



**GREATER VANCOUVER WATER DISTRICT (GVWD)
BOARD OF DIRECTORS**

BOARD MEETING

Friday, February 23, 2024

9:00 am

28th Floor Boardroom, 4515 Central Boulevard, Burnaby, British Columbia

Webstream available at <https://metrovancover.org>

[Membership and Votes](#)

A G E N D A¹

A. ADOPTION OF THE AGENDA

1. February 23, 2024 Meeting Agenda

That the GVWD Board adopt the agenda for its meeting scheduled for February 23, 2024 as circulated.

B. ADOPTION OF THE MINUTES

1. January 26, 2024 Meeting Minutes

That the GVWD Board adopt the minutes for its meeting held January 26, 2024 as circulated.

pg. 4

C. DELEGATIONS

D. INVITED PRESENTATIONS

E. CONSENT AGENDA

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

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

1. WATER COMMITTEE REPORTS

1.1 Lulu-Delta Water Supply Tunnel – Stage Gate 0

pg. 7

That the GVWD Board approve Stage Gate 0 for the Lulu-Delta Water Supply Tunnel advancing from the Initiation Stage to the Definition Stage, as described in the report dated January 30, 2024, titled “Lulu-Delta Water Supply Tunnel – Stage Gate 0”.

1.2 Cambie-Richmond Water Supply Tunnel – Stage Gate 1

pg. 11

That the GVWD Board approve Stage Gate 1 for the Cambie-Richmond Water Supply Tunnel advancing from the Definition Phase to the Preliminary Design Phase, as described in the report dated January 30, 2024, titled “Cambie-Richmond Water Supply Tunnel – Stage Gate 1”.

2. CAUCUS OF COMMITTEE CHAIRS REPORTS

Note: The following item will be considered by the Caucus of Committee Chairs on February 21, 2024. Any resulting changes to recommendations will be presented on table at the Board meeting.

2.1 2024 Water Services Sustainability Innovation Fund Applications

pg. 16

That the GVWD Board approve the allocation from the Water Sustainability Innovation Fund for the ‘Expansion of the Earthquake Early Warning (EEW) & Structural Health Monitoring (SHM) Systems’ project for \$1,000,000 from 2024 to 2026.

F. ITEMS REMOVED FROM THE CONSENT AGENDA

G. REPORTS NOT INCLUDED IN CONSENT AGENDA

1. COMMISSIONER REPORTS

1.1 GVWD Borrowing Bylaw 261, 2023 and GVWD Temporary Borrowing Request Bylaw 262, 2023

pg. 24

That the GVWD Board:

- a) adopt *Greater Vancouver Water District Borrowing Bylaw No. 261, 2023*; and
- b) adopt *Greater Vancouver Water District Temporary Borrowing Request Bylaw No. 262, 2023*.

H. MOTIONS FOR WHICH NOTICE HAS BEEN GIVEN

I. OTHER BUSINESS

1. GVWD Board Committee Information Items and Delegation Summaries

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J. RESOLUTION TO CLOSE MEETING

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

That the GVWD Board close its meeting scheduled for February 23, 2024 pursuant to section 226 (1) (a) of the *Local Government Act* and the *Community Charter* provisions as follows:

- 90 (1) A part of a council meeting may be closed to the public if the subject matter being considered relates to or is one or more of the following:
- (e) the acquisition, disposition or expropriation of land or improvements, if the council considers that disclosure could reasonably be expected to harm the interests of the municipality;

K. ADJOURNMENT

That the GVWD Board adjourn its meeting of February 23, 2024.

**GREATER VANCOUVER WATER DISTRICT
BOARD OF DIRECTORS**

Minutes of the Regular Meeting of the Greater Vancouver Water District (GVWD) Board of Directors held at 10:48 am on Friday, January 26, 2024, in the 28th Floor Boardroom, 4515 Central Boulevard, Burnaby, British Columbia.

MEMBERS PRESENT:

Anmore, Vice Chair, Director John McEwen
 Belcarra, Director Jamie Ross
 Burnaby, Director Pietro Calendino
 Burnaby, Director Sav Dhaliwal
 Burnaby, Director Mike Hurley
 Coquitlam, Director Craig Hodge
 Coquitlam, Director Teri Towner
 Delta, Director Dylan Kruger
 Electoral Area A, Director Jen McCutcheon
 Langley City, Director Paul Albrecht
 Langley Township, Director Steve Ferguson
 Langley Township, Director Eric Woodward
 Maple Ridge, Director Dan Ruimy
 New Westminster, Director Patrick Johnstone
 North Vancouver District, Director Lisa Muri
 Pitt Meadows, Director Nicole MacDonald
 Port Coquitlam, Director Brad West*
 Port Moody, Director Meghan Lahti*
 Richmond, Director Chak Au
 Richmond, Director Malcolm Brodie

Richmond, Director Bill McNulty
 Surrey, Director Harry Bains
 Surrey, Director Mike Bose
 Surrey, Alternate Director Doug Elford for
 Pardeep Kooner
 Surrey, Director Gordon Hepner
 Surrey, Director Brenda Locke
 Surrey, Director Rob Stutt
 scəwáθən məsteyəxʷ (Tsawwassen First Nation),
 Alternate Director Bryce Williams* for
 Laura Cassidy
 Vancouver, Director Rebecca Bligh
 Vancouver, Director Adriane Carr
 Vancouver, Director Sarah Kirby-Yung
 Vancouver, Director Mike Klassen
 Vancouver, Director Ken Sim
 Vancouver, Director Lenny Zhou
 West Vancouver, Director Mark Sager
 Commissioner Jerry W. Dobrowolny
 (Non-voting member)

MEMBERS ABSENT:

Delta, Chair, Director George V. Harvie
 North Vancouver City, Director Linda Buchanan

Vancouver, Director Lisa Dominato

STAFF PRESENT:

Dorothy Shermer, Corporate Officer
 Sabrina Mann, Legislative Services Coordinator, Board and Information Services

* denotes electronic meeting participation as authorized by the *Procedure Bylaw*

A. ADOPTION OF THE AGENDA

1. January 26, 2024 Meeting Agenda

It was MOVED and SECONDED

That the GVWD Board adopt the agenda for its meeting scheduled for January 26, 2024 as circulated.

CARRIED

B. ADOPTION OF THE MINUTES

1. November 24, 2023 Meeting Minutes

It was MOVED and SECONDED

That the GVWD Board adopt the minutes for its meeting held November 24, 2023 as circulated.

CARRIED

C. DELEGATIONS

No items presented.

D. INVITED PRESENTATIONS

No items presented.

E. CONSENT AGENDA

No items presented.

F. ITEMS REMOVED FROM THE CONSENT AGENDA

No items presented.

G. REPORTS NOT INCLUDED IN CONSENT AGENDA

No items presented.

H. MOTIONS FOR WHICH NOTICE HAS BEEN GIVEN

No items presented.

I. OTHER BUSINESS

1. GVWD Board Committee Information Items and Delegation Summaries

J. RESOLUTION TO CLOSE MEETING

It was MOVED and SECONDED

That the GVWD Board close its meeting scheduled for January 26, 2024 pursuant to section 226 (1) (a) of the *Local Government Act* and the *Community Charter* provisions as follows:

- 90 (1) A part of a council meeting may be closed to the public if the subject matter being considered relates to or is one or more of the following:
- (g) litigation or potential litigation affecting the municipality; and
 - (i) the receipt of advice that is subject to solicitor-client privilege, including communications necessary for that purpose.

CARRIED

K. ADJOURNMENT

It was MOVED and SECONDED

That the GVWD Board adjourn its meeting of January 26, 2024.

CARRIED

(Time: 10:48 am)

CERTIFIED CORRECT

Dorothy Shermer, Corporate Officer

George V. Harvie, Chair

65620857 DRAFT

To: GVWD Board

From: Murray Gant, Director, Major Projects – Tunnels, Project Delivery

Date: January 30, 2024

Meeting Date: February 7, 2024

Subject: **Lulu-Delta Water Supply Tunnel – Stage Gate 0**

RECOMMENDATION

That the GVWD Board approve Stage Gate 0 for the Lulu-Delta Water Supply Tunnel advancing from the Initiation Stage to the Definition Stage, as described in the report dated January 30, 2024, titled “Lulu-Delta Water Supply Tunnel – Stage Gate 0”.

EXECUTIVE SUMMARY

The existing Lulu-Delta crossing of the Fraser River between the Cities of Richmond and Delta near the George Massey Tunnel is a key water main crossing in the region that conveys drinking water from the Seymour Capilano Filtration Plant to the City of Delta and Tsawwassen First Nation.

Following best management practices, a Stage Gate Framework process was implemented for Project Delivery High Value, Risk, and Consequence capital projects. This process seeks approval of key milestones through five Stage Gates from the Initiation phase through project Close-out.

The existing Lulu-Delta crossing is nearing the end of its service life and has reduced pressure capacity due to damage previously sustained due to third-party dredging activities in the Fraser River. Subject to GVWD Board approval of Stage Gate 0, the project is expected to begin the Definition phase later this year.

PURPOSE

To seek approval for the Lulu-Delta Water Supply Tunnel to advance to the Definition phase (Stage Gate 0), provide information to support this decision, and provide a progress update on the work completed to date.

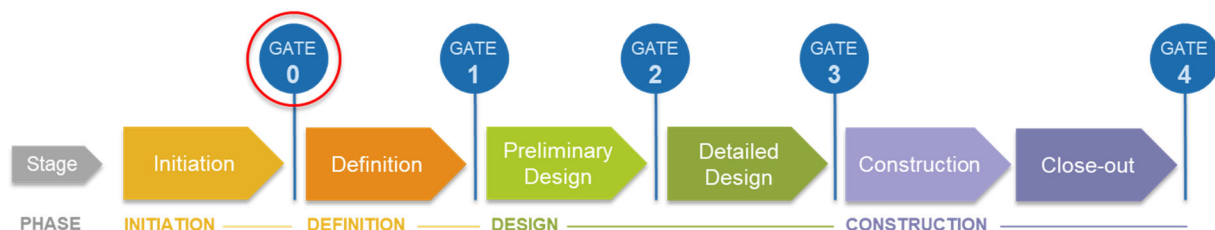


Figure 1: Overview of Stage Gate and Project Phases

BACKGROUND

Project Objectives

The Lulu-Delta Water Supply Tunnel will replace the existing crossing of the Fraser River to fulfill two priority action items identified in the Board Strategic Plan:

1. Upgrade aging assets; and
2. Address future regional growth requirements.

The new tunnel will also be designed to meet Metro Vancouver's seismic design standards.

Existing Infrastructure and Previous Studies

The existing Lulu-Delta crossing is located downstream of the George Massey Tunnel and consists of an 800 mm diameter steel water main located at a shallow depth beneath the bottom of the Fraser River. The crossing was built in 1963 and was identified for replacement due to previous damage from third-party dredging activities along the Fraser River which limits the pressure capacity and operation of the main.

Key Stage Activities

In 2018, Metro Vancouver retained a consulting firm to carry out the Initiation phase (feasibility study) to assess options for a new river crossing to replace the existing crossing. The feasibility assessment identified four preliminary alignments for the Definition phase. These options along with potential new options will be assessed during project Definition.

TECHNICAL UPDATE

Design Progress

An assessment was undertaken to confirm feasibility and identify options for the new water supply tunnel. All of the work completed to date has relied on existing information and data. As the design progresses through Definition and into Preliminary and Detailed Design, site-specific investigations, testing and analyses will be conducted to confirm the current assumptions.

Environmental and Geotechnical Considerations

A desktop review of historical and current aerial photographs and a search of the Provincial Ministry of Environment's Site Registry was completed to identify potential environmental contamination within the short-listed shaft sites. The review concluded that all shaft sites held a low potential for site contamination. The geotechnical information considered during the Initiation phase was obtained from historical borehole data along the alignment of the George Massey Tunnel.

Archaeological Considerations

A desktop assessment concluded that there are no known archaeological sites along the proposed alignments. However, there is a known archaeological site within the City of Delta adjacent to the launch sites for two of the proposed alignments and any sites near the foreshore of the Fraser River have the potential for encountering archaeological sites.

Schedule

Table 1 below outlines the anticipated overall project schedule.

Table 1: Anticipated Project Schedule

Project Phase	Revised Schedule	
	Start Date	End Date
Definition	Late 2024	Mid 2026
Preliminary Design	Late 2026	Late 2028
Detailed Design	Early 2029	Mid 2031
Construction	Early 2032	Early 2037

CAPITAL COST UPDATE

Project Capital Cost Update

The Board-approved budget for the Definition phase is \$5 million. Allowances for future Preliminary and Detailed Design phases and Construction are included in the capital long range plan and will be revised in accordance with Metro Vancouver's Cost Estimating Framework as the project progresses. The cost estimating framework includes a rigorous approach to addressing challenges inherent in estimating future costs on large, complex, high risk and lengthy projects, including using forecast cash flows to estimate escalation, as well as a contingency/risk reserve which are identified, managed and quantified according to a standardized risk review process.

PROCUREMENT UPDATE

Procurement Strategy

A Request for Proposal will be issued in 2024 to obtain professional services to complete the Definition phase for a new crossing. Procurement for subsequent Preliminary and Detailed Design phases will be completed separately following the completion of the Definition phase.

Upon completion of Detailed Design, a two-stage best value procurement approach will be implemented (Request for Qualification followed by Request for Proposal) to retain the construction contractor. A separate Request for Proposal will be issued to procure a firm to provide construction management services.

PROJECT RISKS

At this time, key anticipated project risks identified for the Definition phase include the availability of land for tunnel shaft sites, and potential construction conflicts with the BC Ministry of Transportation and Infrastructure's (the Ministry) Fraser River Tunnel project. During project Definition these risks will be assessed and inform decision-making through shaft site selection followed by land acquisition prior to the commencement of Preliminary Design. Metro Vancouver staff have, and will continue to, communicate and coordinate with the Ministry on the timing and logistics of the Fraser River Tunnel project to reduce risk and optimize any schedule conflicts.

ENGAGEMENT

Planned engagement with First Nations, staff from the Cities of Richmond and Delta, and other interested parties will occur during the Definition phase.

REVIEWS

This project was presented to the Project Delivery High Value, Risk, and Consequence Capital Projects Steering Committee - Water on November 6, 2023, and to the REAC and RAAC Committees in January. All Committees were supportive of advancing the project to the Definition phase.

FUTURE BOARD DECISIONS

The following Board decisions are anticipated for approval through the course of the project:

1. Award of professional services contract for professional engineering services to complete the Preliminary Design.
2. Amendment of Preliminary Design professional services contract to complete detailed design.
3. Amendment of professional services contract to include engineering services during construction.
4. Award of contract to construct the new Lulu-Delta crossing.
5. Award of professional services contract for construction management through the duration of construction.

ALTERNATIVES

1. That the GVWD Board approve Stage Gate 0 for the Lulu-Delta Water Supply Tunnel advancing from the Initiation phase to the Definition phase, as described in the report dated January 30, 2024, titled “Lulu-Delta Water Supply Tunnel – Stage Gate 0”.
2. That the GVWD Board receive for information the report dated January 30, 2024, titled “Lulu-Delta Water Supply Tunnel – Stage Gate 0” and provide alternate direction to staff.

FINANCIAL IMPLICATIONS

Budget Implications and Funding Opportunities

The Board-approved budget for the Definition phase of the Lulu-Delta Water Supply Tunnel is \$5 million. Budgets for subsequent phases of design and construction will be provided in future Stage Gate reports and through the Board budget approval process.

There are no external funding sources or funding agreements for this project. The project is wholly funded through the wholesale water rate paid by GVWD members in accordance with the Greater Vancouver Water District Act.

CONCLUSION

The Lulu-Delta Water Supply Tunnel is being undertaken in order to safeguard the region’s water supply by replacing aging infrastructure. The new water supply tunnel will also ensure Metro Vancouver is able to continue supplying water to the City of Delta and Tsawwassen First Nation as their populations grow and following any seismic events. In order to support the Board Strategic Plan, staff recommend that the GVWD Board approve Stage Gate 0 to allow the Lulu-Delta Water Supply Tunnel to proceed to the Definition phase.

To: GVWD Board

From: Murray Gant, Director, Major Projects – Tunnels, Project Delivery

Date: January 30, 2024

Meeting Date: February 7, 2024

Subject: **Cambie-Richmond Water Supply Tunnel – Stage Gate 1**

RECOMMENDATION

That the GVWD Board approve Stage Gate 1 for the Cambie-Richmond Water Supply Tunnel advancing from the Definition Phase to the Preliminary Design Phase, as described in the report dated January 30, 2024, titled “Cambie-Richmond Water Supply Tunnel – Stage Gate 1”.

EXECUTIVE SUMMARY

The existing Cambie-Richmond crossing of the Fraser River between the Cities of Vancouver and Richmond near the Oak Street Bridge is one of the critical crossings in the region that conveys water from the Capilano and Seymour water supply areas to the Cities of Richmond and Delta, and Tsawwassen First Nation.

Following best management practices, a Stage Gate Framework process was implemented for Project Delivery High Value, Risk, and Consequence capital projects. This process seeks approval of key milestones through five Stage Gates from the Initiation Phase through project Close-out.

The Definition, or Conceptual Design, phase for the Cambie-Richmond Water Supply Tunnel was completed in late 2022. Metro Vancouver subsequently short-listed three design engineering firms to participate in the Preliminary Design Request for Proposal. Subject to GVWD Board approval of Stage Gate 1, the project is expected to begin Preliminary Design in mid-2024.

PURPOSE

To seek approval for the Cambie-Richmond Water Supply Tunnel to advance from Definition to Preliminary Design (Stage Gate 1), provide information to support this decision, and provide a progress update on the work completed to date.

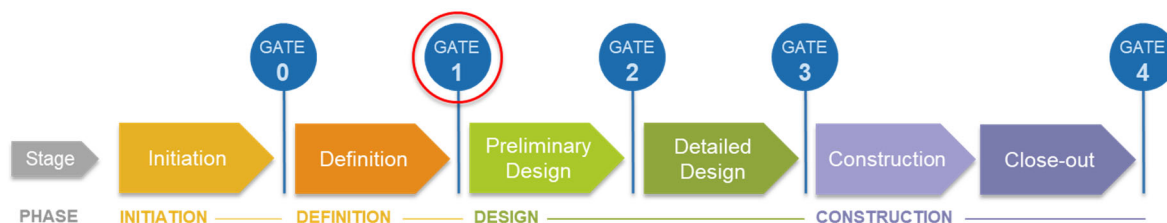


Figure 1: Overview of Stage Gate and Project Phases

BACKGROUND

Project Objectives

The Cambie-Richmond Water Supply Tunnel will replace the existing crossing of the Fraser River between the Cities of Vancouver and Richmond near the Oak Street Bridge to meet the following priority action items identified in the Board Strategic Plan:

1. Seismically resilient drinking water infrastructure.
2. Address future regional growth requirements.

Existing Infrastructure and Previous Studies

The existing Cambie-Richmond crossing supplies drinking water from the Capilano and Seymour water supply areas to the Cities of Richmond and Delta and Tsawwassen First Nation, and consists of three steel water mains: one 914 mm diameter river crossing and two 450 mm diameter mains supported under the Oak Street Bridge.

In 2003, a seismic vulnerability assessment confirmed that the water main crossings are vulnerable to failure from a moderate seismic event.

In 2018, Metro Vancouver retained a consultant to carry out an Initiation phase, or feasibility study, to assess options for a new tunnel crossing to replace the existing crossings. The findings of this Initiation phase formed the basis of the subsequent Definition phase.

Key Stage Activities

- In 2022, the Definition phase was completed.
- In 2023, Metro Vancouver acquired both properties for the north and south shaft sites in Vancouver and Richmond:
 - North Shaft Site – 8910 Shaughnessy Street, City of Vancouver
 - South Shaft Site – 9551 Van Horne Way, City of Richmond
- Metro Vancouver short-listed three design engineering firms for Preliminary Design.
 - Delve Underground
 - Mott MacDonald
 - Hatch
- The Request for Proposals has been issued to the short-listed design firms.

TECHNICAL UPDATE

Design Progress

The Definition phase of the Cambie-Richmond Water Supply Tunnel project was completed by evaluating an approximately 630-hectare study area to identify potential shaft sites considering situational, geotechnical, and spatial information data. Five preferred shaft sites were identified, and four tunnel alignments were developed between the sites. Geotechnical, environmental, and archaeological investigations were completed for the preferred North and South Shaft Sites, and additional engineering analyses were conducted to determine the Definition phase tunnel alignment.

Environmental Considerations

Limited Phase I and II Environmental Site Assessments were conducted for both shaft sites to assess the potential for contaminated soil, soil vapour, and groundwater.

The Limited Phase II Environmental Site Assessment at the North Shaft Site concluded that the site met the applicable limits defined in the Contaminated Site Regulation, *Environmental Management Act*. Results of testing at the South Site was completed at an adjacent property and concluded that potential contaminants were less than the applicable Contaminated Site Regulation and the concentration of all organic parameters were less than the laboratory method detection limit.

Further, more detailed, environmental investigations will be conducted during Preliminary Design to assess the likelihood of encountering contaminated soils and/or groundwater.

Geotechnical Considerations

During the Definition phase, a project-specific geotechnical investigation program was completed. The investigations included four boreholes located near the selected shaft sites. During Preliminary Design, further comprehensive geotechnical investigations will be conducted at the shaft sites and along the tunnel alignment. These investigations will consist of field testing, and on-shore and marine boreholes to better define the soil, bedrock, and groundwater conditions.

Archaeological Considerations

During Preliminary Design, an Archaeological Overview Assessment will be conducted to identify areas of archaeological potential and to assess the potential impact of the project activities on any registered and unknown archaeological and historic sites.

Schedule

Following completion of the Definition phase and the short-listing of proponents for Preliminary Design, the project was put on hold due to internal resource constraints. Preliminary Design is anticipated to begin in mid 2024 and be completed by 2026. An overview of the anticipated schedule for Detailed Design and Construction are provided in Table 1 below.

Table 1: Anticipated Project Schedule

Project Phase	Revised Schedule	
	Start Date	End Date
Definition	Early 2020	Late 2022
Preliminary Design	Mid 2024	Mid 2026
Detailed Design	Late 2026	Late 2028
Construction	Early 2029	Early 2034

CAPITAL COST UPDATE

Project Capital Cost Update

The current Board approved budget for the Cambie-Richmond Water Supply Tunnel project is \$62.8 million, which includes \$2.8 million for the completed Definition phase and \$60 million for the Preliminary Design phase. The Preliminary Design budget includes allowances for land acquisition at

the North and South Shaft Sites in Vancouver and Richmond, as well as allowances for the consultant's services, internal costs, and contingency.

PROCUREMENT UPDATE

Procurement Strategy

In 2022, Metro Vancouver short-listed three design engineering firms to receive a Request for Proposal for professional services to complete the Preliminary Design phase. The scope of services in the Request for Proposal will also include provision for future amendments for Detailed Design and construction engineering services.

Upon completion of the Detailed Design phase, the intent will be to conduct a two-stage best-value procurement to retain the construction contractor. A separate Request for Proposal will also be issued to retain a firm to provide construction management services. As the design progresses through Preliminary Design, additional procurements may be identified to mitigate impacts during construction such as long lead times on critical materials and equipment.

PROJECT RISKS

At this time, some of the key anticipated risks for preliminary conceptual design include long lead times to acquire archaeological and environmental permits required to conduct geotechnical investigations, and securing access agreements to conduct site investigations and obtaining temporary work space during construction. These risks will be managed and mitigated through early involvement with the selected design consultant, early application for necessary permits, and early and on-going engagement with stakeholders.

During Preliminary and Detailed Design phases, detailed project-specific risk assessments will be carried out. This process will involve risk identification workshops with project staff, consultants and technical experts, whereby risks are identified, quantified and characterized by severity, likelihood, and cost and schedule impact, among other items. A Quantitative Risk Analysis will be performed during the detailed design phase to inform the appropriate contingency/risk reserve allowance for construction.

ENGAGEMENT

Metro Vancouver first introduced the project to First Nations with interests in the project area in September 2022. Subsequently, two local First Nations, xʷməθkʷəy̓əm (Musqueam Indian Band) and səliłwətał (Tsleil-Waututh Nation), requested introductory meetings about the project. During this initial engagement, Metro Vancouver received feedback that First Nations would like to meaningfully engage with Metro Vancouver early in the design process. First Nations would also like to see additional provisions regarding the archaeological scope of work for the Preliminary Design Request for Proposal.

REVIEWS

This project was presented to the Project Delivery High Value, Risk, and Consequence Capital Projects Steering Committee - Water on November 6, 2023. The Committee was supportive of the advancement of the project to Preliminary Design. The project was also presented to REAC and RAAC in January. Both Committees supported the project proceeding to Preliminary Design.

FUTURE BOARD DECISIONS

The following decisions will be presented to the Board for approval through the course of the project:

1. Award of professional services contract for professional engineering services to complete the Preliminary Design.
2. Amendment of Preliminary Design professional services contract to complete detailed design.
3. Amendment of professional services contract to include engineering services during construction.
4. Award of professional services contract for construction management through the duration of construction.
5. Award of contract to construct the new Cambie-Richmond Water Supply Tunnel.

ALTERNATIVES

1. That the GVWD Board approve Stage Gate 1 for the Cambie-Richmond Water Supply Tunnel advancing from the Definition Stage to the Preliminary Design Stage, as described in the report dated January 30, 2024, titled “Cambie-Richmond Water Supply Tunnel – Stage Gate 1”.
2. That the GVWD receive for information the report dated January 30, 2024, titled “Cambie-Richmond Water Supply Tunnel – Stage Gate 1” and provide alternate direction to staff.

FINANCIAL IMPLICATIONS

Budget Implications and Funding Opportunities

The Board approved budget for the Cambie-Richmond Water Supply Tunnel project is \$62.8 million, which includes \$2.8 million for the completed Definition phase and \$60 million for the Preliminary Design phase. The Preliminary Design phase budget includes allowances for property acquisition, engineering design services, internal costs, and contingency. Budgets for subsequent Detailed Design and Construction phases will be provided in future Stage Gate reports and through the Board budget approval process.

There are no external funding sources or funding agreements for this project. The project is wholly funded through the wholesale water rate paid by GVWD members in accordance with the Greater Vancouver Water District Act.

CONCLUSION

The Cambie-Richmond Water Supply Tunnel is being undertaken in order to safeguard the region’s water supply by constructing seismically resilient infrastructure. The new water supply tunnel will also ensure Metro Vancouver is able to continue supplying water to the Cities of Richmond and Delta and Tsawwassen First Nation as their populations grow.

In order to support the Board approved Strategic Plan, staff recommend that the GVWD Board approve Stage Gate 1 to allow the Cambie-Richmond Water Supply Tunnel to proceed to Preliminary Design.

62709875

To: Caucus of Committee Chairs

From: Vanessa Anthony, Acting Director, Water Services, Policy Planning and Analysis

Date: January 30, 2024 Meeting Date: February 21, 2024

Subject: **2024 Water Sustainability Innovation Fund Applications**

RECOMMENDATION

That the GVWD Board approve the allocation from the Water Sustainability Innovation Fund for the 'Expansion of the Earthquake Early Warning (EEW) & Structural Health Monitoring (SHM) Systems' project for \$1,000,000 from 2024 to 2026.

EXECUTIVE SUMMARY

The Caucus of Committee Chairs is responsible for overseeing the Metro Vancouver Sustainability Innovation Funds, and for making all funding recommendations to the respective Metro Vancouver Board. Staff review and evaluate all proposals that are submitted for consideration. This report presents one project recommended for funding, totaling \$1,000,000, which would be funded through the Water Sustainability Innovation Fund.

PURPOSE

To present one project recommended for Sustainability Innovation Funding for the Caucus of Committee Chairs' and the GVWD Board's consideration.

BACKGROUND

The Water Sustainability Innovation Fund (the Fund) was created by the GVWD Board in 2004 to provide financial support to Water applications that contribute to the region's sustainability. The GVWD Board adopted the *Water Sustainability Innovation Fund Policy* in 2014, with further amendments in 2016 and 2021, to guide the use and management of the Fund. The Policy describes the process of generating, submitting, evaluating and recommending applications for funding each year.

WATER SUSTAINABILITY INNOVATION FUND POLICY

On an annual basis, Water Services projects are submitted to an internal staff Advisory Committee, and Steering Committee, representing a cross-section of the organization, to evaluate projects and initiatives based on the Fund's evaluation criteria. As defined in the policy, applications need to fulfill the following criteria:

- Be overseen by the GVWD;
- Be consistent with the authority and responsibility of the GVWD;
- Be consistent with the objectives of the *Drinking Water Management Plan* and/or the *Board Strategic Plan*;
- Consider partnerships including, but not limited to, member jurisdictions, academic institutions, non-governmental organizations, and community groups;

- Result in a positive contribution, in the form of tangible results and/or measurable benefits, to the sustainability of the region; and
- Demonstrate innovation and facilitate action.

The Caucus of Committee Chairs receives an annual update report on the approved applications from previous years that have become projects supported by the Fund. The update report includes the deliverables, outcomes, and the measurable benefits of these projects to the region's sustainability. A summary of past projects can be found on the Sustainability Innovation Program website (Reference 1).

2023-2024 APPLICATION PROCESS

An internal call for proposals closed on October 24, 2023, and one application from Water Services was considered by the cross-departmental Service Department Advisory Committee and Sustainability Innovation Fund Steering Committee, comprised of representatives from different departments within Metro Vancouver.

Staff evaluated the submission and confirmed that the one application strongly aligns with promoting regional sustainability and innovation. The project recommended for funding is listed in the table below. The project purpose, objectives and other details are provided in the executive summary (attached).

Recommended Allocation from the Water Sustainability Innovation Fund		
Project Title	Year	Amount Requested
Expansion of the Earthquake Early Warning (EEW) & Structural Health Monitoring (SHM) Systems	2024-2026	\$1,000,000

ALTERNATIVES

1. That the GVWD Board approve the allocation from the Water Sustainability Innovation Fund for the 'Expansion of the Earthquake Early Warning (EEW) & Structural Health Monitoring (SHM) Systems' project for \$1,000,000 from 2024 to 2026.
2. That the Caucus of Committee Chairs receive for information the report dated January 30, 2024, titled "2024 Water Sustainability Innovation Fund Applications" and provide alternate direction to staff.

FINANCIAL IMPLICATIONS

If the Board approves Alternative 1, \$1,000,000 for the application it will be disbursed from the Water Sustainability Innovation Fund. The Fund has sufficient budget to support Alternative 1. The approved applications will be incorporated into the applicable work plans and budgets.

CONCLUSION

Staff recommend Alternative 1. The recommended project purpose, objectives and other details are attached.

ATTACHMENTS

1. Water Services Sustainability Fund Presentation

2. Water Services Sustainability Fund Application

REFERENCES

<https://metrovancover.org/about-us/sustainability-innovation-fund>

64756808

Attachment 1



Capilano Reservoir

Water Services SIF Applications

PROPOSED PROJECTS FOR 2024

Amin Kassam
Division Manager, Shared Utilities Service, Water Services

COF Meeting – February 21, 2024
65736742

metrovancouver

WATER SERVICES APPLICATIONS

Housing	Years	Budget
Expansion of the Earthquake Early Warning (EEW) & Structural Health Monitoring (SHM) Systems	2024-2026	\$1,000,000

Total budget: \$1,000,000

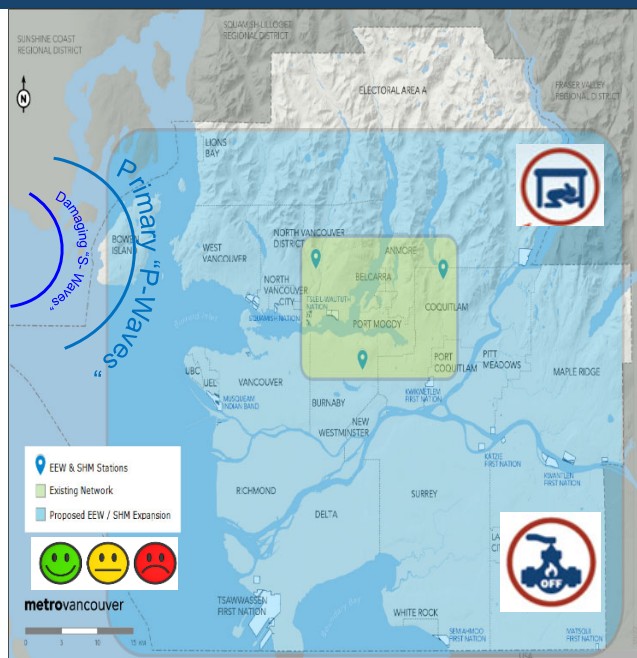
Projected fund balance at end of 2024: \$9.68 million

EXPANSION OF THE EARTHQUAKE EARLY WARNING & STRUCTURAL HEALTH MONITORING SYSTEMS

2024: \$1M over 2 years

Purpose:

Expansion of the EEW and SHM networks within critical MV water facilities to provide greater coverage, improve warning times, add water supply system robustness and resiliency, and enhance MV's pre- and post-earthquake response.



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Vancouver

Thank you

metrovancouver

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Sustainability Innovation Fund: Water Services Executive Summary

Project title:

Expansion of the Earthquake Early Warning (EEW) & Structural Health Monitoring (SHM) Systems

Amount requested:

\$1,000,000

Purpose:

Following the successful implementation of the Earthquake Early Warning (EEW) and Structural Health Monitoring (SHM) Pilot Project in 2022 (Figure 1), an expansion of the EEW and SHM networks within critical Metro Vancouver (MV) water facilities is recommended. The EEW system is immediately increasing staff safety and will save water and mitigate damage once the signal is operationalized to take certain automatic actions (currently under investigation).

The expanded system (Figure 2), with learnings and new investigations applied, will provide greater EEW/SHM coverage, improve warning times, add water supply system robustness and resiliency, and enhance MV's pre- and post-earthquake response. The coverage, robustness and redundancy in the system will fully institutionalize the system for the GVWD and open the doors for its potential use for other critical operations at MV and for member jurisdictions to potentially apply similar approaches.

Project objectives:

EEW Expansion – Add up to 5 new EEW stations at MV facilities and potentially ingest EEW signals from Federal-Provincial networks (e.g. offshore Vancouver island). As connected to the 3-station existing EEW network, improve the coverage, detection times, warning times, accuracy/quality, redundancy and robustness of MV's EEW network.

A key metric to be achieved will be the ability to detect, analyze, verify and issue alerts to staff for any damaging earthquake within 3 seconds. Depending on the distance to the epicentre, warnings to staff will vary from a few seconds to tens of seconds. The EEW alarm will also permit automatic actions to be programmed so that vulnerable systems may be partially or wholly shut down.

SHM Expansion – Add up to 10 SHM systems at critical water facilities to provide structural health data to MV for monitoring key facilities that may have been impacted by a significant earthquake.

Contributions to regional sustainability:

The project aligns with the strategic priority of "Resilient Services and Infrastructure" as identified in the *Board Strategic Plan*. It also supports the guiding principles and draft goals of the *Drinking Water Management Plan* currently being updated by ensuring the resiliency of the water system and providing uninterrupted service. The expanded systems will enhance MV's emergency preparedness, coordination with the Province and regional public health and safety.

Innovation element:

The implementation of EEW systems is still at an early stage in Canada. MV WS' transition from an EEW pilot to an industrial-scale EEW system will be at the forefront of the industry and position MV as a leading utility user of the technology and processes.

The pilot system has been proven in detecting earthquakes during the testing and operations of the pilot EEW system; however, by expanding the EEW network and applying the learnings and new investigations, MV WS will be improving the detection speed and accuracy of earthquake warnings and eliminate any potential for false alarms.

By viewing web-based SHM dashboards, including red/yellow/green warning flags, staff can quickly assess facilities without the need for site visits following a major earthquake. MV can then plan and prioritize staff and resources to focus on critical facilities or recoverable facilities and establish recovery or diversion plans for severely damaged facilities. SHM will also improve safety by allowing staff to know the general structural integrity prior to re-entry into various facilities.

Tangible benefits and outcomes:

The EEW expansion will help identify the potential reduction in adverse environmental impacts (e.g. due to prevention of some water leaks), increase social and community resiliency and improve recovery (e.g. increased water availability for fire-fighting; prevention of some injuries due to early warning, and potential public health benefits), and enhance economic and financial benefits (e.g. potential for time and money saved due to focused repairs of damaged infrastructure).

Members and other partners:

This project will seek to exchange information with *Natural Resources Canada* (NRCan) and the provincial *Ministry of Emergency Management and Climate Readiness* (EMCR) as they continue their efforts toward building a public-facing national earthquake early warning system. Ingesting EEW signals from their network will be explored so as to further increase MV's response times and reliability.

As with the pilot, the MV system will be limited to internal institutional use only, optimized for protecting the water supply and other assets (for example, leveraged for MV LWS assets protection). However, there may be opportunities to share data to improve EEW detection on the west coast of Canada.

The project objectives and outcomes will be shared with member jurisdictions, the *Integrated Partnership for Regional Emergency Management* (IPREM) and other agencies and corporations that may be looking into the application of EEW and/or SHM within their operations.

Figure 1. Current Pilot System (Background)

EEW systems detect a precursor wave before a damaging wave from a large earthquake impacts a given location. To enable such a system, specialized sensors (accelerometers and geophones) have been placed at three critical water supply system locations. Working together as a network, these sensors sound off alarms, from a few seconds to tens of seconds ahead of a large incoming earthquake. The farther away an earthquake is, the greater the warning time.

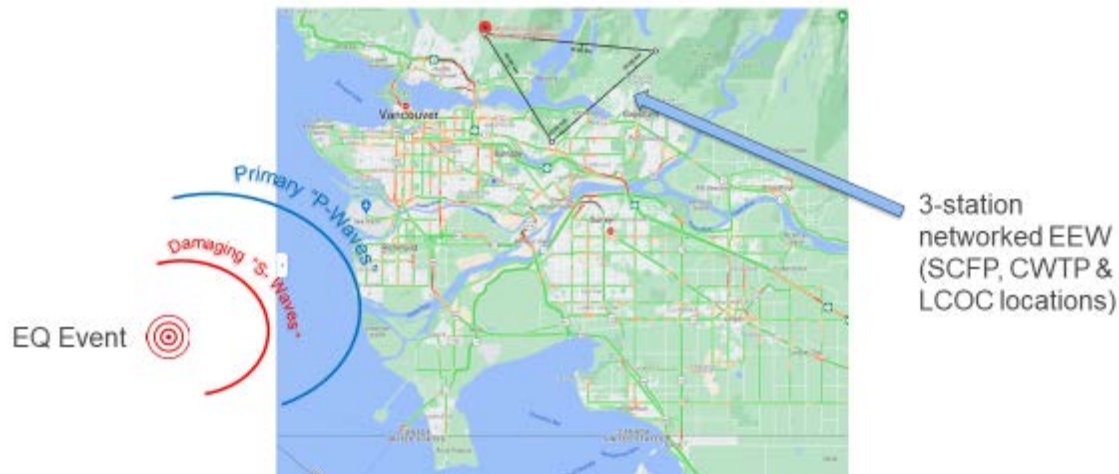
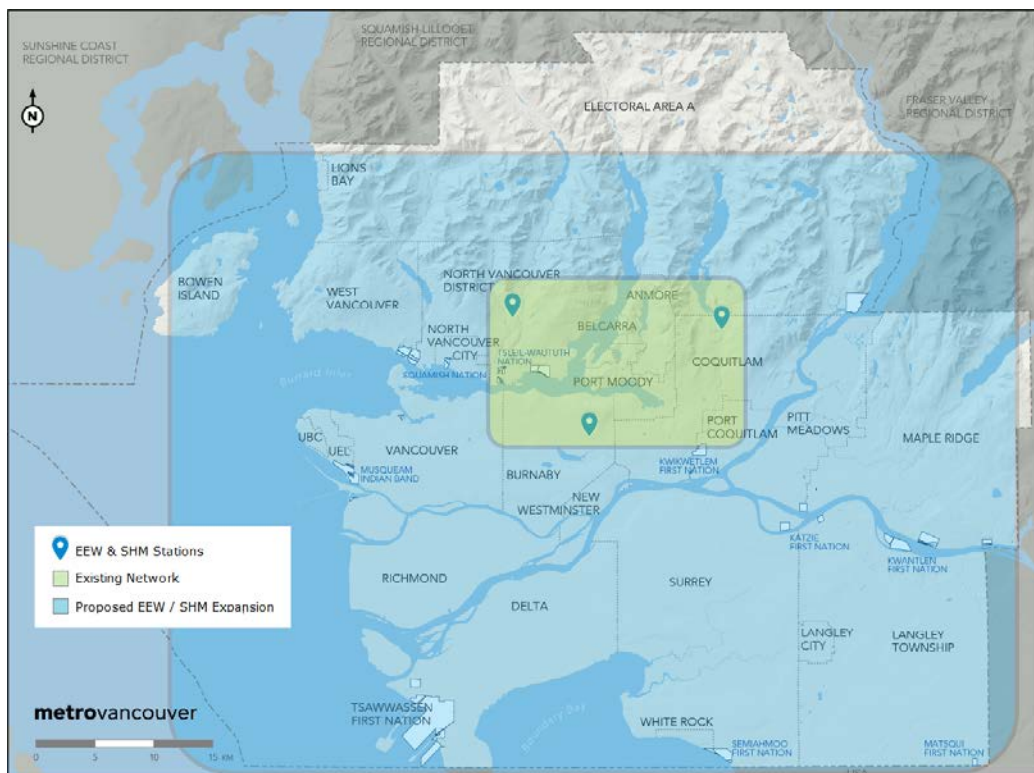


Figure 2. Conceptual Expansion Area for the EEW/SHM systems, providing more complete and reliable Metro Vancouver regional coverage.



To: GVWD Board of Directors

From: Harji Varn, Chief Financial Officer

Date: February 7, 2024

Meeting Date: February 23, 2024

Subject: **GVWD Borrowing Bylaw 261, 2023 and GVWD Temporary Borrowing Request Bylaw 262, 2023**

RECOMMENDATION

That the GVWD Board:

- a) adopt *Greater Vancouver Water District Borrowing Bylaw No. 261, 2023*; and
 - b) adopt *Greater Vancouver Water District Temporary Borrowing Request Bylaw No. 262, 2023*.
-

EXECUTIVE SUMMARY

On November 24, 2023 the Greater Vancouver Water District Board (GVWD) gave a third reading to the *Greater Vancouver Water District Borrowing Bylaw No. 261, 2023* and *Greater Vancouver Water District Temporary Borrowing Request Bylaw 262, 2023* and subsequently sent these two bylaws to the Inspector of Municipalities for statutory approval.

Statutory approval of the Bylaws was given on January 2, 2024 and is included as Attachment 3. Adoption by the GVWD Board is the last approval step in the Bylaw process.

PURPOSE

To adopt *Greater Vancouver Water District Borrowing Bylaw No. 261, 2023* that has received its certificate of approval from the Inspector of Municipalities and to adopt the *Greater Vancouver Water District Temporary Borrowing Request Bylaw 262, 2023* that has received its certificate of approval from the Inspector of Municipalities.

BACKGROUND

On November 24, 2023 the Greater Vancouver Water District Board (GVWD) gave a third reading to the *Greater Vancouver Water District Borrowing Bylaw No. 261, 2023* and *Greater Vancouver Water District Temporary Borrowing Request Bylaw 262, 2023* and subsequently sent these bylaws to the Inspector of Municipalities for statutory approval.

Statutory approval of the Bylaws was given on January 2, 2024 and is included as Attachment 3. Adoption by the GVWD Board is the last approval step in the Bylaw process.

GVWD Borrowing

The Municipal Finance Authority of British Columbia (MFA) is the financing agency for all of the municipalities and Regional Districts in British Columbia, except the City of Vancouver. It is also the financing agency for the Greater Vancouver Water District and Greater Vancouver Sewerage and Drainage District. The process for borrowing begins with passing Temporary and Long-term Borrowing Bylaws (or its equivalent) authorizing borrowing from the MFA on their behalf. Once all

legal requirements are met, the bylaws are forwarded to MFA as the maximum accumulated borrowing authority and are drawn down over time based on borrowing.

GVWD cash management strategy includes a combination of temporary and long-term borrowing which allows the optimization of cash and investment portfolio decisions which can reduce overall debt servicing costs and provide maximum investment returns, as investments can be retained for longer periods.

Board approval is requested for a block of temporary and long-term borrowing authority up to \$1.833 billion, in advance of any actual borrowing. This authority is sought periodically as required, the last time being for long-term Borrowing Bylaw No. 248, 2015, for \$700 million and in 2022 for Temporary Borrowing Bylaw No. 258, 2022 for \$268 million. Both bylaws work concurrently and have a combined remaining borrowing capacity of \$183 million, insufficient to meet the requirements of GVWD's approved five-year capital plan.

The GVWD, with a significant capital program required to maintain, secure and expand current infrastructure to meet the demands of a growing region, estimates long-term borrowing needs of up to approximately \$1.833 billion over the next five years in order to help fund that program. Some of the major projects included in the capital program are as follows:

Major Planned GVWD Capital Expenditures (2024-2028)

Project	Total Budget
Coquitlam Water Main	\$ 668,200,000
Stanley Park Water Supply Tunnel	261,075,000
Annacis Water Supply Tunnel	255,500,000
Coquitlam Lake Water Supply	220,100,000
Cambie- Richmond Water Supply Tunnel	144,780,000

ALTERNATIVES

1. That the GVWD Board:
 - a) adopt *Greater Vancouver Water District Borrowing Bylaw No. 261, 2023*; and
 - b) adopt *Greater Vancouver Water District Temporary Borrowing Request Bylaw No. 262, 2023*.
2. That the GVWD Board receive for information the report dated February 7, 2024, titled "*GVWD Borrowing Bylaw 261, 2023*" and "*GVWD Temporary Borrowing Request Bylaw 262, 2023*" and provide alternate direction.

FINANCIAL IMPLICATIONS

Under alternative 1, which is recommended, staff will have the necessary authority to make prudent financing decisions as required and ensure necessary funding is in place for major projects

included in the capital plan. This will allow for the appropriate decisions regarding balancing the cost of financing with the associated financing risk. The inability to have the necessary flexibility to make the financing decisions would have an unfavourable financial impact. Should this authority be reduced or not granted as under alternative 2, the ability to make necessary financing decisions in a timely manner would be constrained which may have a negative impact on the delivery of the capital plan.

CONCLUSION

Adoption of the *Greater Vancouver Water District Borrowing Bylaw No. 261, 2023*, and the *Greater Vancouver Water District Temporary Borrowing Request Bylaw No. 262, 2023* as recommended under alternative 1, provides the necessary authorization for the GVWD to borrow funds as and when required up to a maximum of \$1.833 billion.

ATTACHMENTS

1. *Greater Vancouver Water District Borrowing Bylaw No. 261, 2023*
2. *Greater Vancouver Water District Temporary Borrowing Request Bylaw No. 262, 2023*
3. Statutory Approval dated January 2, 2024

65221308

GREATER VANCOUVER WATER DISTRICT

BYLAW NO. 261, 2023

A bylaw to authorize the issue and sale of debt not to exceed the aggregate principal amount of \$1,833,000,000 (Canadian)

WHEREAS:

- A. It is requisite and expedient for the Greater Vancouver Water District (the "District") to issue and sell to the Metro Vancouver Regional District ("MVRD") a debenture or debentures or other form of security or indebtedness, not to exceed the aggregate principal amount of \$1,833,000,000 in lawful money of Canada, in order to borrow money to be applied for the purpose of undertakings authorized by the *Greater Vancouver Water District Act* (the "Act") or for the purpose of discharging the payment of any matter or thing contemplated or authorized by the Act, including for the purpose of repaying or refunding either before or at maturity monies which have been borrowed by the District by the issue of temporary securities or other debentures or securities;
- B. A debenture or debentures or other form of securities, including treasury bills, notes, temporary debentures, or other form of obligation, or indebtedness, not to exceed the aggregate principal amount of \$1,833,000,000 in lawful money of Canada, is required to be issued and sold to realize net the sum required for the purposes aforesaid;
- C. The Commissioner of the District (the "Commissioner") has recommended to the Board of the District for the aforesaid purposes the issue and sale to MVRD of a debenture or debentures or other form of security or indebtedness, not to exceed the aggregate principal amount of \$1,833,000,000 in lawful money of Canada, and to enter into an agreement with MVRD, all as provided below.

NOW THEREFORE the Board of the Greater Vancouver Water District enacts as follows:

Citation

1. The official citation of this bylaw is "Greater Vancouver Water District Borrowing Bylaw No. 261, 2023"

Authority

2. For the purposes aforesaid and pursuant to the authority contained in the Act it shall be lawful for the District and the District is hereby authorized, with the approval of the Inspector of Municipalities, to borrow money by the issue and sale to MVRD of a debenture or debentures or other form of securities, including treasury bills, notes, temporary debentures, or other form of obligation or indebtedness (the "Debenture" or "Debentures") not to exceed the aggregate principal amount of \$1,833,000,000 in lawful money of Canada as hereinafter provided.
3. The Debenture or Debentures shall be dated and issued on such date or dates as the Commissioner shall determine and shall bear interest at such rate or rates and shall be payable on such date or dates during its currency or their currencies all as the Commissioner may determine. The aggregate borrowing authorized by this bylaw may be effected by

different series or types of Debenture or Debentures each bearing different dates, maturities and interest rates and having such characteristics all as determined by the Commissioner. Payments in respect of the Debenture or Debentures shall be made to MVRD by the District by cheque or electronic funds transfer.

4. The Debenture or Debentures shall be issued in fully registered form without coupons and shall mature on such date or dates as the Commissioner shall determine. A debenture register shall be maintained at the head office of the District, or that of its agent.
5. The Debenture or Debentures shall be payable as to principal and interest in lawful money of Canada or in such other currency as the Commissioner shall determine.
6. The District shall raise in each debenture year during the currency or currencies of the Debenture or Debentures a sum or sums sufficient in lawful money of Canada to pay interest and, if applicable, principal falling due from time to time on the Debenture or Debentures.
7. If the Debenture or Debentures are issued as a sinking fund debenture or debentures, a sinking fund shall be established by the District or its agent, to retire or to assist in retiring the Debenture or Debentures at maturity and for such purpose the District shall raise in each debenture year during the currency or currencies of the Debenture or Debentures in accordance with the Act a sum or sums sufficient for such purpose in lawful money of Canada and deposit the same in the sinking fund or funds. In settling the sum or sums to be raised annually, the rate of interest on investments shall be estimated at 3.5% per annum, capitalized yearly.
8. The Debenture or Debentures, without limiting any other provision of this bylaw, may in the discretion of the Commissioner be issued subject to the District's option to redeem in whole or at any time or from time to time, any part of the Debenture or Debentures on any date in advance of the maturity thereof and upon such terms and conditions as the Commissioner may determine, subject to the place of redemption and the price (including any premium) at which the Debenture or Debentures may be redeemed being specified by the Commissioner.
9. The Debenture or Debentures shall be in such form as the Commissioner shall approve. The Debenture or Debentures shall rank *pari passu* with all other general obligations of the District except as to sinking funds.
10. The Debenture or Debentures may be sold for such sum or sums whether the same is the par value or more or less than the par value thereof and on such terms and conditions as the Commissioner may determine.
11. The District shall and is hereby authorized to enter into an agreement with MVRD in form and substance approved by the Commissioner which provides, *inter alia*, that:

- (a) the District will provide and pay over to MVRD the sums required to discharge its obligations in accordance with the terms of the Debenture or Debentures; and
 - (b) if the sums provided for in the Debenture or Debentures are not sufficient to meet the obligations of MVRD in relation to the financing, the deficiency is a liability of the District.
12. The Commissioner is hereby authorized on behalf of the District to do all such things and to execute, with or without the seal of the District, and deliver all such agreements, documents or instruments that may be necessary or desirable to give effect to this bylaw. Any such agreement, documents or instruments shall also be signed by any one of the Chair of the Board or the Treasurer of the District.

Severability

13. If any portion of this bylaw is deemed ultra vires, illegal, invalid, or unenforceable in any way in whole or in part by any court of competent jurisdiction, such decision will not be deemed to invalidate or void the remainder of the bylaw.

Read a first, second, and third time this 24 day of November, 2023.

Approved by the Inspector of Municipalities this 2 day of January, 2024.

Adopted this _____ day of _____, _____.

George V. Harvie, Chair

Dorothy Shermer, Corporate Officer

**GREATER VANCOUVER WATER DISTRICT
BYLAW NO. 262, 2023**

**A bylaw to request temporary borrowing through Metro Vancouver Regional District Pending
the Sale of Debentures**

WHEREAS:

- A. Section 45 of the *Municipalities Enabling and Validating Act (No. 2)* (the “MEVA”) authorizes the Metro Vancouver Regional District (“MVRD”) to borrow from a bank, financial institution, regional authority, or any other lender, for the purpose of providing temporary financing for a regional authority.
- B. The Greater Vancouver Water District (the “District”) is a regional authority under s.45 of the MEVA.
- C. The MVRD may only borrow under s.45 of the MEVA if the District:
 - (a) is authorized to contract debt for the purpose for which the financing is to be used;
 - (b) requests the MVRD to provide the financing, by bylaw approved by the Inspector of Municipalities; and
 - (c) enters into an agreement with the MVRD which provides that the District will pay to the MVRD all costs associated with the borrowing, and if requested by the MVRD, deliver to it security in the form of securities sufficient for the MVRD to meet and discharge all its obligations associated with the borrowing. The District and MVRD entered into such agreement on September 21, 2022.

Upon the adoption of this bylaw, with the approval of the Inspector of Municipalities, all of the aforementioned conditions will be satisfied.
- D. The District has, with the approval of the Inspector of Municipalities, adopted the “*Greater Vancouver Water District Borrowing Bylaw No. 261, 2023* (the “Borrowing Bylaw”)”, which authorizes a maximum of \$1.833 billion (CAD) in borrowing for the purpose of undertakings authorized by the *Greater Vancouver Water District Act* (the “Act”), or for the purpose of discharging the payment of any matters or things contemplated or authorized by the Act, including for the purpose of repaying or refunding either before or at maturity monies which have been borrowed by the District by issue of temporary securities or other debentures or securities.
- E. As of the date of this bylaw, no amount has been borrowed against the Borrowing Bylaw and the sale of debentures has been temporarily deferred.

NOW THEREFORE the Board of the Greater Vancouver Water District enacts as follows:

Citation

1. The official citation of this bylaw is “Greater Vancouver Water District Temporary Borrowing Request Bylaw No. 262, 2023”.

Authority

2. The District’s Board of Directors is hereby authorized and empowered to request the MVRD to obtain temporary borrowing for, and to loan to the District, an amount or amounts not exceeding the sum of \$1.833 billion (CAD), which is equal to or less than the amount authorized and remaining to be borrowed by the District under the Borrowing Bylaw.
3. \$1.833 billion (CAD) is the maximum amount of total borrowing that may be outstanding at any time under the combination of both this bylaw and the Borrowing Bylaw.
4. The maximum term of any temporary borrowing arrangements with the MVRD under this bylaw is five years.
5. Any money borrowed by the District under this bylaw will be used solely for purposes set out in the Borrowing Bylaw – specifically for meeting the District's capital requirements or other requirements for which financing is to be used in accordance with its approved financial plan.

The proceeds from the sale of debentures or so much thereof as may be necessary will be used to repay the money borrowed by the District under this bylaw.

6. The District will issue one or more promissory notes or other documents as required to evidence amounts borrowed under this bylaw, each of which must be approved and executed in accordance with the “*Greater Vancouver Water District Banking Authority Bylaw No. 259, 2023*”, as such bylaw may be amended.

Severability

7. If any portion of this bylaw is deemed ultra vires, illegal, invalid, or unenforceable in any way in whole or in part by any court of competent jurisdiction, such decision will not be deemed to invalidate or void the remainder of the bylaw.

Read a first, second, and third time this 24 day of November, 2023.

Approved by the Inspector of Municipalities this 2 day of January, 2024.

Adopted this _____ day of _____, _____.

George V. Harvie, Chair

Dorothy Shermer, Corporate Officer



Statutory Approval

***Under the provisions of
sections***

s.60(1)

of the Greater Vancouver Water District Act

***I hereby approve Bylaw
No.***

261

of the Greater Vancouver Water District

a copy of which is attached hereto.

Dated this 2nd ***day***

of January ***2024***

A handwritten signature in black ink, appearing to be "J. B. Smith", written over a light gray rectangular background.

Deputy Inspector of Municipalities



Statutory Approval

Under the provisions of sections

45(3)(b)

of the Municipalities Enabling and Validating Act (no.2)

I hereby approve Bylaw No.

262

of the Greater Vancouver Water District

a copy of which is attached hereto.

Dated this 2nd ***day***

of January ***2024***

A handwritten signature in black ink, appearing to be "J. B. Smith", written over a light gray rectangular background.

Deputy Inspector of Municipalities

COMMITTEE INFORMATION ITEMS AND DELEGATION SUMMARIES

Greater Vancouver Water District

Board Meeting Date – Friday, February 23, 2024

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

Water Committee – February 7, 2024

Delegations:

No delegations presented

Information Items:

E1 Watershed Fisheries Initiatives Annual Update