 million) related to the North Shore Wastewater Treatment Plant (note 10).

Year ended December 31, 2020

	Balance at December 31, 2019		Balance at December 31, 2020	Balance at December 31, 2019	Amortization Expense	Balance at December 31, 2020	Net book value December 31, 2020
	Balance at December 31, 2019	Additions					
Land	\$ 89,789,774	\$ 26,260,000	\$ 116,049,774	\$ -	\$ -	\$ -	\$ 116,049,774
Infrastructure							
Utilities	1,534,830,034	80,026,884	1,614,856,918	640,547,423	29,543,383	670,090,806	944,766,112
Information technology	6,256,159	-	6,256,159	6,256,159	-	6,256,159	-
Machinery, equipment, furniture & fixtures	8,310,141	488,503	8,798,644	6,927,530	462,349	7,389,879	1,408,765
Construction in progress	1,196,784,206	510,551,219	1,707,335,425	-	-	-	1,707,335,425
	\$ 2,835,970,314	\$ 617,326,606	\$ 3,453,296,920	\$ 653,731,112	\$ 30,005,732	\$ 683,736,844	\$ 2,769,560,076

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

Notes to Financial Statements, page 11
Year ended December 31, 2021

8. Accumulated Surplus

Accumulated surplus consists of individual fund surplus and reserves as follows:

	2021	2020
Reserves	\$ 158,922,150	\$ 123,885,687
Capital fund balance	43,142,326	(940,975)
Investment in tangible capital assets	2,109,082,864	1,990,113,528
Total	\$ 2,311,147,340	\$ 2,113,058,240

Capital fund balance represents the future expected level of funding required or accumulated.

Continuity of reserves is as follows:

	December 31, 2020	Interest	Annual Operating Surplus	Transfers (to)/from Reserves	Contributions from/ (to) operations	December 31, 2021
Operating Reserves						
Liquid Waste Services	\$ 22,019,279	\$ 258,636	\$ 10,677,197	\$ -	\$ -	\$ 32,955,112
Solid Waste Services	21,599,526	253,705	17,360,239	-	-	39,213,470
	\$ 43,618,805	\$ 512,341	\$ 28,037,436	\$ -	\$ -	\$ 72,168,582
Discretionary Reserves						
Biosolids Inventory	14,907,329	175,100	-	4,946,933	-	20,029,362
Liquid Waste General Debt Reserve Fund	2,098,699	24,651	-	-	-	2,123,350
Lions Gate Contingency	1,472,871	17,300	-	-	-	1,490,171
Drainage General	5,230,475	61,436	-	-	-	5,291,911
Solid Waste General	26,352,855	209,521	-	-	-	26,562,376
Landfill Post-Closure	11,176,002	131,272	-	-	-	11,307,274
	\$ 61,238,231	\$ 619,280	\$ -	\$ 4,946,933	\$ -	\$ 66,804,444
Statutory Reserves						
Liquid Waste Laboratory Equipment	500,262	6,399	-	101,285	-	607,946
Liquid Waste Services Sustainability Innovation Fund	18,528,389	221,586	-	1,127,000	(535,797)	19,341,178
	\$ 19,028,651	\$ 227,985	\$ -	\$ 1,228,285	\$ (535,797)	\$ 19,949,124
Total Reserves	\$ 123,885,687	\$ 1,359,606	\$ 28,037,436	\$ 6,175,218	\$ (535,797)	\$ 158,922,150

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

Notes to Financial Statements, page 12
Year ended December 31, 2021

8. Accumulated Surplus (continued)

Investment in tangible capital assets is calculated as follows:

	2021	2020
Tangible capital assets	\$ 3,204,067,696	\$ 2,769,560,076
Amounts financed by:		
Long-term debt	(1,094,984,832)	(779,446,548)
	2,109,082,864	1,990,113,528
Change in the investment in tangible capital assets		
Acquisition of tangible capital assets	466,984,864	617,326,606
Amortization of tangible capital assets	(32,477,244)	(30,005,732)
	434,507,620	587,320,874
Less funding of tangible capital assets through debt		
Sinking fund debt maturity	10,000,000	-
Sinking fund and debt retirement	(49,447,673)	(38,171,706)
Sinking fund and debt retirement income	(5,014,043)	(3,671,561)
Debenture debt issued	370,000,000	195,000,000
Debenture debt maturity	(10,000,000)	-
	315,538,284	153,156,733
Change in investment in tangible capital assets	118,969,336	434,164,141
Investment in tangible capital assets, beginning of year	1,990,113,528	1,555,949,387
Investment in tangible capital assets, end of year	\$ 2,109,082,864	\$ 1,990,113,528

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

Notes to Financial Statements, page 13
Year ended December 31, 2021

9. Contractual Obligations and Rights

a) Contractual Obligations

- i) As of December 31, 2021 the District had the following commitments outstanding related to capital projects in progress:

	2021	2020
Authorized for outstanding projects	\$ 4,040,767,000	\$ 3,534,847,000
Expended at December 31	(2,283,628,886)	(1,828,131,080)
Commitment remaining	\$ 1,757,138,115	\$ 1,706,715,920

- ii) The District is committed under lease and rights-of-way agreements to make minimum annual payments. These agreements have varying terms, including two agreements, with annual payments of \$451,000 to perpetuity, with adjustments annually for CPI.

	Amount
2022	\$ 1,880,621
2023	1,911,752
2024	1,943,505
2025	1,975,894
2026	2,008,930
2027 - 2031	10,563,786
Total	\$ 20,284,488

b) Contractual Rights

The District is party to lease agreements that are anticipated to provide it with future revenues. These agreements are with third parties with varying terms to 2026. Amounts anticipated to be received over the future years are as follows:

	Amount
2022	\$ 1,382,042
2023	1,312,287
2024	1,114,883
2025	710,899
2026	651,657
Total	\$ 5,171,768

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

Notes to Financial Statements, page 14
Year ended December 31, 2021

10. Contingencies

Lawsuits

As at December 31, 2021, there were various lawsuits pending against the District arising in the ordinary course of business. The District has retained legal counsel to defend against these lawsuits. Where the outcomes or amounts cannot be reasonably determined, no liability has been recorded. None of these lawsuits are anticipated to result in a material loss to the District. Management is of the opinion that losses, if any, in connection with these lawsuits can be sufficiently funded by reserve funds or covered by insurance. Any expected losses will be accrued and recorded as expenses at the time they are considered likely and amounts are reasonably determinable.

Self Insurance Reserve

A self insurance reserve has been established within the MVRD to cover losses resulting from uninsured liability exposures of the District, other Metro Vancouver Districts and the MVHC.

Each year a review is undertaken to determine if it would be beneficial to purchase additional liability insurance. The District, other Metro Vancouver Districts and the MVHC transfer amounts to the reserve depending on the reserve's adequacy to cover retained liability risk.

An estimate is made for all costs of investigating and settlement of claims annually and an adjustment is made to the fund to maintain an adequate balance to cover potential losses in excess of recorded liabilities. These estimates are changed as additional information becomes known during the course of claims settlement. Any likely losses would be expensed at the time the losses are known and the amounts are reasonably determinable.

Debt Reserve Fund

The MFA is required to establish a Debt Reserve Fund for each debenture which is comprised of cash deposits and a non-interest bearing demand note (refer to note 2).

First Nations Negotiations

The District is currently involved in negotiations with First Nations regarding compensation for the use of their land on which the District's assets reside. The compensation associated with these negotiations cannot be reasonably determined at this times and therefore no liabilities have been recorded at December 31, 2021.

Letters of Credit

At December 31, 2021, the District is the named beneficiary of \$60.37 million (\$76.78 million – 2020) of irrevocable letters of credits from financial institutions related to construction projects and Solid Waste operations. These letters of credit are available under circumstances in which the service provider does not fulfil its obligation to the District and therefore the amount is not recorded as assets.

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

Notes to Financial Statements, page 15
Year ended December 31, 2021

10. Contingencies (continued)

North Shore Wastewater Treatment Plant

The District is building a new tertiary wastewater treatment plant on a former industrial site in North Vancouver, to replace the primary-only Lions Gate Wastewater Treatment Plant. The deadline for completion of the project under federal regulation was December 31, 2020. On October 15, 2021, the District served notice to terminate its contract with the vendor hired to design, build and commission the future North Shore Wastewater Treatment Plant, having determined that the vendor was in breach of contract. As of December 31, 2021, the District has paid \$309.5 million, net of GST rebates, to the vendor for work completed, which has been recorded as construction in progress (note 7). Subsequent to year-end, the District drew on an irrevocable letter of credit posted by the vendor. Also subsequent to year-end, the vendor commenced legal action by filing a claim against the District in excess of \$250 million. The District intends to file a defence to the action together with a counter-claim against the vendor. The District is proceeding with the selection of a new contractor and designer to deliver the project. At December 31, 2021, the outcome of any legal proceedings related to the terminated contract and the potential consequences of not meeting the current deadline under the federal regulation is undeterminable.

Due to the nature of the contractual payments made to date under the terminated contract, the outstanding litigation and uncertainty surrounding the value of the new contract for completion of the project, the amount recorded as work in progress on the project represents management's best estimate. This amount may be subject to material change as new information becomes available.

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

Notes to Financial Statements, page 16
Year ended December 31, 2021

11. Budget Information

The annual budget presented in these financial statements is based upon the 2021 operating and capital budgets approved by the District's Board in October 2020, with additional approval in November 2021 for adjustments to the budget as a result of the 2020 fiscal year end results. The budget is based on operational and capital expenditure requirements and their associated funding. Amortization is a non-cash item that is not funded for budget purposes. Also, contributions to or from reserves and debt principal repayments are removed from the approved budget for financial statement presentation. The schedule below reconciles the approved budget to the budget figures reported in these financial statements. Capital expenditures of \$1,030,778,000 were included in the capital budget approved by the Board.

	2021 Budget
Budgeted annual surplus per Exhibit B - Statement of Operations	\$ 397,271,819
Additional transfers from reserves, approved by Board	1,049,675
Adjusted annual surplus, based on October approved budget	398,321,494
Items not included in the approved operating budget	
Capital development cost charge revenue	(45,000,000)
Capital grants and contributions	(251,931,864)
Amortization of tangible capital assets	35,014,719
Sinking and debt retirement fund income	(5,450,233)
Reserve interest	(2,040,238)
Items included in the budget but not in financial statements	
Debt principal payments	(49,447,674)
Transfers to capital	(80,068,136)
Transfers from reserves	601,932
Annual surplus per approved budget	\$ -

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

Notes to Financial Statements, page 17
Year ended December 31, 2021

12. Segmented Information and Expenses by Object

The District's primary responsibilities are the collection, treatment and discharge of liquid waste for the municipalities of the MVRD and the disposal of solid waste both for the municipalities of the MVRD and the public. For management reporting purposes, the District's operations and activities are organized and reported by these two primary areas of service.

The information reported in the segmented information does not include \$9,052,489 (2020 - \$8,696,015) of salaries and benefits directly attributable to the construction of tangible capital assets which have been included in the cost of tangible capital assets in the Statement of Financial Position.

The services disclosed in the Segmented Information are as follows:

Liquid Waste Services

The Liquid Waste Services is responsible for the collection, treatment and discharge of liquid waste for member municipalities. It operates a number of wastewater treatment plants and a related collection network connected to the member municipalities' systems.

Solid Waste Services

The Solid Waste Services is responsible for the disposal of solid waste both for the member municipalities and the public. It owns and operates several solid waste facilities including a waste to energy facility.

	2021 Total Budget	Liquid Waste Services	Solid Waste Services	2021 Total Actual	2020 Total Actual
Revenue					
Sewerage and drainage levy	\$ 288,225,540	\$ 288,225,540	\$ -	\$ 288,225,540	\$ 274,237,112
Tipping fees	108,516,645	-	112,609,847	112,609,847	100,880,183
BODTSS Industrial Charges	11,756,424	12,157,191	-	12,157,191	11,567,862
Development cost charges	88,145,119	42,204,285	-	42,204,285	81,652,979
Electricity sales	6,239,530	-	5,778,816	5,778,816	5,308,843
User fees, recoveries and other	7,718,634	4,755,037	4,712,940	9,467,977	9,022,842
Sinking fund, debt retirement and interest income	7,490,471	5,821,143	758,778	6,579,921	5,775,306
Grants and contributions	251,931,864	61,062,379	-	61,062,379	173,535,810
	770,024,227	414,225,575	123,860,381	538,085,956	661,980,937
Expenses					
Salaries and benefits	69,974,171	61,566,341	6,087,815	67,654,156	67,315,251
Consulting, contracted and professional services	135,473,864	32,482,076	78,139,266	110,621,342	107,034,380
Asset repairs and maintenance	12,584,523	11,988,365	645,658	12,634,023	12,774,295
Materials and supplies	17,002,733	16,123,425	63,668	16,187,093	16,842,584
Utilities, permits and taxes	16,860,760	15,461,979	421,160	15,883,139	17,522,824
Corporate costs	37,262,082	32,232,100	4,875,176	37,107,276	31,866,164
Other	18,049,960	8,095,764	9,681,671	17,777,435	14,422,331
Amortization of tangible capital assets	35,014,719	26,685,646	5,791,598	32,477,244	30,005,732
Interest on long-term debt	30,529,596	27,383,909	2,271,239	29,655,148	21,878,093
	372,752,408	232,019,605	107,977,251	339,996,856	319,661,654
Annual surplus (deficit)	\$ 397,271,819	\$ 182,205,970	\$ 15,883,130	\$ 198,089,100	\$ 342,319,283

GREATER VANCOUVER SEWERAGE AND DRAINAGE DISTRICT

Notes to Financial Statements, page 18
Year ended December 31, 2021

13. COVID-19 Pandemic

The COVID-19 global pandemic, declared in 2020, continued to impact the global economy in 2021. Throughout the pandemic, the Corporation delivered key services to the Metro Vancouver region in line with its mandate. Management continues to monitor the impacts of the pandemic on taxpayers, suppliers and other third party business associates that could impact the timing and amounts realized on the Corporation's assets and ability to provide services to the region. However, to date, the pandemic has not materially impacted revenue streams, expenses, cash flows or caused significant asset impairments.

14. Subsequent Event

In January 2022, the District drew on an irrevocable letter of credit in the amount of \$50.0 million as a result of the cancellation of a vendor contract for the North Shore Wastewater Treatment Plant. This amount is included in the \$60.37 million disclosed in note 10.

Financial Statements of

**GREATER VANCOUVER
WATER DISTRICT**

Year ended December 31, 2021

April 8, 2022

GREATER VANCOUVER WATER DISTRICT

Index to Financial Statements

December 31, 2021

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Statement of Cash Flows	D
Notes to Financial Statements	

GREATER VANCOUVER WATER DISTRICT

MANAGEMENT REPORT

The Financial Statements contained in this report have been prepared by management in accordance with Canadian public sector accounting standards. The integrity and objectivity of these statements are management's responsibility. Management is responsible for all the statements and schedules, and for ensuring that this information is consistent, where appropriate, with the information contained in the financial statements.

Management is also responsible for implementing and maintaining a system of internal controls to provide reasonable assurance that reliable financial information is produced.

The Greater Vancouver Water District's Board of Directors is responsible for approving the financial statements and for ensuring that management fulfills its responsibilities for financial reporting and internal control and exercises this responsibility through the Performance and Audit Committee of the Board.

The external auditors, BDO Canada LLP, conduct an independent examination, in accordance with Canadian Auditing Standards, and express their opinion on the financial statements. Their examination does not relate to the other schedules and statements required by the *Financial Information Act*. The Independent Auditor's Report outlines the scope of the audit for the year ended December 31, 2021.

On behalf of Greater Vancouver Water District.

Dean Rear, Chief Financial Officer

Date: April 29, 2022

Independent Auditor's Report

To the Members of the Board of Directors of the Greater Vancouver Water District

Opinion

We have audited the financial statements of the Greater Vancouver Water District (the "District"), which comprise the Statement of Financial Position as at December 31, 2021, and the Statements of Operations, Change in Net Debt and Cash Flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the District as at December 31, 2021, and the results of its operations, change in net debt and cash flows for the year then ended in accordance with Canadian public sector accounting standards.

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the District in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian public sector accounting standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the District's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the District or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the District's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the District's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the District's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the District to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Chartered Professional Accountants

Vancouver, British Columbia

DATE

GREATER VANCOUVER WATER DISTRICT

Exhibit A

Statement of Financial Position

Year ended December 31, 2021

	2021	2020
Financial Assets		
Cash	\$ 1,780,988	\$ 1,110,634
Accounts receivable	48,357,266	52,651,185
Due from (to) Metro Vancouver Regional District	169,401,485	(9,989,434)
Debt reserve fund (note 2)	15,647,006	14,026,840
	235,186,745	57,799,225
Liabilities		
Accounts payable and accrued liabilities (note 3)	69,616,281	54,903,222
Debt (net of sinking funds) (note 4)	711,163,290	557,737,244
	780,779,571	612,640,466
Net Debt	(545,592,826)	(554,841,241)
Non-Financial Assets		
Tangible capital assets (note 5)	2,855,862,044	2,681,331,071
Inventories of supplies	4,356,061	4,312,253
Prepaid expenses	562,801	617,268
	2,860,780,906	2,686,260,592
Accumulated surplus (note 6)	\$ 2,315,188,080	\$ 2,131,419,351

Contractual obligations and rights (note 7)

Contingencies (note 8)

COVID-19 (note 11)

The accompanying notes are an integral part of these financial statements.

Chief Financial Officer

Board Chair

GREATER VANCOUVER WATER DISTRICT

Exhibit B

Statement of Operations

Year ended December 31, 2021

	2021 Budget (note 9)	2021 Actual	2020 Actual
Revenue (note 10)			
Metered sale of water	\$ 316,341,192	\$ 319,989,323	\$ 297,780,794
Sinking fund, debt retirement and interest income	17,594,045	20,734,421	19,233,123
Interest income	713,060	630,564	1,091,295
Building income from Metro Vancouver Districts	9,650,613	9,616,135	12,227,786
Building income from external parties	6,747,794	6,634,971	6,133,979
Other revenue	1,674,556	10,660,566	8,670,769
	352,721,260	368,265,980	345,137,746
Expenses (note 10)			
Water operations	172,616,063	167,532,829	158,192,895
Building operations	16,850,926	16,964,422	15,591,928
	189,466,989	184,497,251	173,784,823
Annual surplus	163,254,271	183,768,729	171,352,923
Accumulated surplus, beginning of year	2,131,419,351	2,131,419,351	1,960,066,428
Accumulated surplus, end of year	\$ 2,294,673,622	\$ 2,315,188,080	\$ 2,131,419,351

The accompanying notes are an integral part of these financial statements.

GREATER VANCOUVER WATER DISTRICT

Exhibit C

Statement of Change in Net Debt

Year ended December 31, 2021

	2021 Budget (note 9)	2021 Actual	2020 Actual
Annual surplus	\$ 163,254,271	\$ 183,768,729	\$ 171,352,923
Change in tangible capital assets:			
Acquisition of tangible capital assets	(431,250,000)	(215,953,824)	(247,236,906)
Amortization of tangible capital assets	40,552,047	41,422,851	40,020,293
	(390,697,953)	(174,530,973)	(207,216,613)
Change in other non-financial assets:			
Acquisition of prepaid expenses	-	(562,801)	(617,268)
Use of prepaid expenses	-	617,268	528,445
Acquisition of inventories of supplies	-	(4,356,061)	(4,312,253)
Consumption of inventories of supplies	-	4,312,253	2,861,051
	-	10,659	(1,540,025)
Changes in net debt	(227,443,682)	9,248,415	(37,403,715)
Net debt, beginning of year	(554,841,241)	(554,841,241)	(517,437,526)
Net debt, end of year	\$ (782,284,923)	\$ (545,592,826)	\$ (554,841,241)

The accompanying notes are an integral part of these financial statements.

GREATER VANCOUVER WATER DISTRICT

Exhibit D

Statement of Cash Flows

Year ended December 31, 2021

	2021	2020
Cash provided by (used in):		
Operating transactions:		
Annual surplus	\$ 183,768,729	\$ 171,352,923
Items not involving cash:		
Amortization	41,422,851	40,020,293
Sinking fund income	(20,696,085)	(19,187,680)
Debt reserve fund income	(111,875)	(278,655)
Change in non-cash assets and liabilities:		
Accounts receivable	4,293,919	8,441,772
Prepaid expenses	54,467	(88,823)
Accounts payable and accrued liabilities	14,713,059	(8,728,293)
Inventories of supplies	(43,808)	(1,451,202)
Net change in cash from operating transactions	223,401,257	190,080,335
Capital transactions:		
Acquisition of tangible capital assets	(215,953,824)	(247,236,906)
Net change in cash from capital transactions	(215,953,824)	(247,236,906)
Financing transactions:		
Due from Metro Vancouver Regional District	(179,390,919)	38,717,502
Debenture debt issued	230,000,000	70,000,000
Debt reserve fund issuance	(2,300,000)	(700,000)
Debt reserve fund maturity	791,709	57,874
Sinking fund payments	(55,877,869)	(51,574,488)
Net change in cash from financing transactions	(6,777,079)	56,500,888
Net change in cash and cash equivalents	670,354	(655,683)
Cash and cash equivalents, beginning of year	1,110,634	1,766,317
Cash and cash equivalents, end of year	\$ 1,780,988	\$ 1,110,634

The accompanying notes are an integral part of these financial statements.

GREATER VANCOUVER WATER DISTRICT

Notes to Financial Statements, page 1

Year ended December 31, 2021

1. Significant Accounting Policies

The Greater Vancouver Water District (the “District”) was established by an Act of the same name in 1924. Its primary responsibility is the supply of potable water to its member municipalities. Its Board of Directors comprises the same councillors and mayors as appointed to the Metro Vancouver Regional District (“MVRD”) Board by the participating municipalities.

The District owns or holds under a 999-year lease from the Province an extensive closed watershed network as its source of supply. It owns a series of dams, reservoirs, water treatment plants and a distribution network connecting to the municipal distribution systems. The member municipalities under the Act are jointly and severally liable for its debts. The District also owns and is responsible for operating and maintaining office buildings that are leased to MVRD and its related entities.

The District’s financial statements are prepared by management in accordance with Canadian public sector accounting standards (“PSAS”). Significant accounting policies adopted by the District are as follows:

Basis of Accounting	The District follows the accrual method of accounting for revenues and expenses. Revenues are recognized in the year in which they are earned and measurable. Expenses are recognized as they are incurred and measurable as a result of the receipt of goods or services and/or the legal obligation to pay.
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Government Transfers	Government transfers are recognized as revenue in the financial statements when the transfer is authorized and any eligibility criteria are met, except to the extent that transfer stipulations give rise to an obligation that meets the definition of a liability. The transfer of revenue is initially deferred and then recognized in the statement of operations as the stipulation liabilities are settled.
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When the District is deemed the transferor, the transfer expense is recognized when the recipient is authorized and has met the eligibility criteria.

Sinking Fund, Debt Retirement and Interest Income	Interest income is reported as revenue in the period earned. When required, based on external restrictions, interest income earned on deferred revenue is added to and forms part of the deferred revenue balance and is recognized into income when related stipulations are met. Any surpluses received from upon debt retirement are recorded in the year received.
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GREATER VANCOUVER WATER DISTRICT

Notes to Financial Statements, page 2

Year ended December 31, 2021

1. Significant Accounting Policies (continued)

Cash and Investments

In order to improve cash management, Metro Vancouver Districts accumulate cash and investment transactions in pooled accounts held by the MVRD. GVWD's cash is therefore presented as due from Metro Vancouver Regional District. Investments held by the MVRD consist of bonds issued by governments and Canadian chartered banks, money market instruments and term deposits. Interest earned on GVWD's fund balances is included in the amount owing from the MVRD and is recorded as interest income in the Statement of Operations.

Employee Future Benefits

Employees who provide services for the District are employees of the MVRD. Employee related costs are allocated by the MVRD to the District based on services rendered. These costs are shown as expenses in the financial statements and are included in amounts owing to MVRD.

Post-employment benefits of the MVRD, including accumulated banked sick and vacation pay, retirement severance and Worker's Compensation top-up benefits for employees pursuant to certain policies and union agreements, are actuarially determined based on service and best estimates of retirement ages and expected future salary and wage increases. The obligation under these benefit plans is allocated to the District based on projected benefits as the employees render services necessary to earn the future benefits and included in amounts owing to MVRD.

Non-Financial Assets

Non-financial assets are not available to discharge existing liabilities and are held for use in the provision of services. They have useful lives extending beyond the current year and are not intended for sale in the ordinary course of operations.

GREATER VANCOUVER WATER DISTRICT

Notes to Financial Statements, page 3

Year ended December 31, 2021

1. Significant Accounting Policies (continued)

Non-Financial Assets (continued)

Tangible Capital Assets

Tangible capital assets are recorded at cost which includes amounts that are directly attributable to acquisition, construction, development or betterment of the asset. The cost, less residual value, of the tangible capital assets, excluding land, is amortized on a straight line basis over the estimated useful lives of the assets as follows:

Asset	Useful Life Years
Buildings	
Corporate head office	40
Watershed	25
Infrastructure	
Dams and reservoirs	150
Supply mains	100
Distribution systems, drinking water treatment	50
Bridges and roads	50
Vehicles	5 - 10
Machinery, Equipment, Furniture and Fixtures	5 - 20

a. Annual amortization:

Annual amortization begins when the asset is put into service and is expensed over its useful life. Assets under construction are transferred to the appropriate asset class and are amortized from the date the asset is put into productive use.

b. Contributions of tangible capital assets:

Contributions of tangible capital assets are recorded at their fair value at the date of receipt and as contribution revenue.

c. Interest capitalization:

The District does not capitalize interest costs associated with the acquisition or construction of a tangible capital asset.

Inventories of Supplies

Inventories of supplies held for consumption are recorded on a first-in-first-out basis.

GREATER VANCOUVER WATER DISTRICT

Notes to Financial Statements, page 4

Year ended December 31, 2021

1. Significant Accounting Policies (continued)

Revenue Recognition	Metered sale of water, building income from external tenants, Metro Vancouver Districts and Housing Corporation, and other income are recognized as revenue on an accrual basis according to the usage and rates approved and set by the Board.
Use of Estimates	<p>The preparation of these financial statements requires management to make estimates and assumptions that affect the reported amounts in the financial statements and the disclosure of contingent liabilities. These estimates and assumptions are based on management's best information and judgment and may differ from actual results. Adjustments, if any, will be reflected in the financial statements in the period that the change in estimate is made, as well as in the period of settlement if the amount is different.</p> <p>Significant areas requiring the use of management's judgment relates to the determination of contaminated sites liabilities, the amortization rates of tangible capital assets and the assessment of the outcome of contingent liabilities.</p>
Segmented Information	A segment is defined as a distinguishable activity or group of activities of a government for which it is appropriate to separately report financial information to achieve the objectives of the standard. Definitions of the District's segments and their related financial information are presented in note 10.
Liabilities for Contaminated Sites	A liability for remediation of a contaminated site is recognized when the site is no longer in productive use and the following criteria are satisfied: an environmental standard exists; contamination exceeds the standard; the District is either directly responsible or has accepted responsibility for remediation; it is expected that future economic benefits will be given up and a reasonable estimate of the liability can be made. Liabilities for contaminated sites are reported in accounts payable and accrued liabilities (note 3).

GREATER VANCOUVER WATER DISTRICT

Notes to Financial Statements, page 5

Year ended December 31, 2021

2. Debt Reserve Fund

The Municipal Finance Authority of British Columbia ("MFA") provides financing for regional districts and member municipalities. The MFA is required to establish a Debt Reserve Fund for each debenture issue equal to one-half the average annual installment of principal and interest. The debt reserve fund is comprised of cash deposits equal to 1% of the principal amount borrowed and a non-interest bearing demand note for the remaining requirement. Cash deposits held by the MFA are payable with interest to the ultimate borrower when the final obligations under the respective loan agreements have been made.

If, at any time, the District has insufficient funds to meet payments due on its obligations to the MFA, the payments will be made from the debt reserve fund. The demand notes are callable only if there are additional requirements to be met in order to maintain the level of the debt reserve fund. At December 31, 2021, \$41,402,712 (2020 - \$36,580,208) in callable demand notes were outstanding and have not been recorded in the statement of financial position.

3. Accounts Payable and Accrued Liabilities

	2021	2020
Trade accounts	\$ 37,400,180	\$ 26,565,725
Construction holdbacks	25,870,577	22,502,301
Accrued interest on debt	5,883,967	5,523,920
Contaminated sites (a)	461,557	201,323
Other	-	109,953
	\$ 69,616,281	\$ 54,903,222

(a) The District accrued \$461,557 (2020 - \$201,323) to remediate contaminated soils at its properties. The remediation work for one property identified in 2020 was completed in 2021. It is expected that the work on the site identified in 2021 will be completed by 2023.

GREATER VANCOUVER WATER DISTRICT

Notes to Financial Statements, page 6

Year ended December 31, 2021

4. Debt

- a) All borrowings for the District are obtained from MFA by the MVRD on the District's behalf, although the District maintains the right to finance debt without MFA involvement.

Debt, debentures or other security issued by the District is a direct, joint and several obligation and liability of the District and each and every member municipality.

Debt servicing requirements comprising sinking fund contributions, serial repayments and interest are funded as incurred by revenue earned during the year.

- b) Principal payments and sinking fund installments due within the next five years and thereafter are as follows:

	Total Payments
2022	\$ 66,189,780
2023	61,712,326
2024	57,935,234
2025	50,943,480
2026	44,501,695
Thereafter	260,302,147
Total payments	541,584,662
Estimated sinking fund income	169,578,628
Total debt	\$ 711,163,290

- c) Sinking fund installments are invested by the MFA and earn income that, together with principal payments, are expected to be sufficient to retire the sinking fund debt at maturity. For sinking fund agreements, the MFA has established either a normal sinking fund or a capital repayment equalization fund.

GREATER VANCOUVER WATER DISTRICT

Notes to Financial Statements, page 7

Year ended December 31, 2021

4. Debt (continued)

- d) Debt (net of sinking funds) reported on the Statement of Financial Position comprises the following and includes varying maturities up to 2036 with interest rates ranging from 1.28% to 4.20%.

Issue number	By-law number	Interest rate - %	Maturity date	Debentures authorized to be issued	Debenture debt outstanding	
					2021	2020
67	813	1.75	November 5, 2022	\$ 14,294,000	\$ 14,294,000	\$ 14,294,000
67	853	1.75	November 5, 2022	706,000	706,000	706,000
97	946	1.75	April 19, 2021	15,630,930	-	15,630,930
97	994	1.75	April 19, 2021	4,369,070	-	4,369,070
99	994	1.75	October 19, 2021	40,000,000	-	40,000,000
102	994	2.25	December 1, 2022	80,000,000	80,000,000	80,000,000
103	994	2.65	April 23, 2023	40,000,000	40,000,000	40,000,000
104	994	2.90	November 20, 2023	35,630,930	35,630,930	35,630,930
105	1073	2.25	June 3, 2024	60,000,000	60,000,000	60,000,000
106	1073	2.25	October 13, 2024	80,000,000	80,000,000	80,000,000
110	1073	1.28	April 8, 2025	50,000,000	50,000,000	50,000,000
112	1073	1.28	October 6, 2025	70,000,000	70,000,000	70,000,000
116	1073	4.20	April 4, 2026	30,000,000	30,000,000	30,000,000
118	1073	3.40	April 11, 2027	70,000,000	70,000,000	70,000,000
121	1073	2.90	October 4, 2027	20,000,000	20,000,000	20,000,000
126	1073	3.85	September 26, 2028	70,000,000	70,000,000	70,000,000
127	1073	3.30	April 7, 2029	60,000,000	60,000,000	60,000,000
130	1073	3.00	October 14, 2029	50,000,000	50,000,000	50,000,000
131	1073	2.20	April 8, 2030	60,000,000	60,000,000	60,000,000
137	1073	2.60	April 19, 2031	80,000,000	80,000,000	80,000,000
137	1224	2.60	April 19, 2031	20,000,000	20,000,000	20,000,000
141	1224	2.80	April 7, 2032	50,000,000	50,000,000	50,000,000
147	1224	2.66	April 9, 2034	22,000,000	22,000,000	22,000,000
150	1224	1.99	April 9, 2035	40,000,000	40,000,000	40,000,000
151	1224	1.28	June 1, 2035	30,000,000	30,000,000	30,000,000
153	1224	2.41	April 15, 2036	100,000,000	100,000,000	-
154	1224	2.41	May 28, 2036	130,000,000	130,000,000	-
Debt				\$ 1,322,630,930	\$ 1,262,630,930	\$ 1,092,630,930
Less sinking funds					(551,467,640)	(534,893,686)
Total debt (net of sinking funds)					\$ 711,163,290	\$ 557,737,244

GREATER VANCOUVER WATER DISTRICT

Notes to Financial Statements, page 8

Year ended December 31, 2021

5. Tangible Capital Assets

Year ended December 31, 2021

	Cost		Balance at December 31, 2021	Balance at December 31, 2021	Amortization Expense	Balance at December 31, 2021	Net book value December 31, 2021
	Balance at December 31, 2020	Additions					
Land	\$ 44,704,207	\$ 8,959,945	\$ 53,664,152	\$ -	\$ -	\$ -	\$ 53,664,152
Infrastructure	2,118,001,989	127,793,225	2,245,795,214	402,689,372	34,930,244	437,619,616	1,808,175,598
Buildings	216,476,101	-	216,476,101	19,224,621	5,463,049	24,687,670	191,788,431
Machinery, equipment furniture & fixtures	13,197,425	-	13,197,425	6,394,667	1,029,558	7,424,225	5,773,200
Assets under construction	717,260,009	79,200,654	796,460,663	-	-	-	796,460,663
	\$ 3,109,639,731	\$ 215,953,824	\$ 3,325,593,555	\$ 428,308,660	\$ 41,422,851	\$ 469,731,511	\$ 2,855,862,044

Write-offs and disposals in 2021 were \$nil (2020 - \$nil).

Year ended December 31, 2020

	Cost		Balance at December 31, 2020	Balance at December 31, 2019	Amortization Expense	Balance at December 31, 2020	Net book value December 31, 2020
	Balance at December 31, 2019	Additions					
Land	\$ 44,704,207	\$ -	\$ 44,704,207	\$ -	\$ -	\$ -	\$ 44,704,207
Infrastructure	2,116,289,696	1,712,293	2,118,001,989	369,121,481	33,567,891	402,689,372	1,715,312,617
Buildings	213,924,180	2,551,921	216,476,101	13,788,155	5,436,466	19,224,621	197,251,480
Machinery, equipment furniture & fixtures	12,729,772	467,653	13,197,425	5,378,731	1,015,936	6,394,667	6,802,758
Assets under construction	474,754,970	242,505,039	717,260,009	-	-	-	717,260,009
	\$ 2,862,402,825	\$ 247,236,906	\$ 3,109,639,731	\$ 388,288,367	\$ 40,020,293	\$ 428,308,660	\$ 2,681,331,071

6. Accumulated Surplus

Accumulated surplus consists of individual fund surplus and reserves as follows:

	2021	2020
Reserves	\$ 43,696,639	\$ 34,595,530
Capital fund balance	126,792,687	(26,770,006)
Investment in tangible capital assets	2,144,698,754	2,123,593,827
Accumulated surplus, end of year	\$ 2,315,188,080	\$ 2,131,419,351

Capital fund balance represents the future expected level of funding required or accumulated.

GREATER VANCOUVER WATER DISTRICT

Notes to Financial Statements, page 9

Year ended December 31, 2021

6. Accumulated Surplus (continued)

Continuity of reserves is as follows:

	December 31, 2020	Interest	Annual Operating Surplus	Contributions from / (to) operations	December 31, 2021
Designated reserves					
Sustainability innovation fund	\$ 13,901,697	\$ 165,824	\$ -	\$ 242,046	\$ 14,309,567
Laboratory equipment	750,275	8,946	-	25,512	784,733
	14,651,972	174,770	-	267,558	15,094,300
Non-designated reserves					
Operating reserve	19,943,558	234,255	8,424,526	-	28,602,339
Total reserves	\$ 34,595,530	\$ 409,025	\$ 8,424,526	\$ 267,558	\$ 43,696,639

Investment in tangible capital assets is calculated as follows:

	2021	2020
Tangible capital assets	\$ 2,855,862,044	\$ 2,681,331,071
Amounts financed by:		
Long-term debt	(711,163,290)	(557,737,244)
	\$ 2,144,698,754	\$ 2,123,593,827

The change in the investment in tangible capital assets is as follows:

	2021	2020
Change in the investment in tangible capital assets		
Acquisition of tangible capital assets	\$ 215,953,824	\$ 247,236,906
Amortization of tangible capital assets	(41,422,851)	(40,020,293)
	174,530,973	207,216,613
Less funding of tangible capital assets		
Sinking fund and debt retirement	(55,877,869)	(51,574,488)
Sinking fund income	(20,696,085)	(19,187,680)
Debenture debt issued	230,000,000	70,000,000
	153,426,046	(762,168)
Change in investment in tangible capital assets	21,104,927	207,978,781
Investment in tangible capital assets, beginning of year	2,123,593,827	1,915,615,046
Investment in tangible capital assets, end of year	\$ 2,144,698,754	\$ 2,123,593,827

GREATER VANCOUVER WATER DISTRICT

Notes to Financial Statements, page 10

Year ended December 31, 2021

7. Contractual Obligations and Rights

a) Contractual Obligations:

- i) As at December 31, 2021, the District had the following commitments outstanding related to capital projects in progress:

	2021	2020
Authorized for outstanding projects	\$ 2,541,411,828	\$ 2,298,311,822
Expended at December 31	(1,112,159,228)	(903,211,367)
Commitment remaining	\$ 1,429,252,600	\$ 1,395,100,455

- ii) The District is committed under a number of lease and right-of-way agreements to make minimum annual payments. These agreements have varying terms, including one agreement with annual payments of \$107,000 to perpetuity, with adjustments annually for CPI.

	Amount
2022	\$ 228,572
2023	106,948
2024	106,948
2025	106,948
2026	106,948
2027 - 2031	534,740
Total	\$ 1,191,104

b) Contractual Rights:

The District is party to several property lease agreements that are anticipated to provide it with future revenues. These agreements are with third parties with varying terms to 2027. Amounts anticipated to be received over the future years are as follows:

	Amount
2022	\$ 6,570,773
2023	6,609,902
2024	6,647,784
2025	5,580,353
2026	3,728,260
Thereafter	13,891,808
Total	\$ 43,028,880

Year ended December 31, 2021

8. Contingencies

Lawsuits:

As at December 31, 2021, there were various lawsuits pending against the District arising in the ordinary course of business. The District has retained legal counsel to defend against these lawsuits. Where the outcomes or amounts cannot be reasonably determined, no liability has been recorded. None of these lawsuits are anticipated to result in a material loss to the District. Management is of the opinion that losses, if any, in connection with these lawsuits can be sufficiently funded by reserve funds or covered by insurance. Any expected losses will be accrued and recorded as expenses at the time they are considered likely and amounts are reasonably determinable.

Self Insurance Reserve:

A self insurance reserve has been established within the MVRD to cover losses resulting from uninsured liability exposures of the District, other MVRD Districts and Housing Corporation.

Each year a review is undertaken to determine if it would be beneficial to purchase additional liability insurance. The District, other Metro Vancouver Districts and the MVHC transfer amounts to the reserve depending on the reserve's adequacy to cover retained liability risk.

An estimate is made for all costs of investigating and settlement of claims annually and an adjustment is made to the fund to maintain an adequate balance to cover potential losses in excess of recorded liabilities. These estimates are changed as additional information becomes known during the course of claims settlement. Any likely losses would be expensed at the time the losses are known and the amounts are reasonably determinable.

GREATER VANCOUVER WATER DISTRICT

Notes to Financial Statements, page 12

Year ended December 31, 2021

8. Contingencies (continued)

Debt Reserve Fund: The MFA is required to establish a Debt Reserve Fund for each debenture which is comprised of cash deposits and a non-interest bearing demand note (refer to note 2). If, at any time, the District has insufficient funds to meet payments due on its obligations to MFA, the payments will be made from the debt reserve fund. The demand notes are callable only if there are additional requirements to be met to maintain the level of the debt reserve fund, and therefore have not been recorded in the statement of financial position.

9. Budget Information

The annual budget presented in these financial statements is based upon the 2021 operating and capital budgets approved by the District's Board in October 2020. The budget is based on operational and capital expenditure requirements and their associated funding. Amortization is a non-cash item that is not funded for budget purposes. Also, contributions to or from reserves and debt principal repayments are removed from the approved budget for financial statement presentation. The schedule below reconciles the approved operating budget to the budget figures reported in these financial statements. Capital expenditures of \$431,250,000 were included in the capital budget approved by the Board.

	2021 Budget	2020 Budget
Budgeted annual surplus per Exhibit B - Statement of Operations	\$ 163,254,271	\$ 152,172,967
Items not included in the operating budget		
Amortization of tangible capital assets	40,552,047	40,277,716
Sinking and debt retirement fund income	(17,594,045)	(15,543,695)
Reserve interest	(713,060)	(675,592)
Items included in the budget but not in financial statements		
Debt principal payments	(55,877,869)	(51,574,488)
Transfers to capital	(130,975,759)	(127,075,627)
Transfers from reserve funds	2,102,934	3,187,719
Transfers to reserve funds	(748,519)	(769,000)
Annual surplus per approved budget	\$ -	\$ -

GREATER VANCOUVER WATER DISTRICT

Notes to Financial Statements, page 13

Year ended December 31, 2021

10. Segmented Information and Expenses by Object

The District's primary responsibilities are the supply of potable water to the municipalities of the MVRD and the property management of the office buildings owned by the District. For management reporting purposes, the District's operations and activities are organized and reported by these two primary areas of service. The information reported in the segmented information does not include \$7,168,137 (2020 - \$8,937,048) of salaries and benefits directly attributable to the construction of tangible capital assets which have been included in the cost of tangible capital assets in the Statement of Financial Position.

The services disclosed in the Segmented Information are as follows:

Water Operations Water Operations is responsible for the supply of potable water to the District's member municipalities. The District owns a series of dams, reservoirs, water treatment plants and a distribution network connected to the member municipalities' systems.

Building Operations Building Operations is responsible for operating and maintaining office buildings owned by the District. These facilities are leased to MVRD and its related entities for its head office operations as well as to external parties.

	2021 Budget	Water Operations	Building Operations	Inter-Program Adjustments	2021 Total	2020 Total
Revenue						
Metered sale of water	\$ 316,341,192	\$ 319,989,323	\$ -	\$ -	\$ 319,989,323	\$ 297,780,794
Sinking fund and debt retirement income	17,594,045	18,946,364	1,788,057	-	20,734,421	19,233,123
Interest income	713,060	630,564	-	-	630,564	1,091,295
Building income from Metro Vancouver Districts	9,650,613	-	14,679,881	(5,063,746)	9,616,135	12,227,786
Building income from external parties	6,747,794	-	6,634,971	-	6,634,971	6,133,979
Other income	1,674,556	10,389,769	270,797	-	10,660,566	8,670,769
	352,721,260	349,956,020	23,373,706	(5,063,746)	368,265,980	345,137,746
Expenses						
Salaries and benefits	45,981,808	42,181,362	529,297	-	42,710,659	41,863,753
Consulting, contracted and professional services	13,959,491	12,715,964	1,626,214	-	14,342,178	11,164,512
Asset repairs and maintenance	6,517,261	3,814,835	2,541,148	-	6,355,983	6,192,486
Materials and supplies	14,440,889	11,508,448	92,666	-	11,601,114	10,008,497
Utilities, permits and taxes	9,574,379	7,601,294	1,206,327	-	8,807,621	8,149,065
Corporate costs	23,878,450	25,755,210	-	(5,063,746)	20,691,464	18,965,912
Other	4,732,811	7,325,059	1,347,915	-	8,672,974	8,170,219
Amortization of tangible capital assets	40,552,047	36,508,211	4,914,640	-	41,422,851	40,020,293
Interest on long-term debt	29,829,853	25,186,192	4,706,215	-	29,892,407	29,250,086
	189,466,989	172,596,575	16,964,422	(5,063,746)	184,497,251	173,784,823
Annual surplus	\$ 163,254,271	\$ 177,359,445	\$ 6,409,284	\$ -	\$ 183,768,729	\$ 171,352,923

11. COVID-19

The COVID-19 global pandemic, declared in 2020, continued to impact the global economy in 2021. Throughout the pandemic, the District delivered key services to the Metro Vancouver region in line with its mandate. Management continues to monitor the impacts of the pandemic on taxpayers, suppliers and other third party business associates that could impact the timing and amounts realized on the Districts's assets and ability to provide services to the region. However, to date, the pandemic has not materially impacted revenue streams, expenses, cash flows or caused significant asset impairments.

Financial Statements of

**METRO VANCOUVER
HOUSING CORPORATION**

Year ended December 31, 2021

April 7, 2022

METRO VANCOUVER HOUSING CORPORATION

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December 31, 2021

Exhibit

Management Report

Independent Auditor's Report

Statement of Financial Position

A

Statement of Operations

B

Statement of Change in Net Debt

C

Statement of Cash Flows

D

Notes to Financial Statements

METRO VANCOUVER HOUSING CORPORATION ("MVHC")

MANAGEMENT REPORT

The Financial Statements contained in this report have been prepared by management in accordance with Canadian public sector accounting standards and the integrity and objectivity of these statements are management's responsibility. Management is responsible for all the statements and schedules, and for ensuring that this information is consistent, where appropriate, with the information contained in the financial statements.

Management is also responsible for implementing and maintaining a system of internal controls to provide reasonable assurance that reliable financial information is produced. The Board of Directors is responsible for approving the financial statements and for ensuring that management fulfills its responsibilities for financial reporting and internal control.

The external auditors, BDO Canada LLP, conduct an independent examination, in accordance with Canadian Auditing Standards, and express their opinion on the financial statements. Their examination does not relate to the other schedules and statements required by the *Financial Information Act*. The Independent Auditor's Report outlines the scope of the audit for the year ended December 31, 2021.

On behalf of Metro Vancouver Housing Corporation.

Dean Rear, Chief Financial Officer

Date: April 29, 2022

Independent Auditor's Report

To the Members of the Board of Directors of the Metro Vancouver Housing Corporation

Opinion

We have audited the financial statements of the Metro Vancouver Housing Corporation (the "Corporation"), which comprise the Statement of Financial Position as at December 31, 2021, and the Statements of Operations, Change in Net Debt and Cash Flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Corporation as at December 31, 2021, and the results of its operations, change in net debt and cash flows for the year then ended in accordance with Canadian public sector accounting standards.

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Corporation in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian public sector accounting standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Corporation's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Corporation or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Corporation's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Corporation's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Corporation's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Corporation to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Chartered Professional Accountants

Vancouver, British Columbia
DATE

METRO VANCOUVER HOUSING CORPORATION

Exhibit A

Statement of Financial Position

Year ended December 31, 2021

	2021	2020
Financial Assets		
Accounts receivable	\$ 623,427	\$ 6,225,698
Due from Metro Vancouver Regional District	61,528,240	50,049,682
	62,151,667	56,275,380
Liabilities		
Accounts payable and accrued liabilities (note 3)	5,051,559	3,889,696
Deferred revenue and refundable deposits (note 4)	6,535,981	5,650,394
Mortgages and loans payable (note 5)	54,518,957	58,362,487
	66,106,497	67,902,577
Net Debt	(3,954,830)	(11,627,197)
Non-Financial Assets		
Tangible capital assets (note 6)	105,843,374	103,424,964
Prepaid land leases (note 7)	5,062,302	5,257,101
Prepaid expenses	784,143	721,541
	111,689,819	109,403,606
Accumulated surplus (note 8)	\$ 107,734,989	\$ 97,776,409

Contractual obligations (note 9)

Contingencies (note 10)

COVID-19 (note 12)

The accompanying notes are an integral part of these financial statements.

Director

Director

METRO VANCOUVER HOUSING CORPORATION

Exhibit B

Statement of Operations

Year ended December 31, 2021

	2021 Budget (note 11)	2021 Actual	2020 Actual
Revenue			
Property rental	\$ 41,303,421	\$ 42,416,407	\$ 41,607,050
Contributions:			
Canada Mortgage and Housing Corporation	-	-	51,945
British Columbia Housing Management Commission	2,348,616	1,749,788	935,526
Grants and other contributions	8,500,000	120,703	6,768,542
Interest income	942,813	655,358	717,921
Other revenues	801,468	900,466	841,168
	53,896,318	45,842,722	50,922,152
Expenses			
Asset repairs and maintenance	19,731,520	16,866,033	14,973,808
Amortization of tangible assets and prepaid land leases	2,108,764	3,212,445	2,080,628
Utilities, permits and taxes	6,784,708	4,454,801	1,083,414
Salaries and benefits	6,337,498	6,411,113	6,170,660
Interest and fees on long-term debt	1,589,757	1,265,098	1,410,783
Corporate costs	2,482,827	2,095,291	2,080,032
Consulting, contracted and professional services	1,008,314	632,423	661,159
Other	923,675	778,431	835,314
Materials and supplies	189,306	168,507	188,639
	41,156,369	35,884,142	29,484,437
Annual surplus	12,739,949	9,958,580	21,437,715
Accumulated surplus, beginning of year	97,776,409	97,776,409	76,338,694
Accumulated surplus, end of year	\$ 110,516,358	\$ 107,734,989	\$ 97,776,409

The accompanying notes are an integral part of these financial statements.

METRO VANCOUVER HOUSING CORPORATION

Exhibit C

Statement of Change in Net Debt

Year ended December 31, 2021

	2021 Budget (note 11)	2021 Actual	2020 Actual
Annual surplus	\$ 12,739,949	\$ 9,958,580	\$ 21,437,715
Change in tangible capital assets			
Acquisition of tangible capital assets	(39,600,000)	(5,436,056)	(6,424,255)
Amortization of tangible capital assets	1,913,965	3,017,646	1,885,829
	(37,686,035)	(2,418,410)	(4,538,426)
Change in other non-financial assets			
Payment of prepaid expenses	-	(784,143)	(721,541)
Use of prepaid expenses	-	721,541	663,092
Amortization of prepaid land leases	194,799	194,799	194,799
	194,799	132,197	136,350
Change in net debt	(24,751,287)	7,672,367	17,035,639
Net debt, beginning of year	(11,627,197)	(11,627,197)	(28,662,836)
Net debt, end of year	\$ (36,378,484)	\$ (3,954,830)	\$ (11,627,197)

The accompanying notes are an integral part of these financial statements.

METRO VANCOUVER HOUSING CORPORATION

Exhibit D

Statement of Cash Flows

Year ended December 31, 2021

	2021	2020
Cash provided by (used in):		
Operating transactions:		
Annual surplus	\$ 9,958,580	\$ 21,437,715
Items not involving cash		
Amortization of tangible capital assets	3,017,646	1,885,829
Amortization of prepaid land leases	194,799	194,799
Change in non-cash assets and liabilities		
Accounts receivable	5,602,271	(5,808,602)
Accounts payable and accrued liabilities	1,161,863	(2,707,552)
Deferred revenue and refundable deposits	885,587	913,735
Prepaid expenses	(62,602)	(58,449)
Net change in cash from operating transactions	20,758,144	15,857,475
Capital transactions:		
Acquisition of tangible capital assets	(5,436,056)	(6,424,255)
Financing transactions:		
Due from Metro Vancouver Regional District	(11,478,558)	(12,658,329)
Mortgage issued	-	13,334,706
Reduction of forgivable loan	-	(6,685,520)
Principal repayments on mortgages and loans	(3,843,530)	(3,424,077)
Net change in cash from financing transactions	(15,322,088)	(9,433,220)
Net change in cash and cash equivalents	-	-
Cash and cash equivalents, beginning of year	-	-
Cash and cash equivalents, end of year	\$ -	\$ -

The accompanying notes are an integral part of these financial statements.

METRO VANCOUVER HOUSING CORPORATION

Notes to Financial Statements, page 1

Year ended December 31, 2021

1. Significant Accounting Policies

The Metro Vancouver Housing Corporation ("MVHC" or the "Corporation") is a wholly-owned subsidiary of the Metro Vancouver Regional District ("MVRD").

The MVHC is incorporated under the Business Corporations Act (British Columbia) as a not-for-profit corporation for the purpose of supplying public rental accommodation, and is exempt from income taxes.

The Corporation's financial statements are prepared by management in accordance with Canadian public sector accounting standards ("PSAS"). Significant accounting policies adopted by the MVHC are as follows:

Basis of Accounting

The Corporation follows the accrual method of accounting for revenue and expenses. Revenue is recognized in the year in which they are earned and measurable. Expenses are recognized as they are incurred and measurable as a result of the receipt of goods or services and/or the legal obligation to pay.

Government Transfers

Government transfers are recognized as revenue in the financial statements when the transfer is authorized and any eligibility criteria are met, except to the extent that transfer stipulations give rise to an obligation that meets the definition of a liability. The transfer of revenue is initially deferred and then recognized in the statement of operations as the stipulation liabilities are settled.

When the Corporation is deemed the transferor, the transfer expense is recognized when the recipient is authorized and has met the eligibility criteria.

Deferred Revenue and Refundable Deposits

Deferred revenues represent tenant security deposits, restricted contributions and revenues, and rental income which have been collected, but which the related services or obligations have yet to be performed. These amounts will be recognized as revenues in the fiscal year the services are performed or obligations have been met.

Amounts received under the following programs have been recorded as deferred revenue:

- i) Rental Operations: Under operating agreements entered into with Canada Mortgage and Housing Corporation ("CMHC") and administered by BCHMC (Homes BC, Seniors and Investment in Housing Innovation properties), a portion of the funds received from rental operations are restricted and can only be used by MVHC according to the terms of the agreements. Restricted amounts are recorded as deferred revenue and are used when expenditures exceed revenue in the program.

METRO VANCOUVER HOUSING CORPORATION

Notes to Financial Statements, page 2

Year ended December 31, 2021

1. Significant Accounting Policies (continued)

Deferred Revenue and Refundable Deposits (continued)	ii) Replacement Projects: Under operating agreements entered into with Canada Mortgage and Housing Corporation ("CMHC") and administered by BCHMC (Homes BC, Seniors and Investment in Housing Innovation properties), a portion of the funds received from rental operations are restricted for the replacement of equipment and specified building components. These funds are deferred until spent on approved items.
Interest Income	Interest income is reported as revenue in the period earned. When required, based on external requirements, interest income earned on deferred revenue and refundable deposits is added to and forms part of the deferred revenue and refundable deposit balance.
Cash and Investments	In order to improve cash management, Metro Vancouver Districts and MVHC accumulate cash and investment transactions in pooled accounts held by the MVRD. MVHC's cash is therefore presented as due from Metro Vancouver Regional District. Investments held by the MVRD consist of bonds issued by governments and Canadian chartered banks, money market instruments, guaranteed investment certificates and term deposits. Interest earned on MVHC's fund balances is included in the amount owing from MVRD and is recorded as interest income in the Statement of Operations.
Employee Future Benefits	<p>Employees who provide services for MVHC are employees of the MVRD. Employee related costs are allocated by the MVRD to MVHC based on services rendered. These costs are shown as expenses in the financial statements and are included in amounts owing from MVRD.</p> <p>Post-employment benefits of the MVRD, including accumulated banked sick and vacation pay, retirement severance and Worker's Compensation top-up benefits for employees pursuant to certain policies and union agreements, are actuarially determined based on service and best estimates of retirement ages and expected future salary and wage increases. The obligation under these benefit plans is allocated to MVHC based on projected benefits as the employees render services necessary to earn the future benefits and included in amounts owing to the MVRD.</p>

METRO VANCOUVER HOUSING CORPORATION

Notes to Financial Statements, page 3

Year ended December 31, 2021

1. Significant Accounting Policies (continued)

Non-financial assets Non-financial assets are not available to discharge existing liabilities and are held for use in the provision of services. They have useful lives extending beyond the current year and are not intended for sale in the ordinary course of operations.

Tangible Capital Assets Tangible capital assets are recorded at cost, which includes amounts that are directly attributable to acquisition, construction, development or betterment of the asset. The cost, less residual value, of the tangible capital assets, excluding land, is amortized on a straight-line basis over the estimated useful lives of the assets as follows:

Asset	Useful Life - Years
Buildings	
Manor House and Regal Hotel	25
Other buildings	35
Furniture and fixtures	6 - 10

1) Annual amortization:

Annual amortization begins when the asset is put into service and is expensed over its useful life. Assets under construction are transferred to the appropriate asset class and are amortized from the date the asset is put into productive use.

2) Interest capitalization:

The MVHC capitalizes interest and property taxes incurred to the date of completion of the project.

Prepaid Land Leases Prepaid land leases are recorded at historical cost less accumulated amortization. Upon expiration of the lease contract, the property will revert to the lessor. Prepaid land leases are amortized on a straight-line basis over the lease term.

METRO VANCOUVER HOUSING CORPORATION

Notes to Financial Statements, page 4

Year ended December 31, 2021

1. Significant Accounting Policies (continued)

Financial Instruments

Financial instruments are recorded at fair value on initial recognition.

Unrealized changes in fair value are recognized in the Statement of Remeasurement Gains and Losses until they are realized, when they are transferred to the Statement of Operations.

Financial instruments are adjusted by transaction costs incurred on acquisition and financing costs, which are amortized using the straight-line method.

All financial assets are assessed for impairment on an annual basis. When a decline is determined to be other than temporary, the amount of the loss is reported in the Statement of Operations and any unrealized gain is adjusted through the Statement of Remeasurement Gains and Losses.

When the asset is sold, the unrealized gains and losses previously recognized in the Statement of Remeasurement Gains and Losses are reversed and recognized in the Statement of Operations.

There are no financial instruments carried at fair value as at year end and as a result, the Statement of Remeasurement Gains and Losses has not been prepared.

Functional and Segmented Presentation of Revenue and Expenses

A segment is defined as a distinguishable activity or group of activities of a government for which it is appropriate to separately report financial information to achieve the objectives of the standard. Management believes that MVHC's activities are comprised of only one segment and hence no additional disclosure is required. Furthermore, as the operations of MVHC are comprised of a single function, supply of public rental accommodation, the Statement of Operations presents revenue and expenses by object.

Revenue Recognition

Property rental income, contributions and other revenues are recognized as revenue on an accrual basis. Housing property rental revenue is recognized over the rental period once the tenant commences occupancy, rent is due and collection is assured. Annual property rental increases are based on rates established by provincial tenancy legislation. Contributions from CMHC and BCHMC are based on provisions set in agreements and outlined in note 2.

METRO VANCOUVER HOUSING CORPORATION

Notes to Financial Statements, page 5

Year ended December 31, 2021

1. Significant Accounting Policies (continued)

Liability for Contaminated Sites A liability for remediation of a contaminated site is recognized when the site is no longer in productive use and the following criteria are satisfied; an environmental standard exists; contamination exceeds the standard; MVHC is either directly responsible or has accepted responsibility for remediation; it is expected that future economic benefits will be given up and a reasonable estimate of the liability can be made.

Use of Estimates The preparation of these financial statements requires management to make estimates and assumptions that affect the reported amounts and disclosure of contingent liabilities, in the financial statements. These estimates and assumptions are based on management's best information and judgment and may differ from actual results. Adjustments, if any, will be reflected in the financial statements in the period that the change in estimate is made, as well as in the period of settlement if the amount is different.

Significant areas requiring the use of management's judgment relate to the determination of contaminated sites liabilities, the amortization rates of tangible capital assets and the assessment of the outcome of contingent liabilities.

2. Senior Government Assistance

BCHMC is the administrator and provides the related government assistance for all of MVHC's Federal programs and Provincial operating agreements (Homes BC and Seniors programs). In 2007, CMHC devolved its operations relating to the MVHC's federal programs to BCHMC, which provides BCHMC with the authority to manage MVHC's federal programs.

Details of senior government assistance are as follows:

CMHC mortgage insurance Pursuant to Section 6 of the NHA, CMHC has undertaken to insure mortgages payable by the MVHC.

NHA Section 82.1(a) and 82.1(b) subsidy Rental supplements are authorized under Section 82.1(a) and 82.1(b) of the NHA and are funded jointly by BCHMC on behalf of the both the Federal Government and the Province of British Columbia.

METRO VANCOUVER HOUSING CORPORATION

Notes to Financial Statements, page 6

Year ended December 31, 2021

3. Accounts Payable and Accrued Liabilities

	2021	2020
Trade accounts	\$ 4,649,286	\$ 3,518,905
Construction holdbacks	314,806	272,599
Accrued interest on mortgages and debenture debt	87,467	98,192
	\$ 5,051,559	\$ 3,889,696

4. Deferred Revenue and Refundable Deposits

	2021	2020
Externally restricted funds for programs under BCHMC Agreements:		
Rental operations	\$ 47,320	\$ 46,771
Replacement provisions	3,375,308	3,245,157
	3,422,628	3,291,928
MVHC tenant security deposits	2,097,391	2,041,598
Rent and subsidies received in advance	394,878	316,868
Grant received in advance	621,084	-
Total	\$ 6,535,981	\$ 5,650,394

	2021	2020
Balance, beginning of year	\$ 5,650,394	\$ 4,736,659
Contributions received	1,419,568	2,165,983
Contributions earned	(667,784)	(1,379,056)
Change in security deposits and prepaid rents	133,803	126,808
Change in deferred revenue	885,587	913,735
Balance, end of year	\$ 6,535,981	\$ 5,650,394

METRO VANCOUVER HOUSING CORPORATION

Notes to Financial Statements, page 7

Year ended December 31, 2021

5. Mortgages and Loans Payable

- a) MVHC's loans for Cedarwood, Crown Manor, Earle Adams, Euclid Square, Grandview Gardens, Kelly Court, Manor House, Regal Hotel and Semlin Terrace are financed through the MVRD at MVRD's internal variable rate which was 1.30% in 2021 (2020 - 2.00%). Financing arrangements are approved through the Boards of MVRD and MVHC and renewed every 5 years. There are no charges or liens on these properties.
- b) Mortgages and loans outstanding (see note 5(d)) are expected to be renegotiated on a long-term basis. Annual principal repayments assuming extension to maturity are as follows:

	Payments for MVRD Loans		Payments for Mortgages		Total Payments
2022	\$	923,583	\$	2,693,154	\$ 3,616,737
2023		923,583		2,604,578	3,528,161
2024		923,583		2,654,963	3,578,546
2025		923,583		2,721,853	3,645,436
2026		923,583		2,790,528	3,714,111
Thereafter		4,560,081		31,875,885	36,435,966
Total	\$	9,177,996	\$	45,340,961	\$ 54,518,957

- c) Properties funded by BCHMC mortgages are collateralized by a general assignment of rents and the benefit of all covenants and agreements included in any lease.
- d) Mortgages and loans are comprised of the following and includes varying maturities up to 2055 with interest rates ranging from 1.30% to 4.87%.

METRO VANCOUVER HOUSING CORPORATION

Notes to Financial Statements, page 8

Year ended December 31, 2021

5. Mortgages and Loans Payable (continued)

Rental Property	Financed by	Interest Rate - %	Renewal Date	Expected Maturity Date	2021	2020
Investment in Housing Innovation Projects:						
Heather Place A	Other	1.44	December 1, 2030	December 1, 2055	\$ 13,039,238	\$ 13,334,706
Total Investment in Housing Innovation projects					13,039,238	13,334,706
Seniors projects:						
Alderwood Place	CHMC	2.55	-	July 1, 2027	1,487,817	1,732,592
Cedarwood Place	CHMC	2.39	-	January 1, 2023	179,732	341,327
Cedarwood Place	MVRD	1.30	July 1, 2024	July 1, 2038	3,508,789	3,715,165
Total Seniors projects					5,176,338	5,789,084
Homes BC projects:						
Chateau de Ville	Other	4.87	July 1, 2027	July 1, 2035	6,840,730	7,191,408
Claude Douglas	Other	2.56	November 1, 2029	November 1, 2036	1,847,421	1,947,898
Fraserwood	Other	1.44	December 1, 2030	December 1, 2035	3,080,169	3,277,419
Inlet Centre Residences	Other	1.58	October 1, 2030	October 1, 2038	5,178,448	5,445,241
Maplewood	Other	2.62	May 1, 2027	May 1, 2037	2,329,800	2,450,947
Odlinwood	Other	2.03	August 1, 2026	August 1, 2036	4,357,318	4,609,865
Total Homes BC projects					23,633,886	24,922,778
MVHC projects:						
Crown Manor	MVRD	1.30	July 15, 2024	July 15, 2038	649,208	687,882
Earle Adams Village	MVRD	1.30	June 1, 2022	June 1, 2027	1,590,405	1,855,503
Euclid Square	MVRD	1.30	June 1, 2022	June 1, 2027	467,186	545,051
Grandview Gardens	MVRD	1.30	June 1, 2022	June 1, 2027	333,419	388,989
Kelly Court	MVRD	1.30	June 1, 2022	June 1, 2027	661,665	771,943
Manor House	MVRD	1.30	March 15, 2024	March 15, 2038	1,088,218	1,152,865
Meridian Village	Other	2.46	September 1, 2026	July 1, 2031	4,403,694	4,806,243
Minato West	Other	2.22	October 1, 2021	October 1, 2031	2,596,594	2,819,042
Regal Place Hotel	MVRD	1.30	March 15, 2024	March 15, 2038	386,367	409,319
Semlin Terrace	MVRD	1.30	June 1, 2022	June 1, 2027	492,739	574,862
St. Andrews Place	Other	3.29	-	October 1, 2021	-	304,220
Total MVHC projects					12,669,495	14,315,919
Total mortgages and loans payable					\$ 54,518,957	\$ 58,362,487
Mortgages and loans payable consists of:						
Loans payable to MVRD					\$ 9,177,996	\$ 10,101,579
Mortgages payable to CMHC and financial institutions					45,340,961	48,260,908
Total mortgages and loans payable					\$ 54,518,957	\$ 58,362,487

METRO VANCOUVER HOUSING CORPORATION

Notes to Financial Statements, page 9

Year ended December 31, 2021

6. Tangible Capital Assets

Year ended December 31, 2021									
	Cost			Balance at December 31, 2021	Accumulated Amortization				Net book value December 31, 2021
	Balance at December 31, 2020	Additions	Disposals		Balance at December 31, 2020	Disposals	Amortization Expense	Balance at December 31, 2021	
Land	\$ 52,274,381	\$ -	\$ -	\$ 52,274,381	\$ -	\$ -	\$ -	\$ -	\$ 52,274,381
Buildings	220,575,387	(235,781)	-	220,339,606	174,053,428	-	2,491,050	176,544,478	43,795,128
Furniture & fixtures	6,463,268	479,849	(503,659)	6,439,458	4,719,772	(503,659)	526,596	4,742,709	1,696,749
Construction in progress	2,885,128	5,191,988	-	8,077,116	-	-	-	-	8,077,116
	\$ 282,198,164	\$ 5,436,056	\$ (503,659)	\$ 287,130,561	\$ 178,773,200	\$ (503,659)	\$ 3,017,646	\$ 181,287,187	\$ 105,843,374
Year ended December 31, 2020									
	Cost			Balance at December 31, 2020	Accumulated Amortization				Net book value December 31, 2020
	Balance at December 31, 2019	Additions	Disposals		Balance at December 31, 2019	Disposals	Amortization Expense	Balance at December 31, 2020	
Land	\$ 52,274,381	\$ -	\$ -	\$ 52,274,381	\$ -	\$ -	\$ -	\$ -	\$ 52,274,381
Buildings	192,173,219	28,402,168	-	220,575,387	172,633,282	-	1,420,146	174,053,428	46,521,959
Furniture & fixtures	6,462,008	435,582	(434,322)	6,463,268	4,688,411	(434,322)	465,683	4,719,772	1,743,496
Construction in progress	25,298,623	(22,413,495)	-	2,885,128	-	-	-	-	2,885,128
	\$ 276,208,231	\$ 6,424,255	\$ (434,322)	\$ 282,198,164	\$ 177,321,693	\$ (434,322)	\$ 1,885,829	\$ 178,773,200	\$ 103,424,964

There was no write-down of tangible capital assets during the year (2020 - \$nil).

METRO VANCOUVER HOUSING CORPORATION

Notes to Financial Statements, page 10

Year ended December 31, 2021

7. Prepaid Land Leases

	2021	2020
Balance, beginning of year	\$ 5,257,101	\$ 5,451,900
Amortization	(194,799)	(194,799)
Balance, end of year	\$ 5,062,302	\$ 5,257,101

The lease terms for the properties are as follows:

Asset	Lease Expiry Dates	Lease Term (Years)
Buildings		
Habitat Villa	February 2029	50
Walnut Gardens	May 2026	42
Other prepaid land leases	May 2036 to June 2062	60

8. Accumulated Surplus

Accumulated surplus consists of authorized and issued 2,000 common shares with a par value of \$1 per share and individual fund surplus and reserves as follows:

	2021	2020
Reserves	\$ 51,346,270	\$ 47,454,831
Capital fund	5,062,302	5,257,101
Investment in tangible capital assets	51,324,417	45,062,477
Share capital	2,000	2,000
	\$ 107,734,989	\$ 97,776,409

Continuity of reserves is as follows:

	2021	2020
Balance, beginning of year	\$ 47,454,831	\$ 27,135,634
Interest	535,652	533,299
Contribution (to) from operations	(7,075,873)	(3,935,249)
Contribution from (to) capital	(4,859,212)	7,346,033
Annual operating surplus	15,290,872	16,375,114
	\$ 51,346,270	\$ 47,454,831

METRO VANCOUVER HOUSING CORPORATION

Notes to Financial Statements, page 11

Year ended December 31, 2021

8. Accumulated Surplus (continued)

Investment in tangible capital assets is calculated as follows:

	2021	2020
Tangible capital assets	\$ 105,843,374	\$ 103,424,964
Amounts financed by:		
Long-term debt	(54,518,957)	(58,362,487)
	\$ 51,324,417	\$ 45,062,477

The change in investment in tangible capital assets is as follows:

	2021	2020
Change in the investment in tangible capital assets		
Acquisition of tangible capital assets	\$ 5,436,056	\$ 6,424,255
Amortization of tangible capital assets	(3,017,646)	(1,885,829)
	2,418,410	4,538,426
Less financing of tangible capital assets through debt		
Payment of long-term debt	(3,843,530)	(3,424,077)
Reduction of forgivable loan	-	(6,685,520)
External mortgage	-	13,334,706
	(3,843,530)	3,225,109
Change in investment in tangible capital assets	6,261,940	1,313,317
Investment in tangible capital assets, beginning of year	45,062,477	43,749,160
Investment in tangible capital assets, end of year	\$ 51,324,417	\$ 45,062,477

9. Contractual Obligations

a) Contractual Obligations

- i) As at December 31, 2021, the Corporation had the following commitments relating to projects in progress.

Authorized and Outstanding Projects	Expended at December 31	Total 2021	Total 2020
\$ 354,400,000	\$ (8,077,115)	\$ 346,322,885	\$ 79,814,872

METRO VANCOUVER HOUSING CORPORATION

Notes to Financial Statements, page 12

Year ended December 31, 2021

10. Contingencies

Lawsuits

As at December 31, 2021, there were various lawsuits pending against the Corporation arising in the ordinary course of business. The Corporation has retained legal counsel to defend against these lawsuits. Where the outcomes or amounts cannot be reasonably determined, no liability has been recorded. None of these lawsuits are anticipated to result in a material loss to the Corporation. Management is of the opinion that losses, if any, in connection with these lawsuits can be sufficiently funded by reserve funds or covered by insurance. Any expected losses will be accrued and recorded as expenses at the time they are considered likely and amounts are reasonably determinable.

Self Insurance Reserve

A self insurance reserve has been established within the MVRD to cover losses resulting from uninsured liability exposures of the Metro Vancouver Districts and the MVHC.

Each year a review is undertaken to determine if it would be beneficial to purchase liability insurance. The MVRD, its related Districts and the MVHC transfer amounts to the reserve depending on the reserve's adequacy to cover retained liability risk.

An estimate is made for all costs of investigating and settlement of claims incurred annually and an adjustment is made to the fund to maintain an adequate balance to cover potential losses in excess of recorded liabilities. These adjustments are changed as additional information becomes known during the course of claims settlement. Any likely losses would be expensed by at the time the losses are known and the amounts are reasonably determinable.

BC Homes Repayable Assistance

Under the operating agreements, the cumulative Non-Rent Geared to Income (Non-RGI) assistance is contingently repayable to BCHMC in the event that BCHMC's unit rent contribution for any unit exceeds the economic or breakeven rent of the units occupied by Non-RGI tenants in any year. MVHC is required to commence repayment of the cumulative Non-RGI assistance on the first day of the fiscal year following the fiscal year in which the preceding event occurs. The balance then bears interest at bank prime and the required monthly payments are set annually based upon the amount by which Non-RGI BCHMC's unit rent contributions exceed economic rent for these units in the prior year. Currently the estimated total Repayable Assistance at December 31, 2021 is \$nil (2020 - \$nil). However, the balance will be reconciled and finalized once BCHMC completes the financial review for the fiscal year ended December 31, 2021.

METRO VANCOUVER HOUSING CORPORATION

Notes to Financial Statements, page 13

Year ended December 31, 2021

10. Contingencies (continued)

BCHMC Grant Funding

In 2018 MVHC entered into a forgivable loan agreement (the "Agreement") with BC Housing Management Commission for funding for the Heather Place Facility. MVHC received funding in the amounts of \$5,137,797 and \$1,547,723 in 2018 and 2019, respectively. The loan term is 35 years and is forgivable in the amount of 1/25th of the final balance of \$6,685,520 commencing in the 11th year after completion of construction and commencement of operations, which occurred in 2020. Upon commencement of operations of the facility, the amount of funding received was recorded as revenue from government transfer as the remaining stipulation of continuing to operate the facility in accordance with the Agreement is not considered to create a liability.

Forgiveness of the loan under the Agreement requires that the property must be continuously used for the provision of housing for eligible occupants and there is no default under the loan or operating agreement. Should a breach in the agreement occur, the outstanding balance of the funding not previously forgiven would need to be repaid to BCHMC immediately. Payments of interest will not be required unless there is a default, which would result in interest being payable on the unforgiven balance of the principal amount then outstanding at prime plus 2% per annum, compounded semi-annually and not in advance. As management does not consider it likely that the amount will be repaid, no liability is recorded in the financial statements.

METRO VANCOUVER HOUSING CORPORATION

Notes to Financial Statements, page 14

Year ended December 31, 2021

11. Budget Information

The annual budget presented in these financial statements is based upon the 2021 operating and capital budgets approved by the Corporation's Board in October 2020. The budget is based on operational and capital expenditure requirements and their associated funding. Amortization is a non-cash item that is not funded for budget purposes. Contributions to or from reserves and debt principal repayments are removed from the approved budget for financial statement presentation. The schedule below reconciles the approved budget to the budget figures reported in these financial statements. Capital expenditures of \$39,600,000 were included in the Capital Budget approved by the Board.

	2021 Budget	2020 Budget
Budgeted annual surplus per Exhibit B	\$ 12,739,949	\$ 16,660,714
Items not included in the operating budget		
Amortization of tangible capital assets and prepaid land lease	2,108,764	2,471,594
Reserve interest	(942,813)	(314,325)
Development grant	(8,500,000)	(8,500,000)
Items included in the budget but not in financial statements		
Debt principal payments	(3,564,408)	(3,424,100)
Transfers to reserves	(1,841,492)	(6,893,883)
Annual surplus per approved budget	\$ -	\$ -

12. COVID-19

The COVID-19 global pandemic, declared in 2020, continued to impact the global economy in 2021. Throughout the pandemic, the Corporation delivered key services to the Metro Vancouver region in line with its mandate. Management continues to monitor the impacts of the pandemic on taxpayers, suppliers and other third party business associates that could impact the timing and amounts realized on the Corporation's assets and ability to provide services to the region. However, to date, the pandemic has not materially impacted revenue streams, expenses, cash flows or caused significant asset impairments.

To: Performance and Audit Committee

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

Date: April 1, 2022 Meeting Date: April 14, 2022

Subject: **2021 Financial Results Year-End**

RECOMMENDATION

That the MVRD Board receive for information the report dated April 1, 2022, titled "2021 Financial Results Year-End".

EXECUTIVE SUMMARY

The final overall operational results for 2021 for Metro Vancouver's functions is a net surplus of close to \$47.2 million on an approved budget of \$943.8 million or approximately 5.0% of the budget. The results were positive for most functions with surpluses realized, which are available in future years to either avoid debt through additional contributions to capital or to pay for future projects or to reduce future tax requisitions, levies or fees to the member municipalities.

In addition, capital program expenditures for Metro Vancouver's functions were underspent for the year by \$819.6 million overall with the majority of the surplus generated in the Utilities - Liquid Waste, Water, Solid Waste and Housing functions -due to delay/deferral of expenditures for several major capital projects to future years. Refer to report titled "Capital Program Expenditures Update".

PURPOSE

To present the Board with the final report on financial performance for the year ending December 31, 2021 as compared to the 2021 annual budget.

BACKGROUND

The Performance and Audit Committee Terms of Reference requires that the Committee be provided, three times per year, an update on the financial performance of the Metro Vancouver Districts and Metro Vancouver Housing Corporation (MVHC) with the report on the year-end results also sent to the Board.

This is the third and final report for 2021, with the results for the year in terms of comparison to the annual budget. Going forward, financial results will be provided quarterly in order to enhance transparency and provide more frequent financial results to the Finance Committee.

HIGHLIGHTS

Operating Results

The final overall operational results for 2021 for Metro Vancouver's functions is a net surplus of \$47.2 million on an approved budget of \$943.8 million or approximately 5.0%. All of the Metro Vancouver's Districts and MVHC were in surplus positions for the 2021 fiscal year. The overall surplus is primarily due to the deferral of some operating and capital projects, staff vacancies, lower miscellaneous operating costs plus lower debt service costs in the utilities. In addition, water sales were higher due to slightly

higher consumption levels and more solid waste tipping fees than were budgeted due to higher waste flows during the year.

Budgets are set and approved based on the best information available at the time of preparation and presentation. Throughout the course of the year, changing operational priorities or unforeseen operational constraints along with pursuing alternate paths and looking for operational efficiencies can lead to actual results differing from original expectations. In accordance with the *Operational, Discretionary and Statutory Reserves Policy*, financial surpluses generated from operations are used for the benefit of either the District or the function from which the surplus was generated, usually by first avoiding or paying down debt, followed by allocation to reserves to be used for future one-time expenditures or to reduce future tax requisitions, levies or fees to the member municipalities. An overview of the 2021 financial performance is provided below. Details, explanations and a trend analysis of some key financial indicators are provided in the attachment.

	Revenues	Operating Expenditures	Capital Funding	Total
	Surplus/(Deficit) millions			
Water District	\$ 2.4	\$ 6.2	\$ (0.2)	\$ 8.4
Sewerage & Drainage				
Liquid Waste Services	(6.2)	16.5	0.4	10.7
Solid Waste Services	4.6	11.7	1.1	17.4
MV Housing Corporation	0.3	5.6	-	5.9
Regional District	(3.2)	8.0	-	4.8
	\$ (2.1)	\$ 48.0	\$ 1.3	\$ 47.2

Regional District: The operating surplus in the Regional District can be mainly attributed to labour underspends related to ongoing recruitment and reduced expenditures related to certain programs, projects and initiatives as a direct result of the pandemic plus delayed costs in Regional Parks. Related to the Regional District's budgets for the year, the COVID-19 pandemic had impacts on expenditures during 2021 and has resulted in lower than anticipated expenditures overall for the year, particularly in several program areas located in General Government Administration, Regional Parks, Regional Planning, Labour Relations (Regional Employer Services), Air Quality and the Housing Planning and Policy functional areas. Also, there was slightly higher than planned miscellaneous revenues received during the year in several functions offset by less reserve usage due to delays/deferrals of several projects/initiatives that were planned in 2021 year.

Water District: The operating surplus is largely due to slightly higher water sales than were budgeted, along with lower operating expenditures resulting from some underspends due to staff vacancies where recruitment efforts continue, and some underspends largely in the water treatment and water supply program expenses due to less consulting, lower than expected repairs and maintenance, reduced chemical and hydro expenditures and less easement acquisitions than anticipated offset by less than budget reserve usage for 2021 due to delayed/deferred Sustainability Innovation project work and equipment purchases. Variances on the capital spend are the result of delays and deferrals of capital projects during 2021.

Liquid Waste: The operating surplus is primarily due to the deferral of some minor capital, residuals and research and innovation program/other consulting work, delayed permit fee increases for the wastewater treatment plants, staff vacancies where recruitment efforts continue combined with slightly lower debt servicing costs due to lower than planned capital expenditures and borrowing. Lower expenditures were partially offset by less reserves/deferred revenue usage due to the project underspends in residuals, research and innovation and less DCC revenue transfers for debt than planned offset by slightly higher revenues for industrial fees and other lease/sundry revenues.

Solid Waste: For 2021, Solid Waste had a surplus of close to \$17.4 million compared to the planned contribution to reserves of \$4.4 million for a net gain of \$13.0 million. Net revenues were higher by close to \$4.6 million primarily due to higher waste flows. Expenses were lower than budget by \$8.4 million due primarily to lower operational/facility costs, consulting and debt servicing expenditures.

Metro Vancouver Housing Corporation: The surplus position for 2021 is primarily due to less than expected expenditures for property operations and capital replacement due to the pandemic, exemption for property taxes, and slightly higher tenant rents offset by less use of reserves for capital replacement.

Centralized support programs finished in a surplus position for 2021 of approximately \$1.9 million primarily due to staff vacancies in a number of support functions as recruitment efforts continue, as well as underspends for delayed project work.

Budget Surplus Compared to Financial Statement Surplus

Metro Vancouver is required to prepare balanced budgets by its enabling legislation, however the budget information reported on the financial statements must be per public sector accounting standards. This creates a difference between the reported annual surplus on the financial statements and the surplus to budget. The table below reconciles that difference (in \$ thousands):

Annual surplus per consolidated Statement of Operations (Exhibit B)	\$ 435,058
Items not included in the operating budget:	
Amortization of tangible capital assets	86,610
Loss (gain) on disposal of assets	(367)
Sinking fund and debt retirement income	(25,748)
Reserve interest	(4,323)
Deferred revenue contributions	131
Capital grants and other income	(80,212)
Corporate programs revenue (excluding reserve funding)	(11,231)
Items not included in budget but not in financial statements:	
Sinking fund and debt retirement payments	(109,169)
Transfers to capital fund	(211,063)
Transfers from reserve funds	(32,467)
Annual surplus per Financial Performance Report	<u>\$ 47,219</u>

Capital Results

Overall capital expenditures for Metro Vancouver for 2021 were under budget by \$818.4 million. The majority of the under spend variance is related to the three utilities. The underspend in capital is a key contributor to the lower debt servicing costs noted above for all three of the utilities. The 2021 budget anticipated \$941.0 million in borrowing for Water Services, Liquid Wates Services and Solid Waste Services for the year, however, only \$600.0 million in new borrowing was undertaken for major capital projects, contributing to the slightly less than budget Utilities debt servicing costs.

The summary of 2021 Capital Expenditures is as follows:

	2021 Budget*	2021 Actual	Variance
	Surplus/(Deficit) millions		
Water District	\$ 431.3	\$ 214.9	\$ 216.4
Sewerage & Drainage			
Liquid Waste Services	934.5	420.9	513.6
Solid Waste Services	96.3	46.2	50.1
MV Housing Corporation	49.1	13.9	35.2
Regional Parks	26.5	22.2	4.3
	\$ 1,537.7	\$ 718.1	\$ 819.6

*Includes annual budget amounts plus additions approved by the Board during the year

Further discussion on capital results is included in the report titled "2021 Capital Program Expenditure Update" dated March 24, 2022.

FINANCIAL INDICATORS

The table below summarizes the list of financial indicators used to show Metro Vancouver's ability to provide services to the region on a sustainable basis. Detailed calculations and explanations are included in Attachment 1.

	2020 Actual	2021 Actual
Municipal Property Tax and Levies/Total Revenue	39.8%	39.2%
Current Ratio (current asset to current liabilities)	2.8 to 1	3.2 to 1
Debt Service Costs/Total Revenue	16.5%	17.9%
Interest Costs/Total Revenue	5.9%	6.4%
Operating Reserves/Total Revenue	10.6%	12.5%
Total Municipal Taxes, Water, Sewer and Solid Waste Charges Per Capita	\$271	\$289

ALTERNATIVES

This report is provided for information. No alternatives are presented.

FINANCIAL IMPLICATIONS

This report provides information on the results of 2021 operations which generated a surplus of \$47.2 million. This surplus is available in future years to either avoid debt through additional contributions to

capital or to pay for future projects or to reduce future tax requisitions, levies or fees to the member municipalities.

SUMMARY / CONCLUSION

Overall, the 2021 financial results for the Metro Vancouver entities and functions were generally favourable to budget with a surplus of \$47.2 million.

Attachments:

Attachment 1 – 2021 Financial Performance

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Metro Vancouver Districts 2021 Financial Performance

April 2022

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**METRO VANCOUVER DISTRICTS
SURPLUS TO BUDGET
2021 FINANCIAL PLAN**

	2021 ORIGINAL BUDGET	BUDGET ADJUSTMENTS APRIL 2021	2021 AMENDED BUDGET	2021 YEAR-END FINAL	2021 ACTUAL VARIANCE
REVENUES					
Water Sales	\$ 316,341,192	\$ -	\$ 316,341,192	\$ 319,989,323	\$ 3,648,131
Liquid Waste Services Levy	288,225,540	-	288,225,540	288,225,540	-
Solid Waste Tipping Fees	108,516,645	-	108,516,645	112,609,847	4,093,202
Metro Vancouver Regional District Requisitions	80,939,658	-	80,939,658	80,939,658	-
Compensation Services Revenue	484,531	-	484,531	484,531	-
Collective Bargaining Services Revenue	900,427	-	900,427	900,427	-
Housing Rents	41,303,421	-	41,303,421	42,477,650	1,174,229
Liquid Waste Industrial Charges	11,756,424	-	11,756,424	12,157,191	400,767
Energy Sales	6,239,530	-	6,239,530	5,778,816	(460,714)
Transfer from DCC Reserves	43,145,119	-	43,145,119	42,204,285	(940,834)
User Fees	5,184,946	-	5,184,946	5,429,754	244,808
Housing Mortgage Subsidies	2,099,058	-	2,099,058	1,880,489	(218,569)
Non-Road Diesel Permit Fees	1,365,000	-	1,365,000	1,503,633	138,633
Regional Global Positioning System User Fees	288,091	-	288,091	288,091	-
Electoral Area Requisition	389,401	-	389,401	389,401	-
Love Food Hate Waste	492,000	-	492,000	419,114	(72,886)
Zero Waste Conference	325,000	-	325,000	48,509	(276,491)
Other External Revenues	11,537,524	-	11,537,524	15,071,528	3,534,004
Transfer from Sustainability Innovation Fund Reserve	2,102,001	4,354,882	6,456,883	1,447,871	(5,009,012)
Transfer from Reserves	17,852,993	-	17,852,993	9,510,178	(8,342,815)
TOTAL REVENUES	\$ 939,488,501	\$ 4,354,882	\$ 943,843,383	\$ 941,755,836	\$ (2,087,547)
EXPENDITURES					
Operating Programs:					
Greater Vancouver Water District	\$ 318,631,748	1,486,934	\$ 320,118,682	\$ 314,154,637	\$ (5,964,045)
Greater Vancouver Sewerage & Drainage District:					
Liquid Waste	353,356,111	1,049,675	354,405,786	337,486,003	(16,919,783)
Solid Waste	118,512,571	-	118,512,571	105,741,364	(12,771,207)
Metro Vancouver Housing Corporation	53,692,021	-	53,692,021	48,059,092	(5,632,929)
Metro Vancouver Regional District					
Air Quality	11,683,020	877,667	12,560,687	10,169,520	(2,391,167)
E911 Emergency Telephone Service	4,633,573	-	4,633,573	4,540,752	(92,821)
Electoral Area Service	678,891	-	678,891	681,228	2,337
General Government Administration	5,681,876	-	5,681,876	5,334,999	(346,877)
General Government Zero Waste Collaboration Initiatives	1,660,020	-	1,660,020	1,268,869	(391,151)
Housing Planning and Policy	6,221,486	333,426	6,554,912	6,085,442	(469,470)
Regional Economic Prosperity/Invest Vancouver	1,530,000	-	1,530,000	1,555,859	25,859
Regional Emergency Management	228,945	-	228,945	45,534	(183,411)
Regional Employer Services/Labour Relations	3,102,235	-	3,102,235	2,624,476	(477,759)
Regional Global Positioning System	324,719	-	324,719	253,762	(70,957)
Regional Parks	54,561,963	323,410	54,885,373	52,932,117	(1,953,256)
Regional Planning	3,855,768	283,770	4,139,538	3,101,416	(1,038,122)
Sasamat Fire Protection Service	1,133,554	-	1,133,554	502,213	(631,341)
	95,296,050	1,818,273	97,114,323	89,096,187	(8,018,136)
TOTAL EXPENDITURES	\$ 939,488,501	\$ 4,354,882	\$ 943,843,383	\$ 894,537,283	\$ (49,306,100)
2021 ACTUAL SURPLUS TO BUDGET					\$ 47,218,553

**Metro Vancouver Districts
2021 Financial Performance
District Summaries**

Greater Vancouver Water District

The Water District is in a surplus position of approximately \$8.4 million for the 2021 fiscal year.

Total Water District revenues, overall, exceeded budget by approximately \$2.5 million for 2021 primarily due to water sales exceeding expected results by close to \$3.6 million more than budget. Water consumption levels were approximately .7% more than budget for the 2021 year. In addition to the excess water sales, there were higher lease and other external revenues of close to \$500,000 offset by \$1.6 million in less reserve usage (due to reduced/delayed approved SIF project spending.)

Water District expenditures came in approximately \$6.0 million lower than budget due primarily to delays in Sustainability Innovation Fund (SIF) project work and equipment purchases (\$1.6 million), delays in corrosion control implementation (close to \$800,000) and delays in easement acquisition (close to \$300,000.) Staff vacancies where recruitment efforts continue and some consulting/repair projects under budget contributed close to \$3.3 million in further underspends to the 2021 surplus.

The 2021 generated operations surplus will be applied to capital to avoid future debt requirements.

Greater Vancouver Sewerage and Drainage District

❖ Liquid Waste

Liquid Waste Services realized a surplus of \$10.7 million primarily due to operational expenditure surpluses of \$16.5 million, a debt surplus of \$0.4 million offset by lower than budget revenues of \$6.2 million. The breakdown of the surpluses to each of the Sewerage areas and Drainage is as follows: Vancouver Sewer Area \$4.0 million, North Shore Sewer Area \$2.1 million, Lulu Island Sewer Area \$0.9 million, Fraser Sewer Area \$3.8 million offset by an overall deficit in the drainage areas of (\$0.1) million.

Function revenues were under budget by about to \$6.2 million primarily due to budgeted applications from reserves/deferred revenues not fully utilized in 2021. Delays in several Sustainability Innovation Fund (SIF) projects due to staffing and resource constraints accounted for about \$1.7 million of the total, while delays in residuals program work of \$5.0 million and lower than budgeted DCC revenue transfers of \$0.9 million make up the balance. These under utilizations of \$7.6 million were offset slightly by more than budget lease/other sundry revenues of close to \$1.0 million along with BOD/TSS industrial fee revenues more than budget by close to \$0.4 million.

The function's operational costs were under budget by \$16.9 million. \$2.7 million of the variance is attributed to the under spending for minor capital caused by the cancellation and deferral of some projects. Delays in the residuals program work make up about \$6.0 million of the variance offset by lower revenue from reserves to fund this work. The variance in residuals work is due primarily to delays in Iona Lagoon Dewatering. The LWS Research and Innovation program was also \$1.9 million under budget mostly due to the delay in the commencement of SIF projects. Operations costs of the Wastewater Treatment Plants were about \$1.4 million under budget due to the deferral of permit fee increases. Staff vacancies where recruitment efforts continue and some consulting and other planned projects under budget contributed close to \$4.5 million in further underspends to the 2021 surplus. The function's debt servicing costs came in \$0.4 million under budget in 2021 due to reduced borrowing and expenditures than planned for major capital projects.

The 2021 generated operations surplus will be applied to capital to avoid future debt requirements.

❖ Solid Waste

Solid Waste had a surplus of \$17.4 million (or \$13 million higher than the planned surplus of \$4.4 million). Expenditures were lower by \$8.4 million primarily due to lower costs related to City of Vancouver facilities (\$1.7 million), lower tonnage throughput at the Waste-to-Energy Facility (\$1.4 million), new lower cost contracts for organics and disposal ban inspections (\$1.2 million), , timing of the opening of the United Boulevard Recycling and Waste Centre and timing of deconstruction of the Coquitlam Recycling and Waste Centre (\$1.0 million), decreased bottom ash disposal costs due to beneficial use (\$0.8 million), other miscellaneous operational program savings (\$1.2 million), and less borrowing due to delayed capital expenses resulting in lower debt servicing costs (\$1.1 million.)

Revenues were higher by \$4.6 million due primarily to higher regional waste flows (close to 976K tonnes versus budgeted tonnage of 860K) resulted in net user fees higher than budget by \$4.1 million with other miscellaneous net revenues of approximately \$500,000 comprising the balance.

Metro Vancouver Housing Corporation

Total contribution to reserves for the Metro Vancouver Housing Corporation in 2021 was approximately \$15.3M, which was close to \$5.9M over the budgeted amount. This was primarily a result of savings in property tax expense. Cost savings resulting from lower fees negotiated in new operating contracts offset higher than expected materials and supplies costs as well as the rent revenue lost as a result of the freeze on rent increases that extended throughout 2021.

Tenant rental revenue was \$1.2M higher than budgeted as rental assistance subsidies were lower than anticipated. The vacancy rate was higher than expected for 2021 as limitations due to COVID-19 resulted in slower than expected unit turnovers.

As of the end of December 2021, Metro Vancouver Housing Corporation's administrative support programs were in surplus positions, mainly due to savings from inter-departmental allocations and lower than expected employee travel expenses as a result of COVID-19.

The 2021 capital replacement program has an annual budget of \$9.5M, of which \$8.7M was spent at the end of the year. Delays in larger building envelope projects at Kelly Court and Evergreen Downs allowed other minor repair work to proceed.

The capital development program with an annual budget of \$39.6M, spent \$5.2M as of the end of 2021. The Kingston Gardens and Welcher Avenue projects were both expected to see construction in the latter part of 2021. The Kingston Gardens development permit was acquired later than expected, which delayed the construction start date to February 2022. The increase in scope for the Welcher Avenue project to a 5-storey complex required adjustments to the design and therefore, delayed the start of the construction to April 2022.

Metro Vancouver Regional District

The Regional District functions had a surplus of approximately \$1.9 million for the year which is primarily due to projected salary underspends related to ongoing recruitment and reduced expenditures related to certain programs, projects and initiatives as a direct result of the pandemic this year and delayed costs in Regional Parks. Related to the Regional District's budgets for the year, the COVID-19 pandemic had impacts on expenditures during 2021 and has resulted in lower than anticipated expenditures overall for the year, particularly in several program areas located in General Government Administration, Regional Parks, Regional Planning, Labour Relations (Regional Employer Services), Air Quality and the Housing Planning and Policy functional areas.

❖ Air Quality

Air Quality's \$881,000 yearend surplus is mainly the result of unspent consulting budget due to delays in Climate policy, extensions for regulation development and lower legal fees than expected.

❖ E911 Emergency Telephone

E911 ended the year with a \$93,000 surplus. Primarily due to translation costs lower than expected.

❖ Electoral Area Services

Electoral Area Services ended the year with a \$139,000 surplus primarily due to the receipt of higher than expected Provincial grants, a one-time additional Community Works grant and cost savings related to Emergency Management.

❖ General Government Administration

The function is in a surplus position of close to \$616,000 at year-end as a result of lower than budgeted expenditures relating to projects and initiatives delayed due to COVID-19 pandemic factors.

❖ General Government Zero Waste Collaboration Initiatives

General Government Zero Waste Collaboration Initiatives had a net surplus of close to \$82,000 for the year due to reduced expenses and related program revenue for the Zero Waste Conference and Love Food Hate Waste program initiatives as a result of COVID-19 restrictions.

❖ Housing Planning and Policy

The Housing Planning and Policy program reported a surplus of \$155,000 in 2021. The surplus was the result of lower than expected expenditures, which included an underspend in salaries, communication costs as well as other employee travel and conference costs that were limited due to the ongoing pandemic. The SIF (Sustainability Innovation Fund) projects were underspent in 2021 by \$356,000 and as such the related SIF reserve revenue for underspends was not recognized.

❖ Labour Relations (Regional Employer Services)

The Labour Relations function is in a surplus of approximately \$265,000 for the year due to labour savings where there is ongoing recruitment and limited activity due to the COVID-19 pandemic.

❖ Invest Vancouver

Invest Vancouver has a deficit of \$26,000 for the year due to staffing structural changes and external resource requirements.

❖ Regional Emergency Management (REM)

Regional Emergency Management ended the year with a \$127,000 surplus due to restrictions surrounding COVID and difficulties in hiring staff.

❖ Regional Global Positioning System (GPS)

Regional Global Positioning has a surplus of approximately \$130,000 for 2021. This was primarily due to delays in consulting expenditures and higher than expected subscription fees.

❖ Regional Parks

In 2021, Regional Parks had an operating surplus of close to \$1,810,000 due primarily to costs of \$800,000 being delayed to 2022. Consulting and contract services were also under budget by approximately \$650,000 due to poor weather conditions during the year, delays in hiring contractors and changes to project timelines. An increase in demand for outdoor exercise during the pandemic has led to higher than anticipated camping and parking/facility revenues of \$110,000.

❖ Regional Planning

Regional Planning ended the year with a \$481,000 surplus primarily due to project delays due to COVID-19 and staff vacancies.

❖ Sasamat Fire Protection Service

The Sasamat Fire Protection Service had a \$36,000 surplus at year end primarily due to savings in repairs and maintenance.

Centralized Support Programs

Centralized Support Programs are in a surplus position of close to \$1.9 million on an overall budget of \$83.8 million in 2021. Specific comments for each of the centralized support areas are set out below:

❖ External Relations

External Relations is in a surplus position of \$191,000 for the year primarily due to labour underspends resulting from staff vacancies.

❖ Human Resources

Human Resources is in a surplus position of close to \$294,000 for the year, primarily due to labour underspends resulting from staff vacancies and underspent on travel/training/tuition as a result of the COVID-19 pandemic.

❖ Financial Services

Financial Services is in a surplus of close to \$679,000 due primarily to labour underspends due to vacancies with ongoing recruiting efforts and delays in projects.

❖ Indigenous Relations

Indigenous Relations had a surplus of \$73,000 at year end primarily due to staff vacancies and unexpended meeting expenses due to COVID restrictions.

❖ Legislative Services

Legislative Services ended the year with a \$267,000 surplus mainly due to staff vacancies for part of the year.

❖ Corporate Services

Head Office Building Operations has a surplus of \$98,000 which is mainly due to a vacant position.

IT Services has a surplus of \$149,000 due to staff vacancies, fewer travel and training costs due to the Covid-19 pandemic and savings on telephone and internet charges due to service changes.

Corporate Security has a (\$96,000) deficit at year end due to an overspend in some site specific contract services due to enhanced COVID protocols.

Corporate Safety ended the year with a \$237,000 surplus due to staff vacancies and a reduced demand for training due to COVID.

Metro Vancouver Districts Financial Indicators

These ratios are intended to help indicate the Metro Vancouver Districts' financial ability to continue to provide services to the region on a sustainable basis. This involves evaluating a number of factors, including the ongoing ability to ensure revenues meet expenditures, ability to meet debt obligations, and the flexibility to address unexpected contingencies. Forecast ratios can help to identify potential financial problems in advance.

1) MVRD Requisition and Levies / Total Revenue

This ratio is a measure of the diversification of revenues. A high ratio indicates a reliance on property tax related levies / fees. A low ratio illustrates a greater range of revenues which is seen as beneficial. However, other revenue streams may not be sustainable or fluctuate more than tax requisitions.

	2018 Actual		2019 Actual		2020 Actual		2021 Budget		2021 Actual	
<u>Total Property tax/levies</u>	<u>\$291,309,226</u>	37.7%	<u>\$317,365,717</u>	38.1%	<u>\$346,393,945</u>	39.8%	<u>\$369,554,599</u>	39.2%	<u>\$369,554,599</u>	39.2%
Total Revenue*	\$771,746,665		\$834,011,157		\$869,875,032		\$943,843,383		\$941,755,836	

The Metro Vancouver has a reasonably well diversified revenue base. Some revenue streams such as Water Sales and Solid Waste User Fees are subject to fluctuations during the year and, in 2021, these ended up slightly higher than projected/budgeted levels for both the revenue streams.

2) Current Ratio

This is one measure of liquidity – the ability of the local government to meet current obligations through existing current assets. A high ratio indicates a greater ability to respond to and meet budgeted and unexpected expenditures.

	2018 Actual		2019 Actual		2020 Actual		2021 Actual	
<u>Current Assets</u>	<u>\$1,237,870,481</u>	5.3 to 1	<u>\$1,024,126,331</u>	3.3 to 1	<u>\$839,529,453</u>	2.8 to 1	<u>\$1,220,936,084</u>	3.2 to 1
Current Liabilities	\$234,489,303		\$308,634,243		\$294,805,489		\$384,234,381	

**2021 Budget includes budgeted reserve, surplus carry-forward items or other additional reserve applications as approved by the Board.*

3) i) Debt Service Costs/ Total Revenue

This is the percentage of revenue committed to payment of interest and principal on temporary and long-term debt for the regional, sewer, solid waste, water and housing operations. A high percentage indicates greater use of revenues for the repayment of debt, and less ability to adjust to unplanned events and changing circumstances.

	2018 Actual		2019 Actual		2020 Actual		2021 Budget		2021 Actual	
<u>Debt Service Costs</u>	<u>\$131,430,401</u>	17.0%	<u>\$137,166,682</u>	16.4%	<u>\$143,344,968</u>	16.5%	<u>\$170,361,333</u>	18.0%	<u>\$168,945,290</u>	17.9%
<u>Total Revenue*</u>	<u>\$771,746,665</u>		<u>\$834,011,157</u>		<u>\$869,875,032</u>		<u>\$943,843,383</u>		<u>\$941,755,836</u>	

**2021 Budget includes budgeted reserve items, surplus carry-forward items or other additional reserve applications as approved by the Board.*

3) ii) Interest Costs/ Total Revenue

This is the percentage of revenue committed to payment of interest on temporary and long-term debt for the regional, sewer, solid waste and water operations. A high percentage indicates greater use of revenues for servicing interest on outstanding debt, and less ability to adjust to unplanned events and changing circumstances.

	2018 Actual		2019 Actual		2020 Actual		2021 Budget		2021 Actual	
<u>Interest Costs</u>	<u>\$47,625,913</u>	6.2%	<u>\$46,756,655</u>	5.6%	<u>\$51,098,095</u>	5.9%	<u>\$61,485,868</u>	6.5%	<u>\$60,699,800</u>	6.4%
<u>Total Revenue*</u>	<u>\$771,746,665</u>		<u>\$834,011,157</u>		<u>\$869,875,032</u>		<u>\$943,843,383</u>		<u>\$941,755,836</u>	

Both the overall debt service costs for the year and interest costs for the year and as a percentage of revenue are down slightly when compared to current budget due to primarily to less debt costs generated by lower rates for both new borrowing and for re-financing of some existing debt.

**2021 Budget includes budgeted reserve items, surplus carry-forward items or other additional reserve application approved by the Board.*

4) Operating Reserves/ Total Revenues

Reserve levels are an indicator of financial strength since they provide the ability to meet unforeseen expenditures or revenue losses.

	2018 Actual		2019 Actual		2020 Actual		2021 Budget		2021 Actual	
Operating Reserves	\$81,173,432	10.5%	\$66,205,956	7.9%	\$92,459,857	10.6 %	\$56,865,984	6.0%	\$117,766,533	12.5%
Total Revenue*	\$771,746,665		\$834,011,157		\$869,875,032		\$943,843,383		\$941,755,836	

As per the *Operating, Discretionary and Statutory Reserve Policy*, operating reserves are set to be a factor of the operating budgets for each of the functions to adequately meet potential unexpected contingencies. The excess MV operating reserves levels will be taken to the Board for review.

5) Total MVRD Requisition, Water, Sewer and Solid Waste Charges / Per Capita

This indicator is a representation of the per capita cost impact of the regions tax payer supported services. These costs are passed on to the tax payer through our member municipalities. For budget purposes, the 2021 population was assumed to increase at a rate of 1.5% growth over 2020 based on the February 2021 issued population statistics.

	2018 Actual		2019 Actual		2020 Actual		2021 Budget		2021 Actual	
		Per Capita		Per Capita		Per Capita		Per Capita		Per Capita
Total Tax Revenue **	\$667,977,139	\$251	\$708,374,482	\$261	\$745,054,922	\$271	\$794,412,436	\$286	\$802,153,769	\$289
Total Population ***	2,658,594		2,709,285		2,746,487		2,773,150		2,773,150	

The projected increase in the actual revenues over 2021 budget is primarily a result of an increase in projected revenues for Water Sales and Solid Waste User Fees.

**2021 Budget includes budgeted reserve items, surplus carry-forward items or other additional reserve application approved by the Board.*

***Total Tax Revenue is defined as MVRD Tax Requisitions, Water Sales, Sewerage and Drainage Levies and Solid Waste User Fees.*

****Actual Populations are based on the Demographic Analysis Section, BC Stats, Ministry of Citizens' Services, Government of British Columbia, February 2022.*

To: Performance and Audit Committee

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

Date: March 24, 2022 Meeting Date: April 14, 2022

Subject: **Capital Program Expenditure Update as at December 31, 2021**

RECOMMENDATION

That the Performance and Audit Committee receive for information the report dated March 24, 2022, titled "Capital Program Expenditure Update as at December 31, 2021."

EXECUTIVE SUMMARY

Updates on the capital program and its expenditures are brought to the Committee to keep members informed on Metro Vancouver's financial performance. This is the third and final report for the 2021 fiscal year. Attachment 1 provides a summary of the 2021 actual capital spending compared to the Board approved Capital Cash Flow Budget. Attachment 3 provides additional information and narrative by department regarding the spending variances outlined in Attachment 1.

For 2021, Metro Vancouver's capital cash flow expenditures were approximately 47% of budgeted and were underspent by \$819.6 million. The underspend, primarily timing differences, is due to a variety of factors, including: delays in initiating construction, additional planning, design, and permitting requirements as well as delays in awarding of contracts and property negotiations and on-going issues related to Covid-19 pandemic.

PURPOSE

To present the Committee with the final report on the financial performance of the capital program for the year ending December 31, 2021.

BACKGROUND

Updates on the capital program and its expenditures are brought to the Committee to keep members informed on Metro Vancouver's financial performance. These updates include the actual financial progress of Metro Vancouver's capital expenditures compared to the approved cash flow limits.

Three updates were planned for the fiscal year 2021, which is consistent with the Performance and Audit Committee Terms of Reference. This is the third and final report for the 2021 fiscal year.

Separate reports containing the financial information specific to that function are also presented to the Water, Liquid Waste, Zero-Waste, Housing and Regional Parks Committees.

CAPITAL PROGRAM FUNDING

The Metro Vancouver capital spending, for Liquid Waste, Solid Waste and Water are funded through the 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. In 2021, the impact on the ratepayers for the Liquid Waste, Solid Waste and Water Capital cash flow of \$1,462.0 million is the capital funding of \$367.5 million (contribution to capital and debt service costs) included in the 2021 Operating Budget.

In the case of Regional Parks, capital spending is funded from existing reserves and grants. Contribution to these capital reserves is generated from the MVRD Tax Requisition. In 2021, the impact on the Operating Budget for the Regional Parks Capital Cash Flow Budget is the reserve contributions totaling \$20.8 million, with the remaining \$2.1M being funded from existing reserve balances.

For Housing Services, capital spending is funded through the Operating Budget from a combination of subsidies, grants, reserves, and debt service costs (principal and interest payments) which are primarily generated from housing rents. In 2021, the impact on the Operating Budget for the Housing Services Capital Cash Flow Budget is reserve contributions totaling \$16.2M, \$8.5M from grants and \$5.2M from debt service costs.

2021 CAPITAL PROGRAM PROGRESS

The annual Capital Cash Flow 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 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, clarification of design details 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.

Attachment 1 provides a summary of the 2021 actual capital spending compared to the Board approved Capital Cash Flow Budget. Attachment 3 provides additional information and narrative by department regarding the spending variances outlined in Attachment 1.

For 2021, Metro Vancouver's capital expenditures were approximately 47% of budgeted cash flow and were underspent by \$819.6 million.

Housing Services

Annual capital expenditures for Housing Services were \$13.9M compared to the Capital Cash Flow Budget of \$49.1 million, with the majority of the spending related to capital replacement and Kingston Gardens – Phase 1. The Capital Cash Flow Budget for Housing Services are funded through reserves, grants and mortgage proceeds.

The capital underspend in Housing Services is primarily due to additional lead time required for the design for Welcher Avenue that has, in turn, delayed the construction to 2022 and construction delays related to Kingston Gardens - Phase 1 due to permitting issues. Construction of Kingston Gardens – Phase 1 is now anticipated to commence in Q1 of 2022.

The “Housing Services Capital Expenditures Summary as of December 31, 2021” included in Attachment 3 provides further information.

Liquid Waste Services

Annual capital expenditures for Liquid Waste Services were \$420.9 million compared to a Capital Cash Flow Budget of \$934.5 million. The majority of the spending is related to the Northwest Langley Wastewater Treatment Project and the North Shore Wastewater Treatment Plant replacement.

The underspend is due to a variety of factors, including delays in tendering works or initiating construction, Covid-19 induced delays, protracted property negotiations and permitting delays. In addition, the North Shore Secondary Wastewater Treatment Plant project was previously forecasted to have two milestone payments in 2021, however the contract has been terminated.

The “Liquid Waste Services Capital Expenditures Summary as of December 31, 2021” included in Attachment 3 provided further information.

Regional Parks Services

Annual capital expenditures for Regional Parks were \$22.2 million compared to the amended Capital Cash Flow Budget of \$26.5 million, with the majority of the spending being for park land acquisition and capital maintenance. The 2021 amended Capital Cash Flow Budget for Regional Parks is funded through reserves. Any amounts unspent from 2021 will remain in the reserve for future use.

The underspends were predominantly related to Widgeon Marsh Regional Park development, and service yard projects in Crippen, Capilano and Pacific Spirit Regional Parks, which were all subject to additional planning, permitting, and First Nation engagement requirements that delayed planned capital expenditure. These projects have all advanced and are moving forward to implementation in 2022.

The “Regional Parks Capital Expenditures Summary as of December 31, 2021” included in Attachment 3 provides further information.

Solid Waste Services

Annual capital expenditures for Solid Waste Services were \$46.2 million compared to a Capital Cash Flow Budget of \$96.3 million with a majority of spending occurring in the Recycling and Waste Centre category.

The underspend is primarily due to longer than expected pre-construction phases for Waste-to-Energy Facility projects, and the property purchase timing for the North Surrey Recycling and Waste Centre recycling depot development.

The “Solid Waste Services Capital Expenditures Summary as of December 31, 2021” included in Attachment 3 provides further information.

Water Services

Annual capital expenditures for Water Services were \$214.9 million compared to a Capital Cash Flow Budget of \$431.3 million. A majority of spending occurred in the Growth projects including Kennedy Newton Main and Annacis Main No.5 and Resilience projects including Second Narrows Crossing Tunnel.

The current underspend is due to several factors including delays in permitting and land acquisition, as well as COVID-19 impacts.

The “Water Services Capital Expenditures Summary as of December 31, 2021” included in Attachment 3 provides further information.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

For 2021, primarily due to the Covid-19 pandemic and the timing of expenditures, Metro Vancouver’s capital expenditures were approximately 47% of budgeted and were underspent by \$819.6 million.

Regional Parks and Housing, whose capital expenditures are funded from reserves, will have no resulting surplus from the underspending of the 2021 Capital Cash Flow Budget as the monies will remain in the reserve. As the underspending is due to timing, these funds are expected to be expended in future years.

CONCLUSION

In 2021, Metro Vancouver’s capital expenditures were approximately 47% of budgeted and were underspent by \$819.6 million. The majority of the capital program relates to Liquid Waste, Solid Waste and Water with the underspending primarily due additional design requirements, permitting issues, delays in property acquisition and on-going issues related to the COVID-19 pandemic, which contributed to timing of expenditures differing from expectations.

Although the 2021 Capital Budget was underspent overall, the variances are generally a result of timing with the actual overall spending on a capital project expected to be close to or less than the overall budget for that project due to the savings of any budgeted contingencies.

Attachments

1. 2021 Capital Spending Summary as at December 31, 2021
2. Capital Expenditure Summary as at December 31, 2021 - Liquid Waste, Solid Waste and Water
3. Detailed Capital Expenditure Summaries – by Department
4. Capital Project Status Information – by Department

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Metro Vancouver

2021 Capital Spending Summary

For the 12 months ending December 31, 2021

	2021 Budget	Actual Expenditures	% of Annual Budget
Housing Services			
Capital Replacement	9,488,000	8,727,718	
Development Capital	39,600,000	5,191,987	
	49,088,000	13,919,705	28%
Liquid Waste Services			
Infrastructure Growth Capital	270,800,000	196,292,587	
Infrastructure Maintenance Capital	193,050,000	44,830,620	
Infrastructure Resilience Capital	21,500,000	7,744,548	
Infrastructure Upgrade - WasteTreatment Capital	426,278,000	140,543,301	
Infrastructure Upgrade Capital	16,950,000	17,482,039	
Opportunity Capital	5,950,000	14,004,306	
	934,528,000	420,897,400	45%
Regional Parks			
Capital Development	7,040,000	2,637,014	
Capital Maintenance Projects	4,030,000	3,960,970	
Parkland Acquisition Fund Projects	15,435,000	15,563,340	
	26,505,000	22,161,325	84%
Solid Waste Services			
Infrastructure Opportunity Program	2,050,000	297,525	
Landfills	7,400,000	5,582,166	
Recycling and Waste Centre	62,800,000	39,306,059	
Waste to Energy Facility	24,000,000	972,417	
	96,250,000	46,158,166	48%
Water Services			
Infrastructure Growth Capital	167,550,000	65,740,372	
Infrastructure Maintenance Capital	91,200,000	52,099,076	
Infrastructure Resilience Capital	155,600,000	93,729,326	
Infrastructure Upgrade Capital	14,900,000	3,340,447	
Opportunity Capital	2,000,000	-	
	431,250,000	214,909,221	50%
Total	1,537,621,000	718,045,817	47%

Metro Vancouver

Capital Expenditures Summary - by status

As at December 31, 2021

Liquid Waste Services	Total Budget	Total Projected Expenditures At Completion	Total Budget Less Projected Expenditures
Ongoing	\$ 6,105,287,000	\$ 6,441,874,000	\$ (336,587,000)
Completed	249,250,000	248,180,000	1,070,000
Not Started	241,055,000	219,505,000	21,550,000
Cancelled	53,300,000	2,895,000	50,405,000
	\$ 6,648,892,000	\$ 6,912,454,000	\$ (263,562,000)

Solid Waste Services	Total Budget	Total Projected Expenditures At Completion	Total Budget Less Projected Expenditures
Ongoing	\$ 251,350,000	\$ 251,205,000	\$ 145,000
Completed	10,700,000	10,600,000	100,000
Not Started	253,350,000	253,350,000	-
Cancelled	-	-	-
	\$ 515,400,000	\$ 515,155,000	\$ 245,000

Water Services	Total Budget	Total Projected Expenditures At Completion	Total Budget Less Projected Expenditures
Ongoing	\$ 7,360,071,000	\$ 7,341,966,000	\$ 18,105,000
Completed	60,050,000	39,208,000	20,842,000
Not Started	751,200,000	751,200,000	-
Cancelled	-	-	-
	\$ 8,171,321,000	\$ 8,132,374,000	\$ 38,947,000

Total	<u>\$ 15,335,613,000</u>	<u>\$ 15,559,983,000</u>	<u>\$ (224,370,000)</u>
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		Current Year						
Project Name	Project Location	2021 Budget	2021 Budget Amendments	Total 2021 Budget	Actual Expenditures	2021 Remaining Budget	Status	Comments
Grand Total Housing Services		49,088,000	-	49,088,000	13,919,705	35,168,295		
MVHC Capital Replacement		9,488,000	-	9,488,000	8,727,718	760,282	Ongoing	Underspend on large building envelopment projects due to delays during the consultant phase allowed for additional spending in minor repairs needed in rental units. Additional underspent attributed to less than expected emergency repair services.
MVHC Development Capital								
Heather Place - Building B	Vancouver	2,000,000	-	2,000,000	927,026	1,072,974	Ongoing	Abatement work was meant to begin in late 2021 but due to delays to the issuance of the city abatement permit, work is delayed until mid-2022.
Kingston Gardines - Phase 1	Surrey	17,600,000	-	17,600,000	2,244,681	15,355,319	Ongoing	Delay in permit issuance did not allow for main construction contract to commence in 2021. ESC and offsite work commenced late Q4 2021.
Malaspina	Coquitlam	500,000	-	500,000	208,425	291,575	Ongoing	Awarding of architect contract delayed from late 2021 to early 2022.
Welcher Avenue	Port Coquitlam	17,500,000	-	17,500,000	1,478,006	16,021,994	Ongoing	2021 activities include detailed project design and tendering. Construction start was anticipated for Q4 2021, but is now scheduled for Q2 2022.
Pitt Meadows Town Centre	Pitt Meadows	500,000	-	500,000	221,917	278,083	Ongoing	RFQ and RFP for project architect and design team issued and awarded in 2021. Schematic design phase proceeded through Q4 2021 and will be completed in Q1 2022.
Eastburn Square	Burnaby	500,000	-	500,000	71,509	428,491	Ongoing	Architect retention completed Dec 2021. Initial site studies commenced in Q4 2021 and will continue through Q1 2022.
Southwynde - Burnaby	Burnaby	500,000	-	500,000	40,423	459,577	Ongoing	Architect retention completed Nov 2021. Initial site studies commenced in Q4 2021 and will continue through Q1 2022.
23rd Street - CNV	North Vancouver	500,000	-	500,000	-	500,000	Cancelled	Project not proceeding.
		39,600,000	-	39,600,000	5,191,987	34,408,013		
Grand Total Housing Services		49,088,000	-	49,088,000	13,919,705	35,168,295		

		Lifetime									
		Total Project Budget	Total Expenditures to Date	Remaining Budget	Projected Expenditures	Total Budget Less Projected Expenditures	Percent Complete	Status	Project on Schedule?	Note	Comments
Project Name	Project Location										
Infrastructure Growth Capital											
AIWWTP Site Construction Layout	Delta	1,500,000	325,026	1,174,974	450,000	1,050,000	37%	Ongoing	Y		
Albert Street Trunk Sewer	Port Moody	8,250,000	9,006,527	(756,527)	9,200,000	(950,000)	98%	Ongoing	Y		Tunnelling resulted in increased costs. Construction is complete and sewer is in service
Annacis Outfall System	Delta	378,000,000	166,055,400	211,944,600	378,000,000	-	44%	Ongoing	Y		
Annacis Stage 5 Expansion Phase 1 T1 & T2	Delta	243,500,000	242,355,188	1,144,812	243,500,000	-	100%	Completed	Y		
Annacis Stage 5 Expansion Phase 2	Delta	22,000,000	17,901,112	4,098,888	22,000,000	-	81%	Ongoing	Y		
Annacis Stage 5 Expansion Phase 2a	Delta	180,000,000	176,861,944	3,138,056	180,000,000	-	98%	Ongoing	Y		
Annacis Stage 5 Expansion Phase 2b	Delta	390,000,000	37,799,281	352,200,719	390,000,000	-	10%	Ongoing	N		Project to be transferred to Project Delivery Department. Budget to be reassessed in 2022.
Burnaby Lake North Interceptor Cariboo Section	Burnaby	41,000,000	-	41,000,000	41,000,000	-	0%	Not Started	Y		Project scheduled to start in 2023
Burnaby Lake North Interceptor Winston Section	Burnaby	116,950,000	23,703,655	93,246,345	111,950,000	5,000,000	20%	Ongoing	Y	(1)(2)	Tunnel construction to start in Apr 2022. Project expected to be delivered under budget.
Burnaby South Slope Interceptor West Branch Extension	Burnaby	13,200,000	-	13,200,000	13,200,000	-	0%	Not Started	Y		Future project scheduled to start in 2022
Cloverdale Pump Station Capacity Upgrade	Surrey	36,400,000	296,977	36,103,023	36,400,000	-	1%	Ongoing	N		Delay to determine scope of upgrades
Cloverdale Trunk Sewer Capacity Upgrade	Surrey	29,000,000	-	29,000,000	29,000,000	-	0%	Not Started	Y		Future project scheduled to start in 2022
Glenbrook Combined Trunk Kingsway Sanitary Section	Burnaby	7,200,000	306,216	6,893,784	7,200,000	-	4%	Ongoing	N		Project delayed by about one year due to resourcing challenges, to be resumed in 2022
Hastings Sanitary Trunk Sewer No. 2	Burnaby	8,000,000	7,451,802	548,198	7,770,000	230,000	93%	Ongoing	Y	(1)(2)	Project in close out stages
Hastings-Cassiar Intake Connection	Vancouver	2,350,000	273,765	2,076,235	5,350,000	(3,000,000)	10%	Ongoing	N		Project delayed by one year to accommodate expanded scope (dynamically controlled gates) to improve functionality.
Lozells Sanitary Trunk Golf Course Section	Burnaby	27,650,000	-	27,650,000	27,650,000	-	0%	Not Started	Y		Future project scheduled to start in 2025
Lulu Island WWTP Digester No 3	Richmond	53,300,000	1,393,607	51,906,393	2,895,000	50,405,000	100%	Withdrawn	N		Project being withdrawn, some additional studies and analysis to improve system performance.
Marshend Pump Station Capacity Upgrade	Burnaby	13,775,000	649,235	13,125,765	13,775,000	-	5%	Ongoing	N		Project delayaed to properly define scope.
North Road Trunk Sewer	Coquitlam	11,675,000	6,755,667	4,919,333	11,675,000	-	58%	Ongoing	N		Majority of workis complete. Protracted permitting and negotiations are delaying the railway crossing component.
North Road Trunk Sewer Phase 2	Coquitlam	8,438,000	888,086	7,549,914	8,438,000	-	11%	Ongoing	Y		Construction deferred to 2022 at the request of the City of Coquitlam
North Vancouver Interceptor - Lynn Branch Pre-build	Dist of North Van	3,950,000	3,213,011	736,989	3,300,000	650,000	100%	Completed	Y		work complete
Northwest Langley Wastewater Treatment Program	Langley Township	1,330,700,000	198,397,652	1,132,302,348	1,629,700,000	(299,000,000)	12%	Ongoing	N	(5)	
NSI 104th Ave Extension	Surrey	12,950,000	4,938,694	8,011,306	12,950,000	-	38%	Ongoing	N		Project had been on hold for several years, and is being rescoped.
NSI Flow Management	Surrey	94,500,000	5,188,968	89,311,033	94,500,000	-	5%	Ongoing	N		Project delayed to confirm facility sizing and configuration, and address regulatory and permitting concerns
Port Moody Pump Station Capacity Upgrade	Port Moody	10,550,000	507,913	10,042,087	10,550,000	-	5%	Ongoing	N	(4)	Project on hold since Aug 2020 to revise scope with regard to revised flow requirements.
Port Moody South Interceptor Capacity Upgrade	Port Moody	3,450,000	-	3,450,000	3,450,000	-	0%	Not Started	Y		Future project scheduled to start in 2022
Rosemary Heights Pressure Sewer Capacity Upgrade	Surrey	10,750,000	-	10,750,000	10,750,000	-	0%	Not Started	Y		Future project scheduled to start in 2022
Sapperton Pump Station	New Westminster	82,003,000	74,658,883	7,344,117	77,549,000	4,454,000	98%	Ongoing	N	(1)	Substantial completion in July 2021, still to resolve deficiencies and complete decommissioning of old station.
South Surrey Interceptor Johnston Section	Surrey	84,026,000	49,523,360	34,502,640	84,026,000	-	59%	Ongoing	N		Final section delayed due to protracted property and permitting issues.
SSI - King George Section - Odor Control Facility (OCF) and Grit Chamber	Surrey	19,500,000	16,435,720	3,064,280	18,500,000	1,000,000	84%	Ongoing	N		Grit Chamber and 1 OCF operational, 2nd OCF delayed to address municipal servicing concerns.
		3,244,567,000	1,044,887,686	2,199,679,314	3,484,728,000	(240,161,000)					
Infrastructure Maintenance Capital											
AIWWTP Chemical Lab UPS System Replacement	Delta	600,000	9,497	590,503	600,000	-	2%	Ongoing	Y		
AIWWTP Cogen Building Refurbishment	Delta	1,500,000	95,415	1,404,585	1,500,000	-	6%	Ongoing	Y		
AIWWTP Fibre Optic Infrastructure	Delta	1,500,000	1,315,446	184,554	1,400,000	100,000	88%	Ongoing	Y		
AIWWTP ICS Replacement Program	Delta	14,350,000	-	14,350,000	14,350,000	-	0%	Not Started	N		Delayed to give way to Stage V Activities.
AIWWTP Influent System Remediation	Delta	82,500,000	416,865	82,083,135	82,500,000	-	1%	Ongoing	Y		Existing Annacis outfall condition led to change in risk profile and work scope of project. Conducting risk assessment prior to revising estimate and schedule
AIWWTP IPS Pump Building Roof Replacement Phase 2	Delta	830,000	-	830,000	830,000	-	0%	Not Started	N	(4)	Future project scheduled to start in 2024
AIWWTP Outfall Repair	Delta	1,800,000	-	1,800,000	1,800,000	-	0%	Not Started	N	(4)	Scope review underway to account for new inspection information.
AIWWTP Replacement of ICS Equipment in Galleries	Delta	2,895,000	2,558,316	336,684	2,895,000	-	88%	Ongoing	Y		
LC11121 AIWWTP Scheduled 64kV Potential & Current Transformer R	Delta	400,000	150,300	249,700	400,000	-		Ongoing			
LC11122 AIWWTP Scheduled 64kV Potential & Current Transformer R	Delta	400,000	-	400,000	400,000	-		Not Started			
AIWWTP Scheduled 64kV Potential & Current Transformer Replacements	Delta	800,000	150,300	649,700	800,000	-	19%	Ongoing	Y		
AIWWTP SCL Flow Balancing	Delta	2,450,000	913,895	1,536,105	2,450,000	-	37%	Ongoing	Y		
AIWWTP SCL Flow Control	Delta	31,500,000	18,277,418	13,222,582	31,500,000	-	58%	Ongoing	Y		
AIWWTP Scum Pump Replacement	Delta	1,350,000	-	1,350,000	1,350,000	-	0%	Not Started	Y	(4)	Future project scheduled to start in 2024

		Lifetime									
		Total Project Budget	Total Expenditures to Date	Remaining Budget	Projected Expenditures	Total Budget Less Projected Expenditures	Percent Complete	Status	Project on Schedule?	Note	
Project Name	Project Location										Comments
AIWWTP Secondary Effluent Discharge Flowmeter Replacement	Delta	400,000	44,719	355,281	200,000	200,000	99%	Ongoing	Y	(2)	Project in final closeout phases, and will be completed significantly under budget by coordination with other works. tender for supply of pump was issued.
AIWWTP Spare Trickling Filter Pump & Motor Purchase	Delta	1,950,000	-	1,950,000	1,950,000	-	15%	Ongoing	N		
AIWWTP Station Battery Replacement - PHASE 2	Delta	400,000	155,083	244,917	400,000	-	39%	Ongoing	Y	(2)	
AIWWTP Trickling Filter Media & Distributor Arms & Ducting Replacement	Delta	90,700,000	32,890,863	57,809,137	90,700,000	-	50%	Ongoing	Y		
Annacis Island WWTP - ICS Component Replacement and Upgrade Program	Delta	1,500,000	1,405,577	94,423	1,500,000	-	94%	Ongoing	Y		
Annacis MCC 80 051, 80 070, 80 071 Replacement	Delta	2,844,000	2,171,429	672,571	2,844,000	-	76%	Ongoing	Y		
Annacis Secondary Clarifier Corrosion Repair and Leveling Phase 2	Delta	22,000,000	9,188,811	12,811,189	22,000,000	-	42%	Ongoing	Y		
Big Bend Forcemain - Gate Replacement	Richmond	2,680,000	70,209	2,609,791	2,680,000	-	3%	Ongoing	N	(4)	
Cambie Trunk Sewer Relocation for Broadway Subway Project	Vancouver	4,500,000	1,155	4,498,845	1,500,000	3,000,000	1%	Ongoing	N		
Combined Sewer Overflow Sampling Station Enhancements	Regional	1,900,000	515,480	1,384,520	1,900,000	-	27%	Ongoing	Y		
Crescent Beach FM - Replacement	Surrey	29,070,000	6,637,856	22,432,144	28,095,000	975,000	23%	Ongoing	Y		
English Bay/Balaclava Outfalls Improvement	Vancouver	900,000	-	900,000	900,000	-	0%	Not Started	Y		Future project scheduled to start in 2022
FSA Flow Metering Program	Regional	3,500,000	1,674,324	1,825,676	3,500,000	-	48%	Ongoing	Y		
FSA Statutory Right of Way Acquisitions Phase 1	Delta/Port Moody	24,000,000	-	24,000,000	35,100,000	(11,100,000)	0%	Ongoing	Y		For acquisition of rights-of-way as opportunities arise.
Gilbert/Brighthouse Trunk Pressure Sewer Rehab Phase 5	Richmond	23,200,000	-	23,200,000	23,200,000	-	0%	Not Started	Y		Future project scheduled to start in 2023.
Gilbert/Brighthouse Trunk Pressure Sewer Twinning Phase 3	Richmond	54,300,000	14,456,592	39,843,408	54,300,000	-	27%	Ongoing	N		Tender to be issued Feb. 2022 Construction to begin fall of 2022
Gilbert/Brighthouse Trunk Pressure Sewer Twinning Phase 4	Richmond	41,800,000	1,105,049	40,694,951	41,800,000	-	3%	Ongoing	N		Tender to be issued Mar. 2022 Construction to begin end of 2022
Glen Eagles Forcemains Replacement Phase 2	West Vancouver	7,750,000	722,627	7,027,373	8,200,000	(450,000)	9%	Ongoing	N		Project delayed due to alignment changes and difficult site conditions.
Glen Eagles Pump Stations Phase 1	West Vancouver	22,500,000	1,472,180	21,027,820	22,500,000	-	7%	Ongoing	N		Delays in design due to permitting and properties. Design now complete.
Glen Eagles Pump Stations Phase 2	West Vancouver	5,000,000	-	5,000,000	5,000,000	-	0%	Not Started	Y		Future project scheduled to start in 2022
Harbour Pump Station Discharge Header Repair and Valve Replacements	Vancouver	1,500,000	-	1,500,000	1,500,000	-	0%	Not Started	Y		Design underway. Construction expected in summer 2023.
Harbour Pump Station Power Distribution Equipment Replacement	Vancouver	3,300,000	95,381	3,204,619	3,300,000	-	3%	Ongoing	Y		
Harbour West & East Interceptors Reloc & Protect	Vancouver	16,900,000	5,149,307	11,750,693	19,500,000	(2,600,000)	30%	Ongoing	Y		Externally driven and executed projects. Estimate based upon latest scope of work.
Highbury Interceptor Diversion Junction Chamber Wall Rehabilitation	Vancouver	6,000,000	-	6,000,000	6,000,000	-	0%	Not Started	N		Project delayed to coordinate with other work.
IIWWTP Digester 4 Roof Replacement & Mixing Replacement	Richmond	24,800,000	17,708,752	7,091,248	20,300,000	4,500,000	95%	Ongoing	Y	(2)	
IIWWTP Grit System Refurbishment	Richmond	8,100,000	7,503,949	596,051	8,100,000	-	93%	Ongoing	Y		
IIWWTP ICS IPS Control Replacement	Richmond	1,750,000	357,630	1,392,370	1,750,000	-	20%	Ongoing	Y		
IIWWTP ICS Replacement Program	Richmond	750,000	-	750,000	750,000	-	0%	Not Started	Y		
IIWWTP Influent Gate Refurbishment	Richmond	1,350,000	552,463	797,537	1,110,641	239,000	41%	Ongoing	Y		
IIWWTP IPS Drive Remediation	Richmond	1,400,000	-	1,400,000	1,400,000	-	0%	Not Started	N	(4)	Project was delayed to confirm scope
IIWWTP MCC/Power Distribution Assess/Replace - Phase 2	Richmond	1,000,000	603,103	396,897	750,000	250,000	99%	Ongoing	Y	(2)	Project at close out stages and will see a surplus.
IIWWTP PA-Sed Tank & Gallery Wall Refurbishment	Richmond	925,000	-	925,000	925,000	-	0%	Not Started	N		Work delayed to confirm scope of repair.
IIWWTP Replacement of CoGen Control System	Richmond	2,470,000	1,090,592	1,379,408	2,470,000	-	44%	Ongoing	Y		
IIWWTP Siphon Chamber Refurbishment	Richmond	2,150,000	-	2,150,000	2,150,000	-	0%	Not Started	N		Project delayed to allow improved coordination of other related works and improve safe operating conditions for work site.
IIWWTP Solids Handling Refurbishment	Richmond	30,500,000	30,293,884	206,116	30,350,000	150,000	99%	Ongoing	Y	(2)	
Iona Island Control & Instrumentation Replacement 2011	Richmond	2,750,000	2,033,547	716,453	2,750,000	-	74%	Ongoing	Y		
Jervis Pump Station 25kV Voltage Conversion	Vancouver	1,300,000	11,489	1,288,512	1,300,000	-	1%	Ongoing	Y		
Kent Pump Station High Voltage Switchgear Replacement	Vancouver	2,000,000	-	2,000,000	2,000,000	-	0%	Ongoing	Y		Future project scheduled to start in 2022
LIWWTP CCT Isolation Gates	Richmond	2,050,000	669,623	1,380,377	2,050,000	-	33%	Ongoing	Y		
LIWWTP High Efficiency Boiler	Richmond	1,330,000	156,382	1,173,618	1,330,000	-	12%	Ongoing	N	(4)	Rescheduled to after Biogas Cleanup Project is completed and in operation.
LIWWTP ICS Component Replacement	Richmond	360,000	338,299	21,701	360,000	-	94%	Ongoing	Y		
LIWWTP ICS Replacement Program	Richmond	6,750,000	454,996	6,295,004	6,750,000	-	7%	Ongoing	Y		
LIWWTP PA-Sed Tank Refurbishment	Richmond	4,115,000	46,529	4,068,471	4,115,000	-	1%	Ongoing	Y		
LSA Flow Metering Program	Richmond	300,000	76,399	223,601	300,000	-	25%	Ongoing	Y		
Marshend PS Rehab	Burnaby	7,000,000	1,037,052	5,962,948	7,000,000	-	15%	Ongoing	N		Project delayed to confirm scope, but is now proceeding.
New West Interceptor Grit Chamber	New Westminster	9,050,000	221,159	8,828,841	9,050,000	-	2%	Ongoing	N		Project delayed to coordinate with Sapperton PS completion and focus on higher priority work.
New Westminster Interceptor Repair Columbia St. Section	New Westminster	32,782,000	5,522,820	27,259,180	32,782,000	-	17%	Ongoing	N		Project under construction and experiencing some delays in execution.
NLWWTP Screw Pump Replacement	Langley City	1,550,000	1,218,261	331,739	1,550,000	-	79%	Ongoing	Y		
North Surrey Interceptor Annieville Channel Crossing Scour Protection	Regional	995,000	397,633	597,367	995,000	-	40%	Ongoing	Y		
NSA Flow Metering Program	West Vancouver	900,000	205,310	694,690	900,000	-	23%	Ongoing	Y		
NSA Scour Protection Upgrades	Regional	2,250,000	-	2,250,000	2,250,000	-	0%	Ongoing	Y		
NSI Rehab or Replacement	Surrey	46,463,000	3,894,715	42,568,285	46,463,000	-	8%	Ongoing	N		Port Mann rehabilitation nearing completion, Manson Road section delayed to confirm future flow requirements.
NWI - Annacis Section 2 Improvement	Delta	45,000,000	4,875,170	40,124,830	45,000,000	-	11%	Ongoing	N		Project delayed to improve scope definition, and coordination with other works.
NWL WWTP 25 kV Substation Replacement	Langley Township	10,025,000	8,704,590	1,320,410	8,666,000	1,359,000	87%	Ongoing	Y	(1)	

Project Name	Project Location	Lifetime					Percent Complete	Status	Project on Schedule?	Note	Comments
		Total Project Budget	Total Expenditures to Date	Remaining Budget	Projected Expenditures	Total Budget Less Projected Expenditures					
Ocean Park Trunk Crescent Section (OPC) Pipe Rehabilitation/Replacement	Surrey	4,953,000	2,639,076	2,313,924	2,753,000	2,200,000	98%	Ongoing	N	(1)	Project in final closeout phases, and will be completed significantly under budget.
Ocean Park Trunk Manholes Lining	Surrey	550,000	-	550,000	550,000	-	0%	Not Started	Y		Future project scheduled to start in 2022
Port Coquitlam Pump Station Refurbishment	Port Coquitlam	9,250,000	263,866	8,986,134	51,100,000	(41,850,000)	1%	Ongoing	Y		Scope changed since original concept, and a replacement pump station is now likely required. The budget was updated in the 2022 Capital Plan
Port Moody Storm Drain Rehabilitation	Port Moody	1,650,000	-	1,650,000	1,650,000	-	0%	Not Started	N		Future project scheduled to start in 2023
Royal Ave PS Rehabilitation	New Westminster	7,238,000	1,364,859	5,873,141	8,238,000	(1,000,000)	16%	Ongoing	Y		Costs updated to reflect scope as per 70% detail design.
Sewer Relocations and Protections at Fraser Surrey Docks	Surrey	25,800,000	-	25,800,000	4,000,000	21,800,000	0%	Not Started	N		Externally driven and executed project. Scope has been reduced since BHP pulled out of terminal upgrade proposal.
Sewer Relocations and Protections for Pattullo Bridge Replacement Project	New Westminster	7,000,000	3,218	6,996,783	7,000,000	-	1%	Ongoing	N		Externally driven and executed project.
SSI Influent Control Chamber Repair and Replace Gates	Delta	1,305,000	13,554	1,291,446	1,305,000	-	1%	Ongoing	N	(4)	Project on hold to confirm scope of repairs
Surrey Corrosion Control Facility Replacement	Surrey	2,900,000	461,699	2,438,301	7,250,000	(4,350,000)	16%	Ongoing	N		Project delayed to confirm configuration and location of facility.
VSA Flow Metering Program	Regional	5,800,000	683,346	5,116,654	5,800,000	-	12%	Ongoing	Y		
Westridge FM Replacement	Burnaby	3,650,000	686,027	2,963,973	3,650,000	-	19%	Ongoing	N		Project delayed in early 2021 to focus on higher priority work
Westridge Pump Stations 1 & 2 Refurbishment	Burnaby	16,250,000	731,798	15,518,202	16,250,000	-	5%	Ongoing	Y		
White Rock Forcemain Rehabilitation	White Rock/Surrey	8,700,000	19,949	8,680,051	8,700,000	-	0%	Not Started	Y		Future project scheduled to begin in 2022
Works Yard	Burnaby	32,000,000	26,550,793	5,449,207	32,000,000	-	83%	Ongoing	Y		
		889,880,000	222,886,326	666,993,674	919,059,641	(29,180,000)					
Infrastructure Resilience Capital											
AIWWTP 69 kV Substation Modifications	Delta	5,500,000	2,575,199	2,924,801	5,500,000	-	47%	Ongoing	Y		
AIWWTP Automation of Influent Gates	Delta	3,700,000	3,583,620	116,380	3,694,681	5,000	97%	Ongoing	Y		
AIWWTP Cogeneration Backup Power	Delta	75,003,000	70,237,858	4,765,142	72,003,000	3,000,000	94%	Ongoing	Y		Project nearing completion and expected to come in under budget.
AIWWTP PST Area Walkway & Column Remediation	Delta	1,800,000	1,391,248	408,752	1,380,000	420,000	100%	Completed	Y	(1)(2)	Under budget due to efficient design, competitive market pricing and less tank defects than anticipated.
AIWWTP UPS Condition Monitoring System	Delta	550,000	-	550,000	550,000	-	0%	Not Started	N	(4)	Construction on hold until resolution of design issues.
Highbury Interceptor North Arm Crossing - Upgrade of Siphons	Vancouver	12,500,000	12,246,186	253,814	12,500,000	-	98%	Ongoing	N		Project execution delayed to coordinate safety approvals
IIWWTP - Biogas Lines Relocation	Richmond	5,780,000	3,942,379	1,837,621	5,780,000	-	75%	Ongoing	N		Delays due to challenges with approvals and supply chain issues.
IIWWTP Standby Diesel Generators	Richmond	5,000,000	2,791	4,997,209	5,000,000	-	1%	Ongoing	N		
LIWWTP Power Reliability	Richmond	8,202,000	1,830,816	6,371,184	8,202,000	-	22%	Ongoing	N		Project delayed due to procurement and to coordinate design issues.
SSI Sulfide Odour and Corrosion Control	Delta	7,700,000	1,074,954	6,625,046	7,700,000	-	14%	Ongoing	N		Project delayed due to procurement issues
VSA Emergency Backup Power	Vancouver	24,310,000	12,945,579	11,364,421	24,310,000	-	53%	Ongoing	N		5 of 7 units are complete, 2 stations (Jervis and Chilco PS) are delayed due to protracted property and permitting issues.
		150,045,000	109,830,630	40,214,370	146,619,681	3,425,000					
Infrastructure Upgrade - WasteTreatment Capital											
Iona Secondary Treatment Upgrade	Richmond	750,000,000	24,740,016	725,259,984	750,000,000	-	3%	Ongoing	Y	(5)(6)	
North Shore WWTP Secondary Upgrade and Conveyance	Dist of North Van	1,057,867,000	497,387,107	560,479,893	1,057,867,000	-	37%	Ongoing	N	(5)	
		1,807,867,000	522,127,122	1,285,739,878	1,807,867,000	-					
Infrastructure Upgrade Capital											
AIWWTP Ammonia Removal – Sidestream	Delta	125,900,000	734,499	125,165,501	125,900,000	-	1%	Ongoing	Y	(4)	Continuing with data collection with more analyses in 2022 to confirm study results. Design not scheduled to start until late in the decade.
AIWWTP Electrical Distribution System Protection Control and Monitoring	Delta	2,650,000	607,205	2,042,795	2,650,000	-	23%	Ongoing	Y		
AIWWTP Replacement of Protective Relays	Delta	3,258,000	2,242,665	1,015,335	3,258,000	-	69%	Ongoing	Y		
All WWTPs Power Quality Monitoring & Outage Alarming Network	Regional	2,870,000	2,632,027	237,973	2,870,000	-	92%	Ongoing	Y		
Biosolids Dryer	Delta	211,700,000	11,722,975	199,977,025	211,700,000	-	1%	Ongoing	Y		Project delayed to confirm location (AIWWTP vs NWL WWTP)
Ferguson Road Paving Refurbishment	Richmond	850,000	-	850,000	1,100,000	(250,000)	0%	Not Started	Y		Project Scheduled to start in 2022
Glenbrook Combined Trunk Sewer Separation	New Westminster	73,450,000	268,911	73,181,089	73,450,000	-	1%	Ongoing	Y		Initial phase (project scoping) is complete. Balance of project not scheduled to start for some years.
IIWWTP Biosolids Dewatering Facility	Richmond	61,300,000	56,409,219	4,890,781	61,300,000	-	92%	Ongoing	N		Project delayed due to construction and permitting issues, but is nearing completion
IIWWTP Sludge Lagoons Dewatering Facility	Richmond	4,000,000	1,949,205	2,050,795	4,000,000	-	90%	Ongoing	N		Delayed due to supply chain issues.
LIWWTP Effluent Heat Recovery Project	Richmond	10,000,000	-	10,000,000	10,000,000	-	0%	Not Started	Y		

		Lifetime									
Project Name	Project Location	Total Project Budget	Total Expenditures to Date	Remaining Budget	Projected Expenditures	Total Budget Less Projected Expenditures	Percent Complete	Status	Project on Schedule?	Note	Comments
New CSO Management Gates for New Westminster Interceptor Ocean Park Trunk Sewer - Air Management Facility	New Westminster	5,925,000	608,135	5,316,865	5,925,000	-	10%	Ongoing	Y		
	Surrey	7,750,000	-	7,750,000	7,750,000	-	0%	Not Started	N	(4)	On hold due to protracted property negotiations
WWTPs Electrical System Studies & Upgrades	Regional	1,900,000	11,405	1,888,595	1,900,000	-	1%	Ongoing	N	(4)	Awaiting completion of AI Stage 5 Ph1 and AI Cogen projects studies.
		511,553,000	77,186,246	434,366,754	511,803,000	(250,000)					
Opportunity Capital											
AIWWTP Hydrothermal Processing Pilot	Delta	19,380,000	1,072,859	18,307,141	19,380,000	-	10%	Ongoing	Y		
Fraser Sewerage Area Integrated Resource Recovery (IRR) Study	Regional	1,200,000	137,146	1,062,854	1,200,000	-	11%	Ongoing	N		Adding scope to the sudy. Anticipated completion Fall 2022
LIWWTP Biogas Clean-up Project	Richmond	13,800,000	11,928,139	1,871,861	13,800,000	-	86%	Ongoing	Y		
LIWWTP Pilot Digestion Optimization Facility	Richmond	3,100,000	1,398,421	1,701,579	3,100,000	-	45%	Ongoing	Y		
North Surrey Interceptor - Port Mann Section - Odour Control	Surrey	7,500,000	253,199	7,246,801	7,500,000	-	2%	Ongoing	N		Project delayed due to resourcing and scope definition. Project now proceeding
		44,980,000	14,789,764	30,190,236	74,580,000	(29,600,000)					
Grand Total Liquid Waste Services		6,648,892,000	1,991,707,776	4,657,184,224	6,912,454,000	(263,562,000)					

- Notes:
- (1) Project will be completed under budget - savings due to competitive pricing.
 - (2) Full contingency not required.
 - (3) Design work done in house resulting in lower cost.
 - (4) Project on hold.
 - (5) Separate status reports are being provided to Liquid Waste Committee and Board.
 - (6) Project budget is for up to 2025 only.

Metro Vancouver
Regional Parks Capital Expenditures Summary
As of December 31, 2021

		Current Year						
Project Name	Project Location	2021 Budget	2021 Budget Amendments	Total 2021 Budget	Actual Expenditures	2021 Remaining Budget	Status	Notes / Comments
Regional Parks Capital Expenditures Summary		23,070,000	3,435,000	26,505,000	22,161,324	4,343,676		
Capital Maintenance Projects		4,030,000	-	4,030,000	3,960,970	69,030		Budget fully expended. Extensive progress on asset management initiatives throughout the regional park system.
Regional Parks Land Acquisition								
Regional Parks Land Acquisition program total		12,000,000	(12,000,000)	-	-	-		
Kanaka Creek - 27372 Dewdney Trunk Road, Maple Ridge		-	2,250,000	2,250,000	2,305,147	(55,147)	Completed	3.4 hectares of land for Kanaka Creek.
Codd Wetlands - 21198 Thompson Road, Pitt Meadows		-	11,500,000	11,500,000	11,552,808	(52,808)	Completed	59 hectares of land for Codd Wetlands.
Codd Wetlands - 14788 Neaves Road, Pitt Meadows		-	1,685,000	1,685,000	1,705,385	(20,385)	Completed	14.3 hectares for Codd Wetlands.
				-		-		
		12,000,000	3,435,000	15,435,000	15,563,340	(128,340)		
Capital Development Projects								
Widgeon Marsh - New Park Development		Coquitlam	4,500,000	4,500,000	653,577	3,846,423	Ongoing	A multi-year project to design and develop Widgeon Marsh Regional Park. Implementation planned for 2021 was deferred to 2022 to provide time for additional archeological investigation, relationship building and collaboration with First Nations.
Capilano - New Service Yard		North Vancouver	750,000	750,000	104,587	645,413	Ongoing	The Capilano River service yard is in the final stages of the development permitting process with District of North Vancouver. Construction will proceed in 2022.
Grouse - BCMC Realignment + Improvement		North Vancouver	350,000	200,000	550,000	417,267	Ongoing	A multi-year project to implement the Grouse Mountain Trail and Amenity Improvement project, funded by an Investing in Canada Infrastructure Grant. Significant improvements to the Grouse Grind and BCMC Trails were completed in 2021. Design, First Nation engagement, and implementation of the project will extend to 2024.
Burnaby Lake - Service Yard Replacement		Burnaby	450,000	(200,000)	250,000	250,000	Ongoing	Regional Park staff are advancing pre-planning and service yard location assesment. This project will move forward in 2022/2023.
Colony Farm - Sheep Paddocks Trail Rebuild		Port Coquitlam	100,000	100,000	21,370	78,630	Complete	This project is complete.
Boundary Bay - Perimeter Trail		Delta	-	150,000	154,773	(4,773)	Complete	This project is complete.
Derby Reach - Full Service Washroom		Langley	290,000	290,000	46,093	243,907	Ongoing	A multi-year project to construct a full service washroom facility in Derby Reach Regional Park. Consturction was initiated in 2021 and will be complete in 2022.
Crippen - Dorman Point Access and Amenities		Bowen Island	-	50,000	21,858	28,142	Ongoing	Site design initiated in 2021. Implementation is underway and will be complete in 2022.
Campbell Valley - Perimeter Greenway Trail		Langley	600,000	(200,000)	400,000	51,166	Ongoing	A multi-year project to implement the MVRD Board approved mangement plan. Design work was initiated in 2021. Construction will extend from 2022-2024 with implementation of priority trail and staging area improvements beginning in Spring 2022.
Crippen - New Service yard		Bowen Island		-	1,101,425	(1,101,425)	Substantially Complete	2020 capital project carryover expenses. Project is substantially complete.
Aldergrove - Phase 1 Management Plan		Langley		-	5,621	(5,621)	Complete	2020 capital project carryover expenses. Project complete.

Metro Vancouver
Regional Parks Capital Expenditures Summary
As of December 31, 2021

		Current Year						
Project Name	Project Location	2021 Budget	2021 Budget Amendments	Total 2021 Budget	Actual Expenditures	2021 Remaining Budget	Status	Notes / Comments
Crippen - Davies Orchard Cabins	Bowen Island			-	59,277	(59,277)	Ongoing	This project was awarded a \$450,000 provincial grant. Design was finalized in 2021. Implementation will proceed through 2022.
		7,040,000	-	7,040,000	2,637,014	4,402,986		
Grand Total Regional Parks		23,070,000	3,435,000	26,505,000	22,161,324	4,343,676		

Metro Vancouver
Solid Waste Services Capital Expenditures Summary
As of December 31, 2021

Project Name	Project Location	Lifetime					Percent Complete	Status	Project on Schedule?	Note	Comments
		Total Project Budget	Total Expenditures to Date	Remaining Budget	Projected Expenditures	Total Budget Less Projected Expenditures					
Infrastructure Opportunity Program											
WTE Facility District Heating Opportunities	Burnaby	2,300,000	440,453	1,859,547	2,300,000	-	25%	Ongoing	Y		
		2,300,000	440,453	1,859,547	2,300,000	-					
Landfills											
Alternative Fuel and Recyclables Recovery Centre	Coquitlam	60,000,000	-	60,000,000	60,000,000	-	0%	Not Started	Y		
Coquitlam Landfill Closure*	Coquitlam	5,000,000	4,998,995	1,005	5,000,000	-	100%	Completed	Y		
Coquitlam Landfill East Closure	Coquitlam	5,000,000	-	5,000,000	5,000,000	-	0%	Not Started	Y		
Coquitlam Landfill Fly Ash Cell 2 Closure Final Cover*	Coquitlam	3,200,000	3,197,734	2,266	3,200,000	-	100%	Completed	Y		
Coquitlam Landfill Gas Collection Upgrades*	Coquitlam	3,100,000	2,856,423	243,577	3,100,000	-	92%	Ongoing	Y		
Coquitlam Landfill Gas Collection Upgrades Phase II*	Coquitlam	3,600,000	3,098,378	501,622	3,600,000	-	85%	Ongoing	Y		
Coquitlam Landfill Lot 3 Development*	Coquitlam	5,000,000	3,718,273	1,281,727	5,000,000	-	95%	Ongoing	Y		
Coquitlam Landfill Pump Station Upgrade*	Coquitlam	800,000	430,009	369,991	800,000	-	85%	Ongoing	Y		
Coquitlam Landfill: Leachate Collection System Grade Realignment	Coquitlam	1,000,000	-	1,000,000	1,000,000	-	0%	Not Started	Y		
		86,700,000	18,299,812	68,400,188	86,700,000	-					
Recycling and Waste Centre System											
United Boulevard Recycling and Waste Centre Compactor	Coquitlam	2,500,000	2,317,600	182,400	2,400,000	100,000	100%	Completed	Y		
United Boulevard Recycling and Waste Centre	Coquitlam	77,600,000	71,659,209	5,940,791	77,600,000	-	96%	Ongoing	N		Facility opened on March 14, 2022
Langley Recycling and Waste Centre Recycling Depot Expansion	Langley Township	5,500,000	-	5,500,000	5,500,000	-	0%	Not Started	Y		
Maple Ridge Recycling and Waste Centre Upgrades	Maple Ridge	2,000,000	-	2,000,000	2,000,000	-	0%	Not Started	Y		
North Shore Recycling and Waste Centre Compactor Replacement	North Vancouver	2,500,000	-	2,500,000	2,500,000	-	0%	Not Started	Y		
Central Surrey Recycling and Waste Centre	Surrey	62,300,000	40,541,940	21,758,060	62,300,000	-	85%	Ongoing	Y		Facility expected to open in early summer 2022
North Surrey Recycling and Waste Centre Compactor Replacement	Surrey	2,500,000	-	2,500,000	2,500,000	-	0%	Not Started	Y		
North Surrey Recycling and Waste Centre Recycling Depot Expansion	Surrey	25,500,000	-	25,500,000	25,500,000	-	0%	Not Started	N		Land acquisition expected early 2022. Project not started
Western Region Recycling and Waste Centre Replacement	Regional	75,000,000	-	75,000,000	75,000,000	-	0%	Not Started	Y		
		255,400,000	114,518,749	140,881,251	255,300,000	100,000					
Waste to Energy Facility											
Acid Gas Reduction	Burnaby	41,000,000	450,000	40,550,000	41,000,000	-	1%	Ongoing	Y		
Biosolids Processing	Burnaby	20,500,000	367,243	20,132,757	20,368,000	132,000	5%	Ongoing	y		
Bottom Ash Crane Replacement	Burnaby	1,500,000	-	1,500,000	1,500,000	-	0%	Ongoing	Y		
Bottom Ash Processing	Burnaby	6,800,000	6,248,214	551,786	6,800,000	-	92%	Ongoing	N		Project schedule impacted due to the timing of the procurement phase
Carbon Silo Replacement	Burnaby	2,400,000	-	2,400,000	2,400,000	-	0%	Not Started	Y		
Compressed Air System Replacement	Burnaby	3,000,000	8,423	2,991,577	3,000,000	-	5%	Ongoing	Y		
District Energy	Burnaby	40,000,000	-	40,000,000	40,000,000	-	0%	Not Started	Y		
Electrical Transformers Replacement	Burnaby	5,000,000	-	5,000,000	5,000,000	-	0%	Not Started	Y		
Fabric Filter Hopper and Pulse Header Refurbishment	Burnaby	2,250,000	-	2,250,000	2,250,000	-	5%	Ongoing	N		Consultant has been engaged for detailed design.
Feed Hopper/Chute	Burnaby	2,600,000	1,602,760	997,240	2,587,000	13,000	70%	Ongoing	Y		
Fly Ash Silo Refurbishment	Burnaby	1,000,000	-	1,000,000	1,000,000	-	0%	Not Started	Y		
Generation Bank Replacement	Burnaby	9,000,000	-	9,000,000	9,000,000	-	0%	Not Started	Y		
Lime Silo Replacement	Burnaby	3,600,000	-	3,600,000	3,600,000	-	0%	Not Started	Y		
Primary Economizer Replacement	Burnaby	5,000,000	93,851	4,906,149	5,000,000	-	2%	Ongoing	N		Authorization has been provided to Covanta
Primary Superheaters Replacement	Burnaby	4,000,000	-	4,000,000	4,000,000	-	0%	Not Started	Y		
Programmable Logic Controllers Replacement	Burnaby	2,000,000	-	2,000,000	2,000,000	-	0%	Not Started	Y		
Pug Mill Enclosure Ventilation System Replacement	Burnaby	1,000,000	-	1,000,000	1,000,000	-	0%	Not Started	Y		
Refuse Crane	Burnaby	14,000,000	73,539	13,926,461	14,000,000	-	1%	Ongoing	N		Consultant is preparing procurement documents for detailed design and refuse crane purchase.
Secondary Economizers Replacement	Burnaby	6,000,000	-	6,000,000	6,000,000	-	0%	Not Started	Y		
Stack Refurbishment	Burnaby	350,000	-	350,000	350,000	-	0%	Not Started	Y		
		171,000,000	8,844,030	162,155,970	170,855,000	145,000					
Grand Total Solid Waste Services		515,400,000	142,103,045	373,296,955	515,155,000	245,000					

NOTE:
* Coquitlam Landfill projects being completed as a part of the United Boulevard Recycling and Waste Centre construction project

Metro Vancouver
Water Capital Expenditures Summary As of
December 31, 2021

December 31, 2021

		Lifetime										
		Total Project Budget	Total Expenditures to Date	Remaining Budget	Total Projected Expenditures	Total Budget Less Projected Expenditures	Percent Complete	Status	Project on Schedule?	Note	Comments	
Project Name	Project Location											
Infrastructure Growth Capital												
Annacis Main No. 5 (Marine Crossing)	New West/Surrey	488,000,000	50,061,989	437,938,011	488,000,000	-	10%	Ongoing	N		Design delays	
Annacis Main No. 5 (North)	New Westminster	51,500,000	854,555	50,645,445	51,500,000	-	2%	Ongoing	Y			
Annacis Main No. 5 (South)	Surrey	56,900,000	4,061,247	52,838,753	56,900,000	-	7%	Ongoing	Y			
Cape Horn Pump Station No. 3	Coquitlam	171,550,000	1,302,111	170,247,889	171,550,000	-	1%	Ongoing	Y			
Coquitlam Intake No. 2 & Tunnel	Coquitlam	1,181,230,000	8,105,533	1,173,124,467	1,181,230,000	-	1%	Ongoing	N		Project delayed due to value engineering optimized options.	
Coquitlam Intake No. 2 (Water Treatment)	Coquitlam	1,486,000,000	887,669	1,485,112,331	1,486,000,000	-	1%	Ongoing	N		Project delayed due to value engineering optimized options.	
Coquitlam Main No. 4 (Cape Horn)	Coquitlam	152,600,000	1,988,799	150,611,201	152,599,723	-	1%	Ongoing	Y			
Coquitlam Main No. 4 (Central Section)	Coquitlam	204,470,000	5,826,397	198,643,603	204,470,000	-	3%	Ongoing	Y			
Coquitlam Main No. 4 (South Section)	Coquitlam	408,250,000	6,302,346	401,947,654	408,250,000	-	2%	Ongoing	N		South Section Prebuilds delayed due to longer detailed design.	
Fleetwood Reservoir	Surrey	43,367,000	6,809,477	36,557,523	43,367,000	-	16%	Ongoing	N		Project delayed due to property approval.	
Grandview Reservoir Unit No. 2	Surrey	26,000,000	-	26,000,000	26,000,000	-	-	Not Started	Y			
Haney Main No. 4 (West Section)	Port Coquitlam	74,050,000	370,846	73,679,154	74,050,000	-	1%	Ongoing	Y			
Hellings Tank No. 2	Delta	29,411,000	5,643,855	23,767,145	29,411,000	-	19%	Ongoing	Y			
Jericho Reservoir No. 1	Langley Township	38,065,000	39,971,888	(1,906,888)	40,565,000	(2,500,000)	99%	Ongoing	Y	(c) (h)		
Kennedy Newton Main	Surrey	132,550,000	58,765,976	73,784,024	116,710,000	15,840,000	44%	Ongoing	N	(b)	Route selection delays.	
Newton Pump Station No. 2	Surrey	50,800,000	5,311,398	45,488,602	50,800,000	-	10%	Ongoing	N		Property acquisition delays.	
Newton Reservoir Connection	Surrey	27,050,000	-	27,050,000	27,050,000	-	0%	Not Started	Y			
Port Mann Main No. 2 (South)	Surrey	36,800,000	31,534,819	4,500,000	36,034,819	765,000	95%	Ongoing	Y			
South Surrey Main No. 2	Surrey	143,700,000	91,086	143,608,914	143,700,000	-	1%	Ongoing	Y			
South Surrey Main No. 2 Nickomekl Dam Prebuild	Surrey	2,000,000	-	2,000,000	2,000,000	-	0%	Not Started	Y			
Whalley Kennedy Main No. 2	Surrey	96,000,000	-	96,000,000	96,000,000	-	0%	Not Started	Y			
Whalley Main	Surrey	31,800,000	29,834,419	1,965,581	31,800,000	-	95%	Ongoing	Y			
		4,932,093,000	257,724,410	4,674,368,590	4,954,787,542	(22,695,000)						
Infrastructure Maintenance Capital												
Annacis Main No. 2 - Queensborough Crossover Improvement	New Westminster	1,200,000	-	1,200,000	1,200,000	-	0%	Not Started	Y	(e)	Likely not required. MOTI may not relocate Queensborough Main.	
Annacis Main No. 3 BHP Potash Facility Pipe Protection	Surrey	600,000	-	600,000	600,000	-	0%	Not Started	Y	(e)		
Beach Yard Facility - Site Redevelopment	Dist of North Van	45,500,000	-	45,500,000	45,500,000	-	0%	Not Started	Y			
Boundary Road Main No. 2 & No. 3 Decommissioning	Burnaby	1,500,000	424,821	1,075,179	1,500,000	-	50%	Ongoing	Y			
Burnaby Mountain Main No. 2	Burnaby	10,200,000	-	10,200,000	10,200,000	-	0%	Not Started	Y			
Burnaby Mountain Pump Station No. 2	Burnaby	21,000,000	242,082	20,757,918	21,000,000	-	1%	Ongoing	N		Scope of work under review.	
Cape Horn Reservoir Condition Assessment and Structural Repair	Coquitlam	1,550,000	-	1,550,000	1,550,000	-	0%	Not Started	Y			
Capilano Main No. 5 (South Shaft to Lost Lagoon)	Vancouver	260,000,000	12,374,911	247,625,089	260,000,000	-	5%	Ongoing	N		Delayed due to project approval timelines.	
Capilano Main No. 7 Line Valve & Swing Connection	Dist of North Van	2,100,000	1,962,662	137,338	2,100,000	-	100%	Completed	Y			
Capilano Raw Water Pump Station Bypass PRV Upgrades	Dist of North Van	1,500,000	95,796	1,404,204	1,500,000	-	6%	Ongoing	Y			
Capilano Watershed Security Gatehouse	Dist of North Van	2,300,000	534,219	1,765,781	2,300,000	-	23%	Ongoing	Y			
Central Park Main No. 2 (10th Ave to Westburnco)	Burnaby	28,350,000	28,454	28,321,546	28,350,000	-	0%	Not Started	N		Delayed due to project scope review.	
Central Park Main No. 2 (Patterson to 10th Ave)	Burnaby	91,900,000	32,275,586	59,624,414	91,900,000	-	35%	Ongoing	Y			
Central Park Reservoir Structural Improvements	Burnaby	1,900,000	-	1,900,000	1,900,000	-	0%	Not Started	Y			
Central Park WPS Starters Replacement	Burnaby	8,000,000	1,346,916	6,653,084	8,000,000	-	17%	Ongoing	N		Delayed due to re-zoning.	
CLD & SFD Fasteners Replacement & Coating Repairs	Dist of North Van	2,100,000	1,720,354	379,646	2,100,000	-	82%	Ongoing	Y			
Cleveland Dam - Lower Outlet HBV Rehabilitation	Dist of North Van	4,900,000	2,210,055	2,689,945	4,900,000	-	75%	Ongoing	Y	(g)		
Cleveland Dam Drungate Seal Replacement	Dist of North Van	1,250,000	269,208	980,792	1,250,000	-	22%	Ongoing	Y			
Coquitlam Pipeline Road Remediation	Coquitlam	2,000,000	1,855,820	144,180	1,856,960	143,000	100%	Completed	Y	(f)		
CWTP Ozone Sidestream Pipe Heat Trace and Insulation	Coquitlam	900,000	9,374	890,626	900,000	-	1%	Ongoing	Y			
CWTP Ozone Sidestream Pump VFD Replacement	Coquitlam	1,400,000	60,882	1,339,118	1,400,000	-	4%	Ongoing	Y			
CWTP pH, Alkalinity Upgrades	Coquitlam	1,700,000	1,684,847	15,153	1,700,000	-	99%	Ongoing	Y			
Dechlorination for Reservoir Overflow and Underdrain Discharges	Burnaby	2,700,000	245	2,699,755	2,700,000	-	0%	Not Started	Y			
Douglas Road Main No. 2 - Kincaid Section	Burnaby	12,300,000	9,705,838	2,594,162	12,300,000	-	80%	Ongoing	N		Alignment changes.	
Douglas Road Main No. 2 (Vancouver Heights Section)	Burnaby	21,486,000	19,869,722	1,616,278	21,486,000	-	95%	Ongoing	N	(b)	Procurement delays.	
Douglas Road Main No. 2 Still Creek	Burnaby	63,100,000	16,027,392	47,072,608	63,100,000	-	25%	Ongoing	N		Alignment changes.	
Douglas Road Main Protection	Burnaby	1,500,000	14,101	1,485,899	1,500,000	-	1%	Ongoing	Y	(e)		
E2 Shaft Phase 3	Dist of North Van	16,500,000	15,535,852	964,148	16,500,000	-	95%	Ongoing	Y			
First Narrows Tunnel Isolation Chamber Improvements	Dist of North Van	7,000,000	4,341,548	2,658,452	5,000,000	2,000,000	95%	Ongoing	Y	(a)(b)		
Improvements to Capilano Mains No. 4 and 5	Dist of North Van	1,700,000	108,039	1,591,961	1,700,000	-	6%	Ongoing	Y			
Kersland Reservoir No. 1 Structural Improvements	Vancouver	6,250,000	1,025,137	5,224,863	6,250,000	-	16%	Ongoing	Y			
Little Mountain Reservoir Roof Upgrades	Vancouver	3,450,000	1,019,331	2,430,669	1,650,000	1,800,000	100%	Completed	Y	(g)		
Lulu Island - Delta Main - Scour Protection Phase 2	Richmond	3,550,000	-	3,550,000	3,550,000	-	0%	Not Started	Y	(e)		
Lulu Island - Delta Main No. 2 (Marine Crossing)	Richmond	370,000,000	-	370,000,000	370,000,000	-	0%	Not Started	Y			
Maple Ridge Main West Lining Repairs	Maple Ridge	3,500,000	190,470	3,309,530	3,500,000	-	7%	Ongoing	N		Project delayed as a result of delays on Seymour Main No. 2 Joints Improvement project.	
Newton Rechlorination Station No. 2	Surrey	5,000,000	-	5,000,000	5,000,000	-	0%	Not Started	N		Project delayed to coordinate with Newton Pump Station Project.	
Port Mann Main No. 1 (Fraser River Crossing Removal)	Coq/Surrey	18,500,000	255,000	18,245,000	500,000	18,000,000	100%	Completed	Y		This project is no longer required.	

Metro Vancouver
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Project Name	Project Location	Lifetime							Project on Schedule?	Note	Comments
		Total Project Budget	Total Expenditures to Date	Remaining Budget	Total Projected Expenditures	Total Budget Less Projected Expenditures	Percent Complete	Status			
Port Moody Main No. 1 Christmas Way Relocation	Coquitlam	2,350,000	-	2,350,000	2,350,000	-	0%	Not Started	Y	(e)	
Port Moody Main No. 3 Dewdney Trunk Rd Relocation	Coquitlam	2,700,000	4,523	2,695,477	2,700,000	-	85%	Ongoing	Y	(e)	
Port Moody Main No. 3 Scott Creek Section	Coquitlam	12,000,000	277,851	11,722,149	12,000,000	-	4%	Ongoing	Y		
Queensborough Main Royal Avenue Relocation	New Westminster	7,500,000	8,342	7,491,658	7,500,000	-	5%	Ongoing	Y		
Rechlorination Station SHS Storage Tank Replacement	Regional	1,200,000	204,025	995,975	1,200,000	-	17%	Ongoing	Y		
Rechlorination Station Upgrades	Regional	15,000,000	407,302	14,592,698	15,000,000	-	3%	Ongoing	Y		
Rehabilitation of AN2 on Queensborough Bridge	New West/Delta	2,500,000	829,859	1,670,141	2,500,000	-	33%	Ongoing	Y		
Relocation and Protection for MOTI Expansion Project Broadway	Vancouver	8,900,000	65,004	8,834,997	8,900,000	-	1%	Ongoing	Y	(e)	
Relocation and Protection for MOTI George Massey Crossing Replacement	Delta / Richmond	2,450,000	-	2,450,000	2,450,000	-	0%	Not Started	Y	(e)	
Relocation and Protection for Translink Expansion Project Surrey Langley SkyTrain	Surrey	6,600,000	-	6,600,000	6,600,000	-	0%	Not Started	Y	(e)	
Sapperton Main No. 2 North Road Relocation and Protection	Coquitlam	6,500,000	-	6,500,000	6,500,000	-	0%	Not Started	Y		
SCFP Centralized Compressed Air System	Dist of North Van	900,000	39,769	860,231	900,000	-	4%	Ongoing	Y		
SCFP Clearwell Membrane Replacement	Dist of North Van	17,400,000	-	17,400,000	17,400,000	-	0%	Not Started	Y		
SCFP Concrete Coatings	Dist of North Van	2,500,000	2,501,262	(1,262)	2,501,262	(1,000)	100%	Completed	Y		
SCFP OMC Building Expansion	Dist of North Van	2,650,000	123,403	2,526,597	2,650,000	-	5%	Ongoing	Y		
SCFP Polymer System Upgrade	Dist of North Van	3,450,000	503,748	2,946,252	3,450,000	-	15%	Ongoing	Y		
SCFP SCADA/ICS Controller Replacement	Dist of North Van	1,400,000	-	1,400,000	1,400,000	-	0%	Not Started	Y		
South Delta Main No. 1 - Ferry Road Check Valve Replacement	Delta	600,000	106,185	493,815	600,000	-	18%	Ongoing	Y		
South Surrey Main No. 1 Nickomekl Dam Relocation	Surrey	7,100,000	-	7,100,000	7,100,000	-	0%	Not Started	N	(e)	Project delayed by City of Surrey.
South Surrey Supply Main (Serpentine River) Bridge Support Modification	Surrey	400,000	79,469	320,531	400,000	-	20%	Ongoing	Y		
Sunnyside Reservoir Unit 1 Upgrades	Surrey	8,850,000	7,894,106	955,894	7,950,000	900,000	100%	Completed	Y	(b)	
Tilbury Main North Fraser Way Valve Addition	Burnaby	3,100,000	398,828	2,701,172	3,100,000	-	13%	Ongoing	Y		
Water Chamber Improvements and Repairs	Burnaby	2,000,000	36,226	1,963,774	2,000,000	-	2%	Ongoing	Y		
Westburnco Pump Station No. 2 VFD Replacements	New Westminster	2,550,000	254,118	2,295,882	2,550,000	-	10%	Ongoing	Y		
		1,148,986,000	138,922,683	1,010,063,317	1,128,644,222	20,342,000					
Infrastructure Resilience Capital											
Barnston/Maple Ridge Pump Station - Back-up Power	Pitt Meadows	9,000,000	240,156	8,759,844	9,000,000	-	3%	Ongoing	N		Delayed due to property selection.
Burnaby Mountain Tank No. 2	Burnaby	21,650,000	64,104	21,585,896	21,650,000	-	1%	Ongoing	Y		
Burnaby Mountain Tank No. 3	Burnaby	21,400,000	-	21,400,000	21,400,000	-	1%	Ongoing	Y		
Cambie Richmond Main No. 3 (Marine Crossing)	Richmond/Van	490,250,000	2,069,434	488,180,566	490,250,000	-	2%	Ongoing	Y		
Cape Horn Pump Station 2 - Back-Up Power	Coquitlam	8,000,000	131,722	7,868,278	8,000,000	-	2%	Ongoing	Y		
Capilano Mid-Lake Debris Boom	Dist of North Van	750,000	15,610	734,390	750,000	-	2%	Ongoing	Y		
Capilano Raw Water Pump Station - Back-up Power	Dist of North Van	33,000,000	11,830,734	21,169,266	33,000,000	-	36%	Ongoing	N		Site selection delays.
Capilano Reservoir Boat Wharf	Dist of North Van	850,000	69,235	780,765	850,000	-	8%	Ongoing	Y		
Clayton Langley Main No. 2	Surrey	16,900,000	-	16,900,000	16,900,000	-	0%	Not Started	Y		
Cleveland Dam Power Resiliency Improvements	Dist of North Van	1,700,000	30,530	1,669,470	1,700,000	-	2%	Ongoing	Y		
Cleveland Dam Seismic Stability Evaluation	Dist of North Van	800,000	-	800,000	800,000	-	0%	Not Started	Y		This project phase to start in 2022 after completion of the CLD Canyon Amplification/Concrete Dam Analysis project
Coquitlam Intake Tower Seismic Upgrade	Coquitlam	26,000,000	1,431,915	24,568,085	26,000,000	-	6%	Ongoing	Y		
Critical Control Sites - Back-Up Power	Regional	1,800,000	-	1,800,000	1,800,000	-	0%	Not Started	Y		
CWTP Ozone Back-up Power	Coquitlam	7,450,000	-	7,450,000	7,450,000	-	0%	Not Started	Y		
Emergency Power Strategy for Regional Water Facilities	Regional	400,000	158,699	241,301	400,000	-	40%	Ongoing	Y		
Grandview Pump Station Improvements	Surrey	2,600,000	387,271	2,212,729	2,600,000	-	15%	Ongoing	Y		
Haney Main No. 4 (Marine Crossing)	P.Coq/P.Meadows	390,250,000	235,112	390,014,888	390,250,000	-	1%	Ongoing	Y		
Mackay Creek Debris Flow Mitigation	Dist of North Van	9,700,000	9,115,257	584,743	9,700,000	-	98%	Ongoing	N	(d)	Delays due to challenging ground conditions. Coordinating with City of Delta.
Pebble Hill Pump Station Seismic Upgrade	Delta	1,800,000	-	1,800,000	1,800,000	-	0%	Not Started	N		
Pebble Hill Reservoir No. 3 Seismic Upgrade	Delta	9,500,000	361,525	9,138,475	9,500,000	-	4%	Ongoing	Y		
Pebble Hill Reservoir Seismic Upgrade	Delta	14,800,000	1,342,314	13,457,686	12,800,000	2,000,000	15%	Ongoing	N	(b)	Design delays due to geotechnical conditions. Delayed due to scope refinement.
Reservoir Isolation Valve Automation	Regional	6,450,000	1,192,875	5,257,125	6,450,000	-	18%	Ongoing	N		
Scour Protection Assessments and Construction General	Regional	4,000,000	-	4,000,000	4,000,000	-	0%	Not Started	Y		
Second Narrows Crossing (Tunnel)	Burnaby/DNV	468,550,000	279,843,998	188,706,002	468,550,000	-	60%	Ongoing	Y		
Seymour Falls Boat Wharf	Dist of North Van	800,000	65,345	734,655	800,000	-	11%	Ongoing	Y		
Seymour Lake Debris Boom	Dist of North Van	800,000	287,175	512,825	800,000	-	36%	Ongoing	Y		
Seymour Main No. 2 Joint Improvements	Dist of North Van	5,252,000	663,540	4,588,460	5,252,000	-	16%	Ongoing	N		Work delayed to coordinate with Broadway Skytrain relocation work.
Seymour Main No. 5 III (North)	Dist of North Van	236,900,000	5,019,663	231,880,337	236,900,000	-	2%	Ongoing	Y		
Seymour Reservoir Mid-Lake Debris Boom	Dist of North Van	2,300,000	1,230,676	1,069,324	2,300,000	-	54%	Ongoing	Y		
Sunnyside Reservoir	Surrey	19,300,000	7,556,887	11,743,113	19,300,000	-	50%	Ongoing	Y		
Vancouver Heights System Resiliency Improvements	Burnaby	1,500,000	6,661	1,493,339	1,500,000	-	0%	Not Started	Y		
Westburnco Pump Station - Back-up Power	New Westminster	23,500,000	1,238,752	22,261,248	23,500,000	-	5%	Ongoing	N		Design delay, scope modification.
		1,837,952,000	324,589,191	1,513,362,809	1,835,952,000	2,000,000					
Infrastructure Upgrade Capital											
CWTP Ozone Generation Upgrades for Units 2 & 3	Coquitlam	7,000,000	3,271,087	3,728,913	7,000,000	-	47%	Ongoing	N		Delay due to operational requirements.
Lower Seymour Conservation Reserve Learning Lodge Replacement	Dist of North Van	5,000,000	876,931	4,123,069	5,000,000	-	18%	Ongoing	Y		
Online Chlorine Monitoring Stations	Regional	4,150,000	-	4,150,000	4,150,000	-	0%	Not Started	Y		

Metro Vancouver
Water Capital Expenditures Summary As of
December 31, 2021

Project Name	Project Location	Lifetime					Percent Complete	Status	Project on Schedule?	Note	Comments
		Total Project Budget	Total Expenditures to Date	Remaining Budget	Total Projected Expenditures	Total Budget Less Projected Expenditures					
Sapperton Main No. 1 New Line Valve and Chamber	New Westminster	3,800,000	977,716	2,822,284	3,800,000	-	26%	Ongoing	N		Tie-ins delayed.
South Delta Main No. 1 - 28 Ave to 34B Ave	Delta	22,650,000	20,708,558	1,941,442	22,650,000	-	100%	Completed	N		Construction delays due to unforeseen environmental and geotechnical conditions.
South Delta Mains - 28 Ave Crossover	Delta	10,500,000	10,439,252	60,748	10,500,000	-	99%	Ongoing	N		Utility conflicts and additional scope of work.
Tilbury Junction Chamber Valves Replacement with Actuators	Richmond	5,600,000	4,542,070	1,057,930	5,600,000	-	81%	Ongoing	N		Tie-ins delayed due to railway permitting requirements.
Water Meter Upgrades	Regional	22,400,000	5,437,226	16,962,774	22,400,000	-	24%	Ongoing	N		Procurement delays.
Water Optimization - Flow Meters (Non-billing) Phase 1	Regional	16,500,000	-	16,500,000	16,500,000	-	0%	Not Started	Y		
Water Optimization - Flow Meters (Non-billing) Phase 2	Regional	19,500,000	-	19,500,000	19,500,000	-	0%	Not Started	Y		
Water Optimization - Instrumentation	Regional	11,400,000	-	11,400,000	11,400,000	-	0%	Not Started	Y		
Water Optimization Automation & Instrumentation	Regional	9,540,000	8,018,834	1,521,166	9,540,000	-	84%	Ongoing	N		Procurement delays.
		138,040,000	54,271,675	83,768,325	138,040,000	-					
Opportunity Capital											
Capilano Hydropower	Dist of North Van	114,250,000	218,368	114,031,632	114,250,000	-	1%	Ongoing	N		Project currently on hold.
		114,250,000	218,368	114,031,632	114,250,000	-					
Grand Total Water Capital		8,171,321,000	775,726,327	7,395,594,673	8,132,374,000	38,947,000					

Notes:

- (a) Contingency not required.
- (b) Construction costs lower than estimated.
- (c) City of Surrey share - 33.72%, Township of Langley share - 66.28%.
- (d) Cost sharing proposal with City of Delta
- (e) Project start is dependent on a 3rd party. External agency yet to begin work.
- (f) GVWD Cost Share City of Coquitlam, Fortis and BC Hydro
- (g) Extent of construction scope less than originally anticipated.
- (h) Design change/consultant

**Capital Project Status Information
December 31, 2021**

The progress details of the Metro Vancouver Housing Corporation (MVHC) capital projects are highlighted below:

Heather Place – Building B

Expenditures in 2021 were below the anticipated level as the issuance of the city abatement permit was later than scheduled. Abatement work was expected to begin in late 2021; however, the work is now delayed to mid-2022.

Kingston Gardens

Expenditures in 2021 were below the anticipated amount due to the delay in construction commencement, which was a result of the building permit issuance. Construction is expected to begin in Q1 of 2022.

Welcher Avenue

Overall expenditures were below anticipated amounts in 2021 due to the delay in construction commencement. 2021 activities included detailed project design and tendering. Construction was expected to begin in Q4 of 2021. The building permit application was submitted in April 2021 and an amended building permit was submitted in September 2021. Construction is expected to commence in Q2 2022.

Malaspina Village

Overall expenditures were below anticipated amounts in 2021 as the awarding of the architectural services contract was delayed from late 2021 to early 2022.

Pitt Meadows

Architectural services contract was awarded in September 2021. Schematic design phase proceeded through Q4 2021 and will continue in 2022. Archaeology draft report has been received and First Nations engagement is complete.

Eastburn Square

Architectural services contract was awarded in December 2021. Geotechnical site assessment has been completed. Schematic design will progress in 2022. Re-zoning application to be submitted in Q1 2022.

Southwynde

Architectural services contract was awarded in November 2021. Schematic design will progress in 2022. Re-zoning application to be submitted in Q1 2022.

Capital Project Status Information December 31, 2021

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:

Infrastructure Growth Program

- **FSA – Albert Street Trunk Sewer** – The Albert St. Trunk Sewer is a sanitary sewer located in the City of Port Moody that was constructed in the 1960's and is in need of a capacity upgrade. Phase 1 construction was completed in 2019. Phase 2 of the project includes the upgrade of a section that is approx. 200 m long and crosses Barnet Hwy just north of St. John St using the microtunneling construction method. The sewer surcharges in a residential area under heavy rain. Construction was completed in late 2021.
- **FSA – Burnaby Lake North Interceptor – Winston Street Section** – Phase 1 of the sewer was completed in October 2021, and involves 880 m of 914 mm sewer constructed by open cut methods. It located to the east of Sperling Avenue. Phase 2 of the project involves 2.9 km of 2.1 m diameter sewer constructed primarily by tunneling. The RFP for the tunneling portion of the work closed in December 2021. The successful contractor was Pomerleau Bessac Infrastructure (PBI) and the construction contract was awarded in January 2022. Construction is scheduled to begin in April 2022. The project is projecting a surplus.
- **FSA – South Surrey Interceptor – King George Section Odour Control Facility (OCF) and Grit Chamber** - This project involves three separate installations: two odour control facilities (at King George Boulevard near 56 Ave in Surrey and at Highway 10 and Highway 91 in Delta) and a grit chamber at the King George location. The grit chamber portion of this project is complete and in service. Trittech Group Ltd., the contractor for the odour control facilities, has completed the facility at Highway 91, which has been operational since March 2020. Trittech is still working on the King George facility which is scheduled to be commissioned later in the spring of 2022. The project is projecting a surplus at the end of construction.
- **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. This construction contract was awarded to Graham and AECON Joint Venture in April 2017. Substantial completion of the overall project was achieved in May 2021, and the various processes were all in service in late 2021.

- **FSA - Annacis Island WWTP Outfall – Surge Control** - This project involves the replacement of four hydraulic gates in the Influent Control Chamber and ancillary equipment to mitigate the risk of transient surges to upstream infrastructure. The construction contract was awarded to Maple Reinders Construction Limited in March 2021. Long lead equipment submittals have been approved for fabrication. Construction is approximately 10% complete. The project is tracking on schedule with the substantial completion in late Q3 2023.

Infrastructure Maintenance Program

- **LSA – Gilbert Trunk Sewer Twinning** - Construction of the 5.3 km long Phase 1 and 2 is complete. The remaining 2 Phases have a total length of 4.7 km consisting of 1.8 m diameter sewers. Phase 4, from Steveston Highway to the Lulu Island WWTP, was tendered in 2020 but due to contractual issues the process was collapsed and restarted. It has been re-tendered and is expected to close on March 31 2022. Phase 3 which extends from Blundell Road south to the Steveston Highway, is expected to be tendered in early April 2022. The Phase 4 construction contract is expected to be awarded in July 2022 and construction will begin in late 2022. Phase 3 is expected to be awarded in the fall of 2022 with construction commencing in late 2022 or early 2023.
- **FSA - North Surrey Interceptor Rehab or Replacement** - This project involves two components. The first is rehabilitating approximately 220m of the existing NSI near the Port Mann Bridge. It also involves relocation and upgrading of City of Surrey connection to the NSI. Work is currently underway and is expected to be completed in June 2022.

The other part of this project is twinning and rehabilitation of approximately 760m of the existing NSI-Manson Road section. The project is currently moving on to preliminary design. Construction is expected to commence in mid-2023 for the twinning portion. Rehabilitation may begin earlier in 2022 depending on the result of an upcoming condition analysis.

- **FSA - Crescent Beach FM Replacement** – This project involves the design and construction of approximately 2 km of sanitary force main to replace the existing 500 mm diameter FRP (fiber reinforced plastic) pipe which is aging and in poor condition. JJM Construction was awarded the contract in July 2021. Construction started in the fall of 2021, and is scheduled to be completed by the end of 2022.
- **FSA - New Westminster Interceptor Repair – Columbia Street Section** – This project involves the rehabilitation of 1,600 m of the 1.5 m diameter New Westminster Interceptor from Front St. to McBride Blvd. The contract was awarded to Southland Holdings. Construction started in July 2021. Phase 1, which involves the first 800 m of sliplining, is scheduled to be completed in May 2022. Phase 2 and 3 will follow, with timing to be determined in conjunction with the Contractor, the City of New Westminster and the Ministry of Highways.
- **FSA - Ocean Park Trunk Crescent Section (OPC) Pipe Rehabilitation/Replacement** - This project involves the design and construction of a 420m long sewer between 24 Avenue and Bayview Street, in Surrey. It is a combination of open cut work and trenchless work using cured in place pipe (CIPP) technology. The contract was awarded to BEL Contracting. Work was finished in Q4 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. This project is combined with the Secondary Clarifier Flow Control project, which

involves the addition of 12 new influent flow balancing gates and the replacement of 12 effluent launders and weirs. The current construction contract, awarded to NAC Constructors Ltd. in March 2019 for the amount of \$17.8M, consists of the replacement of the 5 remaining mechanism units, the addition of 9 flow balancing gates and the replacement of the 12 existing effluent launders and weirs. Construction started in May 2020 and is scheduled to be complete by end of 2022. To date 12 mechanisms, 8 launders and weirs have been replaced, and 11 flow balancing gates have been installed.

- **FSA – Annacis Island WWTP Tricking Filter Media, Distributor and FOA Duct Replacement** – This project replaces the rotary distributors, plastic media and foul air ducting for the four Tricking Filters (TF) at the AIWWTP. These components have been in service for over 20 years and are reaching the end of their service life. The distributors and ducting have experienced significant corrosion, resulting in recent equipment failures requiring emergency maintenance in the past few years. The construction will be completed in two contracts, with the first contract for two TFs and the second contract for the remaining two TFs. This work was to be executed one unit at a time with one TF per year during the low flow season. Maple Reinders Construction Ltd. have completed the refurbishment for the first TF (TF 1) started in April 2020 and was successfully completed in September 2020 before the start of the wet weather season. Refurbishment of the second TF (TF 3) started in mid-April 2021 and was completed in September 2021. The second contract for the refurbishment of the remaining two TFs (TF 2 and TF4) was awarded to Pomerleau in July 2021. There has been a delay due to delivery of equipment, and TF2 and TF4 will now be completed in 2023 and 2024 which is a 1 year delay.
- **FSA – Northwest Langley WWTP 25 kV Substation Replacement** - This project involves the design and construction of a new 25kV substation to replace the existing outdoor substation which transforms and distributes power to areas in the plant. Due to its age and poor condition of the switchgear enclosures, the existing substation has been assessed as unreliable for maintenance and operations. The contract was awarded to Pomerleau, and construction commenced in Q1 2019. The construction was substantially completed in July 2021. Project closeout and correction of minor deficiencies remain and Owner's acceptance of the project is expected in Q3 2022.

Infrastructure Resilience Program

- **VSA – Emergency Backup Power** - This project involves design, supply and installation of standby emergency backup generators at the Chilco, Columbia, Harbour, Hudson, Jervis, Kent and Willingdon pump stations to allow the stations to remain operational during power failure events and reduce the risk of a spill. Three separate tenders for the Columbia, Harbour, Hudson, Kent and Willingdon upgrades were issued in Q4 2019. The construction at Harbour, Hudson, Kent and Willingdon pump stations were completed earlier in 2021 and the generators were commissioned. The Columbia PS generator was completed and commissioned in Q4 of 2021. The Vancouver Parks Board approved the Jervis PS Generator concept in the fall of 2019, and the design and permitting of the Jervis facility is advancing. Construction has been rescheduled until late 2023, due to unresolved property issues. The Chilco facility concept is currently being reviewed with the Vancouver Parks Board, prior to starting the detailed design. To prevent future spills during power outages, MV is actively working on design and installation of temporary generators at both Chilco and Jervis PS later in 2022.

Infrastructure Upgrade Program

- **VSA – Iona Island WWTP Biosolids Dewatering Facility** – This project involves the construction of a mechanical dewatering facility to dewater on-going plant production of biosolids so that they can be transported for beneficial reuse or disposal. This facility will permit the decommissioning of the

four existing digested sludge lagoons and the sludge drying area to make space for the construction of the new tertiary treatment plant. The \$55 million design-build contract was awarded to NAC Constructors in April 2019. The design phase is 99% completed, and the construction phase is about 95% complete as of December 2021. Ground improvement and civil works underground piping, foundations and concrete works are complete. The two Digested Sludge Storage Tanks, Dewatering Building, Truck Load-out Building, Mechanical/Electrical/Control Rooms have been erected, enclosed, and finished except for minor touch-up painting and remedial work. All mechanical process equipment such as the centrifuges, hoppers, pumps, and screw conveyors have been delivered and installed and will be rotationally-checked and functionally-tested in Q1 2022. The project has nearly completed the electrical installation phase – i.e. cable pulls, transformer installation, switchgear, motor control centers, and the wiring of field devices and instrumentation. The electrical switchgear and field devices will be loop-checked and functionally-tested in Q1 2022. The dewatering facility is targeted for acceptance by MV in Q3 2022 with 30 days of Owner Commissioning commencing in Q2 2022.

Opportunity Program

- **FSA – Annacis Island WWTP Hydrothermal Liquefaction** – This work involves the design and construction of a demonstration scale plant to convert wastewater biomass to biocrude as a low carbon fuel. The objective of the demonstration scale is to assess the technology performance and the feasibility of full-scale implementation at an existing or future WWTP. Six separate contracts are anticipated as part of this project including a qualitative risk analysis of the HTL system and an operations-maintenance contract independent of the AIWWTP facility operations. Procurement of a progressive design build contractor for the HTL system is underway and the design portion of the contract is expected to be awarded in Q1 2022. Design of the supporting ancillary systems outside of the HTL system is currently underway and is expected to be substantially completed in Q3 2022. The entire HTL demonstration plant is scheduled to be completed in 2025 and put in operation from 2025 to 2027.
- **LSA - Lulu Island WWTP Biogas Cleanup Project** - This project involves the design and construction of a new digester gas clean-up facility at LIWWTP for producing pipeline quality RNG (a.k.a. bio-methane) for sale to Fortis Energy Inc. This project supports Metro Vancouver’s commitment to protect public health and the environment. This innovative treatment system will result in a decrease in the flaring of digester gas, a reduction in regional greenhouse gas emissions, and the reuse of a sustainable resource. The system will produce enough renewable natural gas to heat 400 homes and gas production will increase as our local population grows. The project is 97% completed as of December 2021 and is presently undergoing the 30-day commissioning period under the supervision of LIWWTP staff to prove out the system and remedy any deficiencies or performance shortcomings of the equipment as provided by the various suppliers and contractors. Owner’s commissioning is expected to be completed by March of 2022.
- **LSA – LIWWTP Pilot Digestion Optimization Facility** - The Pilot Digestion Optimization Facility (PDOF) fabrication and installation was awarded to Tritech in Q1 2021. Fabrication of the equipment mounted in modular skids is currently underway in the contractor’s facilities following a full review of shop drawings by MV in Q3 2021. The PDOF’s purpose is to facilitate the evaluation of sludge digestion optimization techniques without risking full-scale operations. Lessons learnt at the pilot scale could be incorporated in existing and future plants leading to the deferral of significant investments such as building new digesters. The project is measured at 42% complete as of December 2021 with an expected completion date in Q3 2022. The PDOF is designed to be adaptable

and transportable (being built in modules) to other WWTP sites (such as AIWWTP or ARC) for further research and testing purposes. Experimentation, data collection and trend analyses will be undertaken by both MV PPA and O&M in cooperation with UBC Okanagan research staff.

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**Capital Project Status Information
December 31, 2021**

2021 Regional Park Major Capital Project Update

Major Regional Parks capital projects are proceeding throughout the region. Project details are highlighted below:

Widgeon Marsh - Grouse Mountain Trail and Amenity Improvements

Phase 1 implementation work originally planned for 2021 was deferred to 2022 to provide time for relationship building and collaboration with First Nations. Regional Parks staff continue to engage First Nations in sharing information, seeking input and exploring collaborative opportunities. An archeological impact assessment and cultural study, that will guide park design and management over the long term, will conclude in spring 2022.

A rezoning application to the City of Coquitlam is also expected to conclude in Spring 2022 following First Nation engagement. Regional Parks staff continue to work closely with City staff through the rezoning process.

An application to the Investing in Canada Infrastructure Program – Community, Culture and Recreation Program was submitted in October 2020 to fund Phase 1 park improvements. Announcements on the grant program are expected in early 2022. The delay in Phase 1 implementation will ensure Metro Vancouver remains eligible for this grant, should the application be successful.

Crippen Regional Park – Davies Orchard Revitalization

In November 2017, the Metro Vancouver Board approved a concept plan for Davies Orchard with a vision to improve public access, add new features and amenities, and enhance the historic cottages and orchard.

In early 2021, this project was awarded a \$450,000 provincial grant from the Unique Heritage Infrastructure stream of the Community Economic Recovery Infrastructure Program (CERIP). This funding will go towards Phase I of the project which includes upgrades to five cottage buildings, servicing improvements and deconstruction of one cottage in poor condition.

All required permits are now in place for Phase 1. Implementation will begin in Spring 2022 and extend through the year. Phase II, which includes site and public space improvements will proceed in 2023. Staff are working closely with Bowen Island Municipality and are planning a stakeholder workshop this spring.

Derby Reach Regional Park - Edgewater Bar Washrooms

Construction of a full service washroom facility at Edgewater Bar in Derby Reach Regional Park is underway and expected to conclude in December 2022. The new facility will improve the day use and camping visitor experience. Accessibility will be enhanced, capacity will be expanded, site circulation and open space will be improved and environmental impacts will be reduced.

Grouse Mountain Regional Park - Grouse Mountain Trail and Amenity Improvements

In 2020, the Government of Canada and Province of BC announced a \$2.5 million grant for the Grouse Mountain Trail and Amenity Improvement Project under the Investing in Canada Infrastructure Program.

The purpose of the project is to implement the park management plan, and improve access and safety for park users. The project timeline is from 2020 to 2024.

Improvements to the Grouse Grind and BCMC Trail will continue throughout 2022. Detailed design of an expanded trailhead and lower mountain trail network is underway. First Nation engagement is ongoing and will continue through 2022.

Campbell Valley Regional Park Management Plan Implementation

A multidisciplinary team is guiding the implementation of the MVRD Board approved Campbell Valley Regional Park Management Plan. The scope of this project includes expanding the trail and greenway network, improving park access and ecology, enhancing the Little River Bowl area, and developing and opening McLean Pond for public access.

Advanced design and permitting will continue through 2022. Construction will extend from 2022-2024 with priority trail and staging area improvements beginning in Spring 2022.

Crippen Regional Park – Dorman Point Development

Regional Park staff have initiated site planning and design of trail access and site amenities for the recently acquired Dorman Point area of Crippen Regional Park. Ecological assessment, survey, and preliminary clearing of the access trail is complete. Detailed design and implementation will extend through 2022.

Regional Park Service Yards

Capilano River, Crippen and Pacific Spirit Regional Parks service yards are scheduled for replacement. These upgrades will ensure continued safe and efficient operation, maintenance and stewardship of regional parks sites.

Construction of the Crippen service yard is substantially complete and is expected to be fully operational in Spring 2022. Construction of the Pacific Spirit service yard is underway. The Capilano River service yard is in the final stages of the development permitting process with District of North Vancouver.

Capital Project Status Information – Solid Waste Services**December 31, 2021**

The two recycling and waste centre construction projects, United Boulevard Recycling and Waste Centre and Central Surrey Recycling and Waste Centre are nearing completion. Major capital projects are expected to be completed within budget. Waste-to-Energy Facility projects and purchase of land for a new North Surrey Recycling and Waste Centre recycling depot are proceeding slower than expected and have resulted in reduced expenditures in 2021 compared to projected cash flows.

Recycling and Waste Centre Program

- The United Boulevard Recycling and Waste Centre construction started in May 2018 with site grading works. The full construction contract was awarded in December 2018. Construction is complete and the facility opened on March 14, 2022.
- The Central Surrey Recycling and Waste Centre project received rezoning and a development permit in late 2018. The construction contract was awarded in the summer of 2020. Construction was initiated in July of 2020. Construction is well underway and expected to be complete in June 2022.

Landfills Program

- Construction of Phase 2 landfill gas collection system upgrades is being completed as a part of the construction of the United Boulevard Recycling and Waste Centre. The new landfill gas infrastructure has been commissioned prior to United Boulevard Recycling and Waste Centre opening. A system upgrade is required which includes a new control room and compressor at the blower flare station. Preliminary design has been started and design work should be completed in 2022.

Waste-to-Energy Program

- The refuse crane replacement project commenced with preliminary engineering in 2019. The next phases of the project include detailed design and procurement of the major capital items.
- The second pass superheater replacement project is complete.
- Covanta commenced replacement of the back-up feedwater pumps as they have reached the end of their useful life.
- The feed hopper / chute replacement project started in late 2019. Feed hopper replacement is now complete with feed chute replacement to be completed in 2022.
- Ministry of Environment and Climate Change Strategy has approved proceeding with managing up to 25,000 tonnes per year of biosolids at the Waste-to-Energy Facility. Procurement for a detailed design engineering study commenced on February 10, 2022.
- The primary economizer project commenced with engineering and procurement services on November 6, 2020. Installation of the works is expected to occur in 2022.

- The compressed air system replacement project is underway, an engineering study commenced on October 18, 2021.
- The fabric filter / pulse header refurbishment project is underway, an engineering study commenced on December 2, 2021.

GVWD Capital Project Status Information

December 31, 2021

GREATER VANCOUVER WATER DISTRICT

Major GVWD capital projects are generally proceeding on schedule and within budget. The following capital program items and exceptions are highlighted:

Infrastructure Growth Program

- **Annacis Main No. 5 (Marine Crossing)** – A 2.3 km long, 4.5 metre diameter water supply tunnel is required under the Fraser River to meet growing water demand south of the Fraser and to provide increased system resiliency. Detailed design, and property acquisition are complete. The construction contract was awarded in late October 2021, and construction will commence in March 2022.
- **Annacis Main No. 5 (South)** – This project comprises approximately 3.0 km of 1.8 metre diameter steel pipe connecting the south shaft of the Annacis Water Supply Tunnel to the Kennedy Reservoir in the City of Surrey. Preliminary design has been completed and detailed design is in progress and expected to be complete in February 2022.
- **Cape Horn Pump Station No. 3** – Cape Horn Pump Station No. 3 with a back-up power system, will supplement the existing pump station to deliver Coquitlam source water to meet growing demand in the areas south of the Fraser River. Preliminary design of the new station started in Q1 2020 and is nearing completion. The RFP for detailed design and construction engineering services will be issued by end of Q1 2022
- **Coquitlam Intake No. 2** – A new intake, tunnel and treatment plant are proposed at the Coquitlam Reservoir to increase the regional supply from this source and meet growing future demand. A Value Engineering Optimization exercise, completed in early 2021, confirmed a preferred project option of a North Intake with Smaller Initial Filtration Treatment, which was endorsed by the Board. The Final Project Definition Report has been submitted for review. The project is now in the permitting and regulatory phase, which will focus on engagement with First Nations and stakeholders.
- **Coquitlam Main No. 4** – This 12 km long steel water main, consisting of the Central, South, South Tunnel and Cape Horn Sections, will increase the transmission capacity from the Coquitlam source to the Cape Horn Pump Station and Reservoir in the City of Coquitlam. This project is required to address capacity constraints in the existing Coquitlam transmission system and also provide additional transmission capacity for the Coquitlam Intake No. 2. Detailed design of the Central, South and Cape Horn Sections continues. Preliminary design of the South Tunnel Section is underway. Construction of the South Section Prebuild will commence in Q4 2022.
- **Fleetwood Reservoir** – Phase 1 of the Fleetwood Reservoir project includes a 13.6 ML reservoir, valve chamber, piping, access building and associated work located at Meagan Ann MacDougall Park in the City of Surrey. The City of Surrey has finalized the Property Lease Agreement and a Coordinated Works Agreement to include a portion of the city water main in the tender package and they are currently reviewing the building permit application. The construction tender has closed and will go

before the Board in March for award approval. Construction is expected to commence in Q2 2022.

- **Jericho Reservoir** – Phase 1 of the Jericho Reservoir project includes a 20.6 ML reservoir, chambers, piping and associated work located at 20400 73A Avenue in the Township of Langley. Construction is substantially complete with minor deficiencies remaining. The reservoir is currently in service.
- **Kennedy Newton Main** – This project comprises approximately 9.0 km of 1.8 metre diameter steel water main between the Kennedy Reservoir and the Newton Reservoir in the City of Surrey and is divided into 3 phases. Construction of Phase 1, between 72nd Avenue and 84th Avenue, is complete. Construction of Phase 2, between 72nd Avenue and Newton Reservoir commenced in September 2020 and is nearing completion. Design of the remaining Phase 3, from 84th Avenue to Kennedy Reservoir, is complete with the construction tender to be released in Q1 2022.
- **Newton Pump Station No. 2** – This project, located at 6287 128th Street in the City of Surrey, consists of replacing the existing Newton Pump Station and includes full back-up power redundancy, connections to existing and future infrastructure, and installation of new outlets to the existing Newton Reservoir. The detailed design is in progress with completion expected in Q1 2022. Construction of the new reservoir outlets is anticipated to start in fall 2022 with the main pump station construction planned in spring 2023.
- **Port Mann Main No. 2 (South)** – This 2.8 km long, 1.5 metre diameter steel water main will twin the existing Port Mann Main No. 1 between the south shaft of the Port Mann Water Supply Tunnel and the Whalley Main in the City of Surrey. The project is required to meet growing water demand south of the Fraser River. The water main installation and commissioning are now complete and the new main is now in service.
- **Whalley Main** – This 2.0 km long, 1.5 metre diameter steel main will twin the existing Whalley Clayton Main between the Whalley Reservoir and the Whalley Kennedy Link Main in the City of Surrey. The water main installation and commissioning are now complete and the new main is now in service.

Infrastructure Maintenance Program

- **Douglas Road Main No. 2 – Still Creek Section** - This project comprises approximately 2.5 km of 1.5 metre diameter steel pipe with trenchless crossings of Highway 1, Still Creek and the BNSF rail line. The water main alignment has been finalized in consultation with the City of Burnaby. The Project is planned to be constructed in three phases, with the North Open Cut Section and the Trenchless Crossing Section currently under construction. Design of the South Open Cut Section is underway.
- **Douglas Road Main No. 2 – Vancouver Heights Section** - This project comprises approximately 2.0 km of 1.5 metre diameter steel pipe connecting the Vancouver Heights Reservoir to the Douglas Road Main No. 2 at Beta Avenue and Albert Street in the City of Burnaby. The installation construction contract is complete. Final tie-ins and commissioning are planned for fall 2022.
- **Central Park Main No. 2 – Patterson to 10th Ave** - This project comprises approximately 7.0 km of 1.2 metre diameter steel pipe connecting the Central Park Pump Station in Burnaby to the existing Central Park Main in New Westminster at 10th Avenue. The water main is divided into three phases with the 500 m long Maywood Pre-build completed in December 2020. Construction of Phase 1 of the project commenced in October 2020 with completion anticipated in mid-2022. Design of Phase 2 is underway and is expected to be complete in summer 2022.

- **Capilano Main No. 5 (Stanley Park Section)** – This 1.4 km long steel water main, in a tunnel, will replace the aged existing Capilano Main No. 4 through Stanley Park to meet growing water demand and provide increased system resiliency. Detailed design is nearing completion. Work to secure permits and land agreements is on-going. The procurement phase for construction is scheduled to commence in April or May 2022, with construction anticipated to start in 2023.

Infrastructure Resilience Program

- **Mackay Creek Debris Flow Mitigation** – Construction commenced in spring 2019 and was completed in March 2020. Site restoration was completed in late 2021.
- **Second Narrows Water Supply Tunnel** – This project comprises a 1.1 km long, 6.5 metre diameter water supply tunnel under Burrard Inlet, between North Vancouver and Burnaby, to increase the reliability of supply in the event of a major earthquake and provide additional long-term supply capacity. Construction commenced in early 2019. Construction of the north and south shafts is complete. The Tunnel Boring Machine began tunnel excavation in the fall of 2020 and the tunnel was completed in fall 2021. Construction of the south valve chamber and installation of the steel water mains inside the tunnel commenced in late 2021. Overall construction is scheduled to be complete by late 2023, followed by site restoration and final tie-ins and commissioning in 2024 and 2025.
- **Capilano Raw Water Pump Station – Back-up Power** – This project consists of installing diesel generators to provide 8 MW of back-up power to the pump station. A portion of the equipment has already been delivered and the design for the construction tender is nearing completion. Construction is anticipated to start in early fall 2022 with overall project completion in 2024.
- **Coquitlam Intake Tower Seismic Upgrade** – The Coquitlam Intake Tower is located in the southeast corner of the Coquitlam Reservoir. Constructed in 1913, the tower provides the GVWD its primary intake of water from Coquitlam Reservoir. The Tower is a 27 metre-high and 5.5 metre diameter unreinforced concrete structure, founded on bedrock. Detailed design of the seismic upgrade is 75% complete. Completion of detailed design is expected in Q2 of 2022. Due to coordination with BC Hydro work and water supply operations, construction will be completed over two winter periods 2024 to 2026.
- **Pebble Hill Reservoir No. 1, 2 and 3 Seismic Upgrade** – Pebble Hill Reservoir in south Delta is comprised of three units. Construction is scheduled to be completed in stages, taking only one unit out of service at any time. Construction of Unit 1 is ongoing and will finish in the summer of 2022. Unit 2 will commence in the fall of 2022 and finish in the summer of 2023. A separate tender will be issued for Unit 3 which is not expected to start until 2025.
- **Westburnco Pump Station – Back-up Power** – This project consists of installing diesel generators to provide 5 MW's of back-up power to the pump station. Preliminary design was completed in 2019 and detailed design is underway.
- **Cambie-Richmond Water Supply Tunnel** – This project comprises an approximately 1 km long 4.5 m diameter tunnel under the Fraser River between the City of Vancouver and the City of Richmond to increase the reliability of supply in the event of a major earthquake and provide additional long-term supply capacity. Conceptual design commenced in 2019 and is almost complete. Preliminary design is scheduled to commence later this year.

Infrastructure Upgrade Program

- **Coquitlam Ozone Upgrade** – This project consists of upgrades to the ozone generators at the Coquitlam Water Treatment Plant. The generators for units 1, 2 and 3 have been replaced and units 1 and 2 are in service. Testing and commissioning of unit 3 is scheduled for Q1 2022. Completion of the upgrades to the ozone control system will follow.

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To: Performance and Audit Committee

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

Date: March 24, 2022 Meeting Date: April 14, 2022

Subject: **Investment Position and Returns – September 1, 2021 to February 28, 2022**

RECOMMENDATION

That the Performance and Audit Committee receive for information the report dated March 24, 2022 titled “Investment Position and Returns – September 1, 2021 to February 28, 2022”.

EXECUTIVE SUMMARY

Metro Vancouver’s investment portfolio has met expectations this period, with 2021 annualized returns for Short-Term at 0.99%, Long-Term at 2.19% and Cultural Reserve Fund at 2.24%. Total investment income in 2021 was \$9.8 million on an average portfolio balance of \$1,097 million. Results and balance information have been included to the end of February 2022.

Interest rates are expected to rise as the Bank of Canada manages inflation. As a result, Metro Vancouver’s investment return will increase as higher rates will be earned on investments and cash held in high interest savings accounts.

Staff report investment returns three times a year to this Committee. Beginning in June 2022, in tandem with the transition to quarterly reporting, staff will enhance this report to include a broader range of Treasury issues, including the spread between the costs of borrowing and the earnings realized on investments, the forecasted debt portfolio and inflationary impacts on capital construction, and other important macro-economic factors that Metro needs to consider in its long term planning.

PURPOSE

To report investment performance and related economic information for receipt by the Committee.

BACKGROUND

Investment updates are brought to the Committee to keep members informed on important updates relating to Metro Vancouver’s investments. The *Corporate Investment Policy* requires that an investment update report be presented to the Committee three times per year. Given the timing of the report, the period covers the third and final report for 2021 and the first two months of the current year.

INVESTMENT CATEGORIES

Short term investments have terms of less than one year at the time of investment. These normally include Bankers’ Acceptances, Canadian Bank Bonds and Credit Union Term Deposits.

Long term investments have terms greater than one year at the time of investment. These investments normally include Canada, Provincial, and Canadian Bank bonds, Guaranteed Investment Certificates and Credit Union Term Deposits greater than one year.

Cultural Reserve investments are long term investments whose revenues have been set aside to fund Metro Vancouver's annual contributions to cultural activities.

OVERALL INVESTMENT RETURNS

Table 1

2021-2022 SUMMARY OF INVESTMENT RESULTS				
PERIOD	SHORT TERM*	LONG TERM	CULTURAL RESERVE	TOTAL**
January	0.08%	0.20%	0.21%	0.13%
February	0.08%	0.17%	0.17%	0.12%
March	0.09%	0.18%	0.19%	0.13%
April	0.09%	0.18%	0.18%	0.13%
May	0.09%	0.18%	0.19%	0.13%
June	0.08%	0.18%	0.18%	0.10%
July	0.08%	0.19%	0.19%	0.11%
August	0.08%	0.19%	0.19%	0.10%
September	0.08%	0.18%	0.18%	0.10%
October	0.08%	0.18%	0.19%	0.10%
November	0.08%	0.18%	0.18%	0.10%
December	0.08%	0.18%	0.19%	0.10%
2021 Annualized	0.99%	2.19%	2.24%	1.33%
January	0.08%	0.18%	0.19%	0.10%
February	0.08%	0.17%	0.18%	0.10%
2022 Annualized Estimate	0.96%	2.10%	2.22%	1.18%

* Includes cash and high-interest savings account balances

**Weighted average return of short-term, long-term and cultural reserve fund

Short Term Investment Performance

As at February 28, 2022, the short term portfolio held a total of \$112.5 million (at historic cost/book value) and represented 37.6% of total investments.

Appendix 1 details performance during the period compared to benchmarks. The Short Term portfolio's performance exceeded all benchmarks for the period.

The estimated annualized yield for 2022 for the Short Term portfolio is currently as 0.96%. Last year's annual yield was 0.99%. However, as these Short Term investments mature and are re-invested at higher rates, the actual rate of return is expected to be higher.

Long Term Investment Performance

As at February 28, 2022, the long term portfolio held a total of \$184.9 million (at historical cost/book value) representing 61.7% of all investments.

Appendix 2 details performance during the period compared to our benchmarks. The Long Term portfolio's performance exceeded all benchmarks for the period.

The estimated annualized yield for the Long Term portfolio in 2022 is 2.10% compared to prior year's annual yield of 2.19%. However, as investments mature and are re-invested at higher rates, the actual rate of return is expected to be higher.

Culture Reserve Investment Performance

Cultural Reserve portfolio held \$2.2 million (at historical cost/book value) in fixed income investments representing 0.7% of total investments. Estimated annualized yield for 2022 is 2.22% compared to prior year's annualized return of 2.24%. The decrease is due to re-investing maturities at a lower rate.

Investment Holdings and Limits

Investments by counterparty as percentage of the total portfolio and the maximum limits per the policy have been included in Appendix 5.

The portfolio is currently heavily weighted in financial institutions, mostly held in cash, due to the significant cash demands of the capital program and limited short-term investment options with comparable returns.

Looking at the "days to maturity" for all investments, 19.7% will mature in the next 12 months and 13.7% will mature beyond 12 months. The remaining 66.6% are held in high-interest savings accounts (HISA) and is fully liquid. The expected maturity by sector can be found in Appendix 4 of this report.

Investment Income

As illustrated in Appendix 3, the overall investment income of \$9.8M in 2021 is lower compared to prior years due to the continued lower rates available for investment due to deep interest rate cuts 2020 in response to the global pandemic.

ONGOING MATTERS

Environmental, Social and Governance (ESG)

As part of the investment policy approved on November 27, 2020, staff will include an update on the Environmental, Social and Governance (ESG) investing environment to inform the continued evolution of the Metro Vancouver investment policy.

Environmental, Social and Governance (ESG) investing continues to gain popularity among investors. For investment purposes, the ongoing challenge is standardization of data as the scoring process is largely qualitative, informed by subjective data that companies choose to release. Nevertheless, there is progress being made in the measurement of ESG data.

In October 2021, Moody's, one of the top ratings agencies in Canada, published an updated methodology of its general principles for assessing environmental, social and governance risks. Currently, the details provided continue to be qualitative and Moody's does not expect any changes to the outstanding ratings for financial institutions.

An additional ESG development is the Bank of Canada's issuance of its first green bonds in late March 2022. The initial offering is for \$5 billion worth of bonds. Proceeds will be earmarked for environmentally focused projects such as infrastructure spending on electric vehicle charging stations, public transit, pollution reduction and forestry preservation.

For investment purposes, the ongoing challenge is standardization of data as the scoring process is largely qualitative, informed by subjective data that companies choose to release. Nevertheless, there is progress being made in the measurement of ESG data as this topic continues to gain popularity among investors. Staff continue to closely monitor the development in this space.

Current Economic Impacts

The Bank of Canada increased its key interest rate by 25 basis points on March 2, 2022. This brought the overnight target rate to 0.50%. Inflation is expected to continue to be above the target range of 1-3% for the foreseeable future and additional interest rate increases are expected. The Bank's next scheduled meeting to announce any rate increases is April 13th.

The US Fed's increased its interest rates 25 basis points on March 16, 2022. This increases the rate to the range of 0.25-0.50%. Further rate hikes are expected in the coming months.

As illustrated in Table 2 below, the yield curve is higher compared to a year ago, but the longer range forecast is flatter than a year ago. At the end of February, a 10 year Canada benchmark bond traded at 2.0% compared to 1.3% a year ago and 1.2% in February 2019.

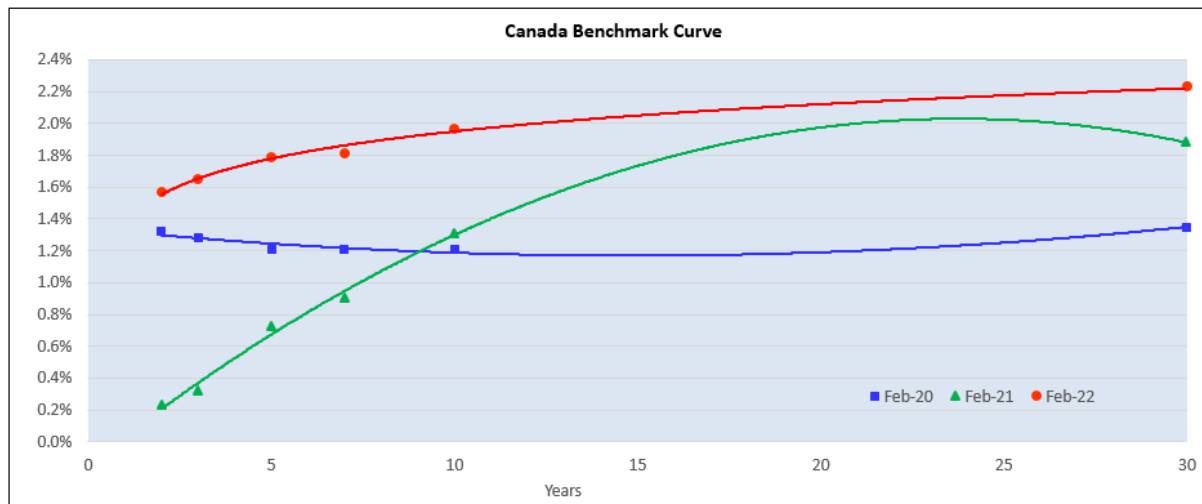


Table 2

Metro Vancouver's investment approach is to ensure the portfolio remains liquid and holds only the highest quality products to ensure safety of capital. Because the curve has levelled, staff are cautious about moving farther out the curve as rates are expected to continue to increase over the coming months. In addition, due to the high cash demands of the capital program Metro Vancouver's portfolio remains focused on shorter term products with a higher cash balance at this time. Staff are looking into a strategy to minimize the overall opportunity cost across the organization.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

Overall portfolio returns remain modest, a reflection of the priorities of preservation of capital and maintaining the necessary liquidity to meet operational requirements.

CONCLUSION

Overall, investment performance for the period, while modest, met expectations. Both the short term and long term investments exceeded returns on our benchmarks. Metro Vancouver's portfolios hold quality investments and are reasonably positioned to withstand the current market volatility. Overall rate of return is expected to increase in the next several months as a significant portion of portfolio will be matured and re-invested in higher rate short term and longer term products. At the same time the interest rate in the HISA accounts is also expected to increase.

Attachments:

Appendix 1 – Short Term Portfolio – Investment Results and Comparison to Benchmarks

Appendix 2 – Long Term Portfolio – Investment Results and Comparison to Benchmarks

Appendix 3 – 5 Year Comparison of Investment Income

Appendix 4 – Investment Maturity Charts

Appendix 5 – Investment Holdings and Maximum Limit

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APPENDIX 1

INVESTMENT RESULTS - SHORT TERM PORTFOLIOS				
2021 -2022 Comparison to Benchmarks				
	SHORT TERM*	ONE MONTH B/A**	THREE MONTH B/A**	MFA MONEY MARKET FUND
January	0.08%	0.02%	0.02%	0.03%
February	0.08%	0.01%	0.01%	0.03%
March	0.09%	0.01%	0.02%	0.02%
April	0.09%	0.01%	0.02%	0.02%
May	0.09%	0.01%	0.02%	0.02%
June	0.08%	0.01%	0.02%	0.02%
July	0.08%	0.02%	0.02%	0.02%
August	0.08%	0.02%	0.02%	0.02%
September	0.08%	0.02%	0.02%	0.02%
October	0.08%	0.02%	0.02%	0.02%
November	0.08%	0.02%	0.02%	0.03%
December	0.08%	0.02%	0.02%	0.03%
2021 Annualized	0.99%	0.19%	0.21%	0.29%
January	0.08%	0.02%	0.04%	0.03%
February	0.08%	0.03%	0.05%	0.04%
2022 Annualized Estimate	0.96%	0.34%	0.54%	0.43%

* Includes cash and high-interest savings account balances

** Per IIROC BA Rate History

APPENDIX 2

2021 - 2022 INVESTMENT RESULTS - LONG TERM PORTFOLIOS				
Comparison to Benchmarks				
PERIOD	LT PORTFOLIO	CULTURAL RES	MFA GOVT FOCUSED ULTRA- SHORT BOND FUND (Average Yield*)	MFA BOND FUND (Average Yield*)
January	0.20%	0.21%	0.02%	0.05%
February	0.17%	0.17%	0.03%	0.07%
March	0.18%	0.19%	0.02%	0.07%
April	0.18%	0.18%	0.03%	0.07%
May	0.18%	0.19%	0.02%	0.07%
June	0.18%	0.18%	0.03%	0.08%
July	0.19%	0.19%	0.03%	0.07%
August	0.19%	0.19%	0.03%	0.07%
September	0.18%	0.18%	0.03%	0.09%
October	0.18%	0.19%	0.06%	0.12%
November	0.18%	0.18%	0.06%	0.12%
December	0.18%	0.19%	0.06%	0.12%
2021 Annualized	2.19%	2.24%	0.43%	1.01%
January	0.18%	0.19%	0.09%	0.15%
February	0.17%	0.18%	0.11%	0.16%
2022 Annualized Estimate	2.10%	2.22%	1.18%	1.88%
Average term-to-maturity	2.41 Years	2.07 Years	0.80 Years	2.57 Years

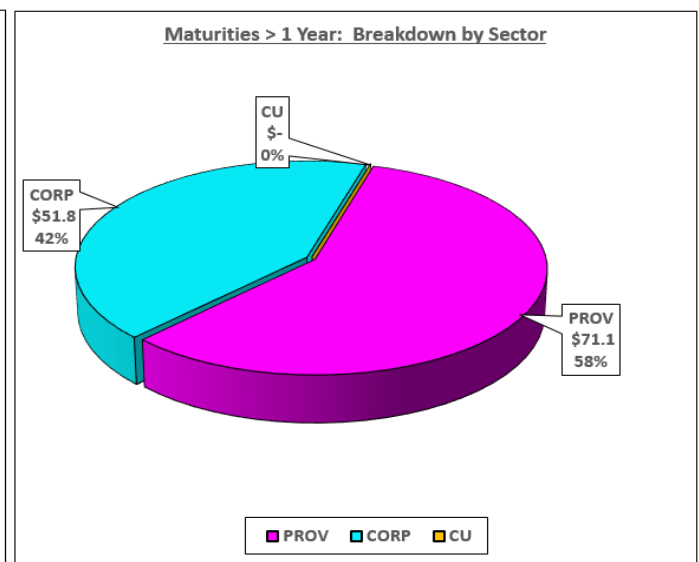
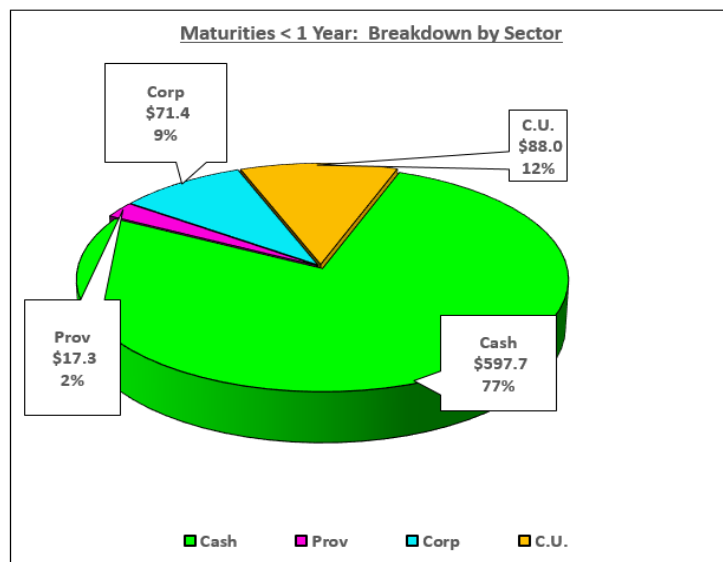
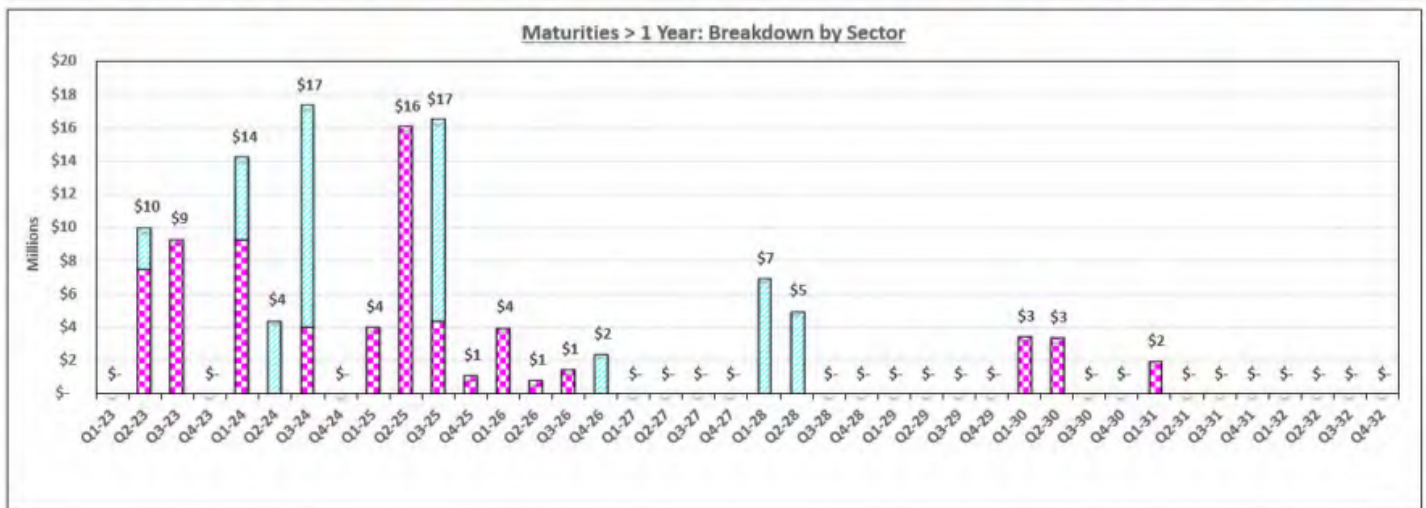
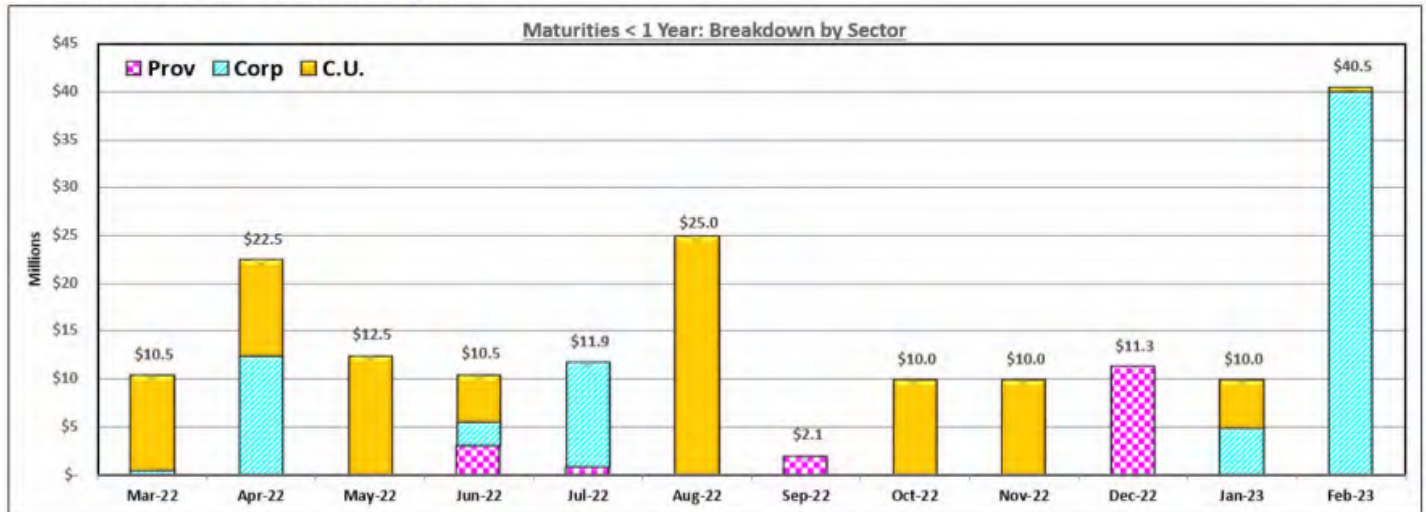
*Starting October 2020, MFA is no longer providing Average Yield in their monthly performance reports. Instead, MFA discloses the Yield to Maturity which is the total return anticipated if securities held in the fund are held until maturity.

APPENDIX 3

2017 - 2021 INVESTMENT INCOME*					
5 Year Comparison					
In \$000's	2021	2020	2019	2018	2017
Investment Income	\$9,762	\$15,409	\$21,485	\$17,482	\$12,090
Weighted Average Portfolio Balance	\$ 1,097,099	\$835,711	\$849,534	\$768,172	\$588,060
Rate of Return	0.89%	1.84%	2.53%	2.28%	2.06%

*Excludes cultural reserves

METRO VANCOUVER
MATURITIES BY SECTOR AS AT FEBRUARY 28, 2022



METRO VANCOUVER

INVESTMENT HOLDINGS AND LIMITS AS AT FEBRUARY 28, 2022

	(% of total portfolio)	
	Corporate Policy Limit	Investments as at February 28, 2022
Canada	100.0%	0.0%
Provinces rated AA- or better by S&P (or equivalent)		
British Columbia	50.0%	0.0%
Saskatchewan	50.0%	0.0%
Provinces rated A- or better by S&P (or equivalent)		
Alberta	30.0%	0.0%
New Brunswick	30.0%	0.2%
Ontario	30.0%	2.3%
Quebec	30.0%	4.4%
Manitoba	50.0%	1.2%
Nova Scotia	30.0%	0.4%
Newfoundland	30.0%	0.6%
Prince Edward Island	30.0%	0.0%
Subtotal	50.0%	9.1%
Municipal Finance Authority of BC	15.0%	1.8%
Government Term 11-30 years	5.0%	0.0%
SCHEDULE I/II BANKS		
Bank of Montreal	20.0%	10.1%
Bank of Nova Scotia	20.0%	20.0%
CIBC	20.0%	4.3%
Royal Bank of Canada	20.0%	11.6%
TD Bank	20.0%	7.8%
HSBC Bank Canada	15.0%	1.4%
National Bank of Canada	15.0%	15.0%
Manulife Bank	15.0%	0.0%
Canadian Western Bank	15.0%	9.1%
BC CREDIT UNIONS		
Vancity	20.0%	6.9%
CoastCapital	20.0%	0.0%
Westminster Credit Union	20.0%	0.0%
Blueshore	20.0%	2.2%
First West	20.0%	0.1%
Prospera	20.0%	0.0%
G&F Financial	20.0%	0.6%
Subtotal	50.0%	9.8%
BC Credit Union Long 2-5 years	30.0%	0.0%
Caisse Central Desjardins	5.0%	0.0%

To: Performance and Audit Committee

From: Roy Moulder, Director, Procurement
Procurement and Real Estate Services Department

Date: March 28, 2022 Meeting Date: April 14, 2022

Subject: **Tender/Contract Award Information – December 2021 to February 2022**

RECOMMENDATION

That the Performance and Audit Committee receive for information the report dated March 28, 2022 titled “Tender/Contract Award Information – December 2021 to February 2022”.

EXECUTIVE SUMMARY

During the period December 1, 2021 and February 28, 2022, the Procurement Division issued twenty-three (23) new contracts, each with a value in excess of \$500,000 (exclusive of taxes). In addition, there were eight (8) existing contracts requiring contract amendments which necessitate further reporting to the Performance and Audit Committee. The 8 amendments experienced additional scope resulting from either internal scope changes, unforeseen project extensions, unforeseen site conditions or third party regulatory requirements.

All awards and amendments were issued in accordance with the “*Officers and Delegation Bylaws 1208, 284 and 247 – 2014*” and the “*Procurement and Real Property Contracting Authority Policy*”.

PURPOSE

To provide the Performance and Audit Committee information with regard to contracts, handled through the Procurement Division, with a total anticipated value at or in excess of \$500,000 (exclusive of taxes).

BACKGROUND

The Procurement Division of Metro Vancouver awards contracts for goods, services and construction in accordance with the “*Officers and Delegation Bylaws 1208, 284 and 247 – 2014*” (*Bylaws*), and the “*Procurement and Real Property Contracting Authority Policy*” (*Policy*) adopted by the Board of Directors on July 11, 2014, effective September 1, 2014. These *Bylaws* and *Policy* outline thresholds for competitive bidding and contracting authorities. Contracts in excess of \$500,000 will be reported to the Performance and Audit Committee to align with the thresholds outlined in the Policy.

Capital projects may result in the awarding of one or more contracts to complete the project. Budget availability is verified prior to the execution of contracts.

NEW CONTRACTS - \$500,000 to \$5,000,000

The following contracts were **awarded** during the months of *December 2021 to February 2022*
(Details attached as **APPENDIX A**):

		(Exclusive of taxes)	
1.	Vimar Equipment Ltd. RFP No. 21-032 <i>Supply and Delivery of three (3) Sewer Cleaning Trucks</i>	\$2,371,667	MVRD
2.	AWC Process Solutions Tender No. 21-136 <i>Supply and Delivery of Metal-Seated Butterfly Valves and Rubber-Seated Butterfly Valves – Kennedy Newton Main Phase 3 and Other Related Projects</i>	\$730,348	GVWD
3.	All Round Home Improvements & Restorations Ltd. Tender 21-299 <i>Pinewood Pitched Roof Replacement</i>	\$519,640	MVHC
4.	Mack Kirk Roofing & Sheet Metal Ltd. Tender No. 21-462 <i>2751 Production Way Roof Renewal - West Section</i>	\$899,800	GVS&DD
5.	All Round Home Improvements & Restorations Ltd. Tender No. 21-300 <i>Semlin Low-Slope Roof Replacement</i>	\$620,460	MVHC
6.	Spartan Controls Ltd. Sole Source No. 21-516 <i>Annual Support Services for the SCADA System, the CDAC System at SCFP, and the CDAC System at CWTP</i>	\$579,152	GVWD
7.	Kleanza Consulting Ltd. Sole Source No. 21-507 <i>Archaeological Support Services for the Iona Island Wastewater Treatment Plant (IIWWTP) Upgrade Project</i>	\$2,256,923	GVS&DD
8.	Vancouver Pile Driving Ltd. Tender No. 21-234 <i>Construction Services for Capilano Middle-Lake Debris Boom</i>	\$2,454,316	GVWD
9.	Lynch Bus Lines Ltd. RFP No. 21-077 <i>Bus Transportation Services</i>	\$591,575	GVWD

10.	Vancouver Pile Driving Ltd. Tender No. 21-447 <i>Supply and Installation of Scour Protection for Tilbury Main South Arm Crossing</i>	\$989,187	GVWD
11.	Worley Canada Services Ltd. (Advisian) RFP No. 21-238 <i>Iona Island (xʷəyeyət) Foreshore Ecological Restoration Projects: Data Collection, Modelling and Design</i>	\$1,531,311	GVS&DD
12.	Pacific Blasting and Demolition Ltd. RFP No. 21-466 <i>Coquitlam Recycling and Waste Centre Demolition</i>	\$726,030	GVS&DD
13.	Merrick Canada ULC RFP No. 20-225 <i>Progressive Design-Build of Hydrothermal Processing Demonstration Plant at Annacis Island Wastewater Treatment Plant</i>	\$1,640,000	GVS&DD
14.	Jacob Bros. Construction Ltd. Tender No. 21-039 <i>Construction of the Lower Seymour Conservation Reserve Watershed Administration Building</i>	\$3,197,000	GVWD
15.	British Columbia Hydro Sole Source No. 22-022 <i>BC Hydro Service Connection, Northwest Langley Wastewater Treatment Plant Upgrade</i>	\$1,368,000	GVS&DD
16.	Integral Hospitality Inc. RFP No. 21-213 <i>General Housekeeping and Refuse Removal Services</i>	\$4,180,012	MVHC
17.	Scooby's Dog Waste Removal Service NOIC No. 21-382 <i>Provision of Dog Waste Collection and Recycling at 17 Metro Vancouver Regional Park Sites</i>	\$776,000	MVRD
18.	GreatPacific Consulting Ltd. RFP No. 22-012 <i>2022 Iona Deep Sea Outfall Receiving Environment Monitoring Program - Sediment Effects Survey</i>	\$1,100,000	GVS&DD

19.	GreatPacific Consulting Ltd. RFP No. 22-013 <i>2022 Lions Gate Receiving Environment Monitoring Program - Sediment Effects Survey</i>	\$1,250,000	GVS&DD
20.	NorLand Limited (Bell Contracting Division) RFP No. 21-334 <i>Construction of Hastings-Cassiar Intake Connection</i>	\$2,942,425	GVS&DD

NEW CONTRACTS – BOARD APPROVED

The following contracts were **authorized for execution** by the GVS&DD and GVWD Boards of Directors during the months of *December 2021 to February 2022* (as such no further information is included in this report):

		(Exclusive of taxes)	
1.	Northwest Pipe Company RFQ No. 21-183 <i>Supply and Delivery of Large Diameter Steel Pipe – Coquitlam Main No. 4</i>	\$15,739,689 USD	GVWD
2.	AECOM Canada Ltd. RFP No. 14-163 <i>Consulting Engineering Services for the Design and Construction of Burnaby Lake North Interceptor No. 2 – Winston Street Phase 2 – Phase C2 Engineering Construction Services</i>	\$4,227,265	GVS&DD
3.	PCL Constructors Westcoast Inc. RFQ No. 21-457 <i>North Shore Wastewater Treatment Plant (NSWWTP) Project</i>	\$40,000,000	GVS&DD

AMENDED CONTRACT

The following '**not previously reported**' contracts were **amended** during the months of *December 2021 to February 2022 (APPENDIX B)*:

		<u>Value of Amendments</u>	<u>Total Amended Value of Contract</u>
1.	Deloitte LLP RFP No. 14-217 <i>Financial and Commercial Advisory Services for the Lions Gate Secondary Wastewater Treatment Plant</i>	\$951,100	\$1,327,175
2.	Sandpiper Contracting Tender No. 21-380 <i>Water Meter Upgrade Project – Flowmeter M233</i>	\$86,312	\$571,872

The following **previously reported** contracts were **amended** during the months of *December 2021 to February 2022* (Details attached as **APPENDIX C**):

	<u>Value of Amendments</u>	<u>Total Amended Value of Contract</u>
1. Graham Infrastructure LP & Aecon Water Infrastructure Inc., a Joint-Venture RFP No. 16-079 <i>Construction of Annacis Island Wastewater Treatment Plant Stage 5 Phase 1 Expansion Project</i>	\$36,415,158	\$289,073,537
2. CH2M HILL Canada Limited (Jacobs) RFP No. 17-041 <i>Consulting Engineering Services for Iona Island Wastewater Treatment Plant Biogas Piping Relocation</i>	\$514,066	\$1,138,777
3. Mott MacDonald Canada Limited RFP No. 17-163 <i>Coquitlam Intake Tower Seismic Upgrade Consulting Engineering Services</i>	\$822,340	\$1,513,386
4. Mott MacDonald Canada Limited RFP No. 18-023 <i>Consulting Engineering Services for Capilano Main No. 5 - Stanley Park Water Supply Tunnel</i>	\$1,681,592	\$12,060,619
5. AECOM Canada Ltd. RFP No. 18-043 <i>Consulting Engineering Services for Iona Island Wastewater Treatment Plant Project Definition</i>	\$1,780,344	\$11,638,746
6. WSP RFP No. 18-189 <i>Project Management and Technical Services for Northwest Langley Wastewater Treatment Plant Projects</i>	\$2,657,000	\$7,547,502

COMPETITIVE SELECTION PACKAGES - anticipated to be greater than \$500,000 (Issued but not awarded) (Details attached as **APPENDIX D**).

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

The contract approval process includes a review of available budget. The contracts presented herein are consistent with budget authority provided by the respective Boards.

CONCLUSION

The contracts presented herein were awarded in accordance with the *“Officers and Delegation Bylaws 1208, 284 and 247 – 2014” (Bylaws)* and the *“Procurement and Real Property Contracting Authority Policy” (Policy)* and comply with competitive bidding laws and applicable legislation.

Further, the competitive selection packages were carefully crafted by teams of subject matter experts resulting in the award of contracts that are fiscally responsible, and balance risk, economic, ethical and legal obligations.

Attachments

APPENDIX A: Information with regard to newly awarded contracts - \$500,000 to \$5,000,000.

APPENDIX B: Contract amended to a value of more than \$500,000 but not previously reported to the Performance and Audit Committee

APPENDIX C: Previously reported contracts that have been amended.

APPENDIX D: Competitive Selection Packages anticipated to be greater than \$500,000 (Issued but not awarded).

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AWARD OF CONTRACT

RFP No. 21-032

1. A contract was awarded, November 15, 2021 for the **Metro Vancouver Regional District**.

To: ***Vimar Equipment Ltd.***

in the anticipated amount of up to **\$2,371,667** (exclusive of taxes) for Supply and Delivery of three (3) Sewer Cleaning Trucks. The initial award of \$790,556 (exclusive of taxes) is for one (1) unit with an option to extend for two (2) one (1) year options upon mutual agreement. Metro Fleet anticipates the need for an additional two (2) units over the term of this contract. The initial award amount is a combination of the successful proponent's proposed price of \$776,610 (exclusive of taxes) and an additional \$13,946 (exclusive of taxes) to account for various optional pieces of equipment as allowed for in the RFP.

The contract price is within the overall budget.

2. Proponents were invited by Metro Vancouver's and BC Bid websites and private invitation on February 9, 2021.

Closing Date: March 31, 2021

3. Proposal received (exclusive of taxes):

Vimar Equipment Ltd.	\$776,610
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4. Proposal reviewed by:

Contractual: Procurement Division Staff

Technical: Fleet Services Division Staff

5. Award was made to the only compliant bidder based on the evaluation criteria established in the RFP.

AWARD OF CONTRACT

TENDER No. 21-136

2. A contract was awarded, November 22, 2021 for the **Greater Vancouver Water District**.

To: ***AWC Process Solutions***

in the amount of **\$730,348** (exclusive of taxes) for Supply and Delivery of Metal-Seated Butterfly Valves and Rubber-Seated Butterfly Valves – Kennedy Newton Main Phase 3 and Other Related Projects. This award was for Part B – Supply and Delivery of Rubber-seated butterfly valves.

The contract price is within the overall budget.

3. Tenderers were invited by Metro Vancouver's and BC Bid websites and private invitation on August 25, 2021.

Closing Date: September 22, 2021

4. Tenders received (exclusive of taxes):

	<u>Part B only</u>
AWC Process Solutions	\$730,348
CB Process Instrumentation & Controls	\$731,844
Tundra Process Solutions Ltd.	\$1,137,841
John Brooks Company Limited	\$1,291,813

5. Tenders reviewed by:

Contractual: Procurement Division Staff

Technical: Water Services Department Staff

6. Award was made to the lowest compliant bidders for Parts A and B. Part A did not exceed the reporting threshold and therefore is not identified in this information report.

AWARD OF CONTRACT

TENDER No. 21-299

1. A contract was awarded, November 26, 2021 for the **Metro Vancouver Housing Corporation**.

To: ***All Round Home Improvements & Restorations Ltd.***

in the amount of **\$519,640** (exclusive of taxes) for Pinewood Pitched Roof Replacement.

The contract price is within the overall budget.

2. Tenderers were invited by Metro Vancouver's and BC Bid websites and private invitation on August 18, 2021.

Closing Date: September 22, 2021

3. Tenders received (exclusive of taxes):

All Round Home Improvements & Restorations Ltd.	\$519,640
Cambie Roofing Contractors Ltd.	\$674,000

4. Tenders reviewed by:

Contractual: Procurement Division Staff

Technical: Regional Planning and Housing Services Staff

5. Award was made to the lowest compliant bidder.

AWARD OF CONTRACT

TENDER No. 21-462

1. A contract was awarded, December 7, 2021 for the **Greater Vancouver Sewerage and Drainage District**.

To: **Mack Kirk Roofing & Sheet Metal Ltd.**

in the amount of **\$899,800** (exclusive of taxes) for 2751 Production Way Roof Renewal - West Section.

The contract price is within the overall budget.

2. Tenderers were invited by Metro Vancouver's and BC Bid websites and private invitation on November 2, 2021.

Closing Date: November 23, 2021

3. Tenders received (exclusive of taxes):

Mack Kirk Roofing & Sheet Metal Ltd.	\$899,800
Atlas-Apex Roofing (BC) Inc.	\$1,093,000
Transwest Roofing Ltd.	\$1,205,000

4. Tenders reviewed by:

Contractual: Procurement Division Staff

Technical: Liquid Waste Services Department Staff

5. Award was made to the lowest compliant bidder.

AWARD OF CONTRACT

TENDER No. 21-300

1. A contract was awarded, December 13, 2021 for the **Metro Vancouver Housing Corporation**.

To: ***All Round Home Improvements & Restorations Ltd.***

in the amount of **\$620,460** (exclusive of taxes) for Semlin Low-Slope Roof Replacement.

The contract price is within the overall budget.

2. Tenderers were invited by Metro Vancouver's and BC Bid websites and private invitation on September 1, 2021.

Closing Date: October 29, 2021

3. Tenders received (exclusive of taxes):

All Round Home Improvements & Restorations Ltd.	\$620,460
Transwest Roofing Ltd.	\$851,500
Marine Roofing (1996) Ltd.	\$923,200
Advanced Systems Roofing & Waterproofing Ltd.	\$1,217,355

4. Tenders reviewed by:

Contractual: Procurement Division Staff

Technical: Housing Maintenance and Capital Projects Department Staff

5. Award was made to the lowest compliant bidder.

AWARD OF SOLE SOURCE CONTRACT

No. 21-516

1. A contract was awarded on December 15, 2021 for the **Greater Vancouver Water District**.

To: ***Spartan Controls Ltd.***

in the amount of **\$579,152** (exclusive of taxes) for the purchase of Annual Support Services for the SCADA System, the CDAC System at SCFP, and the CDAC System at CWTP.

A sole source contract was awarded to Spartan Controls Ltd. ("Spartan") for the supply of annual support services for the Corporation's SCADA system and its CDAC systems at Seymour Capilano Filtration Plant (SCFP) and at Coquitlam Water Treatment Plant (CWTP). Spartan is the only authorized service provider in Western Canada for these systems and as a result, the Corporation has sole sourced these services from them for the past 11 years.

AWARD OF SOLE SOURCE CONTRACT

No. 21-507

1. A contract was awarded December 17, 2021 for the **Greater Vancouver Sewerage and Drainage District**.

To: ***Kleanza Consulting Ltd.***

in the amount of **\$2,256,923** (exclusive of taxes) for the purchase of Archaeological Support Services for the IWWTP Upgrade Project.

A sole source contract was awarded to Kleanza Consulting Ltd. for provision of archaeological support services for the Iona Island Wastewater Treatment Plant (IWWTP) Upgrade Project. Services will include conducting the Archaeological Impact Assessments (AIA) and providing monitoring during construction activities for the period of September 2021 to December 2022 (Phase 1). In accordance with Metro Vancouver's Procurement and Real Property Contracting Authority Policy archaeological services may be sole sourced when a preferred archaeologist is identified by the First Nation. In consultation with Musqueam Indian Band, Kleanza Consulting Ltd. was identified as that preferred archaeologist.

AWARD OF CONTRACT

TENDER No. 21-234

1. A contract was awarded, January 5, 2022 for the **Greater Vancouver Water District**.

To: ***Vancouver Pile Driving Ltd.***

in the amount of **\$2,454,316** (exclusive of taxes) for Construction Services for Capilano Middle-Lake Debris Boom.

The contract price is within the overall budget.

2. Five firms were shortlisted as a result of RFQ No. 20-067 (publicly advertised on Metro Vancouver's and BC Bid websites) and invited to bid on ITT No. 21-234 on October 19, 2021.

Closing Date: November 9, 2021

3. Tenders received (exclusive of taxes):

Vancouver Pile Driving Ltd.	\$2,454,316
JJM Construction Ltd.	\$2,825,000

4. Tenders reviewed by:

Contractual: Procurement Division Staff

Technical: Water Services Department Staff

5. Award was made to the lowest compliant bidder.

AWARD OF CONTRACT

RFP No. 21-077

1. A contract was awarded, January 6, 2022 for the **Greater Vancouver Water District**.

To: ***Lynch Bus Lines Ltd.***

in the anticipated amount of up to \$591,575 (exclusive of taxes) for Bus Transportation Services over a possible five (5) year period. The initial award of \$343,540 (exclusive of taxes) is for a period of three (3) years with an option to extend for an additional two (2) year extension, upon mutual agreement with the successful proponent.

The contract price is within the overall annual operation budget.

2. Proponents were invited by Metro Vancouver's and BC Bid websites and private invitation on July 20, 2021.

Closing Date: August 13, 2021

3. Proposals received (exclusive of taxes):

Lynch Bus Lines Ltd.	\$591,575
FirstCanada ULC	\$638,895
TRAXX Holdings Inc.	\$721,093

4. Proposals reviewed by:

Contractual: Procurement Division Staff

Technical: Water Services Department Staff

5. Award was made to the highest ranked proponent and lowest cost based on the evaluation criteria established in the RFP.

AWARD OF CONTRACT

TENDER No. 21-447

1. A contract was awarded, January 13, 2022 for the **Greater Vancouver Water District**.

To: ***Vancouver Pile Driving Ltd.***

in the amount of **\$989,187** (exclusive of taxes) for the Supply and Installation of Scour Protection for Tilbury Main South Arm Crossing.

The contract price is within the overall budget.

2. Tenderers were invited by Metro Vancouver's and BC Bid websites and private invitation on November 29, 2021.

Closing Date: December 21, 2021

3. Tender received (exclusive of taxes):

Vancouver Pile Driving Ltd.	\$989,187
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4. Tenders reviewed by:

Contractual: Procurement Division Staff

Technical: Water Services Department Staff

5. Award was made to the lowest compliant bidder.

6. The tender submitted by Vancouver Pile Driving Ltd. is the only compliant bid with the terms of the Tender. The work is subject to a DFO (Fisheries and Oceans Canada) permit which stipulates that work must be completed by February 15, 2022. Two other bids were received but did not meet the stated DFO requirements.

AWARD OF CONTRACT

RFP No. 21-238

1. A contract was awarded, January 14, 2022 for the **Greater Vancouver Sewerage and Drainage District**.

To: ***Worley Canada Services Ltd. (Advisian)***

in the anticipated amount of up to **\$1,531,311** (exclusive of taxes) for Iona Island (xʷəyəyət) Foreshore Ecological Restoration Projects: Data Collection, Modelling and Design. The anticipated amount is a combination of the successful consultants' proposed price of \$1,492,441 (exclusive of taxes) and an additional \$38,870 (exclusive of taxes) to account for issues identified during negotiations as allowed for in the RFP.

The contract price is within the overall budget.

2. Proponents were invited by Metro Vancouver's and BC Bid websites and private invitation on August 20, 2021.

Closing Date: October 6, 2021

3. Proposals received (exclusive of taxes):

Worley Canada Services Ltd. (Advisian)	\$1,492,441
Northwest Hydraulic Consultants Ltd.	\$1,826,561*
Golder Associates Ltd.	\$1,585,281*

*Values were adjusted for responses that didn't base the proposed fee on the estimated hours prescribed in the RFP, an average hourly rate was calculated and multiplied by the RFP prescribed hours in order to form a basis of comparison.

4. Proposals reviewed by:

Contractual: Procurement Division Staff

Technical: Project Delivery Department Staff

5. Award was made to the highest ranked proponent and lowest cost based on the evaluation criteria established in the RFP.

AWARD OF CONTRACT

RFP No. 21-466

1. A contract was awarded, January 19, 2022 for the **Greater Vancouver Sewerage and Drainage District**.

To: ***Pacific Blasting and Demolition Ltd.***

in the anticipated amount of up to **\$726,030** (exclusive of taxes) for Coquitlam Recycling and Waste Centre Demolition.

The contract price is within the overall budget.

2. Proponents were invited by Metro Vancouver's and BC Bid websites and private invitation on November 12, 2021.

Closing Date: December 7, 2021

3. Proposals received (exclusive of taxes):

Dallas Watt Demo Ltd.	\$614,777
Secure Energy	\$627,700
Priestly Demo Inc.	\$698,573
Pacific Blasting and Demo Ltd.	\$726,030
Evergreen Demo Ltd.	\$859,650
MWL Demo Ltd.	\$1,011,495
Lafarge Canada Inc.	\$1,043,660
Klondike Contracting	\$1,597,504

4. Proposals reviewed by:

Contractual: Procurement Division Staff

Technical: Solid Waste Services Department Staff

5. Award was made to the highest ranked proponent based on the evaluation criteria established in the RFP.
6. Pacific Blasting and Demolition Ltd. did not present the lowest lump sum pricing for the stated scope of work. However, their proposal demonstrated extensive corporate and staff experience, and a well-defined understanding of the scope of the project and technically sound work plan. Pacific Blasting and Demolition Ltd. is the highest overall scoring proponent based on the combined scoring of technical qualification and pricing.

AWARD OF CONTRACT

RFP No. 20-225

1. A contract was awarded, January 21, 2022 for the **Greater Vancouver Sewerage and Drainage District**.

To: ***Merrick Canada ULC***

in the anticipated amount of up to **\$1,640,000** (exclusive of taxes) for Progressive Design-Build of Hydrothermal Processing Demonstration Plant at Annacis Island Wastewater Treatment Plant. The initial award is limited to Phase 1 – Design of Inside Battery Limit (ISBL) at a cost of \$1,640,000 (exclusive of taxes) and subsequent phases of the work will be awarded subject to mutual agreement. Any subsequent phase may be conditional on Board approval.

The contract price is within the overall budget.

3. One (1) firm was shortlisted as a result of RFQ No. 20-224 (publicly advertised on Metro Vancouver's and BC Bid websites) and invited to provide proposal for RFP No. 20-224 on August 10, 2020.

Closing Date: September 18, 2020

6. Proposal received (exclusive of taxes):

Merrick Canada ULC	\$1,640,000
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7. Proposal reviewed by:

Contractual: Procurement Division Staff

Technical: Liquid Waste Services Department Staff

8. Award was made to the only proposal selected to negotiate with.

AWARD OF CONTRACT

TENDER No. 21-039

1. A contract was awarded, January 21, 2022 for the **Greater Vancouver Water District**.

To: ***Jacob Bros. Construction Ltd.***

in the amount of **\$3,197,000** (exclusive of taxes) for Construction of the Lower Seymour Conservation Reserve Watershed Administration Building.

The contract price is within the overall budget.

2. Tenderers were invited by Metro Vancouver's and BC Bid websites and private invitation on November 9, 2021.

Closing Date: December 23, 2021

3. Tenders received (exclusive of taxes):

Jacob Bros. Construction Inc.	\$3,197,000
Kenaidan Contracting Ltd.	\$3,248,900
Industra Construction Corp.	\$3,345,788
Kingston Construction Ltd.	\$3,837,141

4. Tenders reviewed by:

Contractual: Procurement Division Staff

Technical: Water Services Department Staff

5. Award was made to the lowest compliant bidder.

AWARD OF SOLE SOURCE CONTRACT

No. 22-022

2. A contract was awarded February 3, 2022 for the **Greater Vancouver Sewerage and Drainage**.

To: ***British Columbia Hydro***

in the amount of **\$1,368,000** (exclusive of taxes) for the purchase of BC Hydro Service Connection, Northwest Langley Wastewater Treatment Plant Upgrade.

A sole source contract was awarded to British Columbia Hydro for the detailed design of the 25kV distribution service system for the Northwest Langley Wastewater Treatment Plant. No other companies in British Columbia can compete on the contract as it is under the provincial utilities corporations' responsibility.

AWARD OF CONTRACT

RFP No. 21-213

1. A contract was awarded, February 4, 2022 for the **Metro Vancouver Housing Corporation**.

To: ***Integral Hospitality Inc.***

in the anticipated amount of up to **\$4,180,012** (exclusive of taxes) for General Housekeeping and Refuse Removal Services over a five (5) year period. The initial award of \$1,622,513 (exclusive of taxes) is for a period of two (2) years with an option to extend for an additional three (3) year extension, upon mutual agreement with the successful proponent.

The contract price is within the overall annual operation budget.

2. Proponents were invited by Metro Vancouver's and BC Bid websites and private invitation on November 4, 2021.

Closing Date: November 30, 2021

3. Proposals received (exclusive of taxes):

Deepak Management Ltd.	\$1,119,320
Integral Hospitality Inc.	\$1,622,513
On the Spot Services	\$1,730,548
Tricom Building Maintenance	\$2,210,346

4. Proposals reviewed by:

Contractual: Procurement Division Staff

Technical: Housing Operations Department Staff

5. Award was made to the highest ranked proponent based on the evaluation criteria established in the RFP.
6. Integral Hospitality Inc. offered best overall value (technical, management and financial) to the Corporation through a strong quality control process, allocation of adequate level of resources that meet the requirements of the RFP, and a strong detailed work plan.

AWARD OF CONTRACT

NOIC No. 21-382

1. A contract was awarded, February 8, 2022 for the **Metro Vancouver Regional District**.

To: ***Scooby's Dog Waste Removal Service***

in the anticipated amount of up to **\$776,000** (exclusive of taxes) for Provision of Dog Waste Collection and Recycling at 17 Metro Vancouver Regional Park Sites over a five (5) year period. The initial award of \$402,036 (exclusive of taxes) is for a period of three (3) year with an option to extend the term for one additional two (2) year extension, upon mutual agreement with the successful proponent.

The contract price is within the overall annual operation budget.

2. A Notice of Intent to Contract (NOIC) was advertised on Metro Vancouver & BC Bid web sites on September 3, 2021.

Closing Date: September 24, 2021

3. No qualified objections were received.

4. Proposal reviewed by:

Contractual: Procurement Division Staff

Technical: Parks and Environmental Services Department Staff

5. Award was made to Scooby's Dog Waste Removal Service (Scooby's) for the provision of dog waste collection and recycling services at 17 Metro Vancouver Regional Park sites and the Lower Seymour Conservation Reserve (LSCR). Metro Vancouver reached out to the market and no other company other than Scooby's came forward to undertake the scope of services as listed in the most recent NOIC No. 21-382.

AWARD OF CONTRACT

RFP No. 22-012

1. A contract was awarded, February 8, 2022 for the **Greater Vancouver Sewerage and Drainage District**.

To: ***GreatPacific Consulting Ltd.***

in the anticipated amount of up to **\$1,100,000** (exclusive of taxes) for 2022 Iona Deep Sea Outfall Receiving Environment Monitoring Program - Sediment Effects Survey over a three (3) year period. The initial award for 2022 is anticipated to be up to \$354,931. This amount is a combination of the successful consultants' proposed price of \$270,038 (exclusive of taxes) and an additional \$84,893 (exclusive of taxes) to account for additional optional components as allowed for in the RFP. Subject to satisfactory performance of the initial contract term and future annual budget approval, subsequent years two (2) and three (3) will be executed.

The contract price is within the overall annual operation budget.

2. Proponents were invited by Metro Vancouver's and BC Bid websites and private invitation on December 8, 2021.

Closing Date: January 18, 2022

3. Proposals received (exclusive of taxes):

GreatPacific Consulting Ltd.	\$270,038
ENKON Environmental Limited	\$308,585

4. Proposals reviewed by:

Contractual: Procurement Division Staff

Technical: Liquid Waste Services Department Staff

5. Award was made to the highest ranked proponent and lowest cost based on the evaluation criteria established in the RFP.

AWARD OF CONTRACT

RFP No. 22-013

1. A contract was awarded, February 22, 2022 for the **Greater Vancouver Sewerage and Drainage District**.

To: ***GreatPacific Consulting Ltd.***

in the anticipated amount of up to **\$1,250,000** (exclusive of taxes) for 2022 Lions Gate Receiving Environment Monitoring Program - Sediment Effects Survey over a three (3) year period. The initial award for 2022 is anticipated to be up to \$350,116. This amount is a combination of the successful consultants' proposal price of \$290,547 (exclusive of taxes) and an additional \$59,569 (exclusive of taxes) to account for additional optional components as allowed for in the RFP. Subject to satisfactory performance of the initial contract term and future annual budget approval, subsequent years 2 and 3 will be executed.

The contract price is within the overall annual operation budget.

2. Proponents were invited by Metro Vancouver's and BC Bid websites and private invitation on December 10, 2021

Closing Date: January 18, 2022

3. Proposals received (exclusive of taxes):

GreatPacific Consulting Ltd.	\$290,547
ENKON Environmental Limited	\$296,530

4. Proposals reviewed by:

Contractual: Procurement Division Staff

Technical: Liquid Waste Services Department Staff

5. Award was made to the highest ranked proponent and lowest cost based on the evaluation criteria established in the RFP.

AWARD OF CONTRACT

RFP No. 21-334

1. A contract was awarded, February 23, 2022 for the **Greater Vancouver Drainage and Sewerage District.**

To: ***NorLand Limited (Bell Contracting Division)***

in the anticipated amount of up to **\$2,942,425** (exclusive of taxes) for Construction of Hastings-Cassiar Intake Connection.

The contract price is within the overall budget.

2. Five (5) firms were shortlisted as a result of RFQ No. 21-329 (publicly advertised on Metro Vancouver's and BC Bid websites) and invited to bid on RFP No. 21-334 on November 10, 2021.

Closing Date: December 15, 2021

3. Proposals received (exclusive of taxes):

NorLand Limited (Bell Contracting Division)	\$2,942,425
Hall Constructors	\$3,256,170
Clearway Construction Inc.	\$4,928,100

4. Proposals reviewed by:

Contractual: Procurement Division Staff

Technical: Liquid Waste Services Department Staff

5. Award was made to the highest ranked proponent and lowest cost based on the evaluation criteria established in the RFP.

Appendix B

No. 1

CONTRACTS AMENDED TO A VALUE OF
MORE THAN \$500,000
BUT NOT PREVIOUSLY REPORTED TO THE
PERFORMANCE AND AUDIT COMMITTEE

RFP No. 14-217
PURCHASE ORDER No. 133024

Deloitte LLP

Financial and Commercial Advisory Services for the Lions Gate Secondary Wastewater Treatment
Plant for the **Greater Vancouver Sewerage and Drainage District**

- | | | |
|----|--|-------------|
| 1. | Original Value of Contract (exclusive of taxes): | \$376,075 |
| 2. | Amendment Value (exclusive of taxes): | \$951,100 |
| 3. | Amendment Number: | 01 |
| 4. | Total Amended Value of Contract
(exclusive of taxes): | \$1,327,175 |
| 5. | Budget Status: | |

This contract is funded within the budget for this project.

6. Reasons for Amendment to Contract:

Amendment No. 1 is for the continuation of financial advisory services in respect to replacing the existing Design Build Finance Structure with a new delivery model with purpose to attain a new contractor. Deloitte was initially engaged as a subject matter expert for the financial evaluation of the original project delivery model. Expertise and existing knowledge warranted expansion of their scope of services.

This amendment consists of two (2) Contract Amendments. The first Contract Amendment in the value of \$134,810 reflects anticipated scope during the original Design-Build competition from 2015. The second Contract Amendment is the value of \$816,290 reflects additional financial analysis to support the decision to replace the initial Design Build Finance structure to a new delivery model, specifically providing strategic support, project support and risk review analysis.

CONTRACTS AMENDED TO A VALUE OF
MORE THAN \$500,000
BUT NOT PREVIOUSLY REPORTED TO THE
PERFORMANCE AND AUDIT COMMITTEE

TENDER No. 21-380
PURCHASE ORDER No. 732013

Sandpiper Contracting

Water Meter Upgrade Project – Flowmeter M233
for the **Greater Vancouver Water District**

1.	Original Value of Contract (exclusive of taxes):	\$485,560
2.	Amendment Value (exclusive of taxes):	\$86,312
3.	Amendment Number:	01
4.	Total Amended Value of Contract (exclusive of taxes):	\$571,872

5. Budget Status:

This contract is funded within the operation budget for this project.

6. Reasons for Amendment to Contract:

Amendment No. 1 is to cover labour, equipment and material required for modifications to the relocated Port Moody Main 1. This includes the supply and install of a new 600 mm x 250 mm tee, along with the install of a 600 mm gate valve to allow flow into the new bypass line. This amendment value can be accommodated within the existing budget and will have no impact to the contingency.

RFP No. 16-079
PURCHASE ORDER No. 620312

Construction of Annacis Island Wastewater Treatment Plant Stage 5 Phase 1 Expansion Project
for the **Greater Vancouver Sewer & Drainage District**

1. Name of Contractor: Graham Infrastructure LP & Aecon Water Infrastructure Inc., a Joint-Venture
2. Date Contract Reported: **July 2017**
3. Original Anticipated Reported Value of Contract (exclusive of taxes): \$252,658,379
4. Amendment Number: 01
5. Value of Amendment (exclusive of taxes): \$36,415,158
6. Amendment Type: Additional Services
7. Total Revised Anticipated Amended Value of Contract (exclusive of taxes): \$289,073,537
8. Budget Status:

This contract is funded within the capital budget for this program.

9. Amendment No. 1 is the result of numerous individual items over the four years of this construction contract. These include design changes, unexpected site conditions and risk mitigation measures to protect the Annacis Island Wastewater Treatment Plant operating environment. Over the course of construction, approximately 250 individual change orders were processed totaling approximately \$14.4 million. The largest change order, CO No. 246, relates to final settlement of outstanding items with the contractor in the amount of \$22,000,000. In 2019 and 2020 the contractor submitted a number of claims for costs, disputed decisions and schedule extensions that had a value of approximately \$115 million. On September 17, 2021, after more than a year of negotiations, including the participation of external experts, the contractor and the Corporation reached an agreement relating to these issues. Change order No. 246 is the culmination of those negotiations. The contract is now substantially complete and all processes are in operation. This amendment is offset by a reduction in the project contingency and remains within the overall project budget.

AMENDMENT TO A PREVIOUSLY REPORTED CONTRACT

RFP No. 17-041
PURCHASE ORDER No. 144867

Consulting Engineering Services for Iona Island Wastewater Treatment Plant Biogas Piping
Relocation for the **Greater Vancouver Sewerage and Drainage District**

1. Name of Contractor: CH2M HILL Canada Limited (Jacobs)
2. Date Contract Reported: **October 2017**
3. Original Anticipated Reported Value of Contract:
(exclusive of taxes): \$624,711
4. Amendment Number: 01
5. Value of Amendment (exclusive of taxes): \$514,066
6. Amendment Type: Additional Services
7. Total Revised Anticipated Amended Value of Contract
(exclusive of taxes): \$1,138,777
8. Budget Status:

This contract is funded within the capital budget for this program.

9. Amendment No. 01 consists of nine (9) change orders over the life of the contract. Four of the change orders are related to design changes needed to meet new National Fire Protection Association standards. The remaining five change orders are related to the construction schedule delays which required the consultant to provide extra services to complete the project. The contractor on this project was required to offset a portion of these costs as credits to their construction contract. The additional consulting costs are offset by savings realized within the construction budget. There has been no negative impact to the project contingency.

AMENDMENT TO A PREVIOUSLY REPORTED CONTRACT

RFP NO. 17-163
PURCHASE ORDER No. 146350

Coquitlam Intake Tower Seismic Upgrade Consulting Engineering Services
for the **Greater Vancouver Water District**

- | | | |
|----|---|-------------------------------|
| 1. | Name of Contractor: | Mott MacDonald Canada Limited |
| 2. | Date Contract Reported: | February 2018 |
| 3. | Original Awarded Value of Contract - Phase A: | \$270,133 |
| | Value of Awarded Amendment - Phase B: | \$420,913 |
| | Subtotal: | <u>\$691,046</u> |
| 4. | Amendment Number: | 01 |
| 5. | Value of Amendment (exclusive of taxes): | \$822,340 |
| 6. | Amendment Type: | Additional Services |
| 7. | Total Revised Anticipated Amended Value of Contract (exclusive of taxes): | \$1,513,386 |
| 8. | Budget Status: | |

This contract is funded within the capital budget for this program.

9. This amendment consists of three (3) change orders. As per the requirements and scope of the original RFP, a constructability review was conducted at the 75% design stage. Outcomes from that review resulted in the need to design a temporary electrical kiosk to be used during construction and design a new electrical kiosk to replace the existing. In addition, to mitigate risk during construction, enhancements to the abutment design were required to strengthen the tower. The additional fees associated with this amendment are accommodated within the original consulting budget for this project. There is no negative impact to the project contingency.

AMENDMENT TO A PREVIOUSLY REPORTED CONTRACT

RFP No. 18-023
PURCHASE ORDER No. 147057

Consulting Engineering Services for Capilano Main No. 5 - Stanley Park Water Supply Tunnel
for the **Greater Vancouver Water District**

1. Name of Contractor: Mott MacDonald Canada Limited
2. Date Contract Reported: **July 2017**
3. Original Awarded Value of Contract (Phase A): \$3,806,636
Value of Board Approved Contract (Phase B): \$6,572,391
Subtotal: **\$10,379,027**
4. Amendment Number: 03
5. Value of Amendment (exclusive of taxes): \$1,681,592
6. Amendment Type: Additional Services
7. Total Revised Anticipated Amended Value of Contract (exclusive of taxes): \$12,060,619
8. Previous Amendment Explanations (Board Approvals reported to Performance and Audit Committee July 2018 and January 2020)

Amendment No. 01 and 02 is the result of awarding Phase A – Preliminary Design and Phase B – Detailed Design Services.
9. Budget Status:

This contract is funded within the capital budget for this program.
10. Amendment No. 03 is the result of change orders No. 1 to No. 5:
 - Change Order No. 1 -\$115,000 (October 2018)
 - Metro Vancouver requested additional design considerations and increase in level of effort for the inclusion of a 1 in 10,000-year seismic return period analysis of the proposed tunnel piping.

- Change Order No. 2 - \$130,965 (March 2019)
 - Metro Vancouver requested a change in scope for the tie-in configurations at the Chilco shaft site. The change in scope includes the following amendments:
 - Add – preliminary design of a new flowmeter and chamber for the connection to the City of Vancouver.
 - Add – study for location of flowmeters to be installed on Cap Main No. 4 (CA4), and Cap Main No. 5 (CA5).
 - Add – study of connection options for the re-chlorination facilities at the Chilco Secondary Disinfection Station.
 - Delete – 1-day Technical Review Board.
- Change Order No. 3 - \$57,257 (July 2019)
 - Metro Vancouver requested a change for the design of the connection to the existing First Narrows South Shaft location. Rather than tie-into the existing valve chamber, the existing shaft cap, and valve chamber will be removed and a new valve chamber with a single valve will be installed. This would allow the new water supply tunnel to be connected directly into the South Shaft of the First Narrows crossing. The resulting system would have higher hydraulic efficiencies, superior seismic resiliency, and lower maintenance costs.
- Change Order No. 4 - \$10,250 (March 2021)
 - In response to a new requirement from the City of Vancouver to obtain building permits for the two new valve chambers that will be constructed as part of the project. This change order provided for a code consultant to be engaged to provide an opinion on whether the chambers would require a permit or if there is anything in the code that would exempt the chambers.
- Change Order No. 5 - \$1,368,120 (December 2021)
 - Prepared in response to (1) schedule delay costs associated with additional project management effort and (2) discrete components of extra work required to complete the design for the Project. Additional Components include:
 - Changes associated with the City of Vancouver building permit requirements (the most significant factor).
 - Detailed design of the new Chilco emergency disinfection system.
 - Changes to the detailed design required by Metro Vancouver's Operations and Maintenance teams.
 - Additional design work associated with the upgrade of the Pipeline Rd roundabout required by the Vancouver Board of Parks and Recreation.
 - Design of the temporary overland bypass water supply for Stanley Park.

AMENDMENT TO A PREVIOUSLY REPORTED CONTRACT

RFP No. 18-043
PURCHASE ORDER No. 608136

Consulting Engineering Services for Iona Island Wastewater Treatment Plant Project Definition for the **Greater Vancouver Sewerage and Drainage District**

- | | | |
|----|--|---------------------------|
| 1. | Name of Contractor: | AECOM Canada Ltd. |
| 2. | Date Contract Reported: | October 2018 |
| 3. | Original Reported Value of Contract: | \$4,538,081 |
| | Value of previous Amendment No. 01: | \$599,625 |
| | Value of previous Amendment No. 02: | \$4,720,696 |
| | Subtotal: | <u>\$9,858,402</u> |
| 4. | Amendment Number: | 03 |
| 5. | Value of Amendment (exclusive of taxes): | \$1,780,344 |
| 6. | Amendment Type: | Additional Services |
| 7. | Total Revised Anticipated Amended Value of Contract
(exclusive of taxes): | \$11,638,746 |
| 8. | Previous Amendment Explanation (Reported to Performance and Audit Committee January 2021 – Amendment No. 01 and October 2021 – Amendment No. 02) | |

Amendment No. 01 is the result of a technical investigation of aerobic granular sludge (AGS) technology, additional modeling to characterize the site and assist in the geotechnical design, condition assessments of the existing facility to determine suitability and costs of reusing assets, development of additional design concepts to integrate existing and new facility, and an analysis of solids treatment options and operational impacts. In addition, as a result of these scope additions, design and support activities were required to modify and enhance process and mechanical design, construction sequencing, project schedule, cost estimates.

Amendment No. 02 is the result of change orders 9 to 16 - Change order 9 accounted for additional work required to prepare a regulatory and permitting roadmap and a detailed permitting strategy for the project. Change order 10 accounted for additional work related to air dispersion modelling for the project. Change order 11 accounted for additional work related to incorporate anaerobic digesters into project definition report for the project. Change order

12 accounted for additional work related to the completion of indicative design concepts for the project. Change order 13 accounted for additional work related to the completion of a class 3 capital cost estimate for the project. Change order 14 accounted for additional work related to the completion of indicative design concepts for the project. Change order 15 accounted for additional work related to the completion of construction sequencing and phasing for the project. Change order 16 accounted for additional work required to support transition assignments that were identified as critical path tasks to continue the advancement of the IWWTP upgrade project.

9. Budget Status:

This contract is funded within the capital budget for this program.

10. Amendment No. 03 consists of two (2) change orders. The largest being change order No. 19 in the amount of \$1,321,712. This change order related to additional scope to provide engineering services during the pilot testing period of the secondary treatment technology under consideration. This scope will include design of the pilot test and oversight of the first year of pilot testing. Change order No. 18, in the amount of \$458,632 relates to additional efforts to support the overall permitting strategy. This includes the application of permits for major utilities, ground improvements, wharf construction, the Ferguson Rd. realignment and City of Richmond Development Permit. This amendment will be captured in the consulting services allocation of the budget and will have no impact to the contingency.

AMENDMENT TO A PREVIOUSLY REPORTED CONTRACT

RFP No. 18-189
PURCHASE ORDER No. 611983

Project Management and Technical Services for Northwest Langley Wastewater Treatment Plant
Projects for the **Greater Vancouver Sewerage and Drainage District**

1. Name of Contractor: WSP
2. Date Contract Reported: **January 2019**
3. Original Anticipated Reported Value of Contract (exclusive of taxes): \$4,890,502
4. Amendment Number: 01
5. Value of Amendment (exclusive of taxes): \$2,657,000
6. Amendment Type: Additional Services
7. Total Revised Anticipated Amended Value of Contract (exclusive of taxes): \$7,547,502
8. Budget Status:

This contract is funded within the capital budget for this program.

9. Amendment No. 01 is the result of the additional program management and technical services needed to improve the program management functions as well as to complete a design peer review of the current Wastewater Treatment Plant (WWTP) design to bring the WWTP costs in line with benchmarks and identify substantial cost savings. It is to cover program management services additional costs from January to June 30, 2022. This amendment is offset by a reduction in the contingency budgeted for this project.

**Competitive Selection Packages Anticipated to be greater than \$500,000
(Issued but not awarded)**

Note: All contracts listed below are within the project budgets approved by the Board of Directors

Tender/RFP	Closing Date
RFP No. 21-125 <i>Employee and Family Assistance Program – Metro Vancouver</i>	April 21, 2021
RFP No. 21-010 <i>Pre-Selection of Polymer Equipment for the Northwest Langley Wastewater Treatment Plant Upgrade</i> (Cancelled)	July 5, 2021
RFP No. 21-014 <i>Pre-Selection of Low Pressure Gas Holder and Pressurisation Blowers for the Northwest Langley Wastewater Treatment Plant Upgrade</i> (Cancelled)	September 16, 2021
RFP No. 21-006 <i>Pre-Selection of Rotary Drum Thickening Equipment for the Northwest Langley Wastewater Treatment Plant Upgrade</i> (Cancelled)	September 9, 2021
RFP No. 21-240 <i>Provision of Light and Medium Duty Lease Vehicles</i> (Awarded less than \$500K)	October 8, 2021
RFP No. 21-353 <i>Record Centre Services</i> (Cancelled)	November 26, 2021
RFP No. 20-192 <i>Consulting Engineering Services for the Rechlorination Stations Upgrade (Cape Horn, Pitt River, Clayton)</i>	November 23, 2021
RFP No. 21-144 <i>Environmental Engineering Services Related to Remediation And Risk Assessment For Iona Island Wastewater Treatment Plant Upgrade Project</i>	November 19, 2021

RFP No. 21-272 <i>Scour Protection Design and Construction Services for Maple Ridge Forcemain, North Surrey Interceptor, and Annacis Main No. 3</i> (Awarded less than \$500K)	November 18, 2021
Tender No. 21-268 <i>LSG Tank Inspection and Membrane Replacement at Annacis Island and Lulu Island WWTP</i>	November 17, 2021
RFP No. 21-276 <i>Consulting Engineering Services for Annacis Island Wastewater Treatment Plant (AIWWTP) Electrical Studies and Upgrade</i>	November 12, 2021
RFP No. 21-460 <i>Architect and Design Services for Affordable Housing Project - Malaspina Village Phases I & II</i>	December 21, 2021
RFP No. 22-001 <i>High Speed Wide Area Network (WAN) - Network Services</i>	December 14, 2021
RFP No. 21-266 <i>Supply and Delivery of Light and Medium Duty Vehicles</i>	January 28, 2022
RFP No. 21-283 <i>Program Management Consulting (PMC) Services for the Iona Island Wastewater Treatment Plant Projects</i>	January 26, 2022
RFP No. 21-146 <i>Geotechnical Exploration Services for the Iona Island Wastewater Treatment Plant Projects</i>	January 21, 2022
RFP No. 21-459 <i>Sludge Hauling Services for Northwest Langley Wastewater Treatment Plant</i>	February 25, 2022
RFP No. 21-468 <i>Newton Pump Station No. 2 – Reservoir Tunnelling & Outlets</i>	February 25, 2022
RFP No. 22-003 <i>Preliminary Design, Detailed Design and Construction Engineering Services North Surrey Interceptor No. 2 Tunnel</i>	February 17, 2022
RFQ No. 21-498 <i>Conceptual Design of the Haney Water Supply Tunnel – Pitt River Crossing</i>	February 17, 2022

RFP No. 21-517 <i>Operation and Maintenance of The Central Surrey Recycling and Waste Centre</i>	February 16, 2022
RFP No. 21-519 <i>Innovative Organics Processing</i>	February 15, 2022
RFP No. 22-015 <i>Supply and Delivery of Sodium Hypochlorite</i>	February 14, 2022
Tender No. 21-001 <i>Construction - Fleetwood Reservoir Phase 1</i>	February 2, 2022
RFP No. 22-006 <i>Construction of Gilbert Trunk Sewer No. 2 Gilbert Road South Section</i>	March 31, 2022
RFP No. 21-485 <i>Westburnco Pump Station No.2 Variable Frequency Drive (VFD) Replacement Project - Pre-Purchase VFD Equipment</i>	March 31, 2022
RFP No. 21-425 <i>Ground Improvements and Preload Engineering Services for the Iona Island Wastewater Treatment Plant (IIWWTP) Upgrades Program</i>	March 22, 2022
RFP No. 22-048 <i>Training Management System for Safety, Security & Emergency Management Training</i>	March 18, 2022
RFP No. 22-039 <i>Film Site Supervision Services</i>	March 11, 2022
RFP No. 22-002 <i>Delivery of School Programs for Metro Vancouver's Watershed Education Program</i>	March 2, 2022
RFP No. 22-079 <i>Consulting Engineering Services for Cleveland Dam Public Warning System</i>	April 20, 2022
RFP No. 21-492 <i>Kennedy Newton Main - Kennedy Reservoir to 84th Avenue</i>	April 7, 2022

To: Performance and Audit Committee

From: Dean Rear, General Manager, Financial Services/Chief Financial Officer

Date: April 7, 2022 Meeting Date: April 14, 2022

Subject: **Manager's Report**

RECOMMENDATION

That the Performance and Audit Committee receive for information the report dated April 7, 2022, titled "Manager's Report".

1. Performance and Audit Committee Work Plan Update

Attachment 1 is the 2022 Work Plan indicating the status of the Committee's key priorities.

Attachments:

1. Performance and Audit Committee 2022 Work Plan

49221676

Performance and Audit Committee 2022 Work Plan

Report Date: April 7, 2022

Priorities

1st Quarter	Status
Review and Endorse Committee 2022 Priorities and Work Plan	Complete
Review 2021 External Audit Plan	Complete
Municipal Borrowing Requests for MFA Spring 2022 Issue (If Applicable)	Complete
Tender / Contact Award Information	Complete
Financial Policy Review (as required)	Complete
2nd Quarter	
2021 Audited Financial Statements	In Progress
2021 External Audit Findings Report	In Progress
Review 2021 Final Results: Operating Results vs Budget	In Progress
Review 2021 Final Results: Capital Expenditures vs Budget	In Progress
Review 2021 Final Results: Development Cost Charges Collected	Pending
Review 2021 Final Results: Investment Review Position and Returns	In Progress
Review First 2022 Progress: Operating Results vs Budget to March 31, 2022	In Progress
Review First 2022 Progress: Capital Expenditures vs Budget to March 31, 2022	In Progress
Review First 2022 Progress: Investment Position and Returns to March 31, 2021	In Progress
GVS&DD DCC Revenue Fund Expenditure Bylaw	Pending
Tender / Contact Award Information	In Progress
Financial Policy Review (as required)	In Progress
3rd Quarter	
Review Second 2022 Progress: Operating Results vs Budget to June 30, 2022	Pending
Review Second 2022 Progress: Capital Expenditures vs Budget to June 30, 2022	Pending
Review Second 2022 Progress: Investment Position and Returns to June 30, 2022	Pending
Review First 2022 Progress: Development Cost Charges Collected to June 30, 2022	Pending
Municipal Borrowing Requests for MFA Fall 2022 Issue (If Applicable)	Pending
Performance Dashboard Update	Pending
Tender / Contact Award Information	Pending
Financial Policy Review (as required)	Pending
4th Quarter	
Review Third 2022 Progress: Operating Results vs Budget to September 30, 2022	Pending
Review Third 2022 Progress: Capital Expenditures vs Budget to September 30, 2022	Pending
Review Third 2022 Progress: Investment Position and Returns to September 30, 2022	Pending
Municipal Borrowing Requests for MFA Spring 2022 Issue (If Applicable)	Pending
Tender / Contact Award Information	Pending
Financial Policy Review (as required)	Pending