

METRO VANCOUVER REGIONAL DISTRICT (MVRD)**BOARD OF DIRECTORS**

BOARD MEETING
Friday, May 23, 2025
9:00 am

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

REVISED AGENDA**A. ADOPTION OF THE AGENDA****1. May 23, 2025 Meeting Agenda**

That the MVRD Board adopt the agenda for its meeting scheduled for May 23, 2025 as circulated.

B. ADOPTION OF THE MINUTES**1. April 25, 2025 Meeting Minutes**

That the MVRD Board adopt the minutes for its meeting held April 25, 2025 as circulated.

*pg. 17***C. DELEGATIONS****D. INVITED PRESENTATIONS**

- | | | |
|----------------|--|---------------|
| Updated | 1. Shayne Gregg, Partner, Governance & Risk, Deloitte Canada
<i>Subject: Final Report on Governance Review</i> | <i>pg. 31</i> |
|----------------|--|---------------|

E. CONSENT AGENDA

Note: Directors may adopt in one motion all recommendations appearing on the Consent Agenda or, prior to the vote, request that 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. REGIONAL PARKS COMMITTEE REPORTS**1.1 2025 Update on Regional District Sustainability Innovation Fund Projects – Regional Parks***pg. 85***Executive Summary**

This report provides an update on five Regional Parks projects that were approved for funding between 2019 and 2023 under the Regional District Sustainability Innovation Fund and are currently in-progress or have been completed or discontinued since the last update to the designated Standing Committee.

Projects funded by the Sustainability Innovation Fund support regional sustainability, protect the environment, advance resilience, and continuously improve service delivery by allowing Metro Vancouver to explore and implement innovative approaches and respond to emerging issues and evolving best practices. The five projects are:

- Managing Capacity and Reducing Emissions: Real-time Parking Availability in Regional Parks (nearing completion)
- Natural Asset Management in Regional Parks (nearing completion)
- Promoting Peatland Recovery in Areas Affected by Wildfire in the Burns Bog Ecological Conservancy Area (complete)
- Showcasing Innovation in Alternative Powered Park Operations and Maintenance Equipment to Reduce Emissions (complete)
- Future Carbon Storage and Greenhouse Gas Emissions at Burns Bog under Different Management and Climate Scenarios (nearing completion).

These projects advance natural asset management and ecosystem protection and innovations in emission reductions and climate policy.

Recommendation

That the MVRD Board receive for information the report dated April 7, 2025, titled “2025 Update on Regional District Sustainability Innovation Fund Projects – Regional Parks”.

2. HOUSING COMMITTEE REPORTS**2.1 2025 Update on Regional District Sustainability Innovation Fund Projects – Housing***pg. 99***Executive Summary**

This report provides an update on seven Metro Vancouver Housing projects that were approved for funding between 2020 and 2024 under the Regional District Sustainability Innovation Fund and are currently in-progress since the last update to the designated Standing Committee.

Many of the Metro Vancouver Housing Sustainability Innovation Fund projects include a design phase and capital for delivery of a pilot system with a number of projects now moving to the construction stage. The projects are as follows:

- Building Resilience: Exploring the Potential of Renewable Energy Building Infrastructure
- Step Code Implementation Impacts for Building Envelope Rehabilitation of Existing Buildings
- 1-in-50 Year Deep Energy Retrofit Project for Existing Multi-Unit Residential Buildings
- Decarbonized On-Demand Domestic Hot Water Systems
- Living Building Challenge for Existing Affordable Housing Projects
- Prefabricated Mass-Timber Panels in Existing Multi-Unit Residential Buildings
- Rental Housing Blueprint Streamlining Multi-Family Affordable Rental Housing Delivery Through Standardization and Modern Construction Methods

SIF projects in housing are positioned to result in approaches that both further regional sustainability objectives, and result in continuous improvements for Metro Vancouver Housing by demonstrating new approaches with cost and time savings for housing delivery.

Recommendation

That the MVRD Board receive for information the report titled “2025 Update on Regional District Sustainability Innovation Fund Projects – Housing”, dated April 10, 2025.

3. AIR QUALITY AND CLIMATE COMMITTEE REPORTS

3.1 Scan of Flood-related Capital Projects in the Metro Vancouver Region – *pg. 114* Preliminary Results

Executive Summary

Metro Vancouver actively participates in ongoing flood resiliency planning processes in the Lower Fraser region. To support this ongoing work and to help advance the *BC Flood Strategy*, staff presented a scope of work to the Flood Resiliency Committee in July 2024 for a scan of floodrelated capital projects in the Metro Vancouver region. The scan, in the form of a visual map and information table, is substantially complete and is presented as part of this report as *preliminary results* for Committee and Board review and feedback.

The scan provides a lay of the land in terms of existing and planned flood risk reduction capital projects, relying primarily on provincial and federal funding data. A total of 89 projects have been scanned, dating from ~2010 to the present, ranging from coastal and river flood protection, to stormwater flood protection, to dike-related projects and nature-based solutions. Staff will next look to fill in any gaps in information, including adding in new or missed projects. The Committee and Board will be provided with updated versions of the map and table later this year.

Recommendation

That the MVRD Board receive for information the report dated April 17, 2025, titled “Scan of Flood-related Capital Projects in the Metro Vancouver Region – Preliminary Results”

3.2 Climate 2050 Roadmap Update

pg. 133

Executive Summary

This report presents a revised approach for the remaining four *Climate 2050* issue areas / road maps (Land Use and Urban Form, Water and Wastewater Infrastructure, Solid Waste, and Human Health and Well-Being), which integrates climate policy and actions into existing planning processes and implementation plans. Rather than creating stand-alone roadmaps, climate actions related to these four issue areas will be integrated within updates to management plans and other planning processes. This revised approach aims to optimize staff resources and engagement efforts, respond to Board direction, and to ensure climate actions are aligned with other plans and policies. This approach is expected to lead to operational efficiencies for integrating climate considerations into core services and planning.

Recommendation

That the MVRD Board receive for information the report dated April 9, 2025, titled "Climate 2050 Roadmap Update".

3.3 Local Government Policy Toolkit for Improving Thermal Safety in Apartment Buildings*pg. 138***Executive Summary**

Metro Vancouver, member jurisdictions, public health authorities and others are exploring ways to protect residents from heat waves such as the 2021 heat dome that caused 619 deaths in BC. Vulnerable residents in apartment buildings without cooling are especially at risk.

Metro Vancouver partnered with the City of North Vancouver, Vancouver Coastal Health Public Health (VCH Public Health), and the City of Vancouver to develop a policy toolkit for local governments that supports climate and health priorities outlined in the *Climate 2050 Buildings Roadmap* and *Metro 2050*. Member jurisdiction staff across the region have expressed the need for information that brings together approaches and solutions to protect residents from the health risks of extreme heat. The toolkit identifies a range of measures that will improve thermal safety, including installing cooling devices, adding shading to building exteriors, improving airflow, and managing heat-related risks for occupants. Based on this toolkit, Metro Vancouver will engage members to explore collaborative opportunities to enhance thermal safety in the region's housing stock. This work aligns with the BC Government's recent commitment to continue funding for heat pump incentives in apartment buildings for residents vulnerable to extreme heat.

Recommendation

That the MVRD Board:

- a) receive for information the report dated April 2, 2025, titled "Local Government Actions for Improving Thermal Safety in Apartment Buildings"; and
- b) direct staff to forward a copy of the report dated April 2, 2025, titled "Local Government Actions for Improving Thermal Safety in Apartment Buildings" to member jurisdictions with an offer of a presentation to Council upon request.

3.4 BC Utilities Commission Decisions on BC Hydro's Distribution Extension Policy and 2024 Rate Design Applications *pg. 146*

Executive Summary

As directed by the MVRD Board, Metro Vancouver participated with member jurisdictions (City of Richmond, City of Vancouver, and District of North Vancouver) as local government interveners in two BC Utilities Commission proceedings for BC Hydro's Distribution Extension Policy and 2024 Rate Design. The local government interveners recommended the BC Utilities Commission approve both applications, stating support along with suggested areas for improvement and analysis.

The BC Utilities Commission approved the new Distribution Extension Policy, effective July 5, 2025, and the 2024 Rate Design, with most changes in effect as of April 1, 2025. A separate Net Metering Service Rate proceeding, stemming from the Rate Design process, is underway to address compensation for customer-generated electricity exported to the grid. Local government interveners' input informed BC Hydro's commitments to engage local governments on small-scale multi-unit housing connections and to the BC Utilities Commission directing BC Hydro to report on rate impacts for low-income households. Metro Vancouver staff will continue to engage with BC Hydro, the Province and the BC Utilities Commission to support policies and rate designs aligned with local government energy transition goals.

Recommendation

That the MVRD Board receive for information the report dated April 10, 2025, titled "BC Utilities Commission Decisions on BC Hydro's Distribution Extension Policy and 2024 Rate Design Applications."

3.5 Air Quality Advisory Program and Preparedness for 2025*pg. 152***Executive Summary**

For over 30 years, Metro Vancouver has operated an air quality advisory program in collaboration with health authorities and partners. Metro Vancouver issues air quality warnings to protect public health when regional air quality degrades. In 2025, the name “air quality advisory” will change to “air quality warning”, aligning with provincial and federal partners to improve public understanding of air quality warnings.

The risk of wildfire and smoke this season depends on May and June rainfall, which can influence the length and intensity of the wildfire season in BC. Lower snowpack levels are also important indicators of increased wildfire risk in summer. Average snowpack levels are below normal in BC (73 percent on March 1) and Metro Vancouver’s watersheds (80 percent on April 3). Metro Vancouver is experiencing the impacts of a changing climate now, with wildfire smoke and heat waves degrading regional air quality in seven of the last ten summers.

Recommendation

That the MVRD Board receive for information the report dated April 7, 2025, titled “Air Quality Advisory Program and Preparedness for 2025”.

Added 3.6 Proposed Amendments to Air Quality Management Fees: Initiating Engagement

pg. 160

Executive Summary

The MVRD Board directed staff to continue to work toward cost recovery for Metro Vancouver's air quality regulatory function. Staff propose to engage with interest holders on amendments to *Metro Vancouver Regional District Air Quality Management Fees Regulation Bylaw No. 1330, 2021* (MVRD Bylaw No. 1330, 2021), a bylaw that establishes regulatory fees to recover program costs for air quality management and encourage emission reduction.

The proposed amendments are needed to reduce the scheduled increase to fee rates to balance cost recovery while avoiding undue financial impact on industry and regional affordability. Some program costs have decreased since MVRD Bylaw No. 1330, 2021 was adopted, which warrants a reduction in fee rates. However, odorous air contaminants remain an important generator of air quality complaints and program costs, so it is critical to set a fee structure that enables a reasonable level of program cost recovery for future years.

This report includes a discussion paper that describes the proposed amendments and that will serve as the foundation for the engagement. Staff will consider input from affected audiences and present refined proposed amendments, together with a summary of input and how it was considered, to the MVRD Board in late 2025. If adopted, implementation would proceed in 2026 or sooner if feasible.

At its May 9, 2025 meeting, the Air Quality and Climate Committee considered the report and requested that additional information be provided regarding proposed amendments to MVRD Bylaw No. 1330, 2021, related to:

- the facilities this bylaw applies to;
- what the fees collected are used for (i.e., fair cost recovery);
- why the fee rates are being reduced; and
- input received to date from permit holders.

Recommendation

That the MVRD Board direct staff to engage with interest holders on proposed amendments to the *Metro Vancouver Regional District Air Quality Management Fees Regulation Bylaw No. 1330, 2021*, based on the discussion paper in the report titled "Proposed Amendments to Air Quality Management Fees: Initiating Engagement", dated May 15, 2025.

4. ELECTORAL AREA AND SMALL COMMUNITIES COMMITTEE REPORTS

4.1 Barnston Island Dike Improvement Project – Work Plan

pg. 189

Executive Summary

Metro Vancouver is the local government for Barnston Island and is responsible for emergency management for the Island. There is a 10-km ring dike on the Island to protect it from flooding that is maintained by the local resident-volunteer Barnston Island Diking District and overseen directly by the Province. The Province provided Metro Vancouver with a grant of \$5.25 million in 2023 to manage the process and implementation of dike improvements. Metro Vancouver also committed \$1.5 million of the Growing Communities Fund grant towards this project.

Following an update in 2024 to the Barnston Island Dike Assessment Report (2012), the MVRD Board directed staff to use the priority projects identified in the update as a guide for implementing dike improvements. Through a competitive procurement process, Metro Vancouver recently entered into a contract with Northwest Hydraulic Consultants Ltd. to complete five priorities:

Barnston Island Drainage and Dike Improvement Project Work Plan	Approximate Cost
Task 1: Design for the replacement of the flood box and pump station for the Barnston Island dike	\$500,000
Task 2: Drainage ditch study and drainage ditch upgrades on Barnston Island	\$95,000
Task 3: Bank erosion study and erosion monitoring network	\$69,000
Task 4: Dike seepage assessment	\$85,000
Task 5: Operation and maintenance manual for the dike.	\$21,000
Total	\$770,000

The associated work plan is presented in this report for information.

Recommendation

That the MVRD Board receive for information the report dated April 15, 2025, titled "Barnston Island Dike Improvement Project – Work Plan".

4.2 Electoral Area A Community Works Fund – University Neighbourhoods Association (UNA) Dog Park Project *pg. 239*

Executive Summary

The Community Works Fund is delivered to all local governments in British Columbia through a direct annual allocation to support local eligible priorities, and is distributed within Electoral Area A based on community population. Including 2025's annual allocation, the Electoral Area A Community Works Fund Reserve stands at approximately \$1.1 million, with 81% of that apportioned based on population to UBC, which includes the University Neighbourhoods Association (UNA).

The UNA oversees residential neighbourhoods around UBC's campus and provides municipal-like services (including parks) to its residents. In late 2024, the UNA conducted a public engagement process for a new dog park that sought feedback on its design and features. The proposed dog park received strong support from residents, and in March 2025, the UNA Board endorsed the project moving forward to Metro Vancouver for consideration of funding in the amount of \$200,000.

If the MVRD Board approves the recommendation, Metro Vancouver will enter into an agreement with UBC (on behalf of the UNA) to reimburse them for eligible costs up to \$200,000 upon submission of required documentation.

Recommendation

That the MVRD Board approve funding from the Electoral Area A Community Works Fund as described in the report dated April 15, 2025, titled "Electoral Area A Community Works Fund – University Neighbourhoods Association (UNA) Dog Park Project" up to \$200,000.

**4.3 Reforming the Local Government Act Survey – Electoral Area A
Comments***pg. 247***Executive Summary**

The Province and UBCM are currently gauging interest from regional districts and local government area associations to move forward with legislative reforms focused on regional districts. As an initial step, local government area associations, including the Lower Mainland Local Government Association, engaged a legal firm (Lidstone & Company) to prepare a discussion paper titled “Regional District Legislation Roadmap” and recently distributed a survey requesting feedback on the paper and its draft recommendations.

Metro Vancouver staff have reviewed the discussion paper and survey, and recommend that the Board direct staff to submit comments provided in this report as they relate to Electoral Area A. For clarity, the recommendation is specific to Electoral Area A and does not mean Metro Vancouver is submitting these comments on behalf of other member jurisdictions.

Recommendation

That the MVRD Board, as Local Government for Electoral Area A, direct staff to respond to the Reforming the Local Government Act: Roadmap Survey with the responses in the General Comments and Comments on Draft Recommendations section of the report dated April 28, 2025, titled “Reforming the Local Government Act Survey – Electoral Area A Comments”.

5. CHIEF ADMINISTRATIVE OFFICER REPORTS**5.1 UBCM 2025 Community Excellence Awards Nominations***pg. 252***Executive Summary**

The UBCM Community Excellence Awards recognize UBCM members that have implemented projects or programs that demonstrate excellence in meeting the purposes of local government. Metro Vancouver is seeking Board support for the following projects:

- “Construction Impact Mitigation Framework”;
- “Leveraging Professional Governance Act”;
- “Repair Cafes”; and
- “Solid Waste Management Plan Update Collaborative Engagement Program”.

Recommendation

That the MVRD Board support Metro Vancouver’s submission of the following entries for the Union of BC Municipalities (UBCM) 2025 Community Excellence Awards:

- a) Excellence in Service Delivery: Construction Impact Mitigation Framework;
- b) Excellence in Asset Management: Leveraging Professional Governance Act;
- c) Excellence in Sustainability: Repair Cafes; and
- d) Excellence in Governance: Solid Waste Management Plan Update Collaborative Engagement Program.

5.2 Metro Vancouver External Agency Status Report – May 2025

pg. 257

Executive Summary

This report provides updates from representatives to Metro Vancouver external agencies.

Recommendation

That the MVRD Board receive for information the following submissions from Metro Vancouver representatives to external agencies:

- a) Agriculture Advisory Committee;
 - b) Board of Trustees of the Sasamat Volunteer Fire Department;
 - c) Delta Heritage Airpark Management Committee;
 - d) Fraser Basin Council;
 - e) Fraser Valley Regional Library Board;
 - f) ᑭᓴᓴᓴ (Katzie First Nation) Treaty Negotiations;
 - g) Lower Mainland Local Government Association;
 - h) Municipal Finance Authority;
 - i) National Zero Waste Council;
 - j) Metro Vancouver Regional Parks Foundation;
 - k) Solid Waste and Recycling Industry Advisory Committee;
 - l) Union of British Columbia Municipalities, Executive;
 - m) Union of British Columbia Municipalities, Indigenous Relations Committee;
 - n) Zero Emission Innovation Centre Board of Directors;
- as provided in the report dated May 13, 2025, titled “Metro Vancouver External Agency Status Report – May 2025”.

F. ITEMS REMOVED FROM THE CONSENT AGENDA

G. REPORTS NOT INCLUDED IN CONSENT AGENDA**1. FINANCE COMMITTEE REPORTS****1.1 MVRD Development Cost Charge Waiver for Agricultural Development Designed to Result in a Low Environmental Impact Bylaw No. 1418, 2025** *pg. 315***Executive Summary**

In April 2025, the Finance Committee and MVRD Board endorsed the proposed criteria for a Regional Park Land Acquisition Development Cost Charge (DCC) waiver for agricultural developments designed to result in a low environmental impact, and directed staff to return with a waiver bylaw. The attached bylaw establishes eligibility criteria to demonstrate low environmental impact and authority for “agricultural development” that meets the criteria to receive a full waiver from the current Park Land Acquisition DCC. The waiver is commensurate with regional and municipal jurisdictions surveyed as part of the early review of DCC programs across the province. The total number of agricultural developments is quite low ranging from 0-24 per year over the past five years, and based on feedback from the agricultural sector, under current DCC rates, no applications would move forward as they would not be financially viable.

A Water DCC Reduction Bylaw is also being proposed for eligible agricultural development. Over the long term, and through the 2027 DCC Bylaw update process, a sub-category for non-residential based on further data analysis, including a specific category for agricultural development, will be created.

Recommendation

That the MVRD Board:

- a) give first, second, and third reading to *Metro Vancouver Regional District Development Cost Charge Waiver for Agricultural Development Designed to Result in a Low Environmental Impact Bylaw No. 1418, 2025*; and
- b) adopt *Metro Vancouver Regional District Development Cost Charge Waiver for Agricultural Development Designed to Result in a Low Environmental Impact Bylaw No. 1418, 2025*.

2.1 Sasamat Fire Service Conversion Bylaw No. 1402, 2024*pg. 339***Executive Summary**

At its February 28, 2025 meeting, the Metro Vancouver Regional District Board (“the MVRD Board”) rescinded third reading of *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024* (“MVRD Bylaw No. 1402, 2024”), gave third reading to *MVRD Bylaw No. 1402, 2024*, as amended, and directed staff to forward *MVRD Bylaw No. 1402, 2024* to the Inspector of Municipalities for approval. *MVRD Bylaw No. 1402, 2024* received approval from the Inspector of Municipalities on April 25, 2025 and is now presented to the MVRD Board for consideration of adoption.

Recommendation

That the MVRD Board adopt *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024*, as recommended in the report dated April 28, 2025, titled “Sasamat Fire Service Conversion Bylaw No. 1402, 2024”.

H. MOTIONS FOR WHICH NOTICE HAS BEEN GIVEN**I. OTHER BUSINESS****1. MVRD Board Committee Information Items and Delegation Summaries** *pg. 363***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.

K. ADJOURNMENT

That the MVRD Board adjourn its meeting of May 23, 2025.

METRO VANCOUVER REGIONAL DISTRICT BOARD OF DIRECTORS

Minutes of the Regular Meeting of the Metro Vancouver Regional District (MVRD) Board of Directors held at 9:07 am on Friday, April 25, 2025, in the 28th Floor Boardroom, 4515 Central Boulevard, Burnaby, British Columbia.

MEMBERS PRESENT:

Burnaby, Chair, Director Mike Hurley
 Anmore, Vice Chair, Director John McEwen
 Belcarra, Director Jamie Ross
 Bowen Island, Director Andrew Leonard*
 Burnaby, Director Pietro Calendino
 Burnaby, Director Sav Dhaliwal*
 Coquitlam, Director Craig Hodge
 Coquitlam, Director Teri Towner
 Delta, Director Rod Binder
 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
 Lions Bay, Director Ken Berry
 Maple Ridge, Director Dan Ruimy
 New Westminster, Director Nadine Nakagawa
 North Vancouver City, Director Linda Buchanan
 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 Doug Elford
 Surrey, Director Gordon Hepner
 Surrey, Director Pardeep Kooner
 Surrey, Director Brenda Locke
 Surrey, Director Rob Stutt
 Vancouver, Director Rebecca Bligh*
 Vancouver, Director Lisa Dominato
 Vancouver, Director Sarah Kirby-Yung
 Vancouver, Director Mike Klassen
 Vancouver, Director Lenny Zhou*
 West Vancouver, Director Mark Sager
 White Rock, Director Megan Knight

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

MEMBERS ABSENT:

scəwáθən məsteyəx^w (Tsawwassen First Nation),
 Director Laura Cassidy
 Vancouver, Director Peter Meiszner
 Vancouver, Director Ken Sim

STAFF PRESENT:

Jerry W. Dobrovolsky, Chief Administrative Officer
 Dorothy Shermer, Corporate Officer
 Catherine Grosson, Legislative Services Coordinator, Board and Information Services

A. ADOPTION OF THE AGENDA

1. April 25, 2025 Meeting Agenda

It was MOVED and SECONDED

That the MVRD Board amend the agenda for its meeting scheduled for April 25, 2025 by adding the following delegations:

- C1 – Nathan Davidowicz
- C2 – TransLink – Kevin Quinn, Chief Executive Officer, and Sarah Ross, Vice President, Transportation Planning and Policy.

CARRIED

It was MOVED and SECONDED

That the MVRD Board adopt the agenda for its meeting scheduled for April 25, 2025 as amended and address item E5.3 immediately after item C2.

CARRIED

B. ADOPTION OF THE MINUTES

1. March 28, 2025 Meeting Minutes

It was MOVED and SECONDED

That the MVRD Board adopt the minutes for its meeting held March 28, 2025 as circulated.

CARRIED

2. April 9, 2025 Special Joint Meeting Minutes

It was MOVED and SECONDED

That the MVRD Board adopt the minutes for its special joint meeting held April 9, 2025 as circulated.

CARRIED

C. DELEGATIONS

1. Nathan Davidowicz

Subject: TransLink's 2025 Investment Plan and Borrowing Limit

Nathan Davidowicz spoke in opposition to the report dated April 11, 2025, titled "TransLink's 2024 Investment Plan and Borrowing Limit," and requested that the Board not approve TransLink's proposed 2025 Investment Plan, noting that TransLink should seek alternative options for the investment, funding, and governance of the Lower Mainland's transit system.

2. Kevin Quinn, Chief Executive Officer, and Sarah Ross, Vice-President, Transportation Planning and Policy, TransLink

Subject: TransLink's 2025 Investment Plan and Borrowing Limit

Kevin Quinn and Sarah Ross provided members with a presentation titled "2025-2034 Investment Plan," which outlined TransLink's investment plans to expand transit services and future sources for funding transit services.

The agenda was amended to address item E5.3 immediately after item C2.

E. 5.3 TransLink's 2025 Investment Plan and Borrowing Limit

Report dated April 11, 2025, from Jonathan Cote, Deputy General Manager, Regional Planning and Housing Development, providing the MVRD Board with the opportunity to review projects, programs, and the proposed increase to TransLink's borrowing limit associated with TransLink's 2025 Investment Plan.

It was MOVED and SECONDED

That the MVRD Board:

- a) support TransLink's proposed 2025 Investment Plan as aligned with *Metro 2050*, as presented in the report dated April 11, 2025, titled "TransLink's 2025 Investment Plan and Borrowing Limit";
- b) receive for information the materials regarding TransLink's required increase to its borrowing limit as presented in the report dated April 11, 2025, titled "TransLink's 2025 Investment Plan and Borrowing Limit"; and
- c) send a letter to the Provincial Minister of Transportation and Transit, Parliamentary Secretary for Transit, TransLink Board, and Mayors' Council on Regional Transportation noting that the 2025 Investment Plan is aligned with *Metro 2050*.

CARRIED

The order of the agenda was resumed at this point.

D. INVITED PRESENTATIONS

No items presented.

E. CONSENT AGENDA

At the request of Directors, the following items were removed from the Consent Agenda for consideration under Section F:

- 1.1 Housing 2050: Regional Housing Needs Report
- 1.3 Metro Vancouver Inclusionary Housing Calculator
- 1.4 Rental Housing Blueprint: Digitally Accelerated Standardized Housing (DASH) Recommendations
- 3.1 2025/2026 CanExport Community Investments Grant Award
- 4.1 2024 Annual Financial Results and Audited Financial Statements

- 4.2 Response to the MVRD Board's January 31, 2025 Resolution regarding: Cost Apportionment for Wastewater Treatment Plant Projects, Regional Projections and DCC Collections and Application
- 4.3 Proposed Criteria for Water Development Cost Charge Reduction and Parks Development Cost Charge Waiver Bylaws for Agricultural Development Designed to Result in a Low Environmental Impact
- 4.4 Manager's Report

It was MOVED and SECONDED

That the MVRD Board adopt the recommendations for the following items as presented in the April 25, 2025 MVRD Consent Agenda:

- 1.2 Metro Vancouver Housing Data Book 2025
- 2.1 Land Use Resilience Best Practice Guide: Flooding and Related Hazards - Proposed Scope of Work
- 2.2 2025 Regional District Sustainability Innovation Fund Application: Regional-Scale Hazard, Risk, and Vulnerability Analysis
- 2.3 Appointment of Enforcement Officer
- 2.4 Analyzing Thermal Energy Opportunities Across Metro Vancouver
- 3.2 Invest Vancouver Marketing and Communications Update
- 3.3 Cleantech Report
- 5.1 Engineers and Geoscientists (EGBC) Initial Compliance Audit Results
- 5.2 Adoption of Revised Meeting Minutes for February 28, 2025

CARRIED

The items and recommendations referred to above are as follows:

1.2 Metro Vancouver Housing Data Book 2025

Report dated March 3, 2025 from Sinisa Vukicevic, Program Manager, Regional Planning Analytics, and Agatha Czekajlo, Senior Policy and Planning Analyst, Regional Planning and Housing Services, providing the Regional Planning Committee and MVRD Board with the most recent update to the *Metro Vancouver Housing Data Book*.

Recommendation

That the MVRD Board:

- a) receive for information the report dated March 3, 2025, titled "Metro Vancouver Housing Data Book 2025"; and
- b) forward a copy of the report dated March 3, 2025, titled "Metro Vancouver Housing Data Book 2025" to member jurisdictions with an offer of a presentation to Council upon request.

Adopted on Consent

2.1 Land Use Resilience Best Practice Guide: Flooding and Related Hazards - Proposed Scope of Work

Report dated March 21, 2025 from Stefanie Ekeli, Regional Planner, Regional Planning and Housing Services, providing the Air Quality and Climate Committee and MVRD Board with the scope of work of the Land Use Resilience Best Practice Guide: Flooding and Related Hazards, and an opportunity to provide feedback on the proposed work.

Recommendation

That the MVRD Board receive for information the report dated March 21, 2025, titled “Land Use Resilience Best Practice Guide: Flooding and Related Hazards – Proposed Scope of Work”.

Adopted on Consent

2.2 2025 Regional District Sustainability Innovation Fund Application: Regional-Scale Hazard, Risk, and Vulnerability Analysis

Report dated March 21, 2025 from Edward Nichol, Senior Planner, Regional Planning and Housing Services, presenting the Regional-Scale Hazard, Risk, and Vulnerability Analysis project, and requesting funding through the Regional District Sustainability Innovation Fund.

Recommendation

That the MVRD Board approve allocation from the Regional District Sustainability Innovation Fund for the project “Metro Vancouver Regional-Scale Hazard, Risk, and Vulnerability Analysis (HRVA)” for \$250,000 for 2025 and 2026 for a total of \$500,000.

Adopted on Consent

2.3 Appointment of Enforcement Officer

Report dated February 19, 2025 from Julie Saxton, Program Manager, Enforcement and Regulation Air Quality, Environmental Regulation and Enforcement, recommending the appointment of a Metro Vancouver employee as a Board-designated officer.

Recommendation

That the MVRD Board, pursuant to the *Greater Vancouver Regional District Air Quality Management Bylaw 1082, 2008* and the *Environmental Management Act*, appoint Metro Vancouver employee Gabriel de Andrade Fazoni as an officer.

Adopted on Consent

2.4 Analyzing Thermal Energy Opportunities Across Metro Vancouver

Report dated March 20, 2025 from Sara Muir, Air Quality Planner, Air Quality and Climate Action Services, and Jeff Carmichael, Division Manager, Business Development, Liquid Waste Services, informing the Air Quality and Climate Committee and the MVRD Board about a project to study opportunities for thermal energy networks (TENs) in Metro Vancouver, in collaboration with funding partners (BC Hydro and the Zero Emissions Innovation Centre) and member jurisdictions.

Recommendation

That the MVRD Board receive for information the report dated March 20, 2025, titled “Analyzing Thermal Energy Opportunities Across Metro Vancouver”.

Adopted on Consent

3.2 Invest Vancouver Marketing and Communications Update

Report dated March 12, 2025 from Sue Mah, Vice President, Collaboration, Invest Vancouver, and Peyton Winslade, Advisor, Invest Vancouver, providing the MVRD Board with an update on Invest Vancouver’s marketing, communications, and collaboration activities, including key metrics from 2024.

Recommendation

That the MVRD Board receive for information the report dated March 12, 2025, titled “Invest Vancouver Marketing and Communications Update”.

Adopted on Consent

3.3 Cleantech Report

Report dated March 12, 2025 from Lejla Uzicanin, Vice President, Data, Research & Policy, Invest Vancouver, providing the MVRD Board with a summary of key findings obtained from the *Catalyzing Investment in Cleantech Innovation in the Metro Vancouver Region* report.

Recommendation

That the MVRD Board receive for information the report dated March 12, 2025, titled “Cleantech Report”.

Adopted on Consent

5.1 Engineers and Geoscientists (EGBC) Initial Compliance Audit Results

Report dated April 9, 2025 from Maria Luisa Barroga, Program Manager - Quality Management Project Management Office, Project Delivery, updating the MVRD Board on the results of the EGBC Initial Compliance Audit.

Recommendation

That the MVRD Board of Directors receive for information the report dated April 9, 2025, titled “Engineers and Geoscientists BC (EGBC) Initial Compliance Audit Results.

Adopted on Consent

5.2 Adoption of Revised Meeting Minutes for February 28, 2025

Report dated April 11, 2025 from Dorothy Shermer, Corporate Officer, requesting that the MVRD Board rescind the adoption of the minutes for its February 28, 2025 Board meeting, and presenting revised minutes for adoption to correct an error in the minutes.

Recommendation

That the MVRD Board:

- a) rescind the adoption of the minutes of its regular meeting held on February 28, 2025; and
- b) adopt the revised minutes of its regular meeting held on February 28, 2025 as attached to the report dated April 11, 2025, titled "Adoption of Revised Meeting Minutes for February 28, 2025".

Adopted on Consent

F. ITEMS REMOVED FROM THE CONSENT AGENDA

Items removed from the Consent Agenda were considered in numerical order.

1.1 Housing 2050: Regional Housing Needs Report

Report dated March 3, 2025 from Marina Jozipovic, Senior Regional, Planner, and Diana Jeliaskova, Regional Planner, Regional Planning and Housing, presenting the Regional Housing Needs Report to the Regional Planning Committee and the MVRD Board, with an overview of upcoming tasks related to the development of *Housing 2050: A Roadmap to Implement Metro 2050's Housing Goal*.

It was MOVED and SECONDED

That the MVRD Board receive for information the report dated March 3, 2025, titled "Housing 2050: Regional Housing Needs Report".

CARRIED

1.3 Metro Vancouver Inclusionary Housing Calculator

Report dated March 10, 2025 from Marina Jozipovic, Senior Planner, Regional Planning and Housing Services, presenting the Metro Vancouver Inclusionary Housing Calculator to the Regional Planning Committee and the MVRD Board.

It was MOVED and SECONDED

That the MVRD Board:

- a) receive for information the report dated March 10, 2025, titled "Metro Vancouver Inclusionary Housing Calculator"; and
- b) direct staff to forward a copy of the report dated March 10, 2025, titled "Metro Vancouver Inclusionary Housing Calculator" to member jurisdictions with an offer of a presentation to staff and/or Council upon request.

CARRIED

1.4 Rental Housing Blueprint: Digitally Accelerated Standardized Housing (DASH) Recommendations

Report dated March 10, 2025 from Jessica Hayes, Program Manager, Housing Policy and Planning, Regional Planning and Housing Services, presenting the Digitally Accelerated Standardized Housing (DASH) Recommendations, Phase 1 deliverable from the Rental Housing Blueprint project to the Regional Planning Committee and the MVRD Board.

It was MOVED and SECONDED

That the MVRD Board:

- a) receive for information the report dated March 10, 2025, titled “Rental Housing Blueprint: Digitally Accelerated Standardized Housing (DASH) Recommendations”; and
- b) forward the report titled “Digitally Accelerated Standardized Housing (DASH) Recommendations” to member jurisdiction Mayors, Chief, and Councils with an offer of a presentation to staff and/or Council upon request.

CARRIED

3.1 2025/2026 CanExport Community Investments Grant Award

Report dated March 31, 2025 from Sue Mah, Vice President, Collaboration, Invest Vancouver, and Rosemary Preckel, Project Coordinator, Invest Vancouver, providing the MVRD Board with information about the \$272,925 award by the CanExport Community Investments Program that will support Invest Vancouver’s Foreign Direct Investment attraction strategies.

It was MOVED and SECONDED

That the MVRD Board receive for information the report dated March 31, 2025, titled “2025/2026 CanExport Community Investments Grant Award”.

CARRIED

4.1 2024 Annual Financial Results and Audited Financial Statements

Report dated April 15, 2025 from Harji Varn, Chief Financial Officer / General Manager, Financial Services, providing information on Metro Vancouver’s 2024 Annual Financial Results and presenting, for approval, the Audited 2024 Financial Statements for the MVRD, MVHC, GVWD, and GVS&DD.

It was MOVED and SECONDED

That the MVRD Board:

- a) receive for information the report dated April 10, 2025 titled “Metro Vancouver 2024 Annual Financial Results and Audited Financial Statements”; and
- b) approve the Audited 2024 Consolidated Financial Statements for the Metro Vancouver Regional District.

CARRIED

4.2 Response to the MVRD Board's January 31, 2025 Resolution regarding: Cost Apportionment for Wastewater Treatment Plant Projects, Regional Projections and DCC Collections and Application

Report dated March 27, 2025 from Harji Varn, Chief Financial Officer / General Manager, Financial Services, Heather McNell, Deputy Chief Administrative Officer, Policy and Planning, and Peter Navratil, General Manager, Liquid Waste Services, providing the MVRD Board with a report responding to the January 31, 2025 MVRD Board resolution requesting additional information on: cost allocation for the Iona Island and North Shore Wastewater Treatment Plant projects; assumptions and data underlying population, dwelling unit, and employment projections; and DCC collections over the last two decades by sewerage area.

It was MOVED and SECONDED

That the MVRD Board receive for information the report dated March 27, 2025, titled "Response to the MVRD Board's January 31, 2025 Resolution regarding: Cost Apportionment for Wastewater Treatment Plant Projects, Regional Projections and DCC Collections and Application".

CARRIED

4.3 Proposed Criteria for Water Development Cost Charge Reduction and Parks Development Cost Charge Waiver Bylaws for Agricultural Development Designed to Result in a Low Environmental Impact

Report dated March 21, 2025 from Laurel Cowan, Division Manager, Regional Land Use Planning, Regional Planning and Housing Services, seeking GVWD and MVRD Board direction to develop a Water DCC Reduction Bylaw and Regional Parks DCC Waiver Bylaw for agricultural developments that are designed to result in a low environmental impact.

It was MOVED and SECONDED

That the MVRD Board direct staff to develop Development Cost Charge Reduction/Waiver Bylaws for Agricultural Development Designed to Result in a Low Environmental Impact as described in the report dated March 21, 2025, titled "Proposed Criteria for Water Development Cost Charge Reduction and Parks Development Cost Charge Waiver Bylaws for Agricultural Development Designed to Result in a Low Environmental Impact."

CARRIED

4.4 Manager's Report

Report dated March 31, 2025 from Harji Varn, Chief Financial Officer / General Manager, Financial Services, providing the Finance Committee and the MVRD Board with an update on changes to the work plan, and responding to an MVRD Board member's question regarding DCC collections in the City of Surrey.

It was MOVED and SECONDED

That the MVRD Board receive for information the report dated March 31, 2025, titled "Manager's Report".

CARRIED

G. REPORTS NOT INCLUDED IN CONSENT AGENDA

1.1 MVRD Regional Parks Regulation Bylaw No. 1420, 2025

Report dated February 7, 2025 from David Leavers, Division Manager, Visitor and Operations Services, seeking MVRD Board approval for replacing *Metro Vancouver Regional District Regional Parks Regulation Bylaw, No. 1177, 2012* with *Metro Vancouver Regional District Regional Parks Regulation Bylaw No. 1420, 2025*.

It was MOVED and SECONDED

That the MVRD Board give first, second, and third reading to *Metro Vancouver Regional District Regional Parks Regulation Bylaw No. 1420, 2025*.

CARRIED

It was MOVED and SECONDED

That the MVRD Board adopt *Metro Vancouver Regional District Regional Parks Regulation Bylaw No. 1420, 2025*.

CARRIED

1.2 MVRD Notice of Bylaw Violation Enforcement and Dispute Adjudication Amendment Bylaw No. 1417, 2025

Report dated March 3, 2025 David Leavers, Division Manager, Visitor and Operations Services, Regional Parks, presenting for consideration amendments to the *Greater Vancouver Regional District Notice of Bylaw Violation Enforcement and Dispute Adjudication Bylaw No. 1117, 2010* to allow contraventions to be addressed through Notice of Bylaw Violation that will help further protect Regional Parks natural resources and assets and better promote bylaw compliance by the public.

It was MOVED and SECONDED

That the MVRD Board give first, second, and third reading to *Metro Vancouver Regional District Notice of Bylaw Violation Enforcement and Dispute Adjudication Amendment Bylaw No. 1417, 2025*.

CARRIED

It was MOVED and SECONDED

That the MVRD Board adopt *Metro Vancouver Regional District Notice of Bylaw Violation Enforcement and Dispute Adjudication Amendment Bylaw No. 1417, 2025*.

CARRIED

1.3 MVRD Ticket Information Utilization Amendment Bylaw No. 1416, 2025

Report dated March 2, 2025 from David Leavers, Division Manager, Visitor and Operations Services, Regional Parks, presenting for consideration amendments to *Greater Vancouver Regional District Ticket Utilization Bylaw No. 1050, 2006* to reflect the changes included in the new Parks Regulation Bylaw, MVRD Bylaw No. 1417, 2025.

It was MOVED and SECONDED

That the MVRD Board give first, second, and third reading to *Metro Vancouver Regional District Ticket Information Utilization Amendment Bylaw No. 1416, 2025*.

CARRIED

It was MOVED and SECONDED

That the MVRD Board adopt *Metro Vancouver Regional District Ticket Information Utilization Amendment Bylaw No. 1416, 2025*.

CARRIED

1.4 MVRD Consumption of Liquor in Regional Parks Amendment Bylaw No. 1415, 2025

Report dated March 3, 2025 from David Leavers, Division Manager, Visitor and Operations Services, Regional Parks, seeking MVRD approval to amend *Metro Vancouver Regional District Consumption of Liquor in Regional Parks Bylaw No. 1385, 2024* to enable the implementation of a one-year extension to the MVRD Board approved pilot program to permit alcohol consumption in six regional parks.

It was MOVED and SECONDED

That the MVRD Board give first, second, and third reading to *Metro Vancouver Regional District Consumption of Liquor in Regional Parks Amendment Bylaw No. 1415, 2025*.

CARRIED

It was MOVED and SECONDED

That the MVRD Board adopt *Metro Vancouver Regional District Consumption of Liquor in Regional Parks Amendment Bylaw No. 1415, 2025*.

CARRIED

Directors Bains, Hepner, Kooner, Locke, and Stutt voted in opposition.

2.1 MVRD Notice of Bylaw Violation Enforcement and Dispute Adjudication Bylaw Amendment Bylaw No. 1410, 2025

Report dated March 17, 2025, from Esther Bérubé, Division Manager, Air Quality Bylaw and Regulation Development, Air Quality and Climate Action Services, and Julie Saxton, Program Manager, Enforcement and Regulation - Air Quality, Environmental Regulation and Enforcement, proposing amendments to *GVRD Bylaw No. 1117, 2010* to allow designated contraventions to be addressed through a notice of bylaw violation.

It was MOVED and SECONDED

That the MVRD Board give first, second, and third reading to *Metro Vancouver Regional District Notice of Bylaw Violation Enforcement and Dispute Adjudication Amendment Bylaw No. 1410, 2025*.

CARRIED

It was MOVED and SECONDED

That the MVRD Board pass and finally adopt *Metro Vancouver Regional District Notice of Bylaw Violation Enforcement and Dispute Adjudication Amendment Bylaw No. 1410, 2025*.

CARRIED

H. MOTIONS FOR WHICH NOTICE HAS BEEN GIVEN

The following Notice of Motion was submitted by Director West on January 31, 2025:

That the MVRD Board direct staff and/or request the Chair, where applicable, to give effect to the following:

- 1) propose changes to the remuneration bylaw to:
 - a) reduce the Metro Vancouver meeting stipend by 50%.
 - b) eliminate any additional stipend for meetings longer than 4 hours.
 - c) create a total limit on Director remuneration.
 - d) eliminate regional median-based automatic adjustments to meeting per diem and Chair/Vice Chair remuneration.
 - e) eliminate additional meeting stipends payable to Chair/Vice Chair.
 - f) consider alternatives to meeting stipend model of remuneration and any further changes as desired by the board.
- 2) reduce the total number of Metro Vancouver committees by a minimum of 50%.
- 3) reduce the total number of Metro Vancouver meetings for which a stipend is paid by a minimum of 50% from 2024 totals.

- 4) initiate a full-scale, external core service review of the Metro Vancouver Regional District, the Greater Vancouver Sewerage & Drainage District, the Greater Vancouver Water District and the Metro Vancouver Housing Corporation with a mandate to identify savings, efficiencies and reductions by examining all departments and service areas, staffing levels, use of contracted services and consultants and any other areas as identified by the board, as well as reviewing Metro Vancouver's role as a regulator, identifying areas of duplicatory or overlapping municipal, regional, provincial and federal regulation and delegated authorities from the provincial and federal governments which may be uploaded back.

It was MOVED and SECONDED

That consideration of the Notice of Motion submitted by Director West at the January 31, 2025 MVRD meeting be postponed pending completion of reviews.

CARRIED

I. OTHER BUSINESS

1. MVRD Board Committee Information Items and Delegation Summaries

J. RESOLUTION TO CLOSE MEETING

It was MOVED and SECONDED

That the MVRD Board close its meeting scheduled for April 25, 2025 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;
 - (g) litigation or potential litigation affecting the municipality;
 - (i) the receipt of advice that is subject to solicitor-client privilege, including communications necessary for that purpose;
 - (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*; and
- (2) A part of a council meeting must be closed to the public if the subject matter being considered relates to one or more of the following:
- (b) the consideration of information received and held in confidence relating to negotiations between the municipality and a provincial government or the federal government or both, or between a provincial government or the federal government or both and a third party.

CARRIED

K. ADJOURNMENT**It was MOVED and SECONDED**

That the MVRD Board adjourn its meeting of April 25, 2025.

CARRIED

(Time: 10:13 am)

CERTIFIED CORRECT

Dorothy Shermer, Corporate Officer

Mike Hurley, Chair

75851584



Board Governance Review

Metro Vancouver

May 20, 2025

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Deloitte acknowledges that the region's residents of Metro Vancouver live, work, and learn on the shared territories of many Indigenous peoples, including 10 local First Nations: ǵícǵý (Katzie), ǵʷa:ńǵǵń (Kwantlen), kʷikwǵǵǵm (Kwikwetlem), máthxwi (Matsqui), xʷmǵǵkʷǵǵǵm (Musqueam), qiqǵýt (Qayqayt), se'ǵmya'me (Semiahmoo), Skwxwǵ7mesh úxwumixw (Squamish), scǵwǵǵǵǵ mǵsteyǵxʷ (Tsawwassen), and sǵlǵlǵwǵtaǵ (Tsleil-Waututh).

1. Executive Summary

Background

The Metro Vancouver Board functions as the directing mind of the organization, providing strategic direction and oversight. Metro Vancouver is by far the largest Regional District in British Columbia, providing services to 2.6 million residents from the 21 municipalities, the Treaty First Nation and the unincorporated parts of the region (Electoral Area A). It is in fact four legal entities (a water district, a sewage and waste treatment district, a housing corporation, and the broader regional district), all governed by separate legislation. The Boards of these four entities are comprised of appointed Mayors and Councillors from the 23 member jurisdictions. Over the past century, these entities have been created and evolved into a very complex regional model. More recently, a \$2.8 billion cost increase on a significant infrastructure project (the North Shore Wastewater Treatment Plant Program) has accelerated media and public scrutiny on the governance of Metro Vancouver. This was a significant contributor in the Board deciding to engage Deloitte in February 2025 to complete a comprehensive independent Board Governance Review. The review responds to concerns regarding the Board governance structure and composition, roles and accountabilities, process, information flows, decision-making and remuneration. The independent review was completed in May 2025.

Key Findings & Summary Recommendations

- The Board size over the four entities has become large and unwieldy, and will only continue to grow. A new Board and Committee structure is required to provide more effective governance and oversight, to introduce a balance of professional experience, and enhance decision-making and risk management.
- There are opportunities to continue to reduce the size, composition and meeting frequency of Board Standing Committees without negatively impacting the governance of the organization.
- The Board directors are challenged by their competing fiduciary duties to advocate for their local municipality and their regional accountability. In order to balance this dual accountability, Board members are going to require continued education, support from Metro Vancouver staff, and a personal investment in maintaining the high threshold required.
- There is a need for a Governance Committee of the Board to increase the integrity, oversight and ethical implementation of the Board's policies, procedures and agenda.
- The quadrennial municipal election cycle creates a high turnover of board members, resulting in the loss of institutional knowledge. This increases the need for better onboarding, education and practical ways of accelerating the knowledge and extending the tenure of Board members.
- The Board continues to require objective insights and assurance regarding the risks, project controls and internal financial controls in the organization. To this end stronger enterprise risk management and Internal Audit functions are required.
- Increasing tensions and political differences are creating a culture of heightened mistrust and frustration. The Board needs to find ways to improve the efficiency of Board meetings while improving the level of respect and trust within itself and between staff and other stakeholders.
- Litigation and confidentiality around closed information is restricting the free flow and transparency of this information, resulting in further frustrations. Finding mechanisms to balance the need for confidentiality and the need for transparency will be paramount.

- The overall remuneration of Board and Committee members is comparable with other similar organizations and minimal relative to the significant investment of time and experience the directors bring to the organization. However, there are several immediate opportunities to reduce the overall and per individual remuneration costs while streamlining the governance structures and processes.

Conclusion

Metro Vancouver has outgrown its Board governance structure. The regional district model has served the organization well for several decades and in many instances has been recognized as a leader in sustainable regional planning and quality of infrastructure services. However, the past 40 years have seen a rapid acceleration of population growth and infrastructure investment in the region. Metro Vancouver and the municipalities that make up the organization should be commended on the extent of collaboration it has taken to drive their vision of attracting economic investment and creating a globally desirable livable region. However, this creates an inherent conflict. The more successful and effectively the Board and management govern and operate the organization, the more desirable the region will become – further increasing immigration, demand for services and infrastructure, growth outside of Vancouver, and the many challenges that will come with that. At the same time, the legacy infrastructure is aging and in need of upgrade and expansion. So, it is no surprise that the Board is beginning to struggle to govern the growing complexity of the organization.

The context in which the current Board is operating is also very relevant. Challenges with the North Shore Wastewater Treatment Plant program and the subsequent funding impacts have created an environment of extreme tension within the Board and with municipalities. This and other major infrastructure projects are only continuing to become larger, longer and carry significantly greater delivery, financial and reputational risk. The global economic climate has become volatile, further impacting the planning and management of costs relating to projects of this magnitude.

In this context, the challenges for Board directors to balance the interests of both their rapidly growing electorate as well as those of the broader Metro Vancouver region will only become more politically and legally challenging – creating an untenable conflict between their fiduciary duties at times.

Metro Vancouver staff are working harder to manage these risks and elevate the right discussions to a Board that is constantly changing, trying to absorb a significant volume of complex data, and is becoming increasingly more politically divided. Unfortunately, the actions of staff in trying to solve for these risks and challenges create an impression of flooding and filtering information and driving decisions faster than the Board can consume it. As the risks and tensions escalate, this effort to focus the Board has created a perception of mistrust and wariness of staff on their behalf.

The Board meeting-based stipend model is comparable with those in other similar public sector Boards, however there are opportunities to reduce remuneration costs. The solution, however, cannot be to reduce compensation to reflect public dissatisfaction with the governance of the Board, but to improve the governance to justify the remuneration.

From a governance and risk management perspective, there is a need to streamline the Board size and structure, adding professional support and acumen. There is a need to create visibility to risks and options, to strengthen the quality of information and discussion at the Board and Committee level, and in general rebuild a culture of trust within the Board and with staff and the member jurisdictions.

2. Introduction & Context

2.1. Purpose of this Document

The purpose of this document is to provide our findings regarding an independent governance review of the Board of Metro Vancouver ("the Board"). The objective of our review was to perform a comprehensive evaluation of the governance structures, decision-making framework, procedures and processes, and remuneration of the Metro Vancouver Board Directors, with the ultimate objective of delivering actionable recommendations to enhance the Board's effectiveness to best govern the organization and serve the region. This review was initiated in response to public scrutiny regarding the current effectiveness of the Board and the appropriateness of its compensation, as well as concerns surrounding the composition and structure of the Board and its committees.

2.2. Governance Assessment Methodology

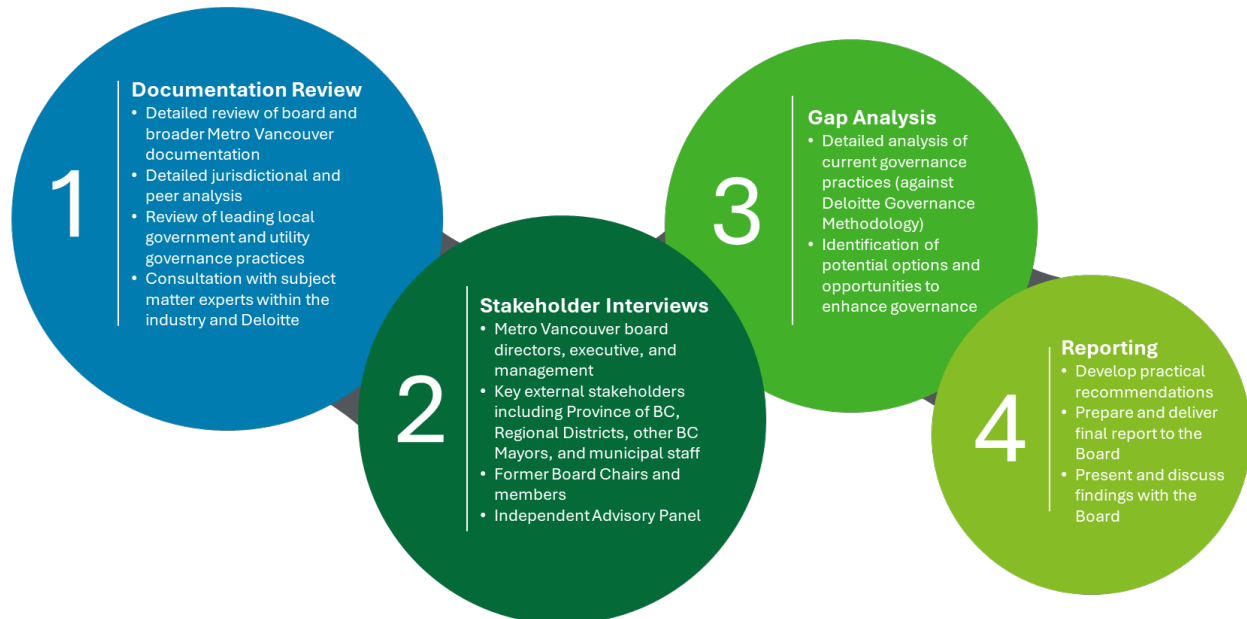
Governance refers to the systems, processes, and structures used to direct and manage an organization. It involves establishing decision-making authority, defining how decisions are made, and overseeing the implementation of policies and strategies, as well as risks to the strategies. Good governance aims to ensure an organization operates effectively, ethically, and in the best interests of its stakeholders. Our assessment of the effectiveness of the Board and governance framework of Metro Vancouver was based on a comprehensive analysis of six core principles or pillars of success in a strong governance framework, as illustrated below:



Figure 1: Deloitte Governance Assessment Methodology

2.3. Approach to the Review

The Board governance assessment was performed from February 2025 to May 2025. Our approach to this review followed four primary phases as follows:



We commenced with a detailed **documentation review**, including materials such as Board bylaws and procedures, Board agendas and materials, management Board briefings, Committee structures and mandates, and a significant number of other documents and information requests of management. Given the transparency of the operations of the Board and Metro Vancouver, it should be noted the vast majority of these documents are available on the Metro Vancouver, Province of BC, and other municipal websites.

Our review involved **confidential interviews** with a broad range of key stakeholders. These included the following:

- All Board directors (i.e. Mayors and Councillors from the 21 municipalities, the elected official from Electoral Area A, and the Chief of Tsawwassen First Nation)
- Metro Vancouver Commissioner & Chief Administration Officer, and the executive leadership team.
- A number of other Councillors, Chief Administrative Officers, Chief Financial Officers and staff from member jurisdictions within Metro Vancouver.
- Several former Metro Vancouver Board Chairs, Committee Chairs and Directors to understand their perspectives on what worked and didn't work well in past governance models
- Current neighbouring BC regional district Directors and mayors
- Leadership from the BC Ministry of Housing and Municipal Affairs.

We also **consulted** with industry subject matter expertise, both within Deloitte and the broader community for their perspectives and insights.

We performed a **jurisdictional scan** across Canada and into the US, identifying a number of similar regional districts and utility organizations, to understand their current organizational structure and

scope and associated Board governance framework, as well as Board remuneration and other practices.

The Metro Vancouver Board appointed an **Independent Advisory Panel** who volunteered to provide input into our review of the Board remuneration practices. This panel provided extremely valuable insights and, given the depth of experience and leadership in the Panel, we requested to expand our Terms of Reference with them to support us on our full governance review. We would like to acknowledge and extend our thanks to the Independent Advisory Panel members:

- Glen Clark – Chair of BC Hydro, former President and COO of Jim Pattison group, and former Premier
- Colin Hansen – former BC Minister of Finance and Deputy Premier
- Martin Thibodeau – Regional President of RBC
- Jennifer Podmore Russell – Chief Development Officer of Nch'kaŷ Development Corporation
- Diana Vuong – former CFO and VP Finance at Vancouver Airport Authority

Limitations of our review

It should be noted that the scope of our independent review is board governance review and is not intended to be an audit or legal assessment of Metro Vancouver's processes. Specifically, we did not perform an assessment of the North Shore Wastewater Treatment Plant project as a Special Independent Review of this project has been commissioned by the Board. We also did not perform an audit of Metro Vancouver project management, budget, and financial reporting processes and internal controls, processes supporting the confidentiality of information, or an audit of individual travel and other out-of-pocket expenses. Review of directors' municipal roles, salaries and governance effectiveness unrelated to their role as a board member of Metro Vancouver's Boards was also outside of the scope of this review.

Format of our Report

The document has been designed to ensure clarity for all stakeholders by providing essential context and background information on the evolution of the Metro Vancouver governance structure to its current format. Our observations regarding the current state of governance challenges, synthesizing key insights gathered throughout the documentation review and interview discovery phase, have been categorized under the key governance themes described above. We have provided examples of the options considered where gaps in the governance framework were identified, assessing them against guiding principles tailored to the complex Metro Vancouver Board governance environment in a manner that is adaptable and future focused.

The recommendations presented in this report have been classified into two categories:

1. **Immediate recommendations** or "quick wins" that offer high-impact, low-effort solutions well within the scope and mandate of the Board, perhaps requiring some Board consultation and refinements to Board policy or procedural bylaws;
2. Short- to medium-term **strategic recommendations** that bring enhanced governance but require legislative change (e.g. the Local Government Act), more detailed analysis, or additional consultation with member jurisdictions.

The remainder of this report provides our observations, analysis, findings and recommendations.

3. Background

3.1. Mission and Vision

Metro Vancouver embraces collaboration and innovation in providing sustainable regional services that contribute to a livable and resilient region and a healthy natural environment for current and future generations.¹

Metro Vancouver is a federation of 21 municipalities, one electoral area, and one Treaty First Nation (collectively the “member jurisdictions”) that collaboratively plan for and delivers regional-scale services to 2.6 million residents. Metro Vancouver is made up of four separate legal entities: the Greater Vancouver Water District (GVWD) that delivers drinking water to the region, the Greater Vancouver Sewerage and Drainage District (GVS&DD) that treats wastewater and addresses solid waste in the region, the Metro Vancouver Housing Corporation (MVHC) that provides affordable rental housing to nearly 10,000 tenants, and the Metro Vancouver Regional District (MVRD) that provides 13 services to member jurisdictions including regional parks, regional planning, economic development, E-911 call transfer service, air quality management and regulation, local government services for the unincorporated parts of the region (the “Electoral Area”), and others.

Metro Vancouver serves as the main political forum for discussion of significant community issues at the regional level. It is governed by four separate Boards of Directors comprised of elected officials from member jurisdictions. The regional district framework recognizes that some services can be provided more efficiently and cost effectively at the regional scale, benefiting from economies of scale and collaboration. Regional districts are by design, collaborative structures where the scope of their mandate is largely determined by the membership it serves. Metro Vancouver’s accountability to the residents of the regional district comes primarily from provincial legislation, the responsibilities of its governing board, and the municipal and public scrutiny and review of its budgets and financial performance.

3.2. Why Regional Districts?

The Greater Vancouver Water District and the Greater Vancouver Sewerage and Drainage District were established in 1924 and 1956 respectively to provide economies of scale in the delivery of water and wastewater management for the greater Vancouver area. By the 1960’s, the province was experiencing significant growth, with rural areas expanding rapidly but lacking general-purpose local government. This absence created serious issues regarding rural communities’ access to critical services, such as water and fire protection, and a lack of political accountability. This created planning, cost-sharing, and provision of service issues at the fringes of municipal boundaries. More importantly there was no simple means to achieve economies of scale in service provision beyond the amalgamation of municipalities, inter-municipal contracting, or the creation of special purpose regional service agencies. The Government of British Columbia incorporated a regional district for the western portion of the Lower Mainland named the Regional District of Fraser-Burrard in 1967. Just under a year later, the regional district was renamed as the Greater Vancouver Regional District.

An additional issue also drove the creation of regional districts - long-term capital borrowing for municipalities. Before the creation of the Municipal Finance Authority (MFA) in 1971, each municipality had to undertake its own capital borrowing. This situation disadvantaged most municipalities in the marketplace. Those without solid credit ratings faced higher interest rates or were unable to borrow

¹ <https://metrovancover.org/about-us/Board-strategic-plan>

funds, which significantly increased the costs of capital projects. The MFA allows municipalities today, through their regional districts, to pool their assets and collectively approach the marketplace for capital borrowing. This collective approach of joint and several liability generally results in better credit ratings and lower rates, with the MFA maintaining a AAA+ credit rating and very favourable borrowing terms. The Municipal Finance Authority Act mandated that all municipalities, except the City of Vancouver and special Boards, borrow through their regional districts.

Regional districts in BC such as Metro Vancouver provide a government for unincorporated areas, a forum for inter-municipal cooperation and an organization upon which provincial mandates can be imposed such as for regional waste management planning. This forum, while defined by the *Local Government Act*, proceeds primarily through voluntary agreement, collaboration and a utilitarian mindset by the municipalities and First Nations that govern it today and likely well into the future.

3.3. Governance Framework

The four legal entities that make up Metro Vancouver are governed by separate legislation: The GVS&DD is governed by the *GVS&DD Act*, the GVWD is governed by the *GVWD Act*, the MVHC is governed by the *Corporations Act*, and the MVRD is governed by the *Local Government Act*.



Figure 3 – Metro Vancouver Map of Member Jurisdictions Boundaries and Population

The four Boards of Metro Vancouver are comprised of Mayors and Councillors from the 23 member jurisdictions, as illustrated above. The council of a member jurisdiction appoints a director(s) to the MVRD board. They also assign an alternate, and the alternate will attend meetings when the board director is unable to attend. The term of office aligns with the general local election cycle (i.e. every

four years, with the next being October 17, 2026) or if another director is appointed to take their place. In most instances, municipalities have tended to appoint the Mayor (and Councillors for additional seats) as their representative director(s).

The number of directors appointed is based on a representative population-based formula. This also provides a formula for voting representation by the directors. This model ensures the Board represents the citizens of the municipalities in a manner proportionate to the size of their community and therefore generally proportionate to the costs allocated to their taxpayers, while controlling the overall size of the board. Each electoral area in the regional district is entitled to a minimum of one directly appointed board member, regardless of population size.

The number of votes to which each member jurisdiction is entitled, for the purposes of weighted voting, is determined by dividing the population of the jurisdiction by the voting unit number specified in the Letters Patent of the regional district. As a rule, the voting unit is approximately equal to the smallest municipal population in the regional district. For Metro Vancouver, the voting unit is 20,000. That means that a municipality has a Board Director with one vote for every 20,000 residents in their municipality, and a Board Director for every 100,000 residents in their municipality².

Metro Vancouver's other legal entities have separate Boards.

- The *GVS&DD Act* specifies that the GVS&DD Board is comprised of the individuals who are directors on the MVRD Board for those municipalities that are members of the GVS&DD, as well as the director for the Electoral Area on the MVRD Board.
- Similarly, the *GVWD Act* specifies that the GVWD Board is comprised of the individuals who are directors on the MVRD Board for those municipalities that are members of the GVWD, as well as the director for the Electoral Area on the MVRD Board.
- The MVHC is a subsidiary of the MVRD, and the MVRD Board has chosen to structure the MVHC Board the same way as the MVRD Board.

In this report, where we refer to the 'Metro Vancouver Board' we are referring to all four Boards of Directors. There is a public misperception that there is only one Board of Directors.

Aside from the *Local Government Act* and the other governing legislation, Metro Vancouver also operates in a complex framework of regulations and legislation governing its activities – covering areas such as air quality, environmental, building codes, zoning bylaws, island habitat preservation, etc. Importantly, it should be noted that although Metro Vancouver provides water and sewerage utility services, it is not directly governed by or accountable to a rate regulatory body, such as the BC Utilities Commission (which regulates the operation of energy and other utility services). Instead, the governance framework depends heavily on the oversight and accountability of Metro Vancouver staff to the Board and key stakeholders.

² <https://metrovanancouver.org/boards/board-members>

4. Governance Principles

The LGA Section 186 specifically defines the governance principles of the regional district with its key stakeholders as follows:

The relationship between regional districts and the Provincial government in relation to this Act is based on the following principles:

- a) *cooperative relations between the Provincial government and regional districts are to be fostered in order to efficiently and effectively meet the needs of the citizens of British Columbia;*
- b) *regional districts need the powers that allow them to draw on the resources required to fulfill their responsibilities;*
- c) *notice and consultation is needed for Provincial government actions that directly affect regional district interests;*
- d) *the Provincial government recognizes that different regional districts and their communities have different needs and circumstances and so may require different approaches;*
- e) *the independence of regional districts is balanced by the responsibility of the Provincial government to consider the interests of the citizens of British Columbia generally.*

However, while creating the overall goals and boundaries for a governance framework, there are challenges translating this into specific objectives. Through our stakeholder interviews, we identified specific guiding principles which directly represent feedback from Board directors and management on the values and governance ideals that should drive the organization and therefore could be used to objectively evaluate governance structures and options. These governance principles set a clear benchmark for defining “good governance” for Metro Vancouver. We have also used these standards to assess the current state governance framework and determine potential gaps or deficiencies.

Objective	Implications for Metro Vancouver’s Governance Framework:
Accountable	The Metro Vancouver Board is ultimately accountable for the execution of the strategy and managing risks to the strategy. The Board must be accountable to all of the communities it serves, as well as the provincial government. Similarly, the governance framework must ensure management is appropriately accountable to the Board.
Collaborative	The governance framework should support collaborative and efficient interactions between Board directors, with constituent jurisdictions, and with management.
Efficient	By its nature, Metro Vancouver is a large, complex organization accountable for significantly material and complex decisions. The governance framework supporting Metro Vancouver should be optimized and efficient in its design and operation, empowering Directors, Board Committees and management to make informed decisions at the appropriate levels within its structure.
Equitable	Decisions made within the governance framework should take into account the needs of all the communities Metro Vancouver serves and ensure such decisions are made in the best interests of the region as a whole. Although the governance framework must allow Metro Vancouver to treat all communities within the region equitably and respectfully, this may not necessarily mean equally – but decisions should not be overly punitive to any one community or minority of constituents.

Objective	Implications for Metro Vancouver's Governance Framework:
Informed	Decisions within the Metro Vancouver governance framework should be made by knowledgeable and experienced individuals based on accurate factual data and information. The Board should be provided with adequate and sufficient information to support their oversight responsibilities and the risks associated with this.
Sustainable	The purpose of Metro Vancouver is to create a long-term sustainable, livable region, and therefore its governance framework should also be designed to support the same multi-generational vision.
Transparent	Metro Vancouver's governance framework should ensure, as a public entity accountable to the communities it serves, it governs and communicates in a clear and transparent manner. Information should be provided to the Board in a clear format and the Board should ensure all information and decisions are communicated to key stakeholders in a similarly transparent manner.

5. Findings & Recommendations

This section provides the observations, findings and resulting recommendations from this Board governance review. Our conclusions have been grouped thematically against the six key components of a strong leading-practice governance framework, namely:

1. **Structures** – The effectiveness of the Metro Vancouver Board is influenced by the legal, organizational and political structures of the organization.
2. **Roles & Competencies** – Effective governance relies on clear accountabilities and the integrity, acumen and experience of the Metro Vancouver directors and executive.
3. **Strategy & Risk Management** – The Metro Vancouver Board and the executive must be aligned on the strategic direction and appetite for risk as they make key decisions.
4. **Policies & Processes** – The efficient operation of the governance and decision-making model depends on a sound principles-based policy, procedural framework and effective delegation of authority.
5. **Information** – The Board can only govern effectively when provided with the right information they need to provide effective oversight and insight into decisions.
6. **Culture & Behaviours** – A high performing Board operates collaboratively and discipline, executing their fiduciary duties with integrity while creating the space for healthy debate.



Each governance theme below includes a **current state assessment**, identifying the **key observations** and themes emerging from this review. In some cases, a **jurisdictional scan** is included to provide additional context through comparative research. Subsequently, an **options analysis** provides alternative strategies to remediate any deficiencies, informing the ultimate **recommendations**.

5.1. Structures

5.1.1. Current State Assessment

Governance structures and complexity

Under the *Local Government Act*, each regional district is a corporation. The governing body of the corporation is its Board. The Board may only exercise its powers and duties within the boundaries of the regional district (unless authorized by another Act). Metro Vancouver is comprised of four primary legally incorporated entities which are quite different in nature – a water distribution utility (GVWD), a sewerage and waste management infrastructure entity (GVS&DD), a non-profit housing corporation (MVHC), and the Metro Vancouver Regional District (MVRD), a regional federation with 13 service areas (such as Regional Parks, Regional Planning, Invest Vancouver, Air Quality management & regulation, etc.).

Each of these entities brings different layers of complexity, reporting, and governance decisions. It is fair to conclude that this complexity is significantly increasing, as is the financial size and risk associated with these governance decisions. The entire Board meets monthly with agendas produced

for each of these four entities. With regard to relative size and scale, the total approved 2025 operating expenditure budget of \$1.464B is allocated across each of these entities as follows:

Entity	Activity	2025 Budget (\$M)	%
MVRD	13 service areas	152.2	10.4
GVWD	Water	408.9	27.9
GVS&DD	Liquid Waste	681.9	46.6
	Solid Waste	160.1	10.9
MVHC	Affordable Housing	60.7	4.2
Total		1,463.7	100.0

Table 1 –2025 Approved Metro Vancouver Operating Expenditure Budget by Entity

The majority of Metro Vancouver’s operating and capital budgets are financed primarily through utility fees for drinking water supply, sewerage, and solid waste management. Property taxes form a smaller part of the budget (approximately 9%), while the Housing Corporation is a non-profit reliant on rental income and some provincial government funding. In the 2025 budget, Metro Vancouver residents will pay an average of \$875 annually (or \$73 per month) per household for all regional services.

In order to minimize the impact of rate increases, Metro Vancouver reviewed its capital plan in 2023 through a Financial Plan Task Force and subsequently postponed or eliminated a number of lower- and medium-priority projects (\$650 million cost reduction in the five-year plan), as well as increasing development cost charges (DCCs) for liquid waste and water services, and introducing new DCC fees for parks acquisition (as opposed to increasing the utility levies on residents).

Key Observations – Governance structures and complexity:

- The majority of expenditures are incurred by the GVS&DD (57.5%) and the GVWD (27.9%) – exceeding 85% of the organization’s total operating budget. However, the Board often spends a significant proportion of their time in MVRD-related discussion on matters that are less than 10% of the total expenditure, and although often strategic in nature, usually have much lower risk.
- A significant contributor to this review has been the \$2.8 billion cost overrun on the new North Shore Wastewater Treatment Plant³. Although not in the scope of our review (the Metro Vancouver Board has commissioned a separate review into this particular project), it is relevant to our governance review given the fact that it has generated a significant level of media scrutiny on the Board and staff and in part has created a wedge of mistrust between the member jurisdictions and Metro Vancouver. Metro Vancouver have since implemented new project management and financial monitoring and reporting structures related to significant capital projects (especially those under the oversight of the GVS&DD and GVWD Boards).
- Board directors indicated that the volume of information provided, complexity of decisions, and overall risk were greatest related to the GVS&DD and GVWD entities. Given the long-term nature, magnitude and specialized engineering aspects of the assets and related capital projects of these entities, this was not seen as surprising. The longer-tenured directors appeared to be more comfortable with this level of complexity and risk than newer directors. There is a high dependency on the Water, Liquid and Zero Waste Standing Committees of the Board to prioritize capital projects, assess the business cases for key decisions and assess the risks associated with them, ultimately bringing the summary reports and conclusions to the broader Board for ratification.

³ <https://metrovanancouver.org/services/liquid-waste/north-shore-wastewater-treatment-plant-project>

- The lowest level of complexity and concern by directors was attributed to the MVHC entity, which is consistent with the fact that it only comprises about 4% of overall capital expenditure and operates at no cost to the taxpayer.

Board Size

Based on the voting formula described in *Section 3.2 Governance Framework*, there are currently **41** directors appointed to the Boards of MVRD and MVHC, 38 for GVWD, and 37 for GVS&DD. The relative number of directors for the MVRD and the voting strength of each can be illustrated as follows:

Member Jurisdiction	Type	Population ⁴	# of Directors	Voting Strength	Voting %
Vancouver	City	662,248	7	34	23.4
Surrey	City	568,322	6	29	20.0
Burnaby	City	249,125	3	13	9.0
Richmond	City	209,937	3	11	7.6
Coquitlam	City	148,625	2	8	5.5
Township of Langley	District	132,603	2	7	4.8
Delta	City	108,455	2	6	4.1
Maple Ridge	City	90,990	1	5	3.4
District of North Vancouver	District	88,168	1	5	3.4
New Westminster	City	78,916	1	4	2.8
Port Coquitlam	City	61,498	1	4	2.8
City of North Vancouver	City	58,120	1	3	2.1
West Vancouver	District	44,122	1	3	2.1
Port Moody	City	33,535	1	2	1.4
City of Langley	City	28,963	1	2	1.4
White Rock	City	21,939	1	2	1.4
Pitt Meadows	City	19,146	1	1	0.7
Metro Vancouver A	Electoral Area	18,612	1	1	0.7
Bowen Island	Island municipality	4,256	1	1	0.7
Anmore	Village	2,356	1	1	0.7
Tsawwassen	First Nation	2,256	1	1	0.7
Lions Bay	Village	1,390	1	1	0.7
Belcarra	Village	687	1	1	0.7
Metro Vancouver		2,642,825	41	145	100

Table 2 – Metro Vancouver Member Jurisdiction Board representation

Board meetings for the four entities are generally held together on the same day on a monthly cadence, to minimize the impact on directors' time. Staff prepare Board materials for all the Boards concurrently.

⁴ Based on 2021 Census data.

Key Observations – Board Size:

- Based on projected population growth, the MVRD Board size is expected to expand to more than 50 directors within 10 years and to continue to grow.
- Almost all directors indicated the Board size is too large and unwieldy. From a governance perspective, directors suggested that the high number of directors results in situations where the desire to contribute would result in too many individuals taking more time than necessary, leaving others feeling unable or unwilling to speak.
- Concerns around reducing the Board size primarily related to the risk of creating a situation where a reduced number of directors from a member jurisdiction would result in automatic 'block voting' (i.e. the total votes for a jurisdiction would be 100% assigned to one side of a motion), whereas the larger municipal directors indicated it was not unusual to have a split vote from one municipality.
- There was a secondary concern from some directors who felt it important to have representation beyond the mayor or single appointee on the Board to provide differing experiences and perspectives.

Board & Staff Advisory Committees

Metro Vancouver has historically utilized an extensive Standing Committee structure to optimize and delegate the overall Board workload, to mitigate the volume and complexity of Board decision-making, to provide a mechanism to engage and allocate roles to Board directors, and in some cases to bring other jurisdictional representatives or subject matter expertise into the Board decision evaluation processes.

Standing Committees are established as needed at the discretion of the Board Chair, as per Section 218 of the LGA. It is not unusual for a number of these committees to be sustained from the prior Board, and in some cases Task Forces are struck which may be temporary in nature depending on a particular Board issue or project at hand. The Chair and composition of each Committee is determined by the Metro Vancouver Board Chair. Similar to the Board Chair, Committee Chairs preside at committee meetings and act as spokesperson on matters within the scope of the committee. Section 218 of the LGA also requires that "at least one member must be a director" but also allows the Chair to appoint non-directors to a Committee as well. Metro Vancouver's Procedure Bylaw requires that at least 50% of Committee members be Board Directors.

There are currently 13 Board Standing Committees, as follows:

Committee	Primary Activity	# members	Scheduled Meeting Frequency
Water	Water District work program	13	10
Liquid Waste	Liquid Waste work program	14	10
Zero Waste	Solid Waste work program	11	10
Regional Planning	regional growth strategy and collaboration on regional planning issues	15	10
Air Quality & Climate	Air Quality monitoring, regulation and policy development, and flood resiliency	14	10
Indigenous Relations	Elevate and discuss indigenous opportunities	15	4
Invest Vancouver	Attract foreign direct investment and support a collaborative approach to economic development	32	4
Housing	Housing work program, capital development	11	10

Committee	Primary Activity	# members	Scheduled Meeting Frequency
Regional Parks	Policy, parks management	16	10
Finance	Financial policy, DCCs, budgeting & reporting	10	10
Mayors Committee	Forum for municipal issue resolution	23	6
Caucus of Committee Chairs	Caucus of Committee Chairs – coordination	13	6
Electoral A & Small Communities	Responsible as local government for Electoral Area and act as a forum to discuss issues affecting smaller communities	8	4

Table 3 – Metro Vancouver Board Committees and Meeting Attendance

Typically, the majority of the Board's governance 'heavy lifting' relevant to a specific topic (e.g. liquid waste or regional planning) is performed at the Committee level. Staff attend the Committee meetings and work with the Committee Chair and Vice Chair to review agenda packages in advance. Staff provide presentations to the Committee to explain reports and to support Board decisions when reports come to the Board. The Board Committees are responsible for making recommendations to the broader Board that either support the staff recommendation or differ based on discussions at the Committee.

Staff Advisory Committees are also used to gather input and evaluation for key strategic initiatives, issues, and decisions. These Committees are comprised of municipal staff (e.g. city managers, financial officers, engineers, planners, human resource officers) as well as additional associate members (e.g. Agricultural Land Commission, Port, YVR, TransLink), that act as a forum for issues of common concern and provide input and feedback on Metro Vancouver issues in advance of the Standing Committees' and Board consideration.

Key Observations – Board & Staff Advisory Committees:

- The Chair has made some moves to reduce the overall number of Standing Committees to reflect shifts in the focus of the Board as well as to seek efficiencies in the demands on Committee members (eliminating and merging the Flood Resiliency, Fraser River Crossing and Culture Committees into the existing Committee structure). There remain opportunities to further consolidate Committees, reduce the frequency of meetings, and change the composition and reduce the number of Committee members without negatively impacting the governance of the Board.
- There is currently no Standing Committee accountable for the governance of the Board and its activities. This role is partly left to the Chair and the overall Board and partly embedded in the terms of reference of the Finance and Caucus of Committee Chairs Terms of Reference.
- The allocation of Committee members is a subjective process, based around ensuring an equitable allocation of roles across the Board, ensuring regional representation, as well as trying to manage the engagement of members in the operations of the Board and Committees. This has created an impression of preferential allocation amongst Board directors.
- In many instances, directors indicated that the volume and complexity of the effort in the Committees often leads to detailed complicated reports coming to the Board for decision-making (as Committees have no decision-making authority). Those directors on the specific Standing Committees are far more comfortable with the nature of the subsequent motions than those not sitting on or familiar with the Committee's discussions and presentations from staff. Directors not sitting on a Committee recognize the complexity of the decisions and indicated they have a strong need to trust the effort of the Committee.

- The staff advisory committees representing the member jurisdictions - Regional Administrators Advisory Committee (RAAC), Regional Finance Advisory Committee (RFAC), Regional Engineers Advisory Committee (REAC), Regional Planning Advisory Committee (RPAC), others - provide input to Metro Vancouver staff and sometimes Board reports. In some cases, directors indicated they would turn to staff from their member jurisdictions for advice or guidance rather than their Metro Vancouver staff. This can result in an inconsistent or biased perspective as municipal staff may not have the appropriate technical information or skills, or may not effectively consider broader regional interests.
- Municipal staff do not have access to closed Committee, Board or Board agenda materials as per the Local Government Act and/or for legal reasons. The inability of directors sharing materials with the municipal staff from their member jurisdiction is legally sound, but does create challenges in managing the efficient and effective flow of information for decision-making by the directors, both as elected officials and Metro Vancouver directors. Metro Vancouver staff have created a mechanism whereby they can meet with local member jurisdiction Board Directors in a confidential closed forum, but this is not consistently taken advantage of. These real and perceived information gaps have sometimes led to a break-down in the communication of information between municipal staff, Metro Vancouver staff, and the Board directors.

5.1.2. Jurisdictional Scan

Our review of other jurisdictions or similar organizations identified that the Board and Committee structure within Metro Vancouver is generally aligned with other Canadian regional districts. However, other utilities and non-profit housing providers do tend to have a crown corporation or private sector professional Board structure. Often other utilities have some form of regulatory oversight to compensate for the lack of budget oversight and scrutiny from elected officials, municipal staff, and others representing the interests of residents and taxpayers. It should also be noted that the Committees in some peer regional districts can also be quite substantial in number – often multiples of those in Metro Vancouver.

Although not necessarily endorsing the governance structure in place today, we did note that the Metro Vancouver regional district and utility model was identified as embodying many leading practices by other jurisdictions who have sought to emulate them in various ways.

5.1.3. Options Analysis

Board Size & Structure

Given our observations on the significant size of the Board, the volume of documentation and the complexity of the decisions facing the directors, we considered alternative Board structures to determine the relative advantages and disadvantages against the governance principles identified in *Section 4 – Governance Principles* of this report. Based on our analysis of alternative jurisdictions and industry models, we have identified the following Board options for consideration:

1. **Independent Board.** This would be a professional Board (similar to that of a crown corporation such as BC Hydro). It could be selected by the Board Governance/ Nominating Committee and the Provincial Government and could have approximately 10-14 directors. Given the lack of direct accountability to the taxpayer, it might require some form of regulatory oversight (e.g. BC Utilities Commission). As independent directors, the ability to discharge fiduciary responsibilities to the region would be somewhat easier. The remuneration for directors would likely have to approximate those in provincial Crown or private sector Boards.
2. **Single Representative Board.** This alternative Board model can be easily achieved by reducing the appointed members back to one per member jurisdiction, likely the mayor or Chief with an alternate. This would bring the number of directors to 23. All voting units would be

allocated to these regional representatives. However, without adjustment to voting procedures, it would introduce automatic 'block voting' as all votes for a jurisdiction would sit with that single appointee. The Committee structure and broader council participation in standing committees would need to be retained to support the leaner Board. Remuneration structures would not change, but total remuneration would be reduced.

3. **Capped Board.** If a primary goal is reducing the size of the Board without significantly impacting governance, this alternative Board structure would meet those objectives while also future proofing the Board size for projected regional population growth. This option would retain the current director and voting allocation but set a maximum of three directors for the larger cities (e.g. 200,000+). This would reduce the current Board to around 34 directors – still likely a challenging Board size from a governance perspective but provides higher representation than the Single Representative Board option. Voting units would be allocated to these regional representatives as in the current allocation with consolidation for the larger cities. The Committee structures would remain largely unchanged as would the remuneration model.
4. **Federated Assembly.** *This is largely the status quo model.* The current population-based model is still a valid structure from a governance perspective, but would need refinement to strengthen its ability to effectively govern and better meet the governance principles outlined in the prior Section. This could include revisiting Committee constructs and composition, accountabilities, and information flows. This may have some impact on remuneration and time commitment, but ultimately it is the model with the least inherent change. The Board size could be reduced by increasing the voting divisor for Metro Vancouver (e.g. from five to seven)⁵. This would reduce the number of seats from 41 to 35 and limit the growth over time.
5. **Hybrid Board Structure.** One of the challenges with the current Board structure is the uniform approach to governing the various legal entities that comprise Metro Vancouver. The governance needs of a complex water or waste utility are significantly different than those of a regional federation or non-profit housing corporation. The volume of information, program size and duration, decision complexity, and overall financial risk to the taxpayer are considerably different. A hybrid Board structure would involve retaining the current MVRD Board with its regionally appointed federation model as a form of parent Board, but then create separately resourced and accountable Boards for the GVWD and GVS&DD entities with appropriate specialty subcommittees such as a Crown or private sector utility Board structure (rather than the one large Committee today). The MVHC Board could be left intact or adapted to a leaner version of a Crown or non-profit sector Board. These subsidiary Boards should maintain an equilibrium of MVRD Board members as well as independent Board members in order to balance the objectives of the municipalities and taxpayers with those of a private sector utility. This may create some increase in remuneration costs, but this could be offset by the reduced size and improved governance and risk management.

The adoption of these different board governance structures would require legislative change, with potential implications for other regional districts in the province. We did consider one further model, which would be the corporatization or privatization of the utility entities, with appropriate oversight from a regulatory body such as the BC Utilities Commission to protect the taxpayer. There are a variety of case studies demonstrating mixed results (including Thames Water or Severn Trent Water in the United Kingdom; EPCOR owned utilities in Edmonton, for example). However, these privatized or semi-privatized models would require significantly more investigation, consultation and analysis, and

⁵ Under the LGA s. 41(4)(a), the HMA Minister can recommend to Cabinet to amend the MVRD Letters Patent by an Order-in-Council.

certainly would only be approached by Metro Vancouver and the provincial government as solutions to broader operational and financial opportunities than just strengthening Board governance.

The various Board structures and options can be illustrated as follows:

Attributes:	¹ Independent	² Representative	³ Capped	⁴ Federated	⁵ Hybrid
Board Size:	10-14	23	34	35-41	MVRD 34-41 Others 10-14
Independent Directors:	Yes	No	No	No	Some
Appointed by:	Governance Committee	Member jurisdictions (likely Mayors)	Member jurisdictions	Member jurisdictions	Member jurisdictions & Independent
Accountability to taxpayer:	Indirect or through regulator	Direct	Direct	Direct	Direct
Fiduciary conflicts:	Low	Moderate	High	High	Low
Fit to Governance principles (Sec 4)	Moderate	Moderate	Moderate	Moderate	Strong
Change to LGA:	Yes	Yes	Yes	No	Yes
Committees:	New	Unchanged	Unchanged	Unchanged	New
Average Individual Remuneration:	\$\$\$	\$	\$	\$	\$\$
Overall Board Remuneration:	\$\$\$	\$	\$\$	\$\$\$	\$\$\$

Table 4 – Potential Metro Vancouver Board Structures and Implications

Elected or Appointed Directors

In considering the Board structure and composition, we considered the option of maintaining the current appointment model versus an elected official format. There is provision for an elected official approach (likely requiring some legislative change) - certainly the Electoral Area Board seat is elected in this manner. In fact, the elected model was implemented during the early 1970's but abandoned after three years. Upon assessing the advantages and disadvantages of this approach, we concluded the appointment model is likely the stronger from a governance perspective. Although the current appointed directors are already elected in municipal elections, there are a number of political advantages to the elected official model, but also several concerns including:

- An elected official would carry the same fiduciary risks as an appointed director in the sense they would still be accountable for balancing their responsibilities to both the taxpayers who elected them and the broader longer-term interests of Metro Vancouver.
- The election of a director would also likely form part of the ballot in the municipal elections. There is a risk that the average voter will not understand the complexity and governance needs of Metro Vancouver and the intricate relationship between the municipalities. The intent of having the municipalities select their Board members is to ensure there is some logic behind the appointment.
- There is no guarantee that an individual elected by the public onto the Board of Metro Vancouver is able to bring better skills, municipal experience, or otherwise better govern the significant risk and complexity related to a multi-billion dollar utility, housing and regional service organization. It might be more advantageous to create a slate of independent, highly qualified directors if a change was being considered.

- One of the key expectations of a Metro Vancouver Board member is not only that they understand the implications of their decisions on the municipalities, but that they also can go back into the municipality and implement the decision in a collaborative effective manner over time. Metro Vancouver decisions often have multi-year implications on the financial and operational decisions of its members and how a municipality collaborates with its neighbouring jurisdictions.
- Both the elected and appointed official models have a common issue in that their term may only be four years. Given the steep learning curve, complexity of the organization, and risk and impacts of the multi-decade decisions, neither option creates the necessary advantages of institutional knowledge and tenure.
- There is no certainty that a slate of elected directors would work together more effectively than the current appointed officials. In some instances, the political leverage or the need for several municipalities to collaborate on other initiatives force the appointed officers to collaborate today.
- There are mechanisms in place in to remove or mitigate Board members who are not performing at the level of integrity, competency or mutual benefit required of a Board director. An elected official model could create scenarios where the Board becomes divided or driven towards a different strategic agenda at the expense of the municipalities.
- Any change to the format of appointing directors would require legislative change and potentially could have impacts on other regional districts administered under the LGA.

Ultimately the quality and effectiveness of the Board governance of Metro Vancouver is likely far more impacted by the knowledge and experience of the Board directors, as well as the Board behaviours, actions and processes. As such, we did not see any significant advantages from such an investment in changing to this source of candidates and in fact it may perpetuate or complicate current governance challenges. The desired advantages could simply be achieved by identifying and recruiting several external candidates with appropriate skills and experience to the Boards of GVWD and GVS&DD.

5.1.4. Recommendations – Structures

1. The Board should consider the **Hybrid Board Structure**, as described above. This will require consultation and detailed design to better achieve the governance objectives outlined in this report. From a governance and efficiency perspective, this proposed model would likely involve the following key attributes:
 - a) Legislative change to support the appointment of non-elected directors for the GVWD and GVA&DD Boards (and MVHC, if desired). The 50% requirement for member jurisdiction appointed directors to Committees could also be applied to the Boards.
 - b) Development of a skills matrix to ensure an appropriate mix of requisite knowledge, competency and experience is recruited into the Boards.
 - c) Implementation of a governance structure (e.g. Governance Committee) to recruit and recommend appointment of non-elected directors, as well as to resource the remainder of the Boards with directors from the member jurisdictions. These would be smaller Boards to enable more effective collaboration and efficient governance (approximately 10-14 individuals).
 - d) Update the Terms of Reference for the Boards to reflect the shift in director composition and Board structure.
 - e) Consider four-year terms for the non-elected directors staggered against the current four-year cycle of elected officials appointed to these Boards (i.e. two-years after municipal elections). These terms could be extended at the discretion of the Chair and Governance Committee to further facilitate the retention of institutional knowledge.
 - f) Implement appropriate committees to support the operations of these Boards. These could include technical or specialty committees and smaller general-purpose committees (e.g. Finance, Governance) which might have cross-representation from the broader MVRD and other Board Committees.

2. The Board should consider **reducing the size** of the Boards regardless of the Board structure selected. In the Hybrid Board option whereby the utility Boards are reduced in size, this could be achieved for the MVRD Board by either adopting the Capped Model or increasing the voting divisor from five to seven, for example. The former would require legislative change, while changing the divisor can simply be achieved through an Order-in-Council under the LGA.
3. The Board should consider creating a **Governance Committee** of the Board. The purpose of this committee would be to oversee the governance, ethics and integrity of the Board's policies and conduct. Specific responsibilities could include but not be limited to:
 - a) Board policy and procedure review and recommendation
 - b) Objectively determining the membership of committees
 - c) Maintaining a Board skills matrix to support committee appointments
 - d) Receiving and addressing management and Board integrity issues/complaints
 - e) Board remuneration policies and concerns
 - f) Conflict of interest investigation and resolution
 - g) Board performance evaluation and effectiveness
 - h) Board and Committee succession planning

The Governance Committee would be a logical body to work with the Board to **review and implement the findings** of this independent governance assessment, as well as lead future Board performance evaluations or other governance related reviews. It could be supported by a Chief Governance Officer (perhaps an additional responsibility to Legal Counsel) to assist with the flow, adequacy and timeliness of information to support Board-related decisions.

4. The Board should continue to seek ways to reduce or **optimize the time investment in Committee meetings**. Ultimately the selected Board structure will influence the number and composition of Committees. In the interim, this could immediately be achieved by:
 - a) Continuing to reduce and amalgamate Committees. Amalgamation could include: Air Quality and Climate Regional Parks, and possibly Regional Planning,
 - b) Tightening the scope and terms of the current Committees,
 - c) Reducing the number of Committee members, and
 - d) Reducing the frequency and duration of the meetings.

Committees could still be scheduled for 10 meetings per year but nominate two meetings as optional for critical issues, for example or continue to cancel meetings if there are not time sensitive or substantive agendas. Committees that make less time-sensitive or high-risk decisions and are currently scheduled on regular (i.e. more than quarterly) basis include: Regional Planning, Regional Parks, and the Mayors Committee.

5. The Board should ensure that Staff reports going to the Committees and Board include feedback **from the Staff Advisory Committees** regarding the specific options, risks and direct impacts on the member jurisdictions. These Advisory Committees (RAAC, RFAC, REAC, and others) do already provide input into staff reports, but specific relevant risks or implications of Board decisions on member jurisdictions may not be fully considered in Board materials.
6. The Terms of Reference for all Board Committees should be revisited to ensure the scope and mandate of the Committee is appropriate for the new Board structures, the overall vision and direction of Metro Vancouver, and supports strong governance of the Board.

5.2. Roles & Competencies

5.2.1. Current State Assessment

Board Leadership

Pursuant to Section 216 of the LGA, the Chair is the head and Chief Executive Officer of the regional district. Within Metro Vancouver, all four legal entities are led by a single Chair and CEO. The Chair (and Vice Chair) are elected by the Board each November (with each director having a single vote). Therefore, the tenure of any given Chair may only be one year from the date of election, but in practice have usually extended for a full municipal election term.

The LGA extends the Board Chair's duties to the following:

In addition to the chair's powers and duties as a Board member, the chair has the following duties:

- a) to see that the law is carried out for the improvement and good government of the regional district;*
- b) to communicate information to the Board;*
- c) to preside at Board meetings when in attendance;*
- d) to recommend bylaws, resolutions and measures that, in the chair's opinion, may assist the peace, order and good government of the regional district in relation to the powers conferred on the Board by an enactment;*
- e) to direct the management of regional district business and affairs;*
- f) to direct the conduct of officers and employees in accordance with sections 239 [chair to direct and inspect officers and employees] and 240 [suspension of officers and employees].*

In the absence of the Board Chair, the Vice-Chair acts as Chair. Although this does not happen often, when the Chair is unable to attend or must leave early, the Vice-Chair does take leadership of the Board meeting. Besides chairing the occasional meeting, the Vice-Chair primarily supports the Chair with Board Director engagement, agenda review, and Board strategy.

Key Observations – Board Leadership:

- The Chair role is the single most important Board member, directly impacting the effectiveness of the governance of the Board and Metro Vancouver. The annual election cycle for the Chair (and Vice-Chair) can lead to challenges in Board continuity and potential for loss of institutional knowledge and control. Leading practices indicate that a Board Chair should help develop strategy with the Board and see it through to natural points of transition.
- The role of Chair and CEO is a significant time commitment. The Chair is a Mayor or Councillor of a member jurisdiction, so already has significant time and community commitments.
- The CAO is also a board member, reporting directly to the Chair and CEO and ultimately accountable for the operations of Metro Vancouver and bridging the relationship between the Board and staff. This balance between operating as a Board member and an 'employee' of the Board can create some frustration amongst directors as they see the role as a more traditional executive leadership role reporting to the Board versus the legislated dual role.

Fiduciary Duty

The role of a Metro Vancouver Board Director entails a complex interplay of responsibilities that extend beyond the typical duties of elected officials within member jurisdictions. One of the most commonly cited challenges and obligations faced by Metro Vancouver Board Directors is the dual nature of their governance role, and the implications for regional decision-making versus their role as an elected

official in their local jurisdiction. At the highest level, under common law in Canada each Director must meet certain fiduciary duties including the following:

- a) **Duty of Loyalty** - Board members must prioritize Metro Vancouver's long-term interests above their own and those of their member jurisdiction, avoiding any conflicts of interest. The fiduciary duty is owed to the corporation, not to any particular stakeholder – although individual stakeholders must be treated equitably and fairly.

Metro Vancouver is a separate legal entity, distinct from its member jurisdictions including the municipalities, electoral area, and Treaty First Nation. Directors serving on the Metro Vancouver Board are tasked with fulfilling obligations to both their respective member jurisdiction and to Metro Vancouver itself. This dual responsibility creates a unique governance dynamic, where directors must navigate the differing expectations and obligations associated with each entity. While elected officials have a fiduciary duty to their constituents and to the specific needs of their local areas, their responsibilities as directors of Metro Vancouver encompass fiduciary, confidentiality, and other legal obligations that demand adherence and integrity.

- b) **Duty of Care** - Board members have a responsibility to exercise reasonable care and diligence in their decision-making, ensuring they are well-informed and act prudently.

This standard of care can be achieved by any director who devotes reasonable time and attention to the affairs of the corporation and exercises informed business judgment. The standard of care is measured against the objective standard of what a reasonably prudent person would do in comparable circumstances. Failure to meet the standard often stems from passivity and a failure to inquire.

- c) **Duty of Obedience** - Board members must ensure the organization complies with all applicable laws and regulations.

Beyond the large infrastructure projects, the scope of legal and regulatory compliance requirements faced by Metro Vancouver extend well into areas such as long-term borrowing, housing projects, regional parks, air quality management and regulation, water quality, as well as traditional municipal related processes and risks. This complexity places additional pressure on the directors' duty of care in their decision-making.

Key Observations – Fiduciary Duty:

- One of the most significant challenges faced by Directors is the necessity to sometimes balance potential competing interests between regional priorities and local concerns. Decisions made at the regional level may not always align with the interests of individual municipalities or the preferences of constituents. Where stakeholders' interests conflict, there is no principle that one set of interests should prevail over another set of interests⁶. This implies that directors cannot simply focus on what is best for Metro Vancouver (or their home jurisdiction), but must critically assess the regional impact of issues and decisions, striving for what is best for both the broader community and any aligned or diverging local interests. In some extreme cases, Board directors referred to these competing interests as "nearly impossible".
- This conflict does create an interesting dichotomy when directors are required to vote on issues at their municipal or First Nation council, and then again at the Metro Vancouver Board. There are situations where they may need to vote in differing directions. Their obligation is to make a decision in the best interests of Metro Vancouver when voting as part of the Board, however, when voting as part of their municipal or First Nations Council, they must make decisions that

⁶ *BCE Inc v 1976 Debentureholders*, 2008 SCC 69 (CanLII)

best serve the interests of that organization. These could be opposing decisions requiring them to find the right balance as they make these decisions. Additionally, decisions made in these Boardrooms are legally protected as long as they are made appropriately and are made in the best interests of the respective organization.

Time Commitment & Expectations

From a Duty of Care perspective, the expectations of a Board or Committee member can be summarized into at least eight key roles or responsibilities:

1. To *sufficiently prepare* for Board and Committee meetings by reviewing Board and Committee materials prepared and distributed by management in the week prior to and the day of the meeting(s) in question;
2. To gather sufficient insights and information to ensure the Board or Committee member *understands the nature of motions and decisions* proposed, particularly on their community as well as the region as a whole;
3. To *seek and clarify information* from Metro Vancouver staff to support their understanding of key issues and decisions;
4. To *attend the entire meeting* regardless of actual duration, ensuring appropriate input, debate and discussion to support informed decisions, including travelling to and from the Board or Committee meetings (in their own time and at their own expense);
5. To *attend site visits* of Metro Vancouver (or other neighbouring regional district) facilities or projects to support their understanding of the nature, risks and complexity of the operations of the organization, as required;
6. To *travel to national or international events* to promote, inform and support the strategic initiatives of Metro Vancouver, when required;
7. To *communicate and collaborate* with other Metro Vancouver Board directors and their municipal management teams to understand issues and concerns, and to facilitate efficient and informed decisions; and importantly,
8. To *consult their community* and staff, and ensure the decisions and actions taken by the Board are *supported and implemented* during their tenure as an elected official and Metro Vancouver Board member.

Key Observations – Duty of Care:

- It is often the last responsibility described above that can be the most onerous given the complexities of competing local community needs and interests versus regional needs as well as the financial implications of decisions on the electorate. In general, however, the time commitment for a Board member can average several days per month, and significantly more for Board Chair, Vice Chair and Committee Chairs. Many of those interviewed consistently described it as a 'second full time job' after their mayoral or council role.
- From a compensation perspective, Board and Committee members are only compensated for actual meeting attendances, but not: meeting preparation, Board/Committee meeting travel time or expenses, working with management to understand issues, or the implementation of decisions. The Board Chair and Vice Chair do receive an annual retainer, but are capped in their meeting attendance stipends at 18 meetings. Remuneration is discussed in further detail in *Section 6 – Remuneration* of this report.
- The competencies required of a Metro Vancouver Board director tend to extend beyond that of a normal public or private sector Board given their need to balance two perspectives on very large long-term decisions impacting their jurisdictional constituency as well as those of Metro Vancouver residents. There is a significant volume of technical information being provided to the

Board for review. The nature of the capital utility projects are financially material, long-term and bring unique risks not always encountered in municipal utilities. Many Board members reflected that their first year of Board membership was quite overwhelming, indicating it took a while before they felt more comfortable with the information being provided. This feedback was more pronounced for directors who were also newly elected to their municipal council.

- Many Board members reflected challenges in reading and absorbing all of the Board and Committee reports, with some choosing to focus on executive summaries or specific areas of interest or focus for their municipality. Others expressed frustration when they felt other directors had not read the materials sufficiently or were hindering Board proceedings as they struggled to understand the implications of the issue at hand.
- For some Board members, there is a tendency to consult local municipal staff and a correlating reluctance to seek out information from Metro Vancouver staff. Board members are required to make decisions based on the assumption that accurate, timely information is being presented to them, but they also have a responsibility to seek out additional information or answers to questions if that information is not deemed to be complete enough.
- A number of Board members expressed concerns that they struggled to understand or track key decisions and motions in meetings. Often this was the result of the nature and complexity of the issue being discussed, their lack of specific knowledge of the implications of the alternative options, or simply because the Board discussion had resulted in complicated or opposing language in the motion itself.

Roles and Responsibilities

The roles and responsibilities of the Board Chair, Vice-Chair and Committee Chairs are generally understood. There was some frustration expressed at the lack of clarity around specific roles, and their decision rights and accountabilities. This may stem from a lack of familiarity with the various procedural bylaws and Delegations of Authority, and in part from shifting perspectives on what the Directors are able or not able to decide in their specific circumstances. There were also questions raised about the specific delegations to, and responsibilities of, the CAO.

Director Knowledge and Experience

The Board experiences turnover every four years after every municipal election when municipal councils appoint their Board members. Beyond this natural turnover cycle, there are instances where councils may replace their Board directors or send alternates. This can bring new insights and strength but can also create loss of institutional knowledge.

Board Standing Committees are resourced by both Directors and municipal Councillors. The selection of Committee members is at the discretion of the Chair. Staff also play an active role in supporting the Committees to ensure that the members have access to the information they require.

Upon appointment to the Board, Directors participate in an orientation program. The orientation occurs over a 3-month period coinciding with their inaugural orientation and efforts as a new Councillor or Mayor in their home municipality.

Board education is relatively sparse but does include some governance training and Metro Vancouver site visits or other regional activities and events. In some cases, directors may attend national or international conferences, summits or other events, at the discretion of the Board Chair.

Key Observations – Director Knowledge and Experience:

- Sustaining good governance depends heavily on institutional knowledge across the Board. Currently there are 29 Board directors (of the total 41) who have joined the Metro Vancouver Board after the last election.

- The selection of Committee members is at the discretion of the Chair. Experience and knowledge factor into the decision of who should Chair and sit on the Committees, but there is no formal skills matrix utilized to inform these decisions and even so, there is a widely varying set of knowledge and experience in the director cohort as well as other political considerations, challenging a traditional skills-based selection approach.

5.2.2. Recommendations – Roles & Competencies

7. The Board should consider appointing an **independent Chair** for the Boards, particularly the utility Boards under a Hybrid Board structure. The role of the Chair is critical to the success of the governance of the Board. As Metro Vancouver continues to grow in size and complexity, the time commitment for the Board Chair will also increase potentially creating the need for a full-time Chair. Ideally this individual would have senior municipal and/or utility experience.
8. The Board should consider seeking legislative change to set the term of the Chair to a **four-year** period, beyond the current annual term. It is unlikely that a Chair will have sufficient time to develop their Board and begin to implement the strategy within a one-year timeframe. The magnitude and importance of the role to good governance would suggest a longer term. In addition, if the Chair is an independent non-elected official, the Board should consider offsetting their term with the traditional four-year municipal election cycle and associated high turnover of Board members.
9. The Board should consider enhancing the **education plan** including Board orientation, professional Board development, education on the operations of Metro Vancouver and its projects (including site visits), and other subject matters relevant to Board decisions (e.g. regulations pertinent to a Committee, historical decisions and implications, etc.). This could include building stronger personal connections with management and staff through this program.
10. The Chair should allow sufficient time and question Board directors in the meeting to ensure the directors **understand the motion**, has the opportunity to safely ask questions relating to it, and ultimately ensure everyone can make the right informed decision.
11. The Board should consider regularly and clearly defining and communicating the **roles and responsibilities** of Board members and the CAO with regard to decision rights, delegations and other responsibilities to ensure clear accountability and effective decision-making.
12. The Board and staff should continue to explore ways to **bring municipal interests and perspectives** into the discussion at the Board and Committee meetings in order to help directors achieve a balance in discharging their dual fiduciary duties and reducing the likelihood of polarizing viewpoints dominating the meetings. Directors should also endeavour to manage the risk of polarizing discussions and seek to leverage Metro Vancouver staff to bring the right balance of information to reports and discussions. Training provided to Directors should also specifically address the inherent duality in fiduciary duties they face and provide guidance on how to seek the right balance (versus simply requiring them to take a Metro Vancouver regional perspective only).
13. The Board should consider developing a **formal skills matrix** to assist in the allocation of Committee roles and Board duties to directors, particularly if the resulting Board structures include non-elected officials. The maintenance and monitoring of this could be the responsibility of the Governance Committee.

5.3. Strategy & Risk Management

5.3.1. Current State Assessment

Strategic Alignment

Section 185 of the LGA provides that:

Recognizing that regional districts are an independent, responsible and accountable order of government within their jurisdiction, the purposes of a regional district include:

- a) providing good government for its community,*
- b) providing the services and other things that the Board considers are necessary or desirable for all or part of its community,*
- c) providing for stewardship of the public assets of its community, and*
- d) fostering the current and future economic, social and environmental well-being of its community.*

Metro Vancouver has a 2022-2026 Board Strategic Plan. The Plan is built around five strategic priorities:

- Financial Sustainability and Regional Affordability
- Resilient Services and Infrastructure
- Reconciliation
- Climate Action
- Housing

The plan was developed early in the term of the new Board members and was built upon the prior strategic plan. The Plan was due to be refreshed this spring, but this regular two-year update has been postponed due to the various reviews underway.

Risk Management

One of the key responsibilities of the Board is to establish strategic priorities for the organization and to understand and support staff in mitigating the risks to the strategy. The Board should be aware of all material and strategic risks, and be confident staff are in control of them. Currently there is no overarching program to assess the strategic risks facing Metro Vancouver and its strategic priorities.

From an operational and project management perspective, however, a strong risk management program was established in 2019 when the current CAO was hired. This includes the creation of the Project Delivery department, providing standardized project delivery tools, enhanced project oversight, independent project expert advisory, structured project stage gating, and other project risk management mechanisms.

Internal Audit

Metro Vancouver does have one Internal Auditor reporting into the Finance Department. A strong internal audit function is critical to the integrity and governance of any large organization. For an organization with multi-billion-dollar operating plus significant capital budgets, an Internal Audit function is imperative. Internal Audit is both a strategic advisor on risks and controls, as well as the last line of defense in ensuring management is following key policies and procedures with integrity.

Key Observations – Strategy and Risk Management:

- Since the development of the Board Strategic Plan, the organization has continued to evolve and there no longer appears to be consistent alignment and commitment across the Board to the Strategic Plan and its scope and direction. Directors also indicated that the strategic direction and

investment strategies are not universally defined or agreed upon. This fosters an environment where directors prepare for meetings and vote on critical motions without broader strategic alignment.

- A strong project risk management framework exists, as does some of the necessary operational risk management activities – but Metro Vancouver is lacking an enterprise-wide strategic risk management program providing the Board assurance that staff are aware of and in control of their key risks, and the Board and staff are aligned in their perspectives on risk and risk mitigation. Identifying and assessing these strategic risks is critical to inform the strategy as well as to develop pragmatic risk mitigation as part of the key strategic initiatives
- Metro Vancouver lacks a comprehensive independent Internal Audit function providing the necessary assurances to the Board around the internal control environment within Metro Vancouver. The Internal Audit function works with the CAO and CFO, but does not report directly to the Board or any of its Committees.

5.3.2. Recommendations – Strategy & Risk Management

14. The Board should lead a refresh of the **strategic plan**, seeking alignment around a common set of goals and initiatives. The exercise should consider the purpose of the organization, and the values, roles and responsibilities of the Board in executing it. There also needs to be a focus on strategies to continue to build trust and confidence with key stakeholders and the public.
15. The Board should consider introducing a program to assess the enterprise-wide **strategic risks** facing Metro Vancouver and its strategic priorities. This effort should inform the Board and management as to the key risks facing the organization, and the strategy to mitigate and increase resilience to these risks.
16. The Board should consider strengthening the **Internal Audit** function, focused on assessing and reporting to management and the Board (Finance Committee) on the design and effectiveness of internal controls and other specific operational risks. Initial internal audits should focus on the areas of most concern to the Board (e.g. strategic risks, project management oversight, financial controls, etc.).

5.4. Policies & Processes

5.4.1. Current State Assessment

Board Policies and Procedures

Board policies and procedures are well defined in a series of bylaws, policy and standards documents. Each Standing Committee has clearly defined terms of reference. Board materials and communications adhere to strict protocols on content, timing and confidentiality. All policies, procedures and board materials are publicly available, except for materials deemed confidential for legal or other confidential (e.g. competitive pricing) purposes. Any closed information received by a Board member in their capacity as Metro Vancouver Director is required to be kept confidential. All open materials are posted publicly and shared with staff advisory committees.

Key Observations – Board Policies and Procedures:

- One of the strengths of the Metro Vancouver Board governance framework is the detailed procedural bylaws that provide direction around key Board processes and decisions. However, there is a lack of understanding of them, as well as roles and responsibilities relating to them. Although the policies are comprehensive and grounded in appropriate legal due diligence, they are not the easiest to understand or apply without guidance.
- Board directors indicated that they are dependent on staff to provide clarity on policy and process. Some indicated the framework of policies and procedures require comprehensive review and refresh.

Board Decision Making

The Board has a well-documented decision making and voting process. A formal Delegation of Authority exists (within the Officers and Delegation Bylaw), clarifying the key Board delegations to management and the authorities granted with them.

Key Observations – Board Decision Making:

- Recent increases in the delegation of authority around procurement decisions has created an executive approval threshold (\$10 million). Some Board members expressed concern that this could result in limited Board visibility regarding projects / initiatives under the threshold, by encountering a series of significant change orders without visibility or Board approval for the total amount. All contracts are posted monthly on the Metro Vancouver website, and the Board receives two reports a year report on financial performance with all contracts listed and one audited year-end financial statement, followed by an annual statement on vendor and employee remuneration known as the SOFI report.
- Reports containing recommendations are elevated to the Board from Committees for a decision. In some cases, however, directors may not support the Committee's recommendations. This tends to happen when certain directors have a significant personal investment in an issue, but are not effectively represented on the underlying Committee; or less frequently, the issue was debated at the Committee level without a clear consensus, resulting in conflicting opinions at the Board level. In some instances, the Committee recommendations may also differ from the staff recommendation (which may include advice from the member jurisdiction staff advisory committees as well).
- There is no formal dispute resolution process to address significant differences in opinion between the Board and the member jurisdictions. Where possible the Chair, CAO and Metro Vancouver staff will try to address these concerns proactively with member jurisdiction staff.

Board and Committee Meetings

Meeting attendance is highly encouraged to be in-person, to facilitate meetings more easily and encourage relationship building among Board directors. However, electronic meeting attendance via Zoom is permitted and under the Local Government Act and is regarded equally as attendance in person.

Board and Committee meetings are run by the respective Chair following strict procedural rules. Active discussion and debate are encouraged, but procedural rules exist to support time management.

Key Observations – Board and Committee Meetings:

- Committees are the Board’s mechanism for information aggregation. Formal reports and resolutions are elevated to the Board by the Committees for formal ratification. However, many directors (particularly those not on particular Committees) struggle to understand the information provided and the implications of key decisions.
- We observed a number of instances where Board members were not familiar with specific Board procedures relating to motions or other procedural rules and bylaws. In some instances, they were able to identify this and seek clarification, but during our interviews Directors expressed some frustration with the general lack of knowledge of or adherence to the Board’s procedural rules.
- Despite the formality of strict procedures, as is the case in any large Boardroom, a minority of Board or Committee members will consistently dominate the floor on topics regardless of expertise or relevance; add onto existing statements rather than letting opposing views be presented; shift conversations off topic to personal agendas; or otherwise consume an inequitable amount of Board discussion time. Some directors indicated they often remain silent in certain discussions as they did not feel adequate time or a safe space was available to them, nor did they want to perpetuate a conversation they felt was not moving in an appropriate direction. The Chair is accountable for managing the meeting, but in the spirit of fair governance the Board is allowing democratic debate and all directors to voice an opinion.
- Weighted voting is employed by regional district Boards for financial decisions and for decisions regarding the administration and operation of services. The Board uses a consensus agenda to good effect, however a roll call is used to individually record voting decisions for contentious decisions when the Chair or a Board member calls for a recorded vote. This roll call can be a manual, time consuming effort, often leading to some confusion surrounding the motion at hand.
- Metro Vancouver has had video-recorded Board meetings for over a decade. During the pandemic, there was a decision to leverage the video-enabled Board room for committee meetings. Post pandemic, the Board has continued with video-recorded Board and Committee meetings. We gathered mixed feedback on this format, with directors citing the transparency and accountability benefits, but sharing their frustrations with the directors speaking to the media rather than engaging in meaningful conversations with the Board. Some Board directors indicated they prefer to remain silent rather than perpetuating an off-topic discussion or demonstrating their lack of understanding of a specific issue.
- All Board members typically remain in the boardroom for all board meetings of the four legal entities, despite the fact that they may not be eligible to participate in the discussion on certain topics.

5.4.2. Recommendations – Policies & Processes

17. The Board should consider a comprehensive **review of bylaws, policies and procedures**, to ensure they are current and appropriate, but also to identify ways to simplify them for ease of use, understanding and adoption. In some instances, they may require enhancement to provide further clarification and direction for those utilizing them.
18. The Board should consider **enhancing Board training** to ensure there is a stronger understanding of key policies and Board procedures.
19. The Board and Committee Chairs should **strictly enforce** speaking time limits, repeating speakers, keeping discussion to the confines of the motion at hand, restricting additive commentary while allowing opposing commentary, and otherwise ensuring directors respect each other, staff and the Board's time. In some situations, this may also be encouraging silent voices to speak. Where possible, Board members should ensure they are present for the duration of Board meetings. A mechanism for identifying those Board members not eligible to participate in specific discussions should also be implemented.
20. The Board should investigate **electronic voting solutions** in the Board room to preserve the integrity of voting and avoid unnecessary prolonged roll call voting.
21. The Board should seek to be apprised of **cumulative expenditures**, such as those with change orders aggregating to total balances over the Board approval threshold.
22. The Board should define and document **decision-making processes** with the intent of improving decision-making efficiency and managing conflict.
23. The Board should investigate creating an effective **dispute resolution mechanism** between Board and member jurisdiction councils and management.
24. The Board should consider making Board meeting attendance in person mandatory. While Committee meetings may take advantage of video-based meeting technologies (e.g. Zoom, Teams, etc.), where possible Board meetings should be **in-person** to facilitate more transparent dialogue and stronger networking and relationship building opportunities.
25. The Board should work with staff to find ways to close the **information and knowledge gap** between the Committees and the Board. Also, where possible, decisions should not be elevated to the Board until the appropriate directors (i.e. those with concerns or vested interests but not present on the Committee) can be consulted or their concerns be incorporated into the decision-making process. Similarly, directors should encourage their member jurisdiction management to participate and elevate key recommendations, facts or opinions into the staff advisory committees.

5.5. Information

5.5.1. Current State Assessment

Board & Committee Materials

Almost every Board director shared the challenge of reviewing 800-1400 pages (on average) of Board agenda materials. Directors with a longer tenure on the Board indicated that, over time, they had become more knowledgeable and efficient in their preparation. The materials are designed with a consent agenda, executive summaries, brief reports, and are accompanied by significant appendices to support the reports. Decision making reports received by the Board have already been discussed in Committee meetings, but are included in Board materials for all directors to allow equal access to the information and to support the Board's decision making.

The executive summary and recommendation are written to encapsulate what is required for any Board director to be appropriately well-informed in the meetings. Arguably, a director could read no more than those sections and still exercise good governance. However, the significant volume of information included in the Board package is described as overwhelming by most Board members and creates an assumption that members of the Board should make the time read all of the materials. This can lead to reduced attention to detail and may inadvertently result in directors not sufficiently reviewing the information.

Despite the large volume of Board materials, it is in alignment with Board packages for comparable organizations. This is the case when one considers the Board package for Metro Vancouver meetings is supporting four separate Board meetings. In addition, the supporting information and reporting for water utility and liquid waste-related decisions at the Board level require more supporting data due to the magnitude and impact of the capital projects in these entities.

Key Observations – Board & Committee Materials

- The significant volume of Board materials can be overwhelming and impede the review and processing of relevant information. However, there is an opportunity to streamline and re-organize the materials to make it more accessible and less detailed in some cases to uphold good governance with lean fit-for-purpose reporting.
- Staff provide presentations to the Committees, but in the interests of time and efficiency, Metro Vancouver has moved away from staff presentations at the Board level. There is an opportunity to utilize staff presentations to create stronger awareness and education on key issues, as well as to build increased trust in staff, if used appropriately and sparingly. Committee meetings do routinely include this format of knowledge transfer and education as they prepare key decisions. Task Forces have been struck to focus on particularly complex capital projects.
- Some directors expressed concerns that they perceived materials coming to the Board for decision as being overly influenced by Metro Vancouver staff objectives. The source of their concerns related to a lack of understanding regarding which alternate options were considered and why they might have been dismissed, differences in opinions on the proposals or treatment of options, or general mistrust of staff's intentions (fuelled in part by recent issues such as the North Shore Wastewater Treatment Plant project).

Confidentiality

Directors are bound by a Metro Vancouver Oath of Office that emphasizes confidentiality and ethical conduct. The oath requires Directors to maintain confidentiality of records and information discussed in closed meetings until they are lawfully released to the public. This commitment to confidentiality is essential for maintaining the integrity and trust necessary for effective governance.

Many Directors presented various challenges to the current confidentiality requirements regarding Board and Committee materials. For example, the LGA may require entire reports to be deemed confidential which prevents the director from sharing minor items of relevant information or alternatively trying to share materials with their member jurisdictional staff to better understand the implications on their municipality.

Key Observations – Confidentiality

- The investigations, reviews and litigation surrounding the North Shore Wastewater Treatment Plant project cost issues have created a complex environment that has exacerbated tensions regarding information sharing and transparency between Board members, member jurisdictions, and Metro Vancouver staff.
- The confidentiality of closed Board materials poses challenges for some Board directors who wish to educate or leverage resources in their member jurisdiction. Although Metro Vancouver staff strictly follow legislative requirements, they have made attempts to find ways to share information with municipal staff as permitted. In most cases, directors will find ways to meet their respective fiduciary accountabilities without compromising confidentiality requirements.
- There is a concern amongst Board members and municipal staff that key information and reports are being withheld. Much of this perception relates to information that is deemed confidential or restricted by legal privilege given legal actions underway. In addition, Board directors are frustrated by their inability to easily execute on their other (member jurisdictional) fiduciary duty as they must abide by confidentiality rules. In general, there is a need to better educate the Board regarding communication and information sharing protocols and continue to find ways to improve transparency regarding relevant information.

Capital Project Reporting

The typical large, complex capital projects commissioned by Metro Vancouver (generally water treatment and distribution or wastewater treatment and collection) can cost billions of dollars, span over a decade and include state-of-the-art technology. These projects require a unique skillset in project management, project delivery and engineering backgrounds that are not always available in the region. It is not uncommon for many of these projects to be delivered by global engineering and construction organizations.

Key Observations – Capital Project Reporting

- Most Board members expressed concern over the governance of mega projects led by Metro Vancouver. They were concerned about the Board and staff's ability to effectively oversee the significant complexity of these multi-billion-dollar projects, as well as ensuring the financial implications and risks are managed.
- Staff reporting and business case presentations to the Board often focus on a single, logical solution and leave limited room for analysis or discussion of other options for the largest capital projects.
- The Board is seeking more transparent and timely financial reporting regarding actual expenditure on capital projects relative to the original budgeted amounts. Similarly, directors are seeking more clarity on the accuracy of forecasted project expenditures and the implications and possible extent of forecast adjustments. Some frustration was expressed regarding staff's timeliness in providing the level of detail and accuracy sought (both due to limitations of corporate systems and the summarization of data from projects). This, in the context of the North Shore Wastewater Treatment Plant has created a mistrust of staff and is seen as impacting the effectiveness of fiscal controls and governance overall. It should be noted that a number of these concerns relating to large capital projects have been directly addressed with

the enhancement of the project management oversight processes and other project governance improvements.

5.5.2. Recommendations - Information

26. The Board should continue **reviewing the Board materials** with the objective of seeking ways to streamline or organize the information in a way that enhances the ability of the directors to better read, understand and govern. This may include revisiting which informational reports are elevated to the Board and how they are presented.
27. The Board should consider supporting more complex or controversial decisions with brief **staff presentations** oriented toward educating the Board regarding the decision at hand, options considered, and the implications and risks.
28. The Board should work with member jurisdictions to ensure robust analysis, especially in the **identification of risk and financial implications** for key stakeholders, is present in Board reporting. Although there is a substantial amount of reporting to the Board, it can lack these key elements critical for Board decision making.
29. The Board should consider staff presentations or Board reports **include multiple options for the Board** to consider, where practical. Committees and staff do consider different treatment options for significant expenditures, but are encouraged to provide the preferred option and the supporting rationale for the Board's decision. However, the broader Board may need to understand alternative options, the risks relating to each and the rationale for dismissing them.
30. Board members should seek to leverage Metro Vancouver staff as the key source of information. Pragmatic and legally acceptable protocols should be utilized regarding **information communication** in order to better facilitate the sharing of information with Committee members and other key stakeholders. These mechanisms should be highlighted in Board orientation and ongoing education.
31. The Board should ensure, for large complex and capital-intensive projects, management continue to **provide regular updates** to the Board as the project progresses. Directors are seeking transparency regarding actual expenditure on capital projects relative to the original budgeted amounts. Similarly, they are seeking clarity on the accuracy of forecasted project expenditures and the implications and possible extent of forecast adjustments on their member jurisdictions.
32. The Board should work with Metro Vancouver staff and municipal staff to find more efficient methods of **integrating municipal planning with Metro Vancouver strategies and projects**. Investments in housing, transportation, growth, etc. are both regional and local, therefore should be included in more cohesive planning integration between Metro Vancouver and its member jurisdictions.

5.6. Culture & Behaviours

5.6.1. Current State Assessment

Board Collaboration

As is the case in other public and private sector Boards, the Chair is accountable for the overall discipline, performance, health and well-being of the Board. Meetings are generally held in person at the Metro Vancouver offices with side rooms to facilitate offline discussion and knowledge sharing. Many directors indicated this was a critical mechanism to promote more effective and empathetic collaboration. The infrequent parochial nature of Board interactions (whether based on differences in philosophical values or regional interests) was cited however, as a challenge that can impair cordial and effective collaboration and communication between Board members.

The Board does periodically meet off-site for annual strategic planning or similar events, and these were identified as key mechanisms in strengthening Board collaboration and chemistry.

Key Observations – Board Collaboration

- In-person meetings at the Metro Vancouver Boardroom have facilitated positive experiences for Board members by creating a space for collaboration informally before and after meetings.
- Many Board directors do not feel they get enough time to connect with their peers in informal settings. This was identified as critical to forming strong foundational relationships among Board members.
- The current Board has more disparate beliefs and values than previous Boards, leading to more split voting. While there has historically been around 90-95% unanimous voting, in recent years this has shifted to more split or divided voting.
- Many Board directors indicated they struggle to help sustain a culture of regional collaboration when members of the Board advocate exclusively for their member jurisdiction. This can often create the appearance of a breakdown in fiduciary responsibilities.
- Certain Board members have a personal style that is considered dominating in meetings while causing others to remain silent. With 41 Board members it is difficult for the Chair to manage these individuals while seeking out silent participants to voice their opinions.
- A number of concerns were raised over the shift in the culture of the Board away from values of respect and accountability to a more politically divisive and hostile culture at times. This is a systemic issue arising in politics globally, let alone in federal, provincial or municipal politics. It can also be exacerbated by alignment and facilitation activities that are taking open, transparent debate out of the Boardroom. In some instances, the Board or Committee Chair was not seen as effectively controlling the room.

Board-Management Relationship

The relationship between the Board and staff is critical. They are a reflection of each other, and their relationship and collaboration have the greatest impact on efficiency and governance. Staff should provide the best possible information and options for the Board through formal reporting, as well as building relationships with the Board and engaging in dialogue on an as-needed basis. Staff currently aim to make themselves available to Board and Committee members whenever called upon, but there still appears to be a strain on the relationship preventing some Board members reaching out with questions or seeking information.

Key Observations – Board-Management Relationship

- Some Board members reported feeling as though they were being “controlled” by staff. In some cases, this perception may be generated as staff seek to determine which information needs to

be communicated, providing targeted education and in general moving projects and operational activities forward (given the significant cost implications of delays).

- The relationship between staff and some Board members has been strained in the last couple of years, in particular due to the North Shore Wastewater Treatment Plant project and other tensions relating to investment decision choices. This culture could benefit from more meaningful engagement outside the Boardroom. Sometimes the Board can be overly critical of staff, and in some instances indicated a sense of mistrust of staff. The key drivers are perceptions of: staff filtering messaging or reporting, overloading and volume of information, tailoring information towards a specific outcome or conclusion, a lack of perceived transparency in reporting to the Board, a sense of being controlled versus being the oversight body, and the misuse of secrecy/confidentiality to restrict access to information. These perceptions need to be addressed, and the culture of trust rebuilt.

Director Performance

One attribute of a healthy Board is an opportunity for self-reflection and personal performance assessment. Given the size of the Board, there are a wide variety of personalities. This also makes it challenging for the Chair to spend an appropriate amount of time with each Board member providing feedback or seeking opportunities to enhance the Board proceedings.

In some instances, certain Board members demonstrate behaviours that challenge the efficient governance of the Board (e.g. dominating speaking time in meetings, not exhibiting respectful behaviours, not taking a regional view, etc.)

Key Observations – Director Performance

- The Board has recently approved a Code of Conduct regarding the expected performance and behaviour of Board and Committee members. Although, relatively high level, this is a positive move toward improving mutual respect and the efficiency and effectiveness of governance in the boardroom.
- There are no formal opportunities for Board members to receive feedback and improve their individual Board governance capabilities, or that of the Board as a whole.

5.6.2. Recommendations – Culture & Behaviours

33. The Board should consider revisiting its **code of conduct** to ensure it does directly address respectful and productive behaviours in the Board and Committee meetings. The communication of this code of conduct should include a specific workshop or similar training to allow open discussion around expected and desired behaviours.
34. The Board should **explore new avenues for communication** between the Board and staff. This includes both within and outside of the Boardroom. Forums for enhanced informal dialogue between Board directors and management could provide additional clarity and foster a stronger environment of trust. Similarly, Board directors should seek to take advantage of and encourage the hosting of these conversations in their member jurisdictions.
35. The Chair should continue to reinforce the need for all directors to **take a regional perspective** at the outset of meetings. Opportunities to reinforce the ability to effectively balance the regional and local perspectives should be explored.
36. We recommend the Board consider implementing some form of **Board performance assessment** to solicit and identify opportunities to enhance group and individual behaviour. If possible, the Chair should meet with Board members as necessary to reinforce key messages.
37. The **role of Board Chair** is a critical one. They are the conductor of the Board. The Board should consider investing in specific Board management training and education for future Board Chairs.

6. Remuneration

Remuneration of Metro Vancouver Board directors has received substantial media coverage recently, particularly given public frustration with increased infrastructure project costs (particularly the North Shore Wastewater Treatment Plant) and concerns by Board members and the media regarding Board governance in general. This section of the report focuses exclusively on the Board remuneration model, including an assessment of the reasonableness of the existing model, grounded in a cross-country industry scan of peer organizations, as well as recommendations to address our findings. The remuneration model is inextricably linked with the governance model, and as such it should be noted that changes to the governance structures could have significant changes to total and individual remuneration expenses.

6.1. Current State Assessment

6.1.1. Core Compensation Analysis

There are three primary means of compensating Board members: annual retainer, monthly retainer, or per meeting stipends. The current remuneration model is detailed in the Metro Vancouver Remuneration Bylaw⁷. The Board Chair, the Vice Chair, and Electoral Area A Director receive annual stipends as detailed in Table 5 below. Committee Chairs receive a monthly stipend for agenda review and committee oversight. Otherwise, all directors receive a per meeting stipend of \$547. For meetings that run over 4 hours, albeit seldom occurring, a double meeting stipend of \$1,094 is paid.

Position	Amount (\$)
Board Chair	\$109,337/annum
Board Vice Chair	\$54,668/annum
Electoral Area Director	\$32,801/annum
Committee Chair	\$547/month
Board and Committee Members	\$547 for meeting up to 4 hours \$1,094 for meeting more than 4 hours Daily remuneration is capped at \$1,094

Table 5 – 2025 Metro Vancouver Board Remuneration

The meeting stipend is provided as a form of allowance in exchange for the expertise of the Board Directors and to recognize any sacrifice of time or cost to govern the organization. It is not designed to mirror an equivalent hourly wage rate for services provided, and were this the case, it would likely result in a low amount given the responsibilities of a director (see Section 5.2, specifically subsection *Time Commitments and Expectations*). The Board Directors commit varied hours to meeting preparation (4-12 hours per meeting on average), travel to and from the Metro Vancouver Board offices (which is not a reimbursable expense), and the time in the meetings.

⁷ Greater Vancouver Regional District Regional Board and Committee Remuneration Bylaw Number 1057 (2007)

Under the current model, the total cost of Board remuneration over the years has remained relatively consistent. The total cost of remuneration between 2020 and 2023 is detailed in Figure 4. The decline in 2021 and 2022 is a result of the COVID-19 pandemic. With around a \$1.5 billion operating budget at Metro Vancouver, the Board remuneration is roughly \$1.5 million, which is 0.1% of total operating costs, a relatively immaterial amount in perspective.

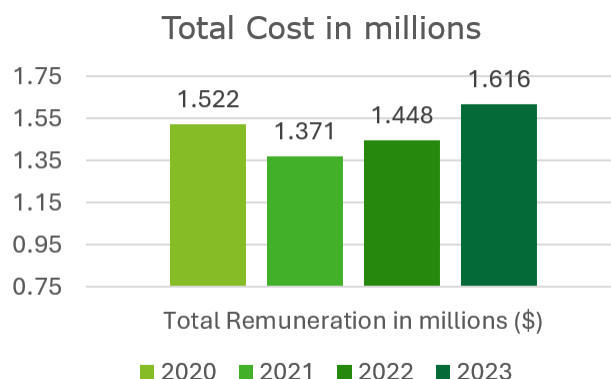


Figure 4 – Total Cost of Remuneration in Millions

The Board Chair receives the highest remuneration, and as such much of the focus has been on the annual Chair stipend. This has increased by 36% in the past five years, reflecting increases in the regional mayoral salaries. The Chair, Vice-Chair, and Board Committee Chair stipends are all based on a formula derived from a percentage of the median Metro Vancouver regional mayoral gross salaries (as per the UBCM Remuneration Guideline⁸) – with the Chair receiving 75% of the median of the gross mayoral salaries, the Vice-Chair receiving 50% of the Chair's stipend, Electoral Area A director receiving 30%, and the director meeting stipend set at 0.05% per meeting. Given the range of mayoral salaries (less than \$20,000 to \$210,000) using this number as an anchor creates a somewhat equitable formula that is neither punitive nor excessive relative to a typical mayoral salary, particularly given the size and scale of Metro Vancouver.

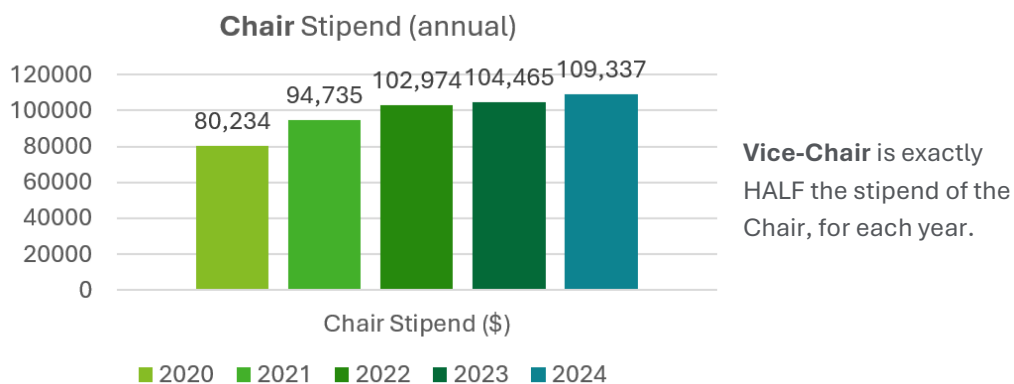


Figure 5 – Chair Stipend

As identified in Figure 6 below, approximately 50% of total Board remuneration was paid to 14 of the 147 total individuals that received Board remuneration in 2023.

⁸ Union of BC Municipalities, Board & Council Remuneration Guideline, September 2019

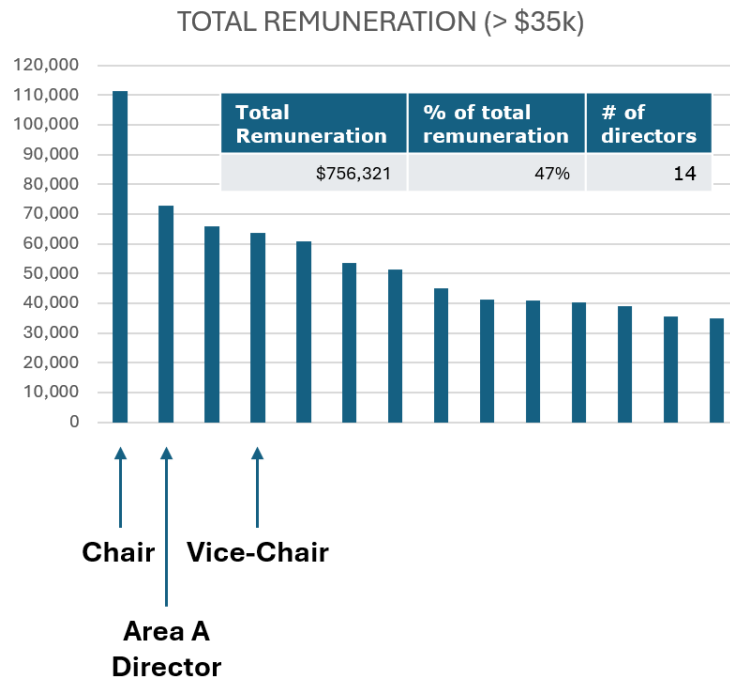


Figure 6 – Total Board Remuneration Over \$35k (2023)

Key Observations – Core Remuneration

- Board remuneration at Metro Vancouver is only 0.1% of total operating expenses, but there appears to be a significant amount of Board time spent discussing this topic as a result of recent media challenges, largely occurring post the increase to the NSWWTP program budget.
- The Chair, Vice-Chair, and Committee Chair stipends are all based on a formula derived from 75% of the median mayoral salary. Given the similarity of the role and subject matter to a municipal council, this seems a reasonable baseline. Similarly, given the range of mayoral salaries (\$20k to \$210k) using this number to anchor the formula also creates an equitable result that is not punitive for a mayor of a smaller or lesser compensated municipality.
- A drawback of using the UBCM mayoral salary guideline is that it does draw a comparison to the mayoral salary, and therefore creates an incorrect perception that a Board Chair or director role at Metro Vancouver is an extension of municipal duties, and raises the question as to whether it should be covered by the mayoral salary. Metro Vancouver is a separate organization / legal entity with a regional focus and significant decisions and risks outside of the scope of the director's municipal role.
- The Chair and Vice-Chair receive their stipend allowance for the first 18 meetings. Beyond that they do not receive any remuneration for attending meetings. They tend to achieve this maximum threshold about one-third of the way through a typical year, leaving them unpaid for the remainder of the year (other than their annual retainer).
- The Electoral Area A Board Director salary is also the mayoral salary for the region served, so this should not be considered as Metro Vancouver Board remuneration alone, and as such has been excluded from our review.
- There is no cap or maximum remuneration provision for any Director. Some Directors are asked to chair or attend a significant number of Committees given their experience and expertise, resulting in their remuneration being relatively higher than other Board members.

- Metro Vancouver Board Directors are not entitled to pensions, nor are they provided pensions in their role as elected officials in their member jurisdictions, or on other public sector Boards. This should be a factor in the total remuneration conversation relative to other public officials. Directors do not receive benefits either, nor travel expenses to meetings.
- The total remuneration costs are most heavily influenced by the number of Board, Committee and related meetings, and the number of attendees at these meetings. In 2024 this accounted for a total of 2407 meeting attendances (an increase of xx over 2023), as illustrated below:

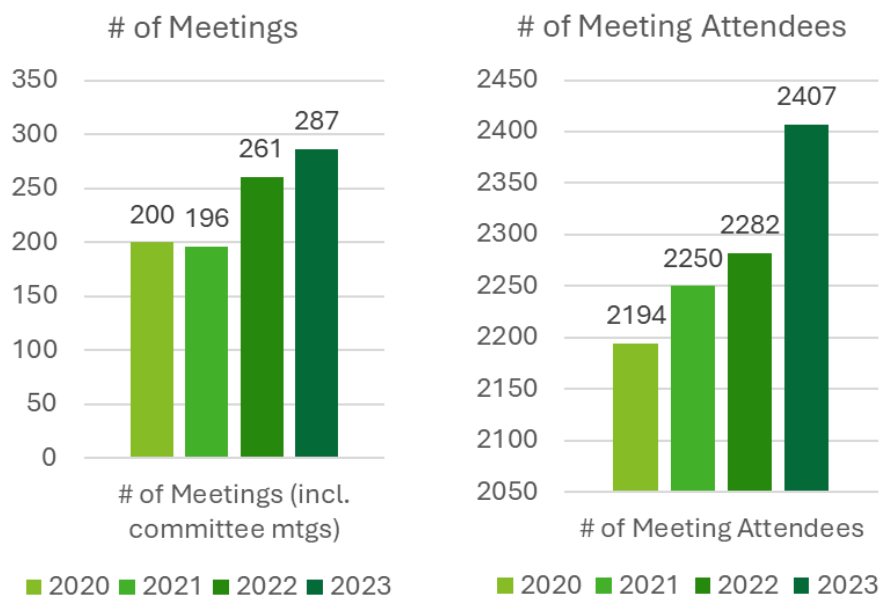


Figure 7: Total number of meetings

Figure 8: Total number of meeting attendances

6.1.2. Additional Meeting Expenses

There have been additional concerns raised around the concept informally referred to as “double dipping”. Many of the directors sit on various Boards and are often remunerated for their expertise and efforts. Some of these external Board roles are appointments from their municipal council, and some are representing Metro Vancouver. These include significant Boards such as TransLink, E-Comm 9-1-1, the Union of BC Municipalities, the Municipal Finance Authority, etc.

Although we did note concerns regarding the ability of individuals to effectively govern multiple Boards, including Metro Vancouver, a review of cumulative individual mayoral and council salaries is well outside the scope of this review. We did however, note the directors of Metro Vancouver are remunerated to sit on a number of Boards (at the discretion of the Chair). In total there were 31 (plus alternate) appointees attending 54 meetings in 2024, as follows:

Entity	# of Directors
Fraser Basin Council Board of Directors	1 + Alternate
Municipal Finance Authority of BC	11 + Alternates
Agricultural Advisory Committee	1
E-Comm Board of Directors	1
Fraser Valley Regional Library Board	1 + Alternate
Katzie Treaty Negotiations	1
Lower Mainland Local Government Association	1
Union of British Columbia Municipalities	3
Union of British Columbia Municipalities Indigenous Relations Committee	1
Western Transportation Advisory Council	1 + Alternate
Zero Emission Innovation Centre Board of Directors	1
Metro Vancouver Regional Parks Foundation	1 + Alternate
Ocean Watch Action Committee	1
National Zero Waste Council	2
Solid Waste and Recycling Industry Advisory Committee	1
Sasamat Volunteer Fire Department	1
Delta Heritage Airpark Management Committee	1
Delta Heritage Airpark Management Committee	1
Total number of Board appointments	31

Table 2 – Current Metro Vancouver External Appointments

6.1.3. Travel Expenses

Included in the total individual director remuneration amounts are meeting stipends for days of travel to national and international conferences. A double meeting stipend (\$1,094) is paid because the expectation is that travel and attendance will occupy the director for more than four hours each day. Out-of-pocket travel, accommodation and per diem expenses are also paid by Metro Vancouver.

Travel to summits, conferences and other events is seen to be of value to Metro Vancouver directors where it provides marketing visibility for the region and knowledge sharing regarding leading practices in Metro Vancouver's operational activities. The opportunity to attend these conferences is a privilege and therefore provides intrinsic non-monetary benefit to the directors travelling on behalf of Metro Vancouver.

Key Observations – Travel Expenses

- All travel is currently approved by the Chair. This is a relatively subjective approval process, but travel policies have been instituted to provide additional guidance around what can be expensed. Currently all travel has been paused.
- There is some level of opacity in the public disclosure of Board and Committee remuneration, meeting fees, travel, etc. as they are grouped in a single line-item disclosure as per the BC government's Statement of Financial Information (SOFI).

6.1.4. Comparator Organizations

Over 15 other jurisdictions and comparable organizations were researched as part of this governance review. The most relevant organizations have been included to provide insights as to the reasonableness of the current remuneration framework at Metro Vancouver. It is important to note

that none of these organizations are an exact comparison to Metro Vancouver, but they do serve populations of similar scale with a complex scope of services and infrastructure investment.

Comparator Crowns and Utilities

Position	MVRD	TransLink	BC Hydro	BC Ferries	YVRAA
Chair (total)	\$109,337	\$100,000	\$34,500	\$100,000	\$195,000
Vice Chair (total)	\$54,668	n/a	n/a	\$33,000	n/a
Board director retainer	-	\$25,000	\$17,250	\$25,000	\$65,000
Board meeting stipend	\$547/mtg	\$1,200/mtg	\$865/mtg	\$1,200/mtg	-
Committee Chair retainer (total)	\$6,564	\$5,000 – \$8,000	\$3,450 – \$5,750	\$5,000 – \$8,000	\$15,000- \$19,500
Committee Member retainer	-	\$3,000	-	\$3,000	\$6,000
Committee meeting stipend	\$547/mtg	\$1,200/mtg	\$865/mtg	\$1,200/mtg	-

Table 6 – Summary of Remuneration Data from Other Organizations

It is evident that Metro Vancouver is paying a stipend in line with other comparative organizations. The Metro Vancouver Board Chair is capped at 18 meeting fee payments, while the BC Hydro Board Chair is capped at 60. Nuances such as this create a layer of complexity when comparing the overall remuneration for Board Chairs.

Committee chairs at Metro Vancouver are remunerated monthly with a \$547 meeting stipend to allow for preparation and staff meeting time – a total of \$6,564 per year. This is paid regardless of whether the meeting occurs, but as a total is in line with other comparative organizations.

The Board member remuneration across the Board varies based on the remuneration model for each entity. Metro Vancouver is the only organization to not pay an annual stipend. Unless Directors take on multiple committee roles, their remuneration for being on the Board is on average less than other comparators.

The meeting stipend is common in the industry for Board and Committee meetings. Metro Vancouver has a lower meeting stipend relative to other organizations, but doubles for meetings over four hours. This is not common to other organizations. As a direct comparison to another Regional District, the CRD has a very low per meeting fee but pays higher annual stipend amounts.

Comparator Regional Districts/Councils

Position	MVRD	Mean (BC ⁹)	Mean (Outside BC ¹⁰)	Median (BC)	Median (Outside BC)
Chair (total)	\$109,337	\$38,622	\$247,193	\$39,481	\$253,132
Vice Chair (total)	\$54,668	\$20,836	n/a	\$20,679	n/a
Board director retainer	\$0	\$11,165	\$70,179	\$14,335	\$63,085
Board meeting stipend	\$547 mtg	\$73	n/a	\$73	n/a
Committee Chair retainer (total)	\$6,564	\$2,402	n/a	\$2,351	n/a
Committee Member retainer	\$0	\$13,330		\$15,980	
Committee meeting stipend	\$547/mtg			\$1,084	

Table 7 – Summary of Mean and Median Remuneration for Regional Districts and Regional Councils

The Chair remuneration in Metro Vancouver is significantly higher than other regional districts in British Columbia. Metro Vancouver represents over 50% of the province's population, has more than \$1B operating budget, and is considerably more complex, so comparing directly to these other regions was not seen as insightful. However, when comparing to other regional councils of comparative populations in Ontario and the United States, it was clear their Council/Board Chairs are remunerated significantly more – consistent with more of a private sector scale. These regions of comparable size, scope and complexity do provide better benchmarks for the remuneration based on expectations of the job. For example, Board Chairs in Ontario were remunerated over \$200,000 and receive benefits – often twice the total compensation of the Metro Vancouver Chair.

Board directors, or Regional Council Members, in other jurisdictions receive annual stipends that compensate for their time and experience. There is an expectation that these directors will attend committee meetings and all Board meetings. Therefore, no additional compensation is paid for committee membership. In general, there are far fewer Board members in other regions - more akin to a professional Board structure, and as such they are all compensated at a higher level.

Most regions do not have the Vice-Chair role, therefore there are no easy comparators outside of BC. Within BC, other regional district Vice-Chairs are paid approximately half of the Metro Vancouver Vice-Chair retainer, but again the complexity of population is greatly reduced.

Some jurisdictions, such as Ontario's Broader Public Sector Executive Compensation Framework, *Public Sector Executive Compensation Act* and the *Public Sector Salary Disclosure Act* provide for restrictions on compensation, as well as public disclosure requirements.

⁹ BC: three Regional Districts were deemed most comparable to Metro Vancouver for the purposes of this review

¹⁰ Outside BC: three regional Districts from Ontario were deemed most comparable

6.2. Recommendations

38. The Board should consider **maintaining the current \$547/meeting stipend** as it appears reasonable and allows flexibility in managing meeting attendance and frequency, but revisit it on an annual basis to ensure it remains appropriate. We have identified opportunities throughout this report to create efficiencies and reduce the total individual remuneration expenses.
39. The Board should consider eliminating the **double meeting stipend** for meetings over 4 hours and seek to create efficiencies in the meeting agenda and schedule to manage within this timeframe.
40. The Board should consider replacing the monthly retainer for **Committee Chairs with a double meeting fee** for any committee meetings held. This would eliminate payment for Committee meetings that do not occur, but still provide Chairs with a preparation and attendance meeting stipend for meetings held.
41. The Board should consider removing the payment of a double meeting stipend for **travel days** and **conference attendance**.
42. The **Chair, Vice-Chair and Committee Chair total remuneration** appear reasonable relative to other comparatives (such as municipal mayoral/council salaries, BC public sector Crown and agency Board remuneration, and other similarly complex regional governance bodies and utilities across Canada). No change is recommended in this formula, however it should continue to be assessed on a periodic basis to ensure alignment with other similar public sector entities. The exception to this would be a shift to a new Board structure (e.g. Hybrid Structure), in which case the Board and Chair remuneration may need to be reconsidered to accommodate the recruiting of qualified non-elected officials.
43. The Board should consider a review of Board **travel policies** to ensure equitable access to learning or representation opportunities, in a manner that respects the financial costs of this travel.
44. The Board should consider a threshold for **non-payment of the meeting stipend** – perhaps for those attending Zoom meetings of less than 30 minutes hour in duration, or some other similar minimum threshold. This could incentivize the deferral or consolidation of these meetings.
45. Review and reduce the **number of external Board appointments** that are not explicitly required under agreement or otherwise seen as beneficial to Metro Vancouver. Directors may be willing to attend as an unpaid Board member, but the primary governance objective is to not overload Board directors with ancillary or unrelated activity, and to reduce the remuneration costs associated with these attendances.
46. Introduce **maximums for the number of meetings attended** per year to ensure directors are not overloaded from a governance perspective, and to prevent the perception of excessive remuneration. For example, 50 meeting stipends (i.e. weekly) per year are approximately \$27,000.
47. Given the consolidated disclosure in the BC government SOFI, the Board could consider proactively publishing a simple **more transparent disclosure** of Board remuneration and travel expenses to promote comparability and transparency.

During our review, we identified two other recommendations for the consideration of the Provincial Government that would address and perhaps reduce some of the concerns levied at Metro Vancouver regarding Board remuneration.

1. Providing detailed **Crown, agency and local government-related income data** in a simple, publicly accessible format may alleviate some remuneration pressure on the regional

mayors and Metro Vancouver directors, as it would create greater visibility and more transparency regarding the equity of compensation across the BC public sector.

2. Consider introducing a **cap or maximum remuneration threshold** for total income from all local-government-related appointments (such as Metro Vancouver, TransLink, E-Comm 9-1-1, etc.). For example, this amount might not exceed that of a BC Provincial Cabinet Member (currently \$183,085). Other than managing the risk of role accumulation, it would serve as a mechanism for ensuring roles are appropriately allocated and therefore governance risks relating to Board responsibility overload are minimized.

7. Conclusion

Metro Vancouver has outgrown its Board governance structure. The regional district model has served the organization well for several decades and in many instances has been recognized as a leader in sustainable regional planning and quality of infrastructure services. However, the past 40 years have seen a rapid acceleration of population growth and infrastructure investment in the region. The combined operating and capital budget has grown significantly to \$3.2 billion in the last five years alone and is only going to continue to grow with complexity, population, and demands on the infrastructure and services. Metro Vancouver and the regional municipalities that make up the organization should be commended on the extent of collaboration it has taken to drive their vision of attracting economic investment and creating a globally desirable livable region.

This creates an inherent conflict. The more successful and effectively the Board and management govern and operate the organization, the more desirable the region will become – further increasing immigration, demand for services and infrastructure, growth outside of Vancouver, and the many challenges that will come with that (climate impact, air quality issues, affordable housing, the preservation of parks and recreational areas, and other concerns). At the same time, the legacy infrastructure is aging and in need of upgrade and expansion. So, it is no surprise that the Board is beginning to struggle to govern the growing complexity of the organization.

The context in which the current Board is operating is also very relevant. Challenges with the North Shore Wastewater Treatment Plant project and the subsequent funding impacts have created an environment of extreme tension within the Board and with municipalities. This and other major infrastructure projects are only continuing to become larger, longer and carry significantly greater delivery, financial and reputational risk. The global economic climate has become volatile, further impacting the planning and management of costs relating to projects of this magnitude.

In this context, the challenges for Board directors to balance the interests of both their rapidly growing electorate as well as those of the broader Metro Vancouver region will only become more politically and legally challenging. The personal and reputational risk for Metro Vancouver directors is increasing with the challenge of governing this complex set of Boards and the broader organization as well as their own municipality – creating an untenable conflict between their fiduciary duties at times.

Metro Vancouver staff are working harder to manage these risks and elevate the right discussions to a Board that is constantly changing, trying to absorb a significant volume of complex data, and is becoming increasingly more politically divided. Unfortunately, the actions of staff in trying to solve for these risks and challenges create an impression of flooding and filtering information and driving decisions faster than the Board can consume it. As the risks and tensions escalate, this effort to focus the Board has created a perception of mistrust and wariness of staff on their behalf.

The Board meeting-based stipend model is comparable with those in other similar public sector Boards, however there are opportunities to not only improve governance and the workload on directors, but also to reduce the costs through reductions in the composition, frequency and number of meetings. The solution, however, cannot be to reduce compensation to reflect public dissatisfaction with the governance of the Board, but to improve the governance to justify the remuneration.

From a governance and risk management perspective, there is a need to streamline the Board size and structure, adding professional support and acumen. There is a need to create visibility to risks and options, to strengthen the quality of information and discussion at the Board and Committee level, and in general rebuild a culture of trust within the Board and with staff and the member jurisdictions.

Appendix – Summary of Recommendations

Throughout the report, numerous recommendations have been made. The recommendations presented can be classified into two categories:

1. **Immediate recommendations** or “quick wins” that offer high-impact, low-effort solutions well within the scope and mandate of the Board, perhaps requiring some Board consultation and refinements to Board policy or procedural bylaws;
2. Short- to medium-term **strategic recommendations** that bring enhanced governance but likely require legislative change (e.g. the Local Government Act), more detailed analysis, or additional consultation with member jurisdictions.

Structures:

1. The Board should consider the Hybrid Board Structure, as described above. This will require consultation and detailed design to better achieve the governance objectives outlined in this report. From a governance and efficiency perspective, this proposed model would likely involve the following key attributes:
 - a) Legislative change to support the appointment of non-elected directors for the GVWD and GVA&DD Boards (and MVHC, if desired). The 50% requirement for member jurisdiction appointed directors could remain in place .
 - b) Development of a skills matrix to ensure an appropriate mix of requisite knowledge, competency and experience is recruited into the Boards.
 - c) Implementation of a governance structure (e.g. Governance Committee) to recruit and recommend appointment of non-elected directors, as well as to resource the remainder of the Boards with directors from the member jurisdictions. These would be smaller Boards to enable more effective collaboration and efficient governance (approximately 10-14 individuals).
 - d) Update the Terms of Reference for the Boards to reflect the shift in director composition and Board structure.
 - e) Consider four-year terms for the non-elected directors staggered against the current four-year cycle of elected officials appointed to these Boards (i.e. two-years after municipal elections). These terms could be extended at the discretion of the Chair and Governance Committee to further facilitate the retention of institutional knowledge.
 - f) Implement appropriate committees to support the operations of these Boards. These could include technical or specialty committees and smaller general-purpose committees (e.g. Finance, Governance) which might have cross-representation from the broader MVRD and other Board Committees.
2. The Board should consider reducing the size of the Boards regardless of the Board structure selected. In the Hybrid Board option whereby the utility Boards are reduced in size, this could be achieved for the MVRD Board by either adopting the Capped Model or increasing the voting divisor from five to seven, for example. Both would require legislative change.
3. The Board should consider creating a Governance Committee of the Board. The purpose of this committee would be to oversee the governance, ethics and integrity of the Board’s policies and conduct. Specific responsibilities could include but not be limited to:
 - a) Board policy and procedure review and recommendation
 - b) Objectively determining the membership of committees
 - c) Maintaining a Board skills matrix to support committee appointments

- d) Receiving and addressing management and Board integrity issues/complaints
- e) Board remuneration policies and concerns
- f) Conflict of interest investigation and resolution
- g) Board performance evaluation and effectiveness
- h) Board and Committee succession planning

The Governance Committee would be a logical body to work with the Board to review and implement the findings of this independent governance assessment, as well as lead future Board performance evaluations or other governance related reviews. It could be supported by a Chief Governance Officer (perhaps an additional responsibility to Legal Counsel) to assist with the flow, adequacy and timeliness of information to support Board-related decisions..

- 4. The Board should continue to seek ways to reduce or optimize the time investment in Committee meetings. Ultimately the selected Board structure will influence the number and composition of Committees. In the interim, this could immediately be achieved by:
 - a) Continuing to reduce and amalgamate Committees. Amalgamation could include: Air Quality and Climate Regional Parks, and possibly Regional Planning,
 - b) Tightening the scope and terms of the current Committees,
 - c) Reducing the number of Committee members, and
 - d) Reducing the frequency and duration of the meetings.

Committees could still be scheduled for 10 meetings per year but nominate two meetings as optional for critical issues, for example or continue to cancel meetings if there are not time sensitive or substantive agendas. Committees that make less time-sensitive or high-risk decisions and are currently scheduled on regular (i.e. more than quarterly) basis include: Regional Planning, Regional Parks, and the Mayors Committee.

- 5. The Board should ensure that Staff reports going to the Committees and Board include feedback from the Staff Advisory Committees regarding the specific options, risks and direct impacts on the member jurisdictions. These Advisory Committees (RAAC, RFAC, REAC, and others) do already provide input into staff reports, but specific relevant risks or implications of Board decisions on member jurisdictions may not be fully considered in Board materials.
- 6. The Terms of Reference for all Board Committees should be revisited to ensure the scope and mandate of the Committee is appropriate for the new Board structures, the overall vision and direction of Metro Vancouver, and supports strong governance of the Board.

Roles & Competencies:

- 7. The Board should consider appointing an independent Chair for the Boards, particularly the utility Boards under a Hybrid Board structure. The role of the Chair is critical to the success of the governance of the Board. As Metro Vancouver continues to grow in size and complexity, the time commitment for the Board Chair will also increase potentially creating the need for a full-time Chair. Ideally this individual would have senior municipal and/or utility experience.
- 8. The Board should consider seeking legislative change to set the term of the Chair to a four-year period, beyond the current annual term. It is unlikely that a Chair will have sufficient time to develop their Board and begin to implement the strategy within a one-year timeframe. The magnitude and importance of the role to good governance would suggest a longer term. In addition, if the Chair is an independent non-elected official, the Board should consider offsetting their term with the traditional four-year municipal election cycle and associated high turnover of Board members.

- ④ 9. The Board should consider enhancing the education plan including Board orientation, professional Board development, education on the operations of Metro Vancouver and its projects (including site visits), and other subject matters relevant to Board decisions (e.g. regulations pertinent to a Committee, historical decisions and implications, etc.). This could include building stronger personal connections with management and staff through this program.
- ④ 10. The Chair should allow sufficient time and question Board directors in the meeting to ensure the directors understand the motion, has the opportunity to safely ask questions relating to it, and ultimately ensure everyone can make the right informed decision.
- ④ 11. The Board should consider regularly and clearly defining and communicating the roles and responsibilities of Board members and the CAO with regard to decision rights, delegations and other responsibilities to ensure clear accountability and effective decision-making.
- ④ 12. The Board and staff should continue to explore ways to bring municipal interests and perspectives into the discussion at the Board and Committee meetings in order to help directors achieve a balance in discharging their dual fiduciary duties and reducing the likelihood of polarizing viewpoints dominating the meetings. Directors should also endeavour to manage the risk of polarizing discussions and seek to leverage Metro Vancouver staff to bring the right balance of information to reports and discussions. Training provided to Directors should also specifically address the inherent duality in fiduciary duties they face and provide guidance on how to seek the right balance (versus simply requiring them to take a Metro Vancouver regional perspective only).
- ④ 13. The Board should consider developing a formal skills matrix to assist in the allocation of Committee roles and Board duties to directors, particularly if the resulting Board structures include non-elected officials. The maintenance and monitoring of this could be the responsibility of the Governance Committee.

Strategy & Risk Management:

- ④ 14. The Board should lead a refresh of the strategic plan, seeking alignment around a common set of goals and initiatives. The exercise should consider the purpose of the organization, and the values, roles and responsibilities of the Board in executing it. There also needs to be a focus on strategies to continue to build trust and confidence with key stakeholders and the public.
- ④ 15. The Board should consider introducing a program to assess the enterprise-wide strategic risks facing Metro Vancouver and its strategic priorities. This effort should inform the Board and management as to the key risks facing the organization, and the strategy to mitigate and increase resilience to these risks.
- ④ 16. The Board should consider strengthening the Internal Audit function, focused on assessing and reporting to management and the Board (Finance Committee) on the design and effectiveness of internal controls and other specific operational risks. Initial internal audits should focus on the areas of most concern to the Board (e.g. strategic risks, project management oversight, financial controls, etc.).

Policies & Process:

- ④ 17. The Board should consider a comprehensive review of bylaws, policies and procedures, to ensure they are current and appropriate, but also to identify ways to simplify them for ease of use, understanding and adoption. In some instances, they may require enhancement to provide further clarification and direction for those utilizing them.

- ☒ 18. The Board should consider enhancing Board training to ensure there is a stronger understanding of key policies and Board procedures.
- ☒ 19. The Board and Committee Chairs should strictly enforce speaking time limits, repeating speakers, keeping discussion to the confines of the motion at hand, restricting additive commentary while allowing opposing commentary, and otherwise ensuring directors respect each other, staff and the Board's time. In some situations, this may also be encouraging silent voices to speak. Where possible, Board members should ensure they are present for the duration of Board meetings. A mechanism for identifying those Board members not eligible to participate in specific discussions should also be implemented.
- 20. The Board should investigate electronic voting solutions in the Board room to preserve the integrity of voting and avoid unnecessary prolonged roll call voting.
- ☒ 21. The Board should seek to be apprised of cumulative expenditures, such as those with change orders aggregating to total balances over the Board approval threshold.
- ☒ 22. The Board should define and document decision-making processes with the intent of improving decision-making efficiency and managing conflict.
- 23. The Board should investigate creating an effective dispute resolution mechanism between Board and member jurisdiction councils and management.
- ☒ 24. The Board should consider making Board meeting attendance in person mandatory. While Committee meetings may take advantage of video-based meeting technologies (e.g. Zoom, Teams, etc.), where possible Board meetings should be in-person to facilitate more transparent dialogue and stronger networking and relationship building opportunities.
- ☒ 25. The Board should work with staff to find ways to close the information and knowledge gap between the Committees and the Board. Also, where possible, decisions should not be elevated to the Board until the appropriate directors (i.e. those with concerns or vested interests but not present on the Committee) can be consulted or their concerns be incorporated into the decision-making process. Similarly, directors should encourage their member jurisdiction management to participate and elevate key recommendations, facts or opinions into the staff advisory committees.

Information:

- ☒ 26. The Board should continue reviewing the Board materials with the objective of seeking ways to streamline or organize the information in a way that enhances the ability of the directors to better read, understand and govern. This may include revisiting which informational reports are elevated to the Board and how they are presented.
- ☒ 27. The Board should consider supporting more complex or controversial decisions with brief staff presentations oriented toward educating the Board regarding the decision at hand, options considered, and the implications and risks.
- 28. The Board should work with member jurisdictions to ensure robust analysis, especially in the identification of risk and financial implications for key stakeholders, is present in Board reporting. Although there is a substantial amount of reporting to the Board, it can lack these key elements critical for Board decision making.
- ☒ 29. The Board should consider staff presentations or Board reports include multiple options for the Board to consider, where practical. Committees and staff do consider different treatment options for significant expenditures, but are encouraged to provide the preferred option and the supporting rationale for the Board's decision. However, the broader Board may need to

understand alternative options, the risks relating to each and the rationale for dismissing them.

- 30. Board members should seek to leverage Metro Vancouver staff as the key source of information. Pragmatic and legally acceptable protocols should be utilized regarding information communication in order to better facilitate the sharing of information with Committee members and other key stakeholders. These mechanisms should be highlighted in Board orientation and ongoing education.
- 31. The Board should ensure, for large complex and capital-intensive projects, management continue to provide regular updates to the Board as the project progresses. Directors are seeking transparency regarding actual expenditure on capital projects relative to the original budgeted amounts. Similarly, they are seeking clarity on the accuracy of forecasted project expenditures and the implications and possible extent of forecast adjustments on their member jurisdictions.
- 32. The Board should work with Metro Vancouver staff and municipal staff to find more efficient methods of integrating municipal planning with Metro Vancouver strategies and projects. Investments in housing, transportation, growth, etc. are both regional and local, therefore should be included in more cohesive planning integration between Metro Vancouver and its member jurisdictions.

Culture & Behaviours:

- 33. The Board should consider revisiting its code of conduct to ensure it does directly address respectful and productive behaviours in the Board and Committee meetings. The communication of this code of conduct should include a specific workshop or similar training to allow open discussion around expected and desired behaviours.
- 34. The Board should explore new avenues for communication between the Board and staff. This includes both within and outside of the Boardroom. Forums for enhanced informal dialogue between Board directors and management could provide additional clarity and foster a stronger environment of trust. Similarly, Board directors should seek to take advantage of and encourage the hosting of these conversations in their member jurisdictions.
- 35. The Chair should continue to reinforce the need for all directors to take a regional perspective at the outset of meetings. Opportunities to reinforce the ability to effectively balance the regional and local perspectives should be explored.
- 36. We recommend the Board consider implementing some form of Board performance assessment to solicit and identify opportunities to enhance group and individual behaviour. If possible, the Chair should meet with Board members as necessary to reinforce key messages.
- 37. The role of Board Chair is a critical one. They are the conductor of the Board. The Board should consider investing in specific Board management training and education for future Board Chairs.

Remuneration:

- 38. The Board should consider maintaining the current \$547/meeting stipend as it appears reasonable and allows flexibility in managing meeting attendance and frequency, but revisit it on an annual basis to ensure it remains appropriate. We have identified opportunities throughout this report to create efficiencies and reduce the total individual remuneration expenses.

- 39. The Board should consider eliminating the double meeting stipend for meetings over 4 hours and seek to create efficiencies in the meeting agenda and schedule to manage within this timeframe.
- 40. The Board should consider replacing the monthly retainer for Committee Chairs with a double meeting fee for any committee meetings held. This would eliminate payment for Committee meetings that do not occur, but still provide Chairs with a preparation and attendance meeting stipend for meetings held.
- 41. The Board should consider removing the payment of a double meeting stipend for travel days and conference attendance.
- 42. The Chair, Vice-Chair and Committee Chair total remuneration appear reasonable relative to other comparatives (such as municipal mayoral/council salaries, BC public sector Crown and agency Board remuneration, and other similarly complex regional governance bodies and utilities across Canada). No change is recommended in this formula, however it should continue to be assessed on a periodic basis to ensure alignment with other similar public sector entities. The exception to this would be a shift to a new Board structure (e.g. Hybrid Structure), in which case the Board and Chair remuneration may need to be reconsidered to accommodate the recruiting of qualified non-elected officials.
- 43. The Board should consider a review of Board travel policies to ensure equitable access to learning or representation opportunities, in a manner that respects the financial costs of this travel.
- 44. The Board should consider a threshold for non-payment of the meeting stipend – perhaps for those attending Zoom meetings of less than 30 minutes hour in duration, or some other similar minimum threshold. This could incentivize the deferral or consolidation of these meetings.
- 45. Review and reduce the number of external Board appointments that are not explicitly required under agreement or otherwise seen as beneficial to Metro Vancouver. Directors may be willing to attend as an unpaid Board member, but the primary governance objective is to not overload Board directors with ancillary or unrelated activity, and to reduce the remuneration costs associated with these attendances.
- 46. Introduce maximums for the number of meetings attended per year to ensure directors are not overloaded from a governance perspective, and to prevent the perception of excessive remuneration. For example, 50 meeting stipends (i.e. weekly) per year are approximately \$27,000.
- 47. Given the consolidated disclosure in the BC government SOFI, the Board could consider proactively publishing a simple more transparent disclosure of Board remuneration and travel expenses to promote comparability and transparency.

Provincial Consideration:

- 48. Providing detailed Crown, agency and local government-related income data in a simple, publicly accessible format may alleviate some remuneration pressure on the regional mayors and Metro Vancouver directors, as it would create greater visibility and more transparency regarding the equity of compensation across the BC public sector.
- 49. Consider introducing a cap or maximum remuneration threshold for total income from all local-government-related appointments (such as Metro Vancouver, TransLink, E-Comm 9-1-1, etc.). For example, this amount might not exceed that of a BC Provincial Cabinet Member (currently \$183,085). Other than managing the risk of role accumulation, it would serve as a mechanism for ensuring roles are appropriately allocated and therefore governance risks relating to Board responsibility overload are minimized



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We believe that our analyses must be considered as a whole and that selecting portions of the analyses or the factors considered by it, without considering all factors and analyses together, could create a misleading view of the issues related to the report. Amendment of any of the assumptions identified throughout this report could have a material impact on our analysis contained herein. Should any of the major assumptions not be accurate or should any of the information provided to us not be factual or correct, our analyses, as expressed in this report, could be significantly different.

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To: Regional Parks Committee

From: Jamie Vala, Division Manager, Parks Planning and Resource Management,
Regional Parks

Date: April 7, 2025 Meeting Date: May 7, 2025

Subject: **2025 Update on Regional District Sustainability Innovation Fund Projects –
Regional Parks**

RECOMMENDATION

That the MVRD Board receive for information the report dated April 7, 2025, titled “2025 Update on Regional District Sustainability Innovation Fund Projects – Regional Parks”.

EXECUTIVE SUMMARY

This report provides an update on five Regional Parks projects that were approved for funding between 2019 and 2023 under the Regional District Sustainability Innovation Fund and are currently in-progress or have been completed or discontinued since the last update to the designated Standing Committee.

Projects funded by the Sustainability Innovation Fund support regional sustainability, protect the environment, advance resilience, and continuously improve service delivery by allowing Metro Vancouver to explore and implement innovative approaches and respond to emerging issues and evolving best practices. The five projects are:

- Managing Capacity and Reducing Emissions: Real-time Parking Availability in Regional Parks (nearing completion)
- Natural Asset Management in Regional Parks (nearing completion)
- Promoting Peatland Recovery in Areas Affected by Wildfire in the Burns Bog Ecological Conservancy Area (complete)
- Showcasing Innovation in Alternative Powered Park Operations and Maintenance Equipment to Reduce Emissions (complete)
- Future Carbon Storage and Greenhouse Gas Emissions at Burns Bog under Different Management and Climate Scenarios (nearing completion).

These projects advance natural asset management and ecosystem protection and innovations in emission reductions and climate policy.

PURPOSE

To provide an update on the Regional Parks projects funded under the Regional District Sustainability Innovation Fund (SIF) that are currently in progress or have been completed or discontinued since the last annual update to the designated Standing Committee.

BACKGROUND

The Sustainability Innovation Fund program (Reference 1) supports regional sustainability and drives continuous improvement in the delivery of Metro Vancouver services by reducing emissions, protecting the environment, and advancing resilience. The Regional District, Water, and Liquid Waste Sustainability Innovation Funds have been in place since October 29, 2004, when the GVRD, GVWD, and GVS&DD Boards, respectively, approved their creation. In 2014, policies to guide and manage the Sustainability Innovation Funds were adopted by the respective Boards, with amendments in 2016 and 2021. The Policies require that the designated Standing Committee be kept updated on the deliverables, outcomes, and measurable benefits of the projects that have received funding. Projects funded wholly or in part by the Sustainability Innovation Fund program have been undertaken by Metro Vancouver in coordination with project partners since 2015. Annually, Metro Vancouver staff submit applications for project funding, which are approved by the respective Standing Committees and Boards. The amount dispersed from the Sustainability Innovation Funds in any year is at the discretion of the respective Boards and depends on the merit of proposals submitted. Additionally, many projects amplify the financial contributions from the Sustainability Innovation Fund by leveraging external funding through partnerships, such as with the region's academic institutions.

At its February 21, 2025 meeting, the MVRD Board re-affirmed support for the Sustainability Innovation Fund program. The MVRD Board is responsible for overseeing the Regional District Sustainability Innovation Fund and reviewing and approving funding for projects from the Regional District functions. The Regional Parks Committee is responsible for reviewing Regional District Sustainability Innovation Fund applications that fall within the Terms of Reference of the Committee and making recommendations to the MVRD Board, and also receives updates on in progress or recently completed projects.

STATUS OF REGIONAL DISTRICT SUSTAINABILITY INNOVATION PROJECTS – 2025 UPDATE

From 2015 to 2024, the Regional District Sustainability Innovation Fund has provided funding to a total of 54 projects. Of these projects, 28 have been completed, 22 are in progress and four have been discontinued. Of the 22 projects that are in progress, 10 are nearing completion, and are expected to be substantially complete by the end of 2025.

Of the 54 total projects funded by the Regional District Sustainability Innovation Fund, 10 are Regional Parks projects. This report provides an update on the five Regional Parks projects that are in-progress or that have not yet been reported as complete or discontinued, and other Regional District project updates are being provided to the relevant Standing Committee (Air Quality and Climate Committee, Housing Committee, and Regional Planning Committee). Table 1 provides budgetary information and project status, and further details of each project can be found in Attachment 1.

2025 Update on Regional District Sustainability Innovation Fund Projects – Regional Parks

Regional Parks Committee Regular Meeting Date: May 7, 2025

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Table 1. Summary of Regional District Sustainability Innovation Fund Projects - Regional Parks - 2025 Update

Project	Total Funding Approved	Estimated Spent (as of March 31, 2025)	Status
2021 Approval Year			
Managing Capacity and Reducing Emissions: Real-time Parking Availability in Regional Parks	\$300,000	\$159,900	Nearing Completion
Natural Asset Management in Regional Parks	\$160,000	\$142,100	Nearing Completion
Promoting Peatland Recovery in Areas Affected by Wildfire in the Burns Bog Ecological Conservancy Area	\$199,000	\$199,000	Complete
2022 Approval Year			
Showcasing Innovation in Alternative Powered Park Operations and Maintenance Equipment to Reduce Emissions	\$35,000	\$33,900	Complete
2023 Approval Year			
Future Carbon Storage and Greenhouse Gas Emissions at Burns Bog under Different Management and Climate Scenarios	\$184,779	\$110,900	Nearing Completion
TOTAL	\$878,779	\$645,800	

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

The projects summarized in this report received funding from the Regional District Sustainability Innovation Fund as approved by the MVRD Board between 2019 and 2023 (No applications were submitted in 2024). Disbursals of funds were made in accordance with the related Policy that governs the use and management of the Fund. Table 1 above outlines the funding approved and the estimated amount spent to March 31, 2025 for each project.

As of December 31, 2024, the estimated reserve balance of the Regional District Sustainability Innovation Fund was \$10.7 million. Of this, approximately \$6.1 million in Board-approved funding is committed to be spent on currently in-progress projects across the Regional District functional areas with \$232,000 of that committed to current Regional Parks projects. Any unspent funds from completed or discontinued projects are maintained in the Regional District Sustainability Innovation Fund reserve.

CONCLUSION

This report provides an update on the five Regional Parks projects funded under the Regional District Sustainability Innovation Fund between 2019 and 2023 (No applications were submitted in 2024) that are currently in-progress or have been completed or discontinued since the last update to the designated Standing Committee. The results and findings from these projects will be used to drive continuous improvement in the delivery of Metro Vancouver's services.

ATTACHMENTS

1. "2025 Status Update on Current Regional Parks Sustainability Innovation Fund Projects", dated April 7, 2025.
2. Presentation re: "2025 Update on Regional District Sustainability Innovation Fund Projects – Regional Parks", dated May 7, 2025.

REFERENCE

1. Metro Vancouver. (2025). *Sustainability Innovation Fund*. Retrieved from <https://metrovancover.org/about-us/sustainability-innovation-fund>. Last accessed 2025, April 10.

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April 7, 2025

2025 Status Update on Current Regional Parks Sustainability Innovation Fund Projects

2021 APPROVAL YEAR

Managing Capacity and Reducing Emissions: Real-time Parking Availability in Regional Parks

Status: Nearing Completion

Years: 2021 – 2025

Overview

The Real-time Parking Availability Pilot Project focused on designing and implementing an advanced electronic parking availability information system for the public at selected regional parks experiencing parking capacity issues. The primary goal of the project was to bring about a change in practice by park visitors who travel to busy regional parks by personal vehicle, by providing them with real-time information on parking availability before they leave their home. The system now allows the public to make better decisions about how to access the park, when to access the park, or to consider alternate destinations if parking lots are full.

Outcomes to Date

Phase I of the Feasibility Study is complete. The study focused on research and technology exploration and innovation opportunities to inform creation of a new parking stall capacity monitoring program. Investigations and the subsequent report outlined opportunities to adapt existing technology or install new kinds of data loggers, cameras or sensors, and develop a customized algorithm with supporting software for use in real-time monitoring of vehicle parking availability at selected park sites.

Phase II (technology acquisition and deployment) is also complete. This phase included strategically placing sensor/camera installations and development of a supporting software platform for rapid parking availability analysis. It included design, installation, and deployment at two pilot regional parks (Iona Beach and Boundary Bay).

Final validation of the new system assessed the technology solution's performance against defined deliverable acceptance criteria. This evaluation included a detailed analysis of key learnings, challenges, successes, and opportunities to guide recommendations for future expansion. Key Performance Indicators were used to measure the solution's effectiveness, public use, and its alignment with project objectives, focusing on operational accuracy, system availability, and business value, as they relate to parking capacity management.

Next Steps

Overall, the pilot has successfully reached the final milestone. The technology demonstrated robust accuracy and minimal downtime, while the insights gained have enhanced the understanding of parking usage trends at the two parks. These outcomes provide a strong foundation for considering future deployment and expansion.

Now that the trial is complete, system design, infrastructure installation, and operation may be replicated to address parking capacity issues at other locations within the system. Consideration is being given to the expansion of the program to təmtə́míxʷtən/Belcarra and Tynehead regional parks.

Natural Asset Management in Regional Parks

Status: Nearing Completion

Years: 2021 – 2025

Overview

The purpose of this project is to make significant advances in the integration of natural assets to Metro Vancouver's asset management system. Natural assets are integral to the provision of Regional Parks' services. Asset management provides a framework within which to develop a technical and financial roadmap for natural assets to ensure long-term ecological health and sustainable service provision for residents and communities.

Outcomes to Date

- An inventory of natural assets has been created and a desktop condition assessment completed, which found 90% of regional parks' natural assets (by area) to be in good or very good condition. Over time, this information will be refined with field-based inspections and used to inform and prioritize management and restoration actions.
- An ecosystem services valuation was completed to develop a shared understanding of the services provided by natural assets within regional parks. Eight ecosystem services were measured and found to provide services to people valued at \$1.036 billion annually.
- A pilot project to create a natural asset management plan for one regional park, Campbell Valley Regional Park, is close to completion. The pilot involved developing and testing a natural asset management approach suitable for Regional Parks including:
 - Defining levels of service
 - Assessing field conditions
 - Exploring management scenarios to understand trade-offs between timing, resourcing and service levels

Learnings from the pilot will be used to inform plans to expand the natural asset management approach to other regional parks.

- An additional goal for the project was to maximize knowledge transfer to others interested in learning about natural asset management. A Natural Asset Technical Advisory Group was established, providing opportunities for staff from ten member jurisdictions and six Metro Vancouver work functions to share knowledge and learn from technical experts.

Next Steps

Next steps will focus on finalizing project documentation and incorporating information gathered into an integrated built and natural asset management plan for Regional Parks.

Promoting Peatland Recovery in Areas Affected by Wildfire in the Burns Bog Ecological Conservancy Area

Status: Complete

Years: 2021 – 2023

Overview

The purpose of this project was to reduce lodgepole pine regeneration in an area of the Burns Bog Ecological Conservancy Area and promote recovery of plant communities to restore and maintain peatland function. Through shading, rain interception, enhanced evapotranspiration, and root systems piercing the peat mass, tree cover draws down the water table causing peat compaction, decomposition, and the decline of open bog plant species. Furthermore, forest stands in bog ecosystems increase wildfire risk not only in interface areas but also across the entire forested portion of the conservancy area. The encroachment and establishment of forest communities within Burns Bog is of significant concern.

Outcomes

- Sustainability Innovation Fund funded the removal of 15 ha of seedlings from the burn zone between 2021 and 2023.
- Three study sites were established to measure soil greenhouse gas exchange; one in the 2016 wildfire zone undergoing seedling removal, one in a 2005 wildfire site that has not had seedling removal, and one at an unburned control site.
- A preliminary report on greenhouse gas (GHG) study results has been received. Additional instrumentation to evaluate GHG exchange from areas affected by wildfire was installed during 2023. Results from this study were received in 2024 and published in a UBC MSc thesis.

Next Steps

A vegetation monitoring program established after the 2016 fire will continue. It is anticipated that the combination of pine seedling removal, bog vegetation recovery, and rising water table elevation will contribute to meeting land management and ecological objectives.

The SIF funding for this project was depleted in 2023, however, work continues using alternative funding. Work related to the outcomes of this project will continue for many years as the sites involved are monitored and additional evaluation reports and journal articles may be generated.

2022 APPROVAL YEAR

Showcasing Innovation in Alternative Powered Park Operations and Maintenance Equipment to Reduce Emissions – Go Electric Parks Event

Status: Complete

Years: 2022 – 2023

Overview

This project planned and facilitated a series of events to showcase electric equipment technologies in municipal and regional park operations, while advancing actions in *Climate 2050*. The purpose of this initiative was to support the integration and uptake of electric park operations and maintenance equipment, as well as zero emission vehicles across the region.

Outcomes

- An educational seminar, titled “*Innovation in Electric Parks Operation and Maintenance Equipment*”, was held on October 25, 2022. This event hosted 150 regional and municipal staff as they heard from three speakers focused on the following topics:
 - Metro Vancouver’s 30-year regional climate action strategy, *Climate 2050*
 - Mode shifting from single occupancy vehicles
 - The Silent Gardener: all-electric and sustainable landscaping services
- To complement this seminar, Metro Vancouver hosted a trade show style event on May 31, 2023 called “*Go Electric Parks!*” at Surrey City Hall. This event provided an opportunity for over 50 commercial manufacturers, suppliers and vendors to showcase innovative electric products. The event was attended by over 200 regional and municipal staff and featured:
 - Vehicle and equipment displays set up on the outdoor plaza
 - Indoor displays set up in the City Hall atrium
 - Presentations and panel discussions
- The event provided an opportunity for regional and municipal staff responsible for the purchase, operation, and maintenance of fleet equipment to learn about existing and upcoming innovations to support the successful transition to electric alternatives.

2023 APPROVAL YEAR

Future Carbon Storage and Greenhouse Gas Emissions at Burns Bog under Different Management and Climate Scenarios

Status: Nearing Completion

Years: 2023 – 2025

Overview

Peatlands account for roughly 6% of global terrestrial ecosystems but are estimated to store approximately 20% of terrestrial soil carbon. Disturbances such as drainage result in carbon dioxide emissions that contribute to climate change. Previous research has shown that peatland restoration can restore ecosystem health, reduce carbon dioxide release, and increase carbon storage. However, the effects of climate change on restored peatlands remains uncertain and merits further investigation. Maintaining ecological conditions supportive of healthy bog ecosystems that are capable of continuing to mitigate the effects of climate change may become challenging as the predicted warming climate dries out these important wetlands.

This project intends to collect data on GHG exchange at various sites within the Burns Bog Ecological Conservancy Area (BBECA), combine the data with previously collected meteorological data, and develop machine learning models to predict carbon sequestration/release levels under a variety of climate prediction outcomes.

An additional \$227,000 in partner funding has been leveraged from external agencies for this project.

Outcomes to Date

- In 2024 work focused on three key areas:
 1. Local measurements in a wildfire recovery zone
 2. Continued operation of long-term monitoring stations in two areas recovering from peat harvest activities that occurred in the 1950s
 3. Model development using empirical data collected at Burns Bog over a 10-year period
- GHG measurements were made using portable gas analyzers at the wildfire recovery zone. These have measured the effect of management practices on ecosystem-scale evapotranspiration, net ecosystem exchange of carbon dioxide, and carbon and methane flux at the specific point sources over an annual cycle. Preliminary results from the data indicate tree seedling removal results in a slight increase in methane release, but this is more than offset by the reduction in soil carbon loss through decomposition.
- Two long-term GHG flux measurement stations were upgraded with new equipment to ensure continuous functioning over the coming years. Data from these two sites have been shared with three research groups based in Ontario, Germany, and Estonia for deeper analysis of climate change effects on peatland restoration.
- Preliminary model development is exploring prediction of ecosystem responses to future climate scenarios.

Next Steps

- Final model development for predicting greenhouse gas exchange from areas undergoing restoration.
- These estimates will show how the conservancy area influences the region's carbon and provide information important to making management decisions relating to ecological restoration and climate change adaptation.



Burns Bog Ecological Conservancy Area

2025 Update on Regional District Sustainability Innovation Fund Projects – Regional Parks

Jamie Vala
Division Manager, Parks Planning and Resource Management, Regional Parks

Regional Parks Committee, May 7, 2025
Orbit Link: Add when archiving presentation to Orbit


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THE SUSTAINABILITY INNOVATION FUNDS (SIF)

History


- 2004 - Reserve set up to fund projects “based on the principles of sustainability”
- 2014 - Related board policies adopted
- 2015 - Approval of project funding began



Circular Economy /
Resource Recovery



Emissions
Reduction



Environmental
Protection

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SIF OBJECTIVE

Support innovations in regional sustainability & drive continuous improvement in the delivery of Metro Vancouver services

- **Innovation:** new approaches in service delivery
- **Sustainability:** protecting the environment, reducing emissions
advancing resilience
- **Continuous Improvement:** evolving best practices in service delivery

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ANNUAL SIF PROCESS



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2015-2024 SIF PROJECTS AND FUNDING

SIF	Approved Projects	Completed Projects	Approved Project Funding - End of 2024*	Remaining Fund Balance - End of 2024*
Liquid Waste	16	8	\$23.1 M	\$8.1 M
Regional District	54	28	\$13.7 M	\$10.7 M
Water Services	32	12	\$11.0 M	\$15.7 M

*Values are rounded estimates

REAL-TIME PARKING AVAILABILITY IN REGIONAL PARKS

Nearing Completion

Purpose: To bring about a change in practice by park visitors who travel to busy regional parks, by personal vehicle, by providing them information on parking availability before they leave their home.

Outcomes:

- Phase I Feasibility Study - complete
- Phase II technology acquisition & deployment - complete
- Validation & testing – complete (system is now in operation)



NATURAL ASSET MANAGEMENT IN REGIONAL PARKS

Nearing Completion

Purpose: To advance the integration of natural assets into Metro Vancouver's asset management system

Outcomes:

- Natural asset inventory & condition assessment
- Ecosystem services valuation completed
- Natural asset management plan developed for pilot location
- Natural Assets Technical Advisory Group created



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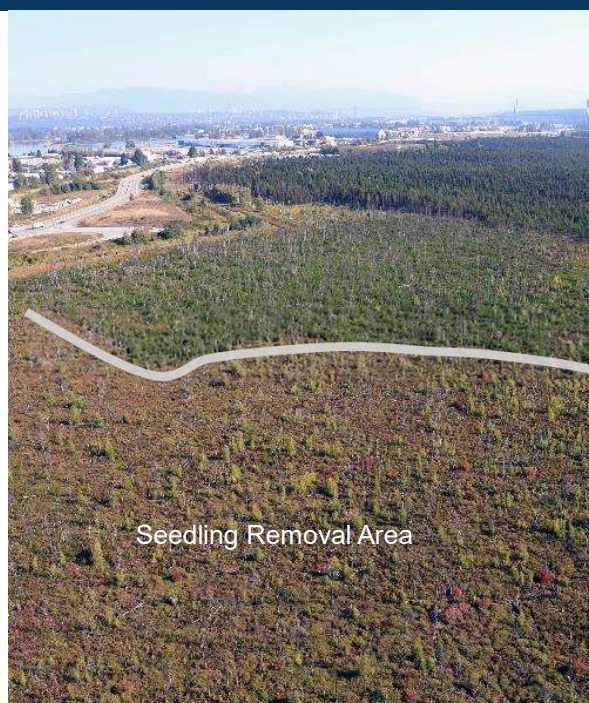
PROMOTING PEATLAND RECOVERY IN AREAS AFFECTED BY WILDFIRE (BURNS BOG)

Complete

Purpose: Reduce lodgepole pine regeneration and restore peatland function in an area affected by wildfire.

Outcomes:

- Removal of 15 ha of seedlings between 2021 and 2023.
- Report on the findings of a soil GHG exchange study.
- Vegetation monitoring program established



Seedling Removal Site at Burns Bog Ecological Conservancy Area

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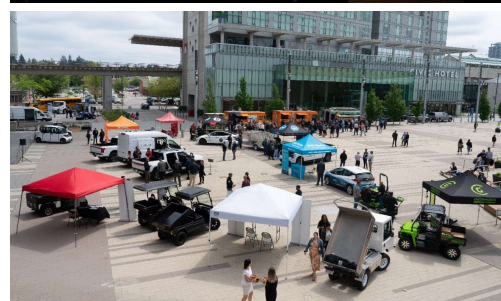
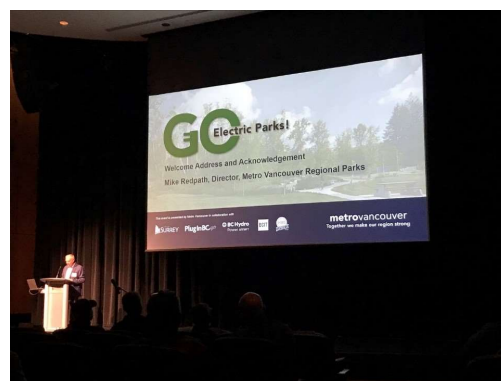
GO ELECTRIC PARKS!

Complete

Purpose: To showcase innovation in alternative powered park operations and maintenance equipment to reduce emissions.

Outcomes:

- Collaboration with industry, academia and local government at Surrey Civic Plaza
- Display of zero-emission vehicles, small hand-held electric equipment, and presentations from industry leaders
- Partnership & sponsorship: BCIT, PlugInBC, MBS Equipment Co., BC Hydro - Power Smart, and City of Surrey
- 225 attendees / 33 vendors (parks operations, fleet services, and procurement staff)



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FUTURE CARBON STORAGE AND GREENHOUSE GAS (GHG) EMISSIONS (BURNS BOG)

Underway

Purpose: Understand implications of future climate scenarios relating to GHG exchange in peatlands undergoing natural recovery/ecological restoration.

Outcomes:

- Collection of greenhouse gas exchange data at two sites in the Burns Bog Ecological Conservancy Area.
- GHG models that can be tested against predicted climate scenarios under development.



GHG Measurement Station Burns Bog Ecological Conservancy Area

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To: Housing Committee

From: Jade Hume, Division Manager, Housing Construction, Metro Vancouver Housing

Date: April 10, 2025 Meeting Date: May 7, 2025

Subject: **2025 Update on Regional District Sustainability Innovation Fund Projects – Housing**

RECOMMENDATION

That the MVRD Board receive for information the report titled “2025 Update on Regional District Sustainability Innovation Fund Projects – Housing”, dated April 10, 2025.

EXECUTIVE SUMMARY

This report provides an update on seven Metro Vancouver Housing projects that were approved for funding between 2020 and 2024 under the Regional District Sustainability Innovation Fund and are currently in-progress since the last update to the designated Standing Committee.

Many of the Metro Vancouver Housing Sustainability Innovation Fund projects include a design phase and capital for delivery of a pilot system with a number of projects now moving to the construction stage. The projects are as follows:

- Building Resilience: Exploring the Potential of Renewable Energy Building Infrastructure
- Step Code Implementation Impacts for Building Envelope Rehabilitation of Existing Buildings
- 1-in-50 Year Deep Energy Retrofit Project for Existing Multi-Unit Residential Buildings
- Decarbonized On-Demand Domestic Hot Water Systems
- Living Building Challenge for Existing Affordable Housing Projects
- Prefabricated Mass-Timber Panels in Existing Multi-Unit Residential Buildings
- Rental Housing Blueprint Streamlining Multi-Family Affordable Rental Housing Delivery Through Standardization and Modern Construction Methods

SIF projects in housing are positioned to result in approaches that both further regional sustainability objectives, and result in continuous improvements for Metro Vancouver Housing by demonstrating new approaches with cost and time savings for housing delivery.

PURPOSE

To provide an update on the Metro Vancouver Housing projects funded under the Regional District Sustainability Innovation Fund that are currently in progress since the last annual update to the designated Standing Committee.

BACKGROUND

The Sustainability Innovation Fund program (Reference 1) supports regional sustainability and drives continuous improvement in the delivery of Metro Vancouver services by reducing emissions, protecting the environment, and advancing resilience. The Regional District, Water, and Liquid Waste Sustainability Innovation Funds have been in place since October 29, 2004, when the GVRD,

2025 Update on Regional District Sustainability Innovation Fund Projects – Housing

Housing Committee Regular Meeting Date: May 7, 2025

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GVWD, and GVS&DD Boards, respectively, approved their creation. In 2014, policies to guide and manage the Sustainability Innovation Funds were adopted by the respective Boards, with amendments in 2016 and 2021. The Policies require that the designated Standing Committee be kept updated on the deliverables, outcomes, and measurable benefits of the projects that have received funding. Projects funded wholly or in part by the Sustainability Innovation Fund program have been undertaken by Metro Vancouver in coordination with project partners since 2015.

Annually, Metro Vancouver staff submit applications for project funding, which are approved by the respective Standing Committees and Boards. The amount dispersed from the Sustainability Innovation Funds in any year is at the discretion of the respective Boards and depends on the merit of proposals submitted. Additionally, many projects amplify the financial contributions from the Sustainability Innovation Fund by leveraging external funding through partnerships, such as with the region's academic institutions.

At its February 21, 2025 meeting, the MVRD Board re-affirmed support for the Sustainability Innovation Fund program. The MVRD Board is responsible for overseeing the Regional District Sustainability Innovation Fund and reviewing and approving funding for projects from the Regional District functions. The Housing Committee is responsible for reviewing Regional District Sustainability Innovation Fund applications that fall within the Terms of Reference of the Committee and making recommendations to the MVRD Board, and also receives updates on in progress or recently completed projects.

STATUS OF REGIONAL DISTRICT SUSTAINABILITY INNOVATION PROJECTS – 2025 UPDATE

From 2015 to 2024, the Regional District Sustainability Innovation Fund has provided funding to a total of 54 projects. Of these projects, 28 have been completed, 22 are in progress and four have been discontinued. Of the 22 projects that are in progress, 10 are nearing completion, and are expected to be substantially complete by the end of 2025.

Of the 54 total projects funded by the Regional District Sustainability Innovation Fund, 10 are Metro Vancouver Housing projects. This report provides an update on the seven Housing projects that are in-progress and other Regional District project updates are being provided to the relevant Standing Committee (Air Quality and Climate Committee, Regional Parks Committee, and Regional Planning Committee). Table 1 provides budgetary information and project status, each Housing SIF project status outlined below and further details of each project can be found in Attachment 1.

2025 Update on Regional District Sustainability Innovation Fund Projects – Housing

Housing Committee Regular Meeting Date: May 7, 2025

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Table 1. Summary of Regional District Sustainability Innovation Fund Projects – Metro Vancouver Housing - 2025 Update

Project	Total Funding Approved	Estimated Spent (as of March 31, 2025)	Status
2020 Approval Year			
Building Resilience: Exploring the Potential of Renewable Energy Building Infrastructure	\$200,000	\$37,600	In Progress
Step Code Implementation Impacts for Building Envelope Rehabilitation of Existing Buildings	\$90,000	\$0	In Progress
2023 Approval Year			
1-In-50 Year Deep Energy Retrofit Project for Existing MURBs	\$970,000	\$101,200	In Progress
Decarbonized On-Demand Domestic Hot Water System	\$370,000	\$300,000	In Progress
Living Building Challenge (LBC) for Existing Affordable Housing Projects	\$200,000	\$0	In Progress
Prefabricated Mass-Timber Panels in Existing Multi-Unit Residential Buildings	\$692,000	\$238,700	In Progress
2024 Approval Year			
Rental Housing Blueprint Streamlining Multi-Family Affordable Rental Housing Delivery Through Standardization and Modern Construction Methods	\$2,130,000	\$96,200	In Progress
TOTAL	\$4,652,000	\$774,000	

Many of the Metro Vancouver Housing SIF projects include a design phase and capital for delivery of a pilot system with a number of projects now moving to the construction stage. Each project's status is described below and project descriptions are included in Attachment 1.

Building Resilience: Exploring the Potential of Renewable Energy Building Infrastructure

The funds spent to date have been used for consultant research and report preparation. The Pilot Project Plan will progress over 2025 and use the remaining approved SIF budget. Implementation may involve one or multiple sites and seek funding through a future SIF application.

Step Code Implementation Impacts for Building Envelope Rehabilitation of Existing Buildings

Metro Vancouver Housing's Capital Maintenance team have been working with the Pembina Institute on a related project, Reframed. Pembina has been working with consultants and has produced a report that contains information that will complement this SIF project. A change to the BC Building Code has recently been released through the 2024 Edition. Our team was waiting for this update to the Code to align it with the project goals and outcomes. Metro Vancouver Housing staff will proceed with a study of Step Code implementation impact for building envelope rehabilitations of existing buildings.

1-in-50 Year Deep Energy Retrofit Project for Existing Multi-Unit Residential Buildings

Funds for this project to date have been used for the design. Construction is scheduled to begin in Q3 of 2025. The remaining funds are primarily dedicated to the execution of the design in construction.

Decarbonized On-Demand Domestic Hot Water Systems

The pilot system has been installed, but is not yet operational (building construction still in progress). The system is planned to be commissioned Q4 of 2025 and will start gathering tenant use information over the following year (2026). The remaining funds are dedicated to data gathering, reporting and presentation of results.

Living Building Challenge (LBC) for Existing Affordable Housing Projects

The project is currently in early the planning phase. A consultant will be retained to conduct the feasibility study in Q2 2025.

Prefabricated Mass-Timber Panels in Existing Multi-Unit Residential Buildings

The funds for this project to date have been used for the design. Construction is scheduled to begin in Q3 of 2025. The remaining funds are primarily dedicated to fabrication and installation of the panelized system.

Rental Housing Blueprint Streamlining Multi-Family Affordable Rental Housing Delivery Through Standardization and Modern Construction Methods

In 2025 MVH will be continuing to develop the pilot projects using the DASH system and working with municipalities to further adoption of DASH into approval processes and municipal regulations.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

The projects summarized in this report received funding from the Regional District Sustainability Innovation Fund as approved by the MVRD Board between 2020 and 2024. The disbursement of funds were made in accordance with the related Policy that governs the use and management of the Fund.

As of December 31, 2024, the estimated reserve balance of the Regional District Sustainability Innovation Fund was \$10.7 million. Of this, approximately \$6.1 million in Board-approved funding is committed to be spent on currently in-progress projects across the Regional District functional areas with \$3.9 million of that committed to current Housing projects. Any unspent funds from completed or discontinued projects are maintained in the Regional District Sustainability Innovation Fund reserve.

CONCLUSION

This report provides an update on seven Metro Vancouver Housing projects funded under the Regional District Sustainability Innovation Fund between 2020 and 2024 that are currently in-progress since the last update to the designated Standing Committee. The results and findings from

2025 Update on Regional District Sustainability Innovation Fund Projects – Housing

Housing Committee Regular Meeting Date: May 7, 2025

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these projects will be used to drive continuous improvement in the delivery of Metro Vancouver's services.

ATTACHMENTS

1. "2025 Status Update on Current Housing Sustainability Innovation Fund Projects", dated April 10, 2025.
2. Presentation re: "2025 Update on Regional District Sustainability Innovation Fund Projects – Housing", dated May 7, 2025.

REFERENCE

1. Metro Vancouver. (2025). *Sustainability Innovation Fund*. Retrieved from <https://metrovanancouver.org/about-us/sustainability-innovation-fund>. Last accessed 2025, April 10.

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April 10, 2025

2025 Status Update on Current Housing Sustainability Innovation Fund Projects

2020 APPROVAL YEAR

Building Resilience: Exploring the Potential of Renewable Energy Building Infrastructure

Status: In Progress

Years: 2020 – Current

Overview

This study's objective is to investigate low-emission domestic hot water systems for affordable multi-family housing retrofit projects. Currently, hot water systems account for approximately 30% of building greenhouse gas emissions. The goal of this study is to investigate impacts of low-emission hot water systems and help Metro Vancouver Housing meet its greenhouse gas emissions reductions targets. The results will be shared regionally to inform other multi-family housing providers of best practices and technologies.

Outcomes to Date

Phase one – High Level Analysis: Phase one is nearing completion and includes investigation of sustainable systems to heat domestic hot water. A high level analysis by consultants focuses on capital, maintenance, operations and life cycle of technologies available in the Metro Vancouver region.

Next Steps

Phase two – Pilot Project Plan: Phase two will be conducted over the course of 2025. The pilot project plan will be created using selected technologies from phase one and implemented at selected Metro Vancouver Housing sites. The plan will include four options of which one or more will be selected to move to an implementation phase. It will include a business case and monitoring program. Findings will be shared with members, partners, and housing providers across the region to facilitate change in building energy infrastructure and reduce carbon emissions from housing. Implementation may involve one or multiple sites (comparing and monitoring multiple buildings on that site) and seek funding through a future SIF application. This information will be presented to Metro Vancouver Housing stakeholders through a report and presentation in Q4 2025.

Step Code Implementation Impacts for Building Envelope Rehabilitation of Existing Buildings

Status: In Progress

Years: 2020 – Current

Overview

The purpose of this project is to better understand the levels of the BC Energy Step Code as well as the cost and performance implications for major renewals of Metro Vancouver Housing's housing stock. The BC Building Code is written for implementation in new building construction, but does not strictly apply to building renewals. However, there is an opportunity for performance upgrades at existing Housing sites that align with Metro Vancouver's plans, and policies for emissions reduction as well as the BC Energy Step Code as major building components reach the end of their

service lives. An in-depth understanding of the economic and performance implications of the Step Code is of great interest to Metro Vancouver Housing. Therefore, this study will:

- Create a guide for making informed decisions when designing and constructing upcoming major building renewals;
- Provide insight on performance metrics (e.g., energy consumption, greenhouse gas emissions); and
- Provide insight on marginal and long-term maintenance costs.

Outcomes to Date

- Metro Vancouver Housing's Capital Maintenance team have been working with the Pembina Institute on a related project, Reframed (i.e., deep retrofits). Pembina has been working with consultants and has produced a report that contains information that will complement this Sustainability Innovation Fund project: *Step Code Implementation Impacts for Building Envelope Rehabilitation of Existing Buildings*.
- Metro Vancouver Housing received a proposal from a consultant to build on the Pembina report, and to conduct additional research to develop the specific requirements and cost implications to achieve the various Step Code levels in existing buildings. Learnings with respect to Step Code implementation in existing buildings are still underway with the Pembina Reframed Program.
- Project workshops have been completed, and the findings from these workshops will be included in the consultant report. A change to the BC Building Code has recently been released through the 2024 Edition. Our team was waiting for this update to the Code in order to align it with the project goals and outcomes. Metro Vancouver Housing staff will proceed with engaging a consultant to provide a study of Step Code implementation impact for building envelope rehabilitations of existing buildings.

2023 Approval Year

1-in-50 Year Deep Energy Retrofit Project for Existing Multi-Unit Residential Buildings

Status: In Progress

Years: 2023 – Current

Overview

This project, located at the Crown Manor housing site, is the result of Metro Vancouver Housing's involvement with the Pembina Reframed Initiative from late 2020 to 2023. This multi-party initiative aims to perform deep-energy retrofit projects on existing multi-unit residential buildings (MURB's) that are chosen based on building form and energy use. The project consultant determined that the existing seismic resistance at Crown Manor is in the range of 20% of the current Building Code. Although not required, MVH is taking this 1-in-50-year opportunity to make the building safer and more resilient by improving the seismic resistance of the building to 100% (collapse prevention) of the current Building Code.

Upgrading the buildings seismic resistance with this innovative approach also creates an opportunity to add two new units at the ground level of the building, and improve energy efficiency. Not only will these two units increase the overall density of the building by 9%, they will

strengthen the entire building structure and overall seismic resiliency, and create a more efficient building envelope.

An additional \$520,000 in partner funding has been leveraged from external agencies for this project.

Outcomes to Date

The project is well into detailed design and construction is scheduled to begin in Q3 of 2025.

Next Steps

Preparation of building permits and approvals to begin construction in 2025.

Decarbonized On-Demand Domestic Hot Water Systems

Status: In Progress

Years: 2023 – Current

Overview

This project explores the potential for novel on-demand domestic hot water systems to reduce building GHG emissions, and builds on a previous Sustainability Innovation Fund study – the Welcher NetZero Feasibility Study. The project will support the implementation and monitoring phase of a domestic hot water system strategy from Metro Vancouver Housing’s upcoming Welcher development. This strategy, discovered during the Welcher study, has the potential to reduce total operational building energy use by approximately 14% and operational greenhouse gas emissions by approximately 45%. Once installed and operational, this system will be monitored and the energy use and efficiency results will be compared with the building’s predicted energy model as well as other comparable properties using traditional domestic hot water systems. If successful, there is a potential to scale this technology to further housing developments in the region and beyond. Following the implementation and monitoring, the study results will be published and presented to the region’s local development industry.

Outcomes to Date

The project is in the construction phase (2 years). The system and monitoring devices have been installed into every unit.

Next Steps

Construction expected to be complete Q4 of 2025. The system has been installed, but is not yet operational (building construction still in progress). The system is planned to be commissioned Q4 of 2025 and will start gathering tenant use information over the following year (2026). Once a year of data is gathered a consultant will analyze the information and provide presentations to various interest groups in the industry.

Living Building Challenge (LBC) for Existing Affordable Housing Projects

Status: In Progress

Years: 2023 – Current

Overview

The intent for this project is to understand the feasibility of implementing strategies to achieve Living Building Challenge (LBC) certification on the Metro Vancouver Housing's Somerset Building Rehabilitation project. LBC is unlike other sustainability standards in the industry and aims to move the design and construction of buildings beyond the sustainable and towards regenerative. This implies buildings are not just net zero, but function as "net positive" which includes generating more than the required resources (energy, water, etc.) within the site which can be provided back to the community. The strategies presented in the frameworks form a symbiotic relationship between the building and the people, community and nature. Pushing the conventional boundaries of sustainability, the intent is to not just build a high-performance building, but also to create inclusivity by engaging and educating the end users of the building. Through this approach, buildings behave like a living organism, creating a learning experience for the users where everyone is involved in the sustainability and regeneration process. This study will form a guideline for providing insights into sustainability and community engagement while making more informed decisions and aim to form a benchmark for other projects in Metro Vancouver region.

Outcomes to Date

The project is currently in the early planning phase.

Next Steps

A consultant will be retained to conduct the feasibility study in Q2 2025.

Prefabricated Mass-Timber Panels in Existing Multi-Unit Residential Buildings

Status: In Progress

Years: 2023 – Current

Overview

This project at Le Chateau Place housing site is the result of Metro Vancouver Housing's involvement with the Pembina Reframed Initiative from late 2020 to 2023. This multi-party initiative aims to perform deep-energy retrofit projects on existing multi-unit residential buildings (MURBs) that are chosen based on both the buildings form and their excessive energy use. The project will utilize prefabricated wall and balcony assemblies which aim to reduce the construction schedule, impact on tenants and improve quality of the work. The project focuses on reducing both energy use and GHG emissions, lowering embodied carbon levels, improving occupant health and wellbeing, and improving seismic resiliency.

An additional \$240,000 in partner funding has been leveraged from external agencies for this project.

Outcomes to Date

Construction documents and design assist drawings for the panelized system in complete. Permitting is in progress. A construction manager is being retained currently through an RFP process.

Next Steps

The construction manager will join the project team help finalize the issued for construction specifications, drawings and penalization system. Construction and fabrication of panelized system is targeted to begin in Q3 of 2025.

2024 APPROVAL YEAR

Rental Housing Blueprint Streamlining Multi-Family Affordable Rental Housing Delivery Through Standardization and Modern Construction Methods

Status: In Progress

Years: 2024 – Current

Overview

This project, now titled “Digitally Accelerated Standardized Housing” (DASH), aims to simplify and standardize building designs so that multi-unit residential buildings (MURBs) can be built faster using off-site construction methods. The project will create and test an easily configurable approach to building design that includes standard building elements that can be easily manufactured off site as well as new openly available “reference designs” for different MURB types that can be adapted to different sites. Metro Vancouver is advancing the work in coordination with municipalities, on an opt-in basis, to increase consistency in approaches to zoning and design to better enable off-site construction and simplify approvals and working with BC Housing, to build a library of building elements that will be available to designers online. The project includes leading experts in off-site construction, digital design, architecture, and artificial intelligence.

An additional \$4 million in partner funding has been leveraged from external agencies for this project.

Outcomes to Date

The project has secured significant external funding and first phase deliverables have been completed. Outcomes to date include: preparing, in coordination with municipalities, a comprehensive set of recommendations for standardizing approaches to regulating six storey buildings; developing a “kit-of-parts” system for building six storey multifamily housing with prefabricated components; launching software tools to enable rapid prototyping of new development and exploring the application of the system on two MVH development sites (Moray Place and Riverside Drive).

Next Steps

In 2025 MVH will be continuing to develop the pilot projects using the DASH system and work with municipalities to further adoption of DASH into approvals processes and municipal regulations.



2025 Update on Regional District Sustainability Innovation Fund Projects – Housing

Jade Hume, P.Eng., PMP

Division Manager, Housing Construction

Housing Committee, May 7, 2025

Orbit Link: Add when archiving presentation to Orbit

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THE SUSTAINABILITY INNOVATION FUNDS (SIF)

History

- 2004 - Reserve set up to fund projects “based on the principles of sustainability”
- 2014 - Related board policies adopted
- 2015 - Approval of project funding began



Circular Economy /
Resource Recovery



Emissions
Reduction



Environmental
Protection

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SIF OBJECTIVE

Support innovations in regional sustainability & drive continuous improvement in the delivery of Metro Vancouver services

- **Innovation:** new approaches in service delivery
- **Sustainability:** protecting the environment, reducing emissions
advancing resilience
- **Continuous Improvement:** evolving best practices in service delivery

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ANNUAL SIF PROCESS



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2015-2024 SIF PROJECTS AND FUNDING

SIF	Approved Projects	Completed Projects	Approved Project Funding - End of 2024*	Remaining Fund Balance - End of 2024*
Liquid Waste	16	8	\$23.1 M	\$8.1 M
Regional District	54	28	\$13.7 M	\$10.7 M
Water Services	32	12	\$11.0 M	\$15.7 M

*Values are rounded estimates

2024 HOUSING SIF PROJECTS IN PROGRESS

SIF Project	Year Approved	Planned Completion	Total Funding Approved	Estimated Spent (as of March 31, 2025)
Building Resilience: Exploring the Potential of Renewable Energy Building Infrastructure	2020	2025	\$ 200,000.00	\$ 37,600.00
Step Code Implementation Impacts for Building Envelope Rehabilitation of Existing Buildings	2020	2026	\$ 90,000.00	\$ -
1-In-50 Year Deep Energy Retrofit Project for Existing MURBs	2023	2026	\$ 970,000.00	\$ 101,200.00
Decarbonized On-Demand Domestic Hot Water System	2023	2026	\$ 370,000.00	\$ 300,000.00
Living Building Challenge (LBC) for Existing Affordable Housing Projects	2023	2026	\$ 200,000.00	\$ -
Prefabricated Mass-Timber Panels in Existing Multi-Unit Residential Buildings	2023	2026	\$ 692,000.00	\$ 238,700.00
Rental Housing Blueprint Streamlining Multi-Family Affordable Rental Housing Delivery Through Standardization and Modern Construction Methods	2024	2028	\$2,130,000.00	\$ 96,200.00

*Values are rounded estimates

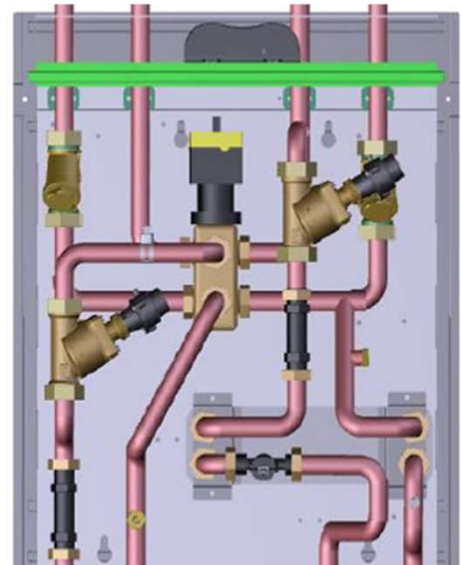
DECARBONIZED ON-DEMAND DOMESTIC HOT WATER SYSTEMS

In Progress

Purpose: Explores the potential for novel electric on-demand domestic hot water (DHW) systems to reduce building GHG emissions.

Outcomes:

- Implementation and monitoring of novel on-demand DHW system at MVH's Salal Landing affordable housing development.
- Potential to reduce total operational building energy use by ~14% and operational greenhouse gas emissions by ~45% (at Salal Landing)
- Actual energy use and efficiency results will be compared with the building's predicted energy model and other properties using traditional systems



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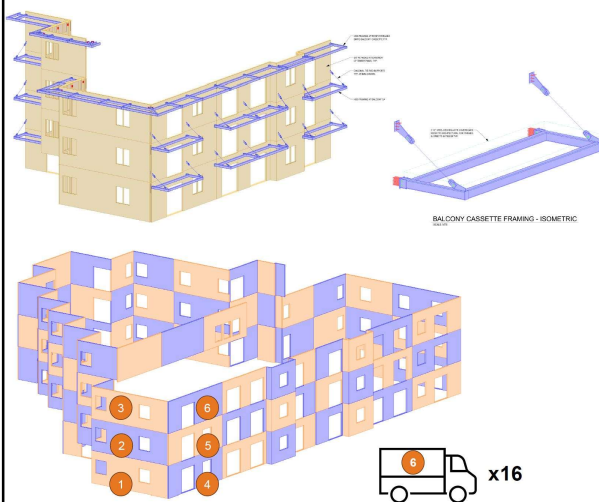
PREFABRICATED MASS-TIMBER PANELS IN EXISTING MURBS

In Progress

Purpose: The project will utilize prefabricated wall and balcony assemblies which aim to reduce the construction schedule, impact on tenants and improve quality of the work.

Outcomes:

- Pilot innovative prefabricated panelized wall balcony system.
- Reduce tenant disruption and construction schedule.
- Increase construction quality and building energy performance



Le Chateau - Pre-Fabricated Mass Timber Panels

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To: Air Quality and Climate Committee

From: Marcin Pachcinski, Division Manager, Electoral Area and Implementation Services,
Regional Planning and Housing Services

Date: April 17, 2025 Meeting Date: May 9, 2025

Subject: **Scan of Flood-related Capital Projects in the Metro Vancouver Region –
Preliminary Results**

RECOMMENDATION

That the MVRD Board receive for information the report dated April 17, 2025, titled “Scan of Flood-related Capital Projects in the Metro Vancouver Region – Preliminary Results”.

EXECUTIVE SUMMARY

Metro Vancouver actively participates in ongoing flood resiliency planning processes in the Lower Fraser region. To support this ongoing work and to help advance the *BC Flood Strategy*, staff presented a scope of work to the Flood Resiliency Committee in July 2024 for a scan of flood-related capital projects in the Metro Vancouver region. The scan, in the form of a visual map and information table, is substantially complete and is presented as part of this report as *preliminary results* for Committee and Board review and feedback.

The scan provides a lay of the land in terms of existing and planned flood risk reduction capital projects, relying primarily on provincial and federal funding data. A total of 89 projects have been scanned, dating from ~2010 to the present, ranging from coastal and river flood protection, to stormwater flood protection, to dike-related projects and nature-based solutions. Staff will next look to fill in any gaps in information, including adding in new or missed projects. The Committee and Board will be provided with updated versions of the map and table later this year.

PURPOSE

To present the preliminary results of the scan of flood-related capital projects in the Metro Vancouver region.

BACKGROUND

In July 2024, the Flood Resiliency Committee and MVRD Board received a scope of work for a scan of flood-related capital projects in the Metro Vancouver region (Reference 1). This project is on the 2025 Committee work plan, and preliminary results are now presented for review and feedback.

SCAN OF FLOOD-RELATED CAPITAL PROJECTS – PRELIMINARY RESULTS

The scan of flood-related capital projects in the Metro Vancouver region provides information on existing and planned flood risk reduction capital projects in the Metro Vancouver region. The information is presented in two ways: on a map, intended to easily display the types of projects and their location (Attachment 1), and in a table, containing additional details for each project (Attachment 2). The information was collected primarily using available data from provincial and

Scan of Flood-related Capital Projects in the Metro Vancouver Region – Preliminary Results

Air Quality and Climate Committee Regular Meeting Date: May 9, 2025

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federal grant funding sources, as well as some municipal websites and input from municipal and First Nation staff.

The focus of the scan is recently constructed projects (from 2010 onwards, with a few earlier examples) and projects that have received funding and are still in the planning and early design/construction phases. The projects have been categorized by the following three main flood types, and projects may fit into more than one category:

- Coastal (sea);
- Pluvial (rain/stormwater); and
- Riverine (rivers and creeks).

This information is intended to provide an overview of what projects exist, where they are located, and their associated costs and timelines. This information is intended to help assess, among other things, the project types (e.g., whether they are traditional hard-armouring or nature-based), distribution (e.g., how these projects are spread across the region or concentrated in certain areas), and scale (e.g., how they contribute to flood risk reduction beyond the local site). This information will also show the extent to which there is already cross-jurisdictional coordination and how individual projects relate to one another.

Of the 89 projects scanned from ~2010 to the present:

- 29 projects are related to rain/stormwater (pluvial) flood protection, including numerous pump station projects in Richmond and six projects to separate stormwater from sewer pipes in Burnaby, New Westminster, and Vancouver;
- 27 projects are related to coastal flood protection, most of which are in the Boundary Bay area;
- 23 projects are related to both coastal and river flood protection, mostly involving dikes along the Fraser River;
- 10 projects are related to river flood protection, five of which are for North Shore creeks;
- 36 projects are dike related;
- Six projects involve more than one municipal or First Nation jurisdiction:
 - three involve Delta, Semiahmoo First Nation, and Surrey;
 - Coquitlam and the kʷikʷəłəm (Kwikwetlem) First Nation);
 - Metro Vancouver (Barnston Island, Electoral Area A) and q̓ícə' y̓ (Katzie) First Nation; and
 - North Vancouver City and North Vancouver District;
- Nine projects use nature-based solutions, including green infrastructure:
 - Hastings Sunrise Sewer Renewal & Green Infrastructure Project (Vancouver);
 - Lawson Creek to McDonald Enhancement (West Vancouver)
 - Lawson Park Riparian Enhancement (West Vancouver)
 - Mud Bay Nature-based Foreshore Enhancements (Delta, Semiahmoo First Nation, and Surrey);
 - Nicomekl Riverfront Park (Surrey);
 - Rain City Strategy Using Nature-Based Solutions (Vancouver);

Scan of Flood-related Capital Projects in the Metro Vancouver Region – Preliminary Results

Air Quality and Climate Committee Regular Meeting Date: May 9, 2025

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- Reserve Shoreline Adaptation and Habitat Enhancement Project (səlilwətał (Tsleil-Waututh Nation));
- West End Combined Sewer Separation & Green Infrastructure Program (New Westminster)
- Yorkson Lowlands Stormwater Management and Ecological Restoration (Langley Township);

While the majority of flood related capital projects are conceived and implemented by individual local jurisdictions, several recent projects involve more than one municipal or First Nation jurisdiction, which may foretell more cooperation among member jurisdictions, First Nations, and others in the future. In addition, several recent projects using nature-based solutions may indicate that this approach to flood protection may become more common in the future.

NEXT STEPS

While the scan is substantially complete, there are some gaps in information, and there may be additional projects that can be added to the map and table. Therefore, staff will continue to reach out to municipal and First Nation staff to confirm the data and update where appropriate.

The map and table will be shared with participants in flood resiliency planning processes that are ongoing in the Lower Fraser, including provincial staff who are implementing the *BC Flood Strategy*. This resource can also be used by member jurisdictions to see what types of projects are being done by adjacent members, how the projects might influence their flood risk, and indicate opportunities for potential collaboration.

In addition, the scan will provide baseline information for the development of a prioritization criteria matrix for flood-related projects that is also on the Committee's 2025 work plan. The Committee and Board will be provided with updated versions of the map and table later this year.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

Metro Vancouver contracted Ebbwater Consulting Inc. to undertake this project and a related one (the development of a prioritization criteria matrix for flood-related projects, expected to be finished in late 2025). The budget for completing both projects, including technical work and consultation, totals approximately \$70,000. Work completed in 2024 done primarily on the scan was accommodated within the Board-approved Regional Planning budget and totaled approximately \$23,000.

CONCLUSION

The scan of flood-related capital projects is one way in which Metro Vancouver is contributing to the ongoing work around flood resiliency in the Lower Fraser. This scan can be used as baseline information to help the MVRD Board, member jurisdictions, and others understand the types and location of such projects across the region and help inform future decisions and advocacy related to flood protection funding.

Scan of Flood-related Capital Projects in the Metro Vancouver Region – Preliminary Results

Air Quality and Climate Committee Regular Meeting Date: May 9, 2025

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ATTACHMENTS

1. Map of flood-related capital projects in the Metro Vancouver region.
2. Table of flood-related capital projects in the Metro Vancouver region.
3. Presentation re: “Scan of Flood-related Capital Projects in the Metro Vancouver Region”, dated May 9, 2025.

REFERENCE

1. Metro Vancouver (June 18, 2024) *Regional Flood Resiliency Initiatives Scan and Prioritization Matrix – Scope of Work*. Retrieved from:
<https://metrovancover.org/boards/FloodResiliency/FRE-2024-07-12-AGE.pdf#page=7>. Last Accessed 2025, April 9.

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Map of Flood-Related Capital Projects in the Metro Vancouver Region

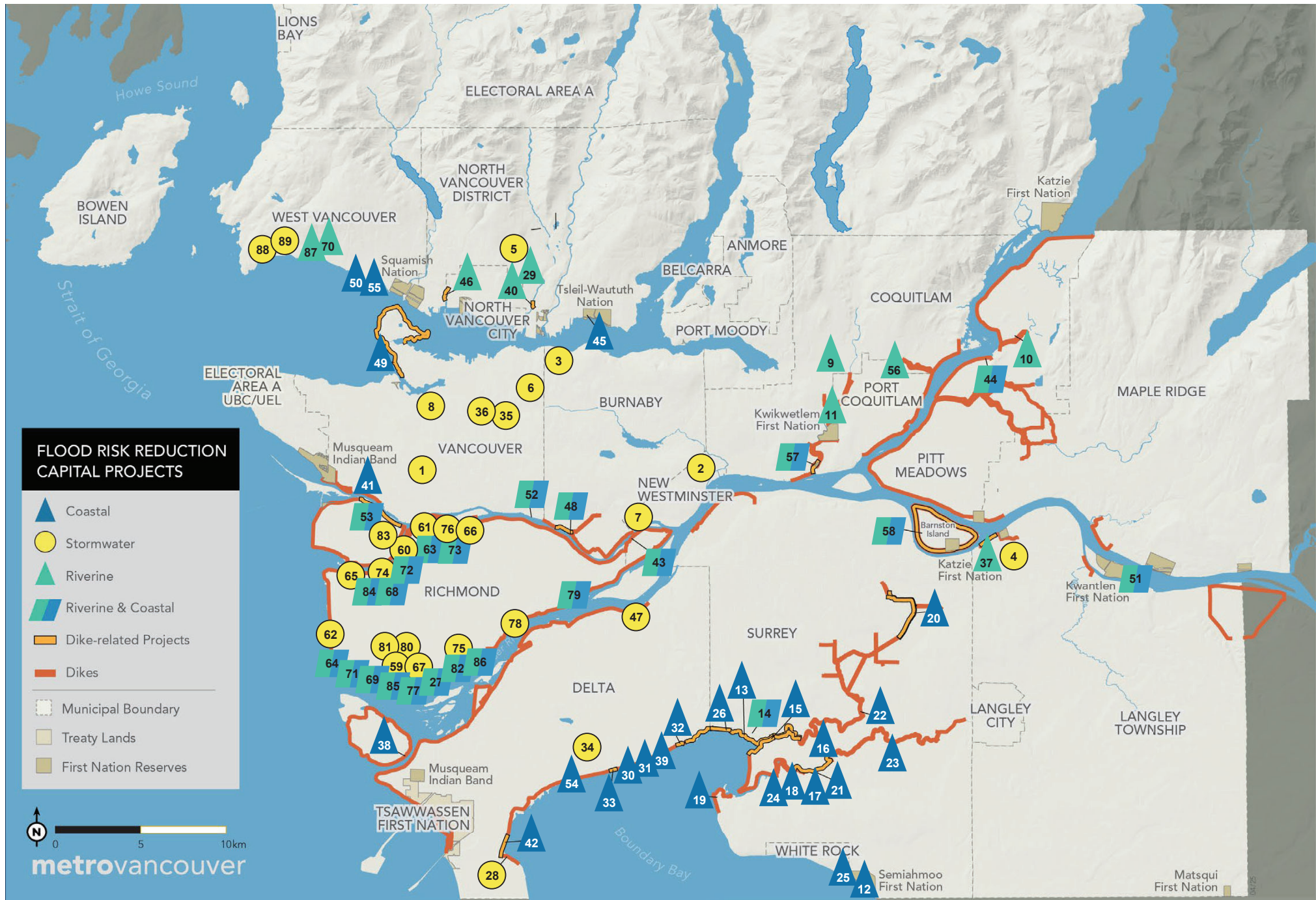


Table of Flood-Related Capital Projects in the Metro Vancouver Region (sorted by jurisdiction)

Jurisdiction	Project No.	Program Name	Project Name	Project Description	Flood Type	Federal Contribution	Provincial Contribution	Estimated Total Cost	Estimated Start Year	(Estimated) Completion Year	Project Status
Burnaby	3	Clean Water and Wastewater Fund	Combined Sewer Separation Program 2017	The project works will include: - Separation of 1,355m of combined sewer mains into separate sanitary and storm sewer systems; - Replacement of 1,185m of aged watermains within the same road sections; and, - Restoration of affected road pavements, curb and gutter, sidewalk structures.	Pluvial	\$2,943,080		\$5,886,160	2017	2024	Completed
Burnaby	48	Municipality Funded	Burnaby Fraser River Dike Upgrade near Byrne Creek	The \$6-million dike upgrade will raise the dike to 3.9 metres above geodetic elevation. The dike section between Glenlyon and Byrne creeks, known as Reach 8, will be the last major upgrade to the Fraser River Dike.	Riverine & Coastal			\$6,000,000	2019		Completed
Coquitlam	9	Disaster Mitigation and Adaptation Fund	New drainage and environmental channel project	The project seeks to reduce the risk of future flooding events on Cedar Drive in Coquitlam BC. The project involves the relocation and raising of Cedar Drive, and constructing a drainage channel parallel to Partington Creek. Additionally, the project will significantly reduce the number of residents without essential services and number of people directly affected, who will not have access to the road during high precipitation events.	Riverine	\$4,454,000		\$11,135,000	2022	2029	In Progress
Coquitlam; kʷikʷəłəm (Kwikwetlem First Nation)	57	Green Infrastructure Stream of the Investing in Canada Infrastructure Program	Joint flood mitigation program	With rising water levels and increased rainfall due to climate change, the flooding risk is increasing for slakəyánc IR1, the regional transportation network, Mayfair Industrial Park in Coquitlam, and within ʕéxətəm Regional Park. Through this project, the Kwikwetlem First Nation and Coquitlam will upgrade the area's existing flood protection network and construct enhanced dikes. The project will also strengthen fish habitat and install new flood boxes to support water connectivity through the dike and local drainage system and to prevent back flow.	Riverine & Coastal	\$11,487,350	\$4,827,684	\$19,978,000	2027	2029	Planning
Delta	28	Provincial-Territorial Infrastructure Component - Small Communities Fund	12th Avenue Storm Water Management Improvements	<p>The 12th Avenue Drainage Pump Station required a complete replacement as it was at the end of its useful life. The pump station replacement is part of the City's 12th Avenue Stormwater Management improvement plan. Key considerations for this upgrade were:</p> <p>Station to meet post-disaster criteria. Presence of liquefiable soils require ground densification (stone columns) under the station footprint to satisfy the seismic criteria. Design accounts for climate change through incorporating a future capacity increase by simply changing the pumps with all other systems being sized accordingly. Three submersible Flygt axial-flow pumps providing an initial 3.6 m³/s combined, with an option to upgrade to 5.4 m³/s. Pumps operate on VFDs. Dyke was raised from an elevation of 3.1 m to 4.1 m. Pump station is located within a Metro Vancouver park and required significant environmental permitting. Stationary generator on site, sized to operate two pumping units. Architectural design of the structures.</p>	Pluvial	\$2,700,000		\$8,100,000	2018	2020	Completed
Delta	30	Building Canada Fund - Communities Component	Boundary Bay Dike Foreshore Protection (2 Sites)	The Delta project includes 450 metres of dike along Boundary Bay between 96th and 104th streets as well as 50 metres of dike north of Beach Grove. Work will improve the grade of the slope and provide a larger riprap protection layer. It's a continuation of dike erosion protection upgrades underway since 2003.	Coastal	\$252,555	\$413,445	\$1,000,000	2014	2016	Completed
Delta	31	Building Canada Fund - Communities Component	Boundary Bay Dike Foreshore Protection: Between 96 St and 104 St	The project will upgrade approximately 300 metres of the Boundary Bay Dike, between 96 Street and 104 Street, by improving the slope and adding riprap on the seaward side of the dike. The project is the fifth phase of an erosion protection project that started in 2003.	Coastal	\$87,284		\$600,000	2010	2011	Completed

Delta	32	Building Canada Fund - Communities Component	Boundary Bay Di ke Foreshore Protection: Oliver Pump Station Area	The project will upgrade approximately 300 metres of the Boundary Bay Di ke in the Oliver Pump Station area by raising the di ke, improving the slope, and adding riprap on the seaward side of the di ke. The project is the seventh phase of an erosion protection project that started in 2003.	Coastal	\$107,292	\$600,000	2010	2011	Completed
Delta	33	Building Canada Fund - Communities Component	Boundary Bay Di ke Foreshore Protection: Beharrel Pump Station Area	The project will upgrade approximately 250 metres of the Boundary Bay Di ke in the Beharrel Pump Station area by improving the slope and adding riprap on the seaward side of the di ke. The project is the sixth phase of an erosion protection project that started in 2003. The Boundary Bay Di ke provides a coastal barrier that protects low lying agricultural land and ultimately, the communities of Ladner, lower Tsawwassen and Surrey.	Coastal	\$69,625	\$515,000	2010	2011	Completed
Delta	34	Disaster Mitigation and Adaptation Fund	84th Street Drainage Pump Station	The 84 Street Drainage Pump Station will address flooding concerns, including water ponding on roadways, railway tracks, and agricultural lands. The station will manage stormwater, transporting it through a force main pipeline to the discharge point at the Boundary Bay di ke. It will also protect critical transportation networks, including local roads, Highway 99, and the railway corridor to Deltaport, from disruptions caused by flooding-related closures. Additionally, the pump station will include a flap gate and an energy dissipation structure to prevent backflow and minimize environmental impacts on local ecosystems.	Pluvial	Portion of \$7,600,000	\$14,000,000	2025		In Progress
Delta	38	Building Canada Fund - Communities Component Top Up	Westham Island Di ke (Trim Road) Upgrade	This project will widen the structure and upgrade 130 metres of the dyke.	Coastal	\$49,173	\$266,519	2010	2011	Completed
Delta	39	Building Canada Fund - Communities Component Top Up	Boundary Bay Dyke Foreshore Upgrade	No detailed project descriptions found.	Coastal	\$183,345	\$700,000	2010	2011	Completed
Delta	42	Provincial Grants	Beach Grove Seawall Improvements and Foreshore Protection	Delta is embarking on two projects that will mitigate flood risk arising from high tides, storm surges and wind driven waves. In the Beach Grove area the city will replace a section of deteriorating seawall that has developed large cracks. The second area targeted for mitigation is a 450 metre section of di ke in Boundary Bay at the southern end of 96th Street, where the city will install large rip rap material to minimize debris deposits and damage from storms. The combined funding will help Delta upgrade the foreshore and seawall protecting over 2,000 residents in areas that have been hit by frequent flooding.	Coastal		\$550,000 \$825,000	2016		Completed
Delta	47	Disaster Mitigation and Adaptation Fund	Silda Drainage Pump Station	The Silda Drainage Pump Station will reduce the risk of flooding at Highway 91/17 interchange. It will also address flooding concerns, including water ponding on roads, railway tracks, and pedestrian trails, as well as impacts on local businesses in the low-lying catchment area.	Pluvial	Portion of \$7,600,000		2027		In Progress
Delta	54	Community Emergency Preparedness Fund	Boundary Bay Di ke Improvements	The City will initiate a pilot project that involves raising a section of the Boundary Bay di ke adjacent to Boundary Bay Airport between 72 Street and 88 Street.	Coastal		\$2,000,000			In Progress
Langley Township	4	Investing in Canada Infrastructure Program	Yorkson Lowlands Stormwater Management and Ecological Restoration	The proposed project will increase the capacity to treat and manage stormwater by constructing a series of wetlands to and improve surface water quality. The project works include: - Site preparation, slope grading, and mobilization; - Removing invasive reed canary grass; - Stream channel restoration; - Excavating an approximately 21,000 m3 stormwater wetland; - Excavation work to connect stomrwater channels to the constructed wetlands; - Planting, mulching and site surface upgrades to prevent re-colonization of invasive plant species; - Removing old stormwater (culverts) infrastructure; - Installation of stormwater control weirs; - Planting wetlands with native wetland plant, tree, and shrub species; - Building a 250 metre access trail to the site; and, - Installation of interpretive signage.	Pluvial	\$692,744	\$1,731,860	2024	2025	Pre-Construction

Langley Township	37	Building Canada Fund - Communities Component Top Up	West Langley Dike Upgrade	The project will raise the West Langley Dike crest by approximately 1.1 metres and widen the crest to 4 metres along a 960 metre section of the dike. The project will also include slope re-grading, cross-sectional improvements, and improving the tie-in to high ground at the west extent of the dike. This section of dike protects numerous businesses/facilities including Metro Vancouver's Northwest Langley Wastewater Treatment Plant, Mainland Sand and Gravel, Lehigh Cement Ltd., Chemical Lime Company of Canada Inc., Brenntag Canada Inc., and Burnco Rock Products Ltd.	Riverine	\$314,989	\$1,425,000	2010	2011	Completed
Metro Vancouver - Electoral Area A; ᑭᓴᓐᑭᓐ (Katzie First Nation)	58	Emergency Program Act / Growing Communities Fund	Barnston Island Dike Improvements	In summer 2023, the Province provided Metro Vancouver with a grant of \$5.25 million under the Emergency Program Act. The funds are for dike improvements to advance flood protection and help ensure Barnston Island remains a viable place for living and farming. Metro Vancouver has allocated an additional \$1.5 million from the provincial Growing Communities Fund to toward implementation of dike improvements.	Riverine & Coastal	\$6,750,000		2023		In Progress
New Westminster	2	Clean Water and Wastewater Fund	Sapperton Combined Sewer Separation	The project works will include: - Approximately 10.8km of storm main; - Approximately 134 manholes; and - Related works.	Pluvial	\$3,326,172	\$6,652,344	2017	2024	Completed
New Westminster	7	Investing in Canada Infrastructure Program	West End Combined Sewer Separation & Green Infrastructure Program	This project will help increase the capacity to manage wastewater and increase the capacity to treat and/or manage storm water through installation of green Infrastructure which will improve the quality of storm water that enters the Fraser River. This project will separate combined sewers in the City as a part of ongoing efforts to separate a minimum of 1.5% of combined sewer system and align with Metro Vancouver’s Integrated Liquid Waste and Resource Management Plan. The project works include: - Installation of approximately 8.4 km of storm sewers; - Installation of approximately 24 rain gardens; - Installation of approximately 3 permanent flow monitoring stations; - Installation of necessary appurtenances; and, - Rehabilitation of roadworks impacted by project works.	Pluvial	\$5,705,595	\$14,263,988	2024	2027	Pre-Construction
New Westminster	43	Community Emergency Preparedness Fund (CEPF)	Queensborough Dike Shoreline Protection Rehabilitation	<p>The City of New Westminster is proposing to rehabilitate and stabilize a failing segment of existing rip-rap shoreline protection, approximately 130 metres in length, along the Queensborough Dike. The Project would consist of:</p> <p>Site preparation, including removal of vegetation, anthropogenic debris, existing rip rap and profile and grading the slope</p> <p>Placement of geotextile, filter rock, rip rap and fill, if required</p> <p>Vegetation planting on the rip rap bench and riparian area</p>	Riverine & Coastal	\$800,000		2024		In Progress
North Vancouver City; North Vancouver District	46	Provincial Grants	Mackay Creek Flood Mitigation	<p>The \$2.4-million project includes \$334,666 from the City of North Vancouver and \$474,461 from the District of North Vancouver. The combined funding will help the two local governments build a 1,200-metre-long flood protection dike on both sides of Mackay Creek between Marine Dr. and First St.</p> <p>The new dike, being built on both the east and west sides in a coordinated manner by the two local governments, will increase public safety and protect adjacent residential, commercial and light-industrial lands, as well as public transportation corridors from flooding and its associated costs in lost business and property damage.</p>	Riverine	\$1,600,000	\$2,400,000	2017		Completed

North Vancouver District	5	Investing in Canada Infrastructure Program	Reduction of Inflow and Infiltration Program (RIIP) - Lynn Valley	The proposed project will increase the capacity to manage wastewater with rehabilitation of sewer pipes to reduce the inflow of rainwater into the system. The inflow and infiltration of rainwater into the sanitary sewer system is causing sanitary sewer overflows, allowing raw sewage to enter the environment. The pipe improvements will reduce the frequency of overflows, reduce system operating costs, and reduce the need for future infrastructure improvements. The project works will include: - rehabilitation of about 4500 m of sanitary sewers; - rehabilitation of manholes, lateral connections, and chambers; - repair of cross connections and pipe defects; and, - inspection of about 75 km of sanitary sewer.	Pluvial	\$2,000,000	\$5,000,000	2022	2026	In Progress
North Vancouver District	29	Provincial-Territorial Infrastructure Component - Small Communities Fund	District of North Vancouver Creek Flood and Debris Flow Disaster Mitigation Infrastructure	This disaster-mitigation project in North Vancouver will control flood and debris flow in the Deep Cove and Lynn Valley areas. The project includes better protecting the culvert inlet and debris basin upgrades on Thames Creek at Grouse Mountain Road; new inlet protection and a debris basin on the Thames Creek at Kilmer Road; culvert and diversion inlet improvements; a debris basin, trash racks and overflow structures at two locations on Kilmer Creek; replacing the culvert on Gallant Creek at Deep Cove Road; and constructing a debris basin on Gallant Creek upstream of Badger Road. These improvements will help reduce the risk of flooding and the property damage and clean up associated by debris typically carried by flood waters.	Riverine	\$841,683	\$2,525,050	2016	2019	Completed
North Vancouver District	40	Building Canada Fund - Communities Component Top Up	Lynnmour Dike Flood Protection	The project will upgrade the flood protection works on Lynnmour Creek including the St Denis Road Dike, the Fire Training Centre deflection berm, the Orwell Street deflection berm, the Forsman Road floodway, and a park berm. The project will protect residential properties in the Lynnmour area.	Riverine	\$142,780	\$428,340	2010	2010	Completed
Pitt Meadows	10	Provincial-Territorial Infrastructure Component - Small Communities Fund	Pitt Polder Pump Station Replacement	To replace the aging and failing Pitt Polder (1952) pump station with new, more efficient technology (duplex screw system with backup power and electrical components) set above the 200 year flood elevation level.	Riverine	\$2,325,000	\$6,975,000	2018	2024	Completed
Pitt Meadows	44	Community Emergency Preparedness Fund (CEPF)	Fenton Pump Station Replacement	<p>This grant will provide the opportunity to replace the Fenton Road pump and back-up generator including rebuilding the motor centre, switchgear and power upgrades, installation of new tubes and pumps, as well as a back-up generator for the Baynes Road pump.</p> <p>The two existing pumps at the Fenton Station are at the end of their service life and are the only pumps which service the surrounding dike system. Work on this project will begin in the coming months and is expected to be completed by January 2022.</p>	Riverine & Coastal	\$739,740		2020	2024	Completed
Port Coquitlam	11	Disaster Mitigation and Adaptation Fund	Maple Creek Drainage Pump Station Upgrade	The Maple Creek Drainage Pump Station project will protect people and properties in low-lying areas from flooding caused by increased rainfall and rising sea levels. It will replace the existing pumps with fish-friendly pumps and upgrade the floodbox structure for improved water management, while enhancing fish passage and survival. Additional upgrades will include seismic and structural improvements, as well as enhancements to civil, mechanical, and electrical systems.	Riverine	\$5,600,000			2027	Design
Port Coquitlam	56	Disaster Mitigation and Adaptation Fund	Cedar Creek Drainage Pump Station Upgrade	The Cedar Creek Drainage Pump Station project will increase capacity to effectively manage water flow during storm events resulting from climate change. This includes providing flood protection for residential, commercial, and agricultural properties in low-lying areas, while also preventing localized flooding on roads. This project will replace the existing pumps with fish-passable pumps, upgrade the existing floodbox, and add a permanent generator.	Riverine	\$4,000,000			2026	Design and permitting

ᑭᓄᓐᓂᓐᓂᓐ (Kwantlen First Nation)	51	First Nation Project	McMillan Island Rip Rap	In 2016, McMillan Island was undergoing significant bank erosion at the east end caused by the Fraser River. To protect the island from further erosion, Kwantlen First Nation (KFN) received authorizations to armor 1.7 km of the bank with rip rap, which is rock placed on shorelines, between 2017 and 2018. This protects the north east portion of the island, effectively delaying the most significant risk of erosion that threatens to split the island	Riverine & Coastal			2017	2018	Completed
Richmond	27	Investing in Canada Infrastructure Program	No. 3 Road South Drainage Pump Station and Dike Upgrade	The project consists of two components. Reconstructing the pump station will quadruple its pumping capacity from 1.2 m3/s to a minimum of 4.8 m3/s. Raising approximately 220 m of dike by 1.2 m to an elevation of 4.7 m will connect two already raised sections, resulting in over 1,200 meters of dike built to year 2100 flood design levels. Completing this project will enhance the City’s level of flood protection and ensure that Richmond is better prepared for climate change induced sea level rise and increases to rainfall intensities while protecting approx. 29,500 residents, 47 businesses and 8 square kms of agricultural land.	Riverine & Coastal	\$1,350,991	\$13,000,000	2025	2028	Pre-Construction
Richmond	53	Vancouver Airport Authority Funded	Sea Island Climate Resilience Project	The project will see YVR upgrade the dike and drainage system on Sea Island by raising the existing perimeter dikes by approximately one metre to a total height of 4.7 metres and improving overall drainage and geotechnical stability.	Riverine & Coastal			2024	2025	In Progress
Richmond	59	Likely Infrastructure Stimulus Fund	Gilbert Road South Drainage Pump Station Rehab	Stormwater Management	Pluvial	Likely a portion of \$1,224,445	Likely a portion of \$4,049,000		2010	Complete
Richmond	60	Municipality Funded	Cambie Road West Pump Station Rebuild	Stormwater Management	Pluvial				2010	Complete
Richmond	61	Municipality Funded	No. 4 Road North Pump Station Rebuild	Stormwater Management	Pluvial				2011	Complete
Richmond	62	Municipality Funded	Williams Road Pump Station Rebuild	Stormwater Management	Pluvial				2013	Complete
Richmond	63	Funding details not found	Oris “Parc Riviera Phase 1” Superdike Construction	Dike Raising	Riverine & Coastal				2013	Complete
Richmond	64	Funding details not found	Onni (Steveston) “Imperial Landing” Superdike Construction	Dike Raising	Riverine & Coastal				2013	Complete
Richmond	65	Municipality Funded	No. 1 Road North Pump Station Rebuild	Stormwater Management	Pluvial				2014	Complete
Richmond	66	Provincial Grants	Bath Slough Pump Station Rebuild	Stormwater Management	Pluvial	\$2,040,000			2015	Complete
Richmond	67	Funding details not found	Woodward Slough Drainage Pump Station Rehab	Stormwater Management	Pluvial				2015	Complete
Richmond	68	Funding details not found	Aspac (west of Oval) Superdike Construction	Dike Raising	Riverine & Coastal				2016	Complete
Richmond	69	Funding details not found	Oris “Kawaki” Superdike Construction	Dike Raising	Riverine & Coastal				2017	Complete

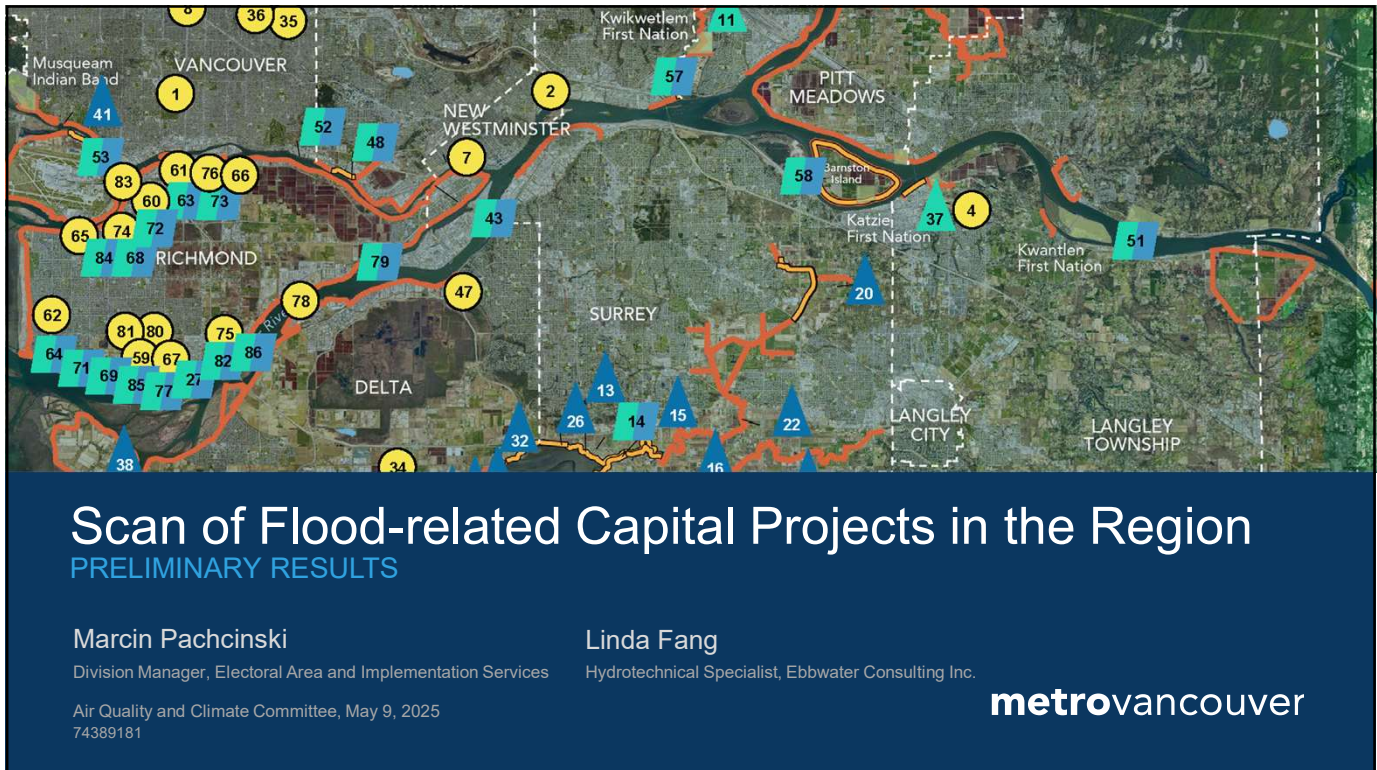
Richmond	71	Funding details not found	Britannia Flood Protection Improvements	Following significant flooding in December 2014 that was the result of a combination of high tide and storm surge, a number of flood protection concepts were developed in consultation with City staff and the Britannia Heritage Shipyard Society. The solution involved flood-proofing the existing perimeter bulkhead wall and raising it by approximately 0.7 m, to an elevation of 2.9 m, through the installation of a vinyl sheet pile wall with wooden cladding to maintain the heritage appearance of the site. For sections of the floodwall that required walkway access to three historic buildings, removable aluminum flood panels were installed for high water events to ensure the wall is water tight throughout.	Riverine & Coastal		2018	Complete
Richmond	72	Funding details not found	Aspac “River Green” (east of Oval) Superdike Construction	Dike Raising	Riverine & Coastal		2018	Complete
Richmond	73	Funding details not found	Oris “Parc Riviera Phase 2” Superdike Construction	Dike Raising	Riverine & Coastal		2018	Complete
Richmond	74	Likely provincial grants	No. 2 Road North Pump Station Design	Stormwater Management	Pluvial		2018	Complete
Richmond	75	Disaster Mitigation and Adaptation Fund	Horseshoe Slough Drainage Pump Station	Stormwater Management	Pluvial		2020	Complete
Richmond	76	Disaster Mitigation and Adaptation Fund	Shell Road North Drainage Pump Station	Stormwater Management	Pluvial		2020	Complete
Richmond	77	Disaster Mitigation and Adaptation Fund	Gilbert to No. 3 Road South Dike Upgrade	Dike Raising	Riverine & Coastal		2020	Complete
Richmond	78	Disaster Mitigation and Adaptation Fund	No. 7 Road South Drainage Pump Station	Stormwater Management	Pluvial		2021	Complete
Richmond	79	Disaster Mitigation and Adaptation Fund	No. 9 Road South Dike Upgrade	Dike Raising	Riverine & Coastal		2022	Complete
Richmond	80	Disaster Mitigation and Adaptation Fund	Steveston Highway to No. 3 Road Pump Station Upgrade	Stormwater Management	Pluvial	\$1,000,000	2022	Complete
Richmond	81	Funding details not found	Steveston Highway to Gilbert Road Pump Station Upgrade	Stormwater Management	Pluvial		2022	Complete
Richmond	82	Disaster Mitigation and Adaptation Fund	No. 3 Road to Finn Slough Dike Upgrade	Dike Raising	Riverine & Coastal		2023	Complete
Richmond	83	Funding details not found	Burkeville Drainage Upgrades	The Burkeville neighbourhood is undergoing a comprehensive drainage upgrade project that includes replacing ageing watermains, sanitary sewers, and roadways in several phases. The phasing is designed to prioritize address servicing concerns and reduce construction impacts to the community. During each phase, drainage, water, sanitary, and road infrastructure improvements within the identified phasing areas will be completed. Upgrading the drainage network will reduce local flood risks by increasing the City’s storm system capacity and better servicing the Burkeville area.	Pluvial	\$3,000,000	Q4 2024	

Richmond	84	Funding details not found	Lynas Lane to No. 2 Road along River Road North Dike Upgrade	Dike Raising	Riverine & Coastal			2027	In Design	
Richmond	85	Municipality Funded	6080 Dyke Road to Gilbert Road South Dike Upgrade	Dike Raising	Riverine & Coastal			2027	In Design	
Richmond	86	Funding details not found	No. 4 Road to No. 5 Road South Dike Upgrade	Dike Raising	Riverine & Coastal			2028	In Design	
səlilwətał (Tsleil-Waututh Nation)	45	Community Emergency Preparedness Fund (CEPF)	Reserve Shoreline Adaptation and Habitat Enhancement Project	Key objectives for the reserve shoreline adaptation and restoration project are to: -attenuate wave action and protect community lands and sensitive archaeological sites from coastal erosion and flooding; -use nature-based solutions that integrate Indigenous Knowledge and stewardship technologies to restore marine ecology and culturally important local species; -reconnect community members to the shoreline by facilitating shoreline access at suitable places; and -build TWN capacity and stewardship role through training and community member involvement in all stages of the project.	Coastal	\$2,000,000		2023	In Progress	
Surrey	13	Disaster Mitigation and Adaptation Fund	Colebrook Dyke (100 Series): Mud Bay	Upgrading 7.5 kilometres of the earth dyke along Mud Bay and at the mouth of the Serpentine River, including flood boxes, providing protection to the Highway 99 regional link to the Peace Arch border, BC Hydro’s primary transmission line and regional sewer and watermain. This project will be done in phases.	Coastal			2022?	2027	In Porgress
Surrey	14	Disaster Mitigation and Adaptation Fund	Colebrook Drainage Pump Station Replacement	Removing and replacing existing pump station built in the 1990’s at 13168 - 48 Avenue with a modern pump station. The new pump station will protect the agricultural floodplain area from extreme flooding. It will include new ‘fish friendly’ pumps to allow fish to pass through unharmed and will be less vulnerable to the impacts of a seismic event.	Riverine & Coastal					In Progress
Surrey	15	Disaster Mitigation and Adaptation Fund	Serpentine River Sea Dam	Removing and replacing the sea dam with a modern structure that is climate and seismic resilient. The new structure will have a higher crest elevation, and a robust foundation and dyke tie-in to resist extreme earthquakes.	Coastal					Planning
Surrey	16	Disaster Mitigation and Adaptation Fund	152 Street Road Upgrades	Raising and widening 152 Street crossing the floodplain and making improvements along King George Blvd from Highway 99 to Serpentine River to provide secondary flood protection for 152 Street. We will also twin the Nicomekl River Bridge and create a four-lane road and bridge crossing with cycling and pedestrian pathways. This will improve flood resilience and emergency response as well as help reduce congestion.	Coastal			2023	2026	In Progress
Surrey	17	Disaster Mitigation and Adaptation Fund	Nicomekl Riverfront Park	Creating a 3-km riparian park that incorporates recreation, traditional culture and natural values with flood attenuation features. These features will include wetlands and habitat islands. The new Nicomekl Riverfront Park will employ innovative climate adaptation and mitigation measures. It will also provide opportunities for reconciliation, climate awareness, and environmental stewardship.	Coastal			2024		In Progress
Surrey	18	Disaster Mitigation and Adaptation Fund	King George Boulevard Bridge and Nicomekl River Sea Dam Replacement	Upgrading the adjacent 100-year old sea dam to improve flood and irrigation controls.	Coastal					Planning

Surrey	19	Disaster Mitigation and Adaptation Fund	Crescent Beach Storm Sewer Upgrades	Continuing expansion of perforated storm sewer system together with ground and road raising. This will provide efficient conveyance to manage storm water runoff and rising groundwater levels. This project will be done in phases.	Coastal						In Progress
Surrey	20	Disaster Mitigation and Adaptation Fund	Lower Nicomekl River and Serpentine River Dyking	Upgrading the dyking system at the Serpentine dyke between 88 Avenue and Fraser Highway. This will increase the area's resiliency to sea level rise and protect Surrey lowlands from coastal flooding. We will also replace the flood boxes at Fry's Corner Pump Station (7627-176 St) to protect the surrounding area, agriculture and highways from future flooding. This project will be done in phases.	Coastal						In Progress
Surrey	21	Disaster Mitigation and Adaptation Fund	Lower Nicomekl River and Serpentine River Dyking	Upgrading the dyking system at the 3-kilometre reach of the Nicomekl River between Elgin Road and the 40 Avenue Pump Station. This will increase the area's resiliency to sea level rise and protect Surrey lowlands from coastal flooding. This project will be done in phases.	Coastal						In Progress
Surrey	22	Disaster Mitigation and Adaptation Fund	SRY Rail Link Serpentine Bridge Replacement	The new railway bridge is resilient to flooding and sea level rise. It will help the city realize the full benefits of the Serpentine-Nicomekl flood control system to improve flood control of agricultural land.	Coastal			2019	2020		Completed
Surrey	23	Disaster Mitigation and Adaptation Fund	Burrows Drainage Pump Station Upgrade	The new Burrows Pump Station is resilient to flooding and earthquakes. The new design allows fish to pass through it easier and it has better flood control and irrigation for surrounding agriculture. A new building houses the electric controls to power the new fish-friendly pump.	Coastal			2020	2021		Completed
Surrey	24	Disaster Mitigation and Adaptation Fund	Stewart Farm Sanitary Pump Station Upgrade	The Stewart Farm sanitary pump station is part of the City of Surrey's sanitary sewer system to collect wastewater from the community and carry it to the Annacis Island Wastewater Treatment Plan. This station is located at low elevation on the south bank of the Nicomekl River. This lower part of the river is impacted by tides which makes the station more vulnerable to flooding. The pump station needed to be raised to avoid any damage to the infrastructure and environment, while keeping it functioning in the case of a severe flood.	Coastal			2020	2021		Completed
Surrey; Delta; Semiahmoo First Nation	12	Disaster Mitigation and Adaptation Fund	Coastal Flood protection	The project consists of the new construction, rehabilitation and expansion of 13 assets including pump stations, sea dams, dykes, road, bridges, and a park which provide transportation, water, wastewater, stormwater, and safety essential services. The project will provide a higher level of protection to surrounding agricultural lands, traffic corridors and other infrastructure of local, regional and national importance.	Coastal	\$76,602,850	\$187,000,000	2019	2028		In Progress
Surrey; Delta; Semiahmoo First Nation	26	Disaster Mitigation and Adaptation Fund	Mud Bay Nature-based Foreshore Enhancements	The Mud Bay Nature-based Foreshore Enhancements Project is a partnership between City of Surrey, City of Delta and Semiahmoo First Nation. The project involves a nature-based approach to flood protection known as a living dyke. The project will begin with Pilot Studies to test stabilization techniques for the living dyke in two locations in Mud Bay. This will mitigate river flooding and the loss of biodiversity. It will also help salt marsh habitats keep pace with rising sea levels.	Coastal			2023	2027		In Progress
Surrey; Semiahmoo First Nation	25	Disaster Mitigation and Adaptation Fund	Campbell River Pedestrian Bridge Replacement	Partnering with the Semiahmoo First Nation to remove and replace the failing pedestrian bridge over the Campbell River. This bridge connects the Semiahmoo First Nation with the City of Surrey and City of White Rock. The new structure will be built to current flood protection standards and allow for 1 meter of sea level rise. It will also provide an alternate emergency access route.	Coastal						Planning
Vancouver	1	Clean Water and Wastewater Fund	Vancouver South Sewer Separation Project	The project works will include: - 1400m sanitary trunk sewers; - 1400m storm trunk sewer; - 40 manholes; - 80 service connections; - Import backfill; - Pavement and curb restoration; and, - Miscellaneous appurtenances.	Pluvial	\$5,837,500	\$11,675,000	2017	2024		Completed

Vancouver	6	Investing in Canada Infrastructure Program	Hastings Sunrise Sewer Renewal & Green Infrastructure Project	The proposed project will replace the existing combined sewer with new separate sanitary and storm sewers in the Hastings Sunrise area of the City to mitigate flooding, reduce sewer overflows into local marine waters and increase capacity for future. The addition of green infrastructure components will capture pollutants and allow rain water to infiltrate the ground. The project works include: - Replacement of about 4.5 km of combined sewer in the Hastings Sunrise area with separated storm and sanitary sewers; - Installation of about 30 bio-retention bulges and about 18 catch basin with infiltration drywell manholes; - Installation of approximately 1km of sidewalks; - Restoration of disturbed surface infrastructure including manholes, service connections, other appurtenances, testing and surface restoration; - Pre & Post construction monitoring, flow monitoring; and, - Related site works.	Pluvial	\$8,182,684	\$20,456,710	2022	2026	In Progress
Vancouver	8	Natural Infrastructure Fund	Rain City Strategy Using Nature-Based Solutions	The Project will implement or enhance natural infrastructure distributed across the city, including rainwater tree trenches, wetlands, stream restoration, and hybrid infrastructure such as bioswales and permeable land cover. Once complete, this project will improve water quality and provide climate adaptation and increase flood resilience, species protection, and biodiversity. Furthermore, it will improve livability for residents by reducing urban heat island effects, improving air quality and creating more access to nature.	Pluvial	\$18,900,000	\$31,500,000	2023	2024	In Progress
Vancouver	35	Infrastructure Stimulus Fund	Upper Trout Lake East Sewer Separation	This project involves replacing and extending several hectares of the sewer line in the eastern portion of Trout Lake Tributary.	Pluvial	\$3,333,300	\$10,000,000	2010	2011	Completed
Vancouver	36	Infrastructure Stimulus Fund	Upper Trout Lake West Sewer Separation	This project involves replacing and extending several hectares of the sewer line in the eastern portion of Trout Lake Tributary.	Pluvial	\$3,333,300	\$10,000,000	2010	2011	Completed
Vancouver	41	Community Emergency Preparedness Fund (CEPF)	Southlands Tide Gates Replacement Program	In 2014, the City completed the Coastal Flood Risk Assessment (Phase 2). This report evaluated various flood mitigation approaches and identified key assets in the floodplain. In Southlands, there are over 400 buildings (primarily residential), approximately 2,000 people and several recreational assets that may be impacted during a severe flood event. The report indicated that Southlands is at risk for significant flooding in the near future during a very rare flood event. However, a tide gate failure would render areas of Southlands vulnerable to flooding during much more common events.	Coastal	\$750,000		2021		
Vancouver	49	Vancouver Board of Parks and Recreation	Stanley Park and English Bay Seawall Repairs Phase 1 & 2	The project includes repair works at multiple locations along the seawall between the foot of Chilco Avenue at Coal Harbour and Sunset Beach Park near the mouth of False Creek. Repair works include undermining and bulge repairs, cavity repairs and mortar repointing, and reconstruction of one section of seawall. The repair work is being conducted to improve public safety, maintain the structural integrity on the seawall, and repair damage caused by storms and age-related impacts. The proposed repair works are being completed in two phases. Phase 1 works started in March 2018 and were completed in December 2018. Phase 2 works started in early 2019 and are continuing in 2020.	Coastal		\$4,500,000	2018		Completed
Vancouver	52	Privately Funded	Development at 3398 North Arm Avenue	Prior to the PDP submission, the applicants provided several studies of the building footprints and parkade design based on flood protection and its required setbacks. A minimum of 30 m (98.4 ft) setback is required for flood protection from the high-water line. Also, a minimum of 7.5 m (24.6 ft) setback is required from provincial lease areas by the city of Vancouver which will accommodate a flood protection wall. An 8 m (26.2 ft) dike will also be provided for flood protection which will serve as a multi-use pathway. The proposed dike considers the future sea level rise and provides the required expansion of 0.75 m (2.4f ft) in the design of the dike	Riverine & Coastal			2024		Preliminary DP application in progress

West Vancouver	50	Municipality Funded	Lawson Park Riparian Enhancement	The shoreline and creek mouth at Lawson Park have undergone extensive enhancement work with great success. Reshaping the pathway will permit the expansion of the riparian habitat along the upper shore and replace the existing angular rock along the upper beach with round river rock which has been reclaimed from nearby construction work. The project will provide better protection for the upper shore and John Lawson Park from flooding or overtopping by waves, or debris impact. In addition the project will improve public access across the site and to the shoreline, improved aesthetic value of the upper shore for visitors to the site, and enhanced biodiversity.	Coastal	\$25,000	2012	2012	
West Vancouver	55	Municipality Funded	Lawson Creek to McDonald Enhancement	The projects at 15th Street, Lawson Pier, Lawson Creek, 18th Street, and McDonald Creek and Bypass involved the construction of tombolos and wave trips that were initially positioned along the upper and mid shore to rebuild the upper shore. In addition to the relocation and construction of tombolos, expansion of the existing riparian habitat bench along the shoreline will provide additional wave protection and drainage, preventing flooding and overtopping of the Seawalk while increasing biodiversity across the site and improving the aesthetic value of the site for the public	Coastal	\$25,000	2012	2012	
West Vancouver	70	Municipality Funded	Culvert Inlet Enhancement at various locations	Ongoing Creek Culvert Inlet improvements at various locations throughout the District to improve ability for debris management and better intake efficiencies allowing more time for crew to response during high flow events.	Riverine	\$1,000,000	2022	2027	Ongoing
West Vancouver	87	Municipality and Developer Funded	Five Creeks Stormwater Protection Project	In 2013, The District of West Vancouver adopted an Integrated Stormwater Management Plan (ISMP) which identified many sections of the existing creek systems are incapable of conveying large storm events safely. The multi-phased project entailed the construction of a large-diameter stormwater pipe that runs from above the Upper Levels Highway, down to a new outfall at the Burrard inlet to address concerns of overland flooding for the benefit of both existing and future neighbourhoods below and above the Upper Levels Highway within the watershed area referred to as the Five Creeks (Pipe, Westmount, Cave, Turner, and Godman Creeks). Intake structures installed on the creeks capture any significant stormwater that will overflow the creek banks and divert the excess flow into the pipe.	Riverine		2020	2023	Complete
West Vancouver	88	Municipality Funded	Drainage Improvements at the Intersection of Ross Crescent and Ross Lane	In 2018, to address localized drainage issues observed at the outlet of Claymore Creek watershed, this project involved the installation of approximately 50 meters of 600mm diameter storm bypass on Ross Crescent. The project connected Claymore Creek West directly to an existing culvert inlet bypassing the section of the existing channel which was under capacity. The works also included channel improvement utilizing gabion and Lock Block headwall, and a custom-built debris deflector to improve debris management.	Pluvial	\$160,000	2018	2018	Complete
West Vancouver	89	Municipality Funded	Drainage Improvements at Stonecrest Culvert Inlet	In 2018, to address localized drainage issues observed at the culvert inlet from massive amounts of debris washed down from Willow Creek, this project involved the construction of a Lock Block debris collection basin, installation of a large triangular shaped steel debris deflector, new debris screen and improvements to access and provisions for machine access for debris management.	Pluvial	\$85,000	2018	2018	Complete

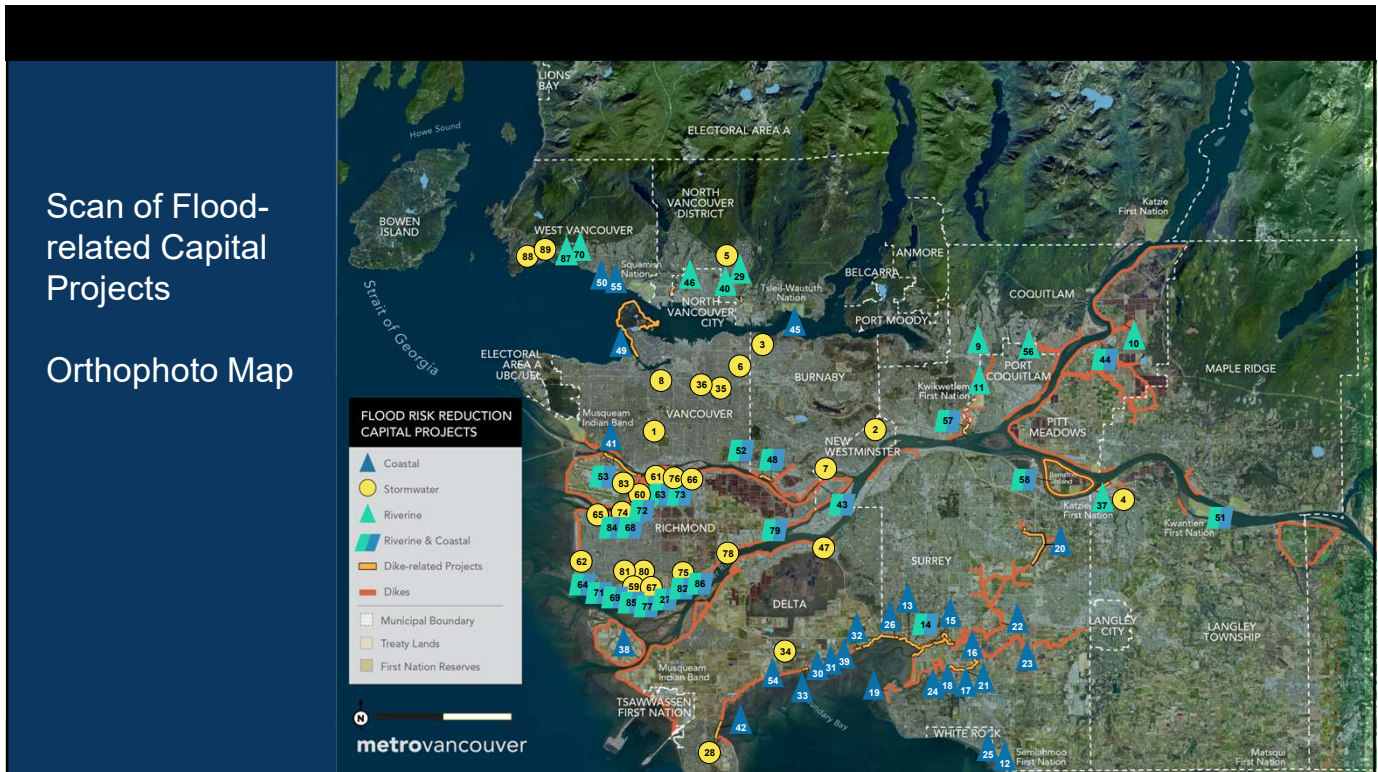


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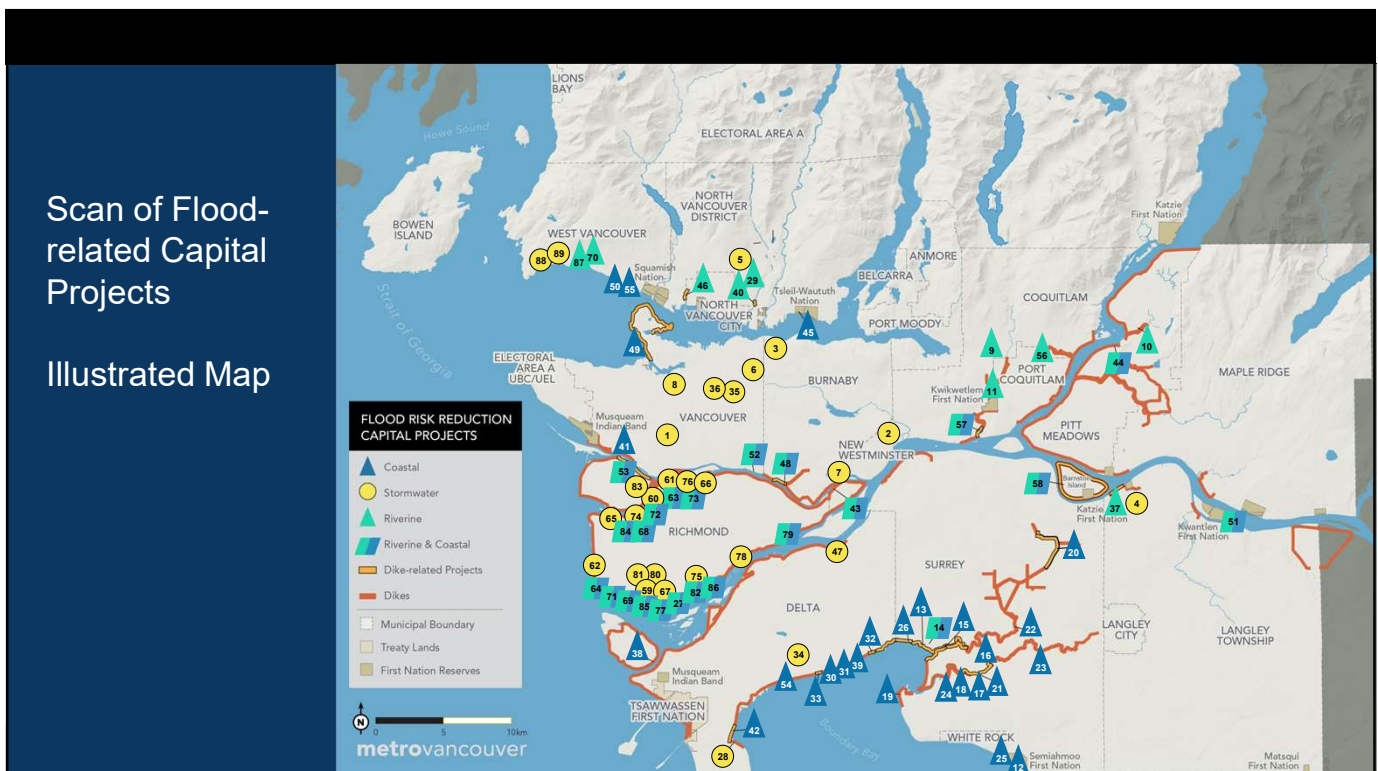
BACKGROUND

- Air Quality and Climate Committee's work supports ongoing flood resiliency planning processes in the Lower Fraser region and helps to implement the *BC Flood Strategy*.
- In July 2024, the Flood Resiliency Committee and MVRD Board received the scope of work for two projects:
 - Scan of Flood-related Capital Projects (presented today); and
 - Prioritization Criteria Matrix.

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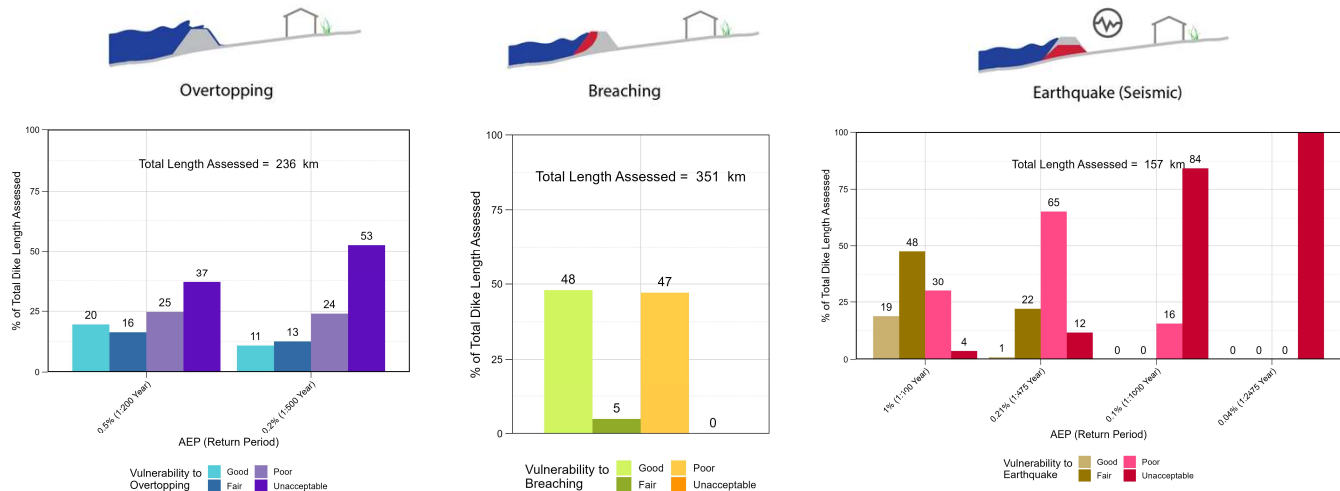
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SUMMARY OF DIKE VULNERABILITIES

Metro Vancouver Region



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NEXT STEPS

- Fill in any information gaps and add missing projects;
- Share map and table with participants in Lower Fraser flood resiliency planning processes, including member jurisdiction staff;
- Work on prioritization criteria matrix; and
- Bring back to Committee/Board in late 2025.

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Metro Vancouver Skyline

Thank you

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To: Air Quality and Climate Committee

From: Johann Zerbe, Senior Policy & Planning Analyst, and
Jason Emmert, Program Manager, Regional Climate Action Policy, Air Quality and
Climate Action Services

Date: April 9, 2025 Meeting Date: May 9, 2025

Subject: **Climate 2050 Roadmap Update**

RECOMMENDATION

That the MVRD Board receive for information the report dated April 9, 2025, titled “Climate 2050 Roadmap Update”.

EXECUTIVE SUMMARY

This report presents a revised approach for the remaining four *Climate 2050* issue areas / road maps (Land Use and Urban Form, Water and Wastewater Infrastructure, Solid Waste, and Human Health and Well-Being), which integrates climate policy and actions into existing planning processes and implementation plans. Rather than creating stand-alone roadmaps, climate actions related to these four issue areas will be integrated within updates to management plans and other planning processes. This revised approach aims to optimize staff resources and engagement efforts, respond to Board direction, and to ensure climate actions are aligned with other plans and policies. This approach is expected to lead to operational efficiencies for integrating climate considerations into core services and planning.

PURPOSE

To provide an update on a revised approach for integrating climate action and policy related to the four remaining *Climate 2050* issue areas into Metro Vancouver’s planning processes and utility management plans.

BACKGROUND

In September 2018, the MVRD Board adopted *Climate 2050* (Reference 1), a long-term strategy guiding the region's transition to a carbon-neutral and resilient future by 2050, with interim targets for 2030. The Board directed the development of ten issue-based *Climate 2050 Roadmaps* outlining actions for Metro Vancouver, member jurisdictions, and partners to achieve these targets.

Six Roadmaps (Transportation, Buildings, Industry, Nature & Ecosystems, Energy, and Agriculture) have been endorsed and are in implementation, aligning with board-adopted strategic plans such as *Metro 2050* and the *Clean Air Plan*. For the remaining four issue areas (Land Use and Urban Form, Human Health and Well-being, Water and Wastewater Infrastructure, Solid Waste), staff have completed background research and analysis and identified potential actions but have not yet completed Roadmaps.

Metro Vancouver is currently updating its *Solid Waste Management Plan* (Reference 2), *Liquid Waste Management Plan* (Reference 3), and *Drinking Water Management Plan* (Reference 4). These plans establish goals, strategies, and actions to ensure Metro Vancouver continues to deliver high-quality services to the region in the face of challenges such as affordability, regional population growth, and climate change. The *Liquid Waste Management Plan* and *Solid Waste Management Plan* are authorized by the Government of BC and regulated through the *Environmental Management Act*. All three management plans are developed with input from member jurisdictions and First Nations, as well as other governments, community and business groups, and residents. Staff expect to finalize and seek Board endorsement of the *Liquid Waste Management Plan* in 2025, and the *Solid Waste Management Plan* and *Drinking Water Management Plan* in 2026. The Board recently considered proposed amendments to *Metro 2050* to strengthen climate related policies. The Board did not advance these proposed amendments to *Metro 2050*.

The Board has also directed staff to seek opportunities for cost savings and efficiencies across the organization. In response to this direction, staff are proposing a revised approach to integrating climate action and policy related to the four remaining *Climate 2050* issue areas into Metro Vancouver's planning processes and utility management plans.

INTEGRATING CLIMATE 2050 ACTIONS INTO MANAGEMENT PLAN UPDATES

Below are the processes for how climate action and policy related to each *Climate 2050* issue area will be integrated into existing planning processes and implementation of Board-endorsed plans.

Land Use and Urban Form

Land use planning and community design that considers and plans for climate change will reduce the region's communities' exposure to climate-related risks and impacts. Complete, compact communities enable options for low-carbon transportation and buildings while protecting agricultural land and natural assets critical for climate-resilient communities. These core concepts are already reflected in *Metro 2050* in all goal areas as well as the regional GHG emissions reduction targets adopted in *Metro 2050* and *Climate 2050*.

Based on MVRD Board direction, staff conducted research, analysis, and stakeholder engagement on land-use policies to further enhance climate policy in *Metro 2050*. This research informed proposed amendments to *Metro 2050*, however, these were ultimately not approved by the Board. Given this direction, staff will not be moving forward with a stand-alone *Climate 2050 Land Use and Urban Form Roadmap*. Climate-related policies in *Metro 2050* will continue to be implemented through opportunities for the Board to advocate to provincial and federal governments and other partners to support member jurisdictions in responding to specific climate challenges.

Solid Waste

Management and disposal of solid waste generated in Metro Vancouver contributes to approximately 3% of regional greenhouse gas (GHG) emissions. An updated *Solid Waste Management Plan* will include strategies and actions that not only reduce solid waste but also GHG emissions in support of Metro Vancouver's 2050 target of a carbon-neutral, climate resilient region.

Given the integration of climate actions into the updated solid waste management plan, staff will publish a *Climate 2050 Solid Waste* primer rather than a stand-alone roadmap. The primer will provide context on opportunities for adapting to climate impacts and reducing regional emissions related to solid waste management, as well as an overview of Metro Vancouver's existing solid waste actions that have climate benefits, and their projected contribution towards the region's *Climate 2050* goals. The primer will also estimate the reduction in solid waste emissions associated with disposal since 2010 due to increased landfill gas capture and utilization and diversion of organics.

Water and Wastewater Infrastructure

Climate change is impacting the way Metro Vancouver manages drinking water and liquid waste. There are also opportunities to address climate change in how we manage our infrastructure, such as recovering clean energy for communities from the liquid waste system. Metro Vancouver's *Drinking Water Management Plan* (DWMP) and *Liquid Waste Management Plan* (LWMP) are currently being updated to reflect challenges for managing drinking water and liquid waste services, such as population growth and climate change. The Board-approved *Drinking Water Management Plan* will set direction and policies for Metro Vancouver's drinking water utility, including strategies and actions for Metro Vancouver to reduce emissions and increase climate resilience for the region's drinking water system. The *Liquid Waste Management Plan* will include strategies and actions for member jurisdictions and Metro Vancouver to reduce emissions and increase climate resilience within the region's liquid waste system.

Given the integration of climate actions into these two management plans, staff will develop a *Climate 2050 Water and Wastewater* primer rather than a stand-alone roadmap. The primer will provide context on opportunities for adapting to climate impacts and reducing emissions for the regional drinking water and liquid waste utilities.

Human Health and Well-Being

Climate change is already affecting the health and well-being of Metro Vancouver residents in many ways. Heat waves can make older apartments dangerously hot, worsening existing health conditions and increasing the risk of death. Wildfire smoke from longer, hotter, and drier summers can trigger asthma and heart and lung conditions. Extreme rainfall can cause floods and landslides that damage homes and infrastructure and put people's safety at risk.

Climate-related extreme weather can also damage essential infrastructure like power and drinking water systems, disrupting heating, cooling, food and water safety, and access to health care. Ecosystem disruptions are contributing to new pests and diseases and are affecting agricultural productivity. Mental health is also impacted, with climate anxiety and stress increasing, particularly among young people.

These health impacts are expected to worsen over time. People with lower incomes, seniors, and those who are unhoused are especially at risk. However, by working together to cut GHG emissions and prepare for climate impacts, we can reduce these risks and improve overall well-being.

Metro Vancouver's services—including solid waste, liquid waste, drinking water, regional parks, non-market housing, economic development, emergency planning, and air quality management—already play a vital role in protecting health and well-being. Board-approved plans guiding these services include goals and strategies to protect and improve human health and well-being as they relate to climate change.

For these reasons, a stand-alone *Climate 2050* Human Health and Well-Being Roadmap is not proposed. Instead, staff will continue to integrate human health and well-being into existing plans and programs, in collaboration with health authorities, the Province and other agencies. This includes:

- 1) assessing how Metro Vancouver's services support human health and well-being in the context of climate change, and identifying ways these services can improve health and mitigate risks;
- 2) implementing actions and policies that support health and well-being in existing management plans; and
- 3) quantifying and communicating the health benefits of climate-related actions across the region's plans, policies and programs.

Examples of this collaborative approach include work to improve thermal safety in apartment buildings (see report E3 in this agenda), studying the impacts of wildfire smoke, and assessing regional climate hazards, risks, and vulnerabilities.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

The revised approach is intended to lead to operational efficiencies by re-allocating staff time towards advancing management plan updates and implementation of climate actions endorsed in the management plans and the existing roadmaps. This revised approach will allow for engagement resources to be refocused towards management plan development and implementation. Costs to develop the updated *Solid Waste Management Plan*, *Drinking Water Management Plan*, and *Liquid Waste Management Plan* are approved under existing departmental budgets. As specific proposals are developed, their costs, benefits, and partnerships will be clarified and approval will be sought as per current financial practices.

Metro Vancouver is working to assess the costs of responding to climate change within its operations and services. Metro Vancouver is also working with partners to assess the costs related to current and future impacts of climate change on the region, as well as the costs and benefits of taking near-term action to reduce emissions and adapt to a changing climate. Staff will continue to bring this information to the Board along with policy and action initiatives.

CONCLUSION

Staff will take a revised approach for the final four *Climate 2050* issue areas that will document climate actions within the existing planning processes instead of creating standalone roadmaps. This approach will create planning efficiencies and allow staff time to be reallocated towards

implementation of climate actions in Board-approved plans that are developed with input from member jurisdictions on regional climate priorities. Progress to advance climate action in each issue area will continue to be communicated through annual *Climate 2050* reporting and regular reporting processes for other management plans (*Metro 2050*, *Solid Waste Management Plan*, *Liquid Waste Management Plan*, *Drinking Water Management Plan*).

REFERENCES

1. Metro Vancouver (July 2019). *Metro Vancouver Climate 2050 Strategy*. Retrieved from: <https://metrovancover.org/services/air-quality-climate-action/climate-2050/regional-priorities>. Last Accessed 2025, April 9.
2. Metro Vancouver (n.d.). *Solid Waste Management Plan Update*. Retrieved from: <https://metrovancover.org/services/solid-waste/solid-waste-management-plan-update>. Last Accessed 2025, April 9.
3. Metro Vancouver (n.d.). *Liquid Waste Management Plan Update*. Retrieved from: <https://metrovancover.org/services/liquid-waste/liquid-waste-management-plan-update>. Last Accessed 2025, April 9.
4. Metro Vancouver (n.d.). *Drinking Water Management Plan Update*. Retrieved from: <https://metrovancover.org/services/water/drinking-water-management-plan-update>. Last Accessed 2025, April 9.

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To: Air Quality and Climate Committee

From: Erik Blair, Senior Planner, Air Quality and Climate Action Services
Morgan Braglewicz, Air Quality Planner, Air Quality and Climate Action Services

Date: April 2, 2025 Meeting Date: May 9, 2025

Subject: **Local Government Policy Toolkit for Improving Thermal Safety in Apartment Buildings**

RECOMMENDATION

That the MVRD Board:

- a) receive for information the report dated April 2, 2025, titled “Local Government Actions for Improving Thermal Safety in Apartment Buildings”; and
 - b) direct staff to forward a copy of the report dated April 2, 2025, titled “Local Government Actions for Improving Thermal Safety in Apartment Buildings” to member jurisdictions with an offer of a presentation to Council upon request.
-

EXECUTIVE SUMMARY

Metro Vancouver, member jurisdictions, public health authorities and others are exploring ways to protect residents from heat waves such as the 2021 heat dome that caused 619 deaths in BC. Vulnerable residents in apartment buildings without cooling are especially at risk.

Metro Vancouver partnered with the City of North Vancouver, Vancouver Coastal Health Public Health (VCH Public Health), and the City of Vancouver to develop a policy toolkit for local governments that supports climate and health priorities outlined in the *Climate 2050 Buildings Roadmap* and *Metro 2050*. Member jurisdiction staff across the region have expressed the need for information that brings together approaches and solutions to protect residents from the health risks of extreme heat. The toolkit identifies a range of measures that will improve thermal safety, including installing cooling devices, adding shading to building exteriors, improving airflow, and managing heat-related risks for occupants. Based on this toolkit, Metro Vancouver will engage members to explore collaborative opportunities to enhance thermal safety in the region’s housing stock. This work aligns with the BC Government’s recent commitment to continue funding for heat pump incentives in apartment buildings for residents vulnerable to extreme heat.

PURPOSE

To provide the Air Quality and Climate Committee and MVRD Board with a policy toolkit delivered through a collaborative project to support Metro Vancouver and member jurisdictions, alongside regional agencies, aimed at protecting vulnerable residents from health risks of extreme heat.

BACKGROUND

As heat waves worsen with climate change, Metro Vancouver is supporting member jurisdictions with coordinated, regionally aligned actions to protect vulnerable residents. This project was initiated in 2023 in response to the *Climate 2050 Buildings Roadmap*, including Action 6.5

(“Integrate resiliency into low carbon upgrade solutions”) and Action 6.6 (“Provide education on retrofit options that can increase resilience to heatwaves and wildfires”), and *Metro 2050*, including Strategy 3.4.2a (“collaboratively develop and share information and data related to hazards, risks, and vulnerabilities in the Metro Vancouver region”) and Strategy 3.4.4b (“incorporate resilience considerations into building codes and standards”).

This project is a collaboration with the City of North Vancouver, VCH Public Health, and City of Vancouver, and responds to City of North Vancouver Council’s direction to develop policies and programs with strong potential to reduce heat-caused death and illness in existing residential buildings. This project also aligns with Vancouver Coastal Health’s 2023 Chief Medical Health Officer Report, which includes actions to work with local and provincial governments to implement policies to protect building residents during extreme heat events (Reference 1).

IMPROVING THERMAL SAFETY TO COMBAT EXTREME HEAT

The 2021 heat dome, which caused 619 deaths across British Columbia, highlighted the deadly consequences of rising temperatures—most individuals had pre-existing conditions and died in their own homes. Climate projections for the region show more frequent and severe hot days and nights and a twelvefold increase in days requiring cooling by the 2080s. Many apartment buildings in the Lower Mainland were designed for milder climates and lack air conditioning, leading to unsafe indoor temperatures.

Addressing extreme heat in residential buildings is now a critical priority to protect residents from heat-caused death and illness, one that requires cooperation among all levels of government and other institutions.

This project focuses on actions local governments and regional agencies such as housing providers and health authorities can take to improve “thermal safety”, which means keeping indoor temperatures at safe levels to protect people’s health, especially those with chronic conditions like diabetes, heart disease, or respiratory disease. Thermal safety is different from “thermal comfort”, which refers to indoor temperatures that feel comfortable for occupants. The toolkit identifies various types of measures, including:

- Installing devices that heat and cool indoor spaces, like electric heat pumps;
- Blocking heat from the sun – such as by adding exterior shading or trees;
- Improving airflow to help move hot air out – like adding windows that open;
- Reducing heat risks with temporary solutions while long-term fixes are explored – such as placing a small air conditioner in a common room; and,
- Identifying solutions that provide cooling along with co-benefits, such as installing a green roof.

Many of these upgrades also support the transition to cleaner, more energy-efficient buildings in the long run.

Aligning Thermal Safety with Emissions Reduction Goals

Many of the solutions to improve thermal safety in buildings can also conserve energy and reduce emissions and align with several ongoing and proposed policies and programs. For example, a 2024 BC Building Code update for new construction stipulates a maximum indoor design temperature of 26°C in at least one living space per home to minimize overheating risks. BC Hydro offers rebates and support for energy efficiency and emissions reduction upgrades in existing multi-unit residential buildings. The BC Government's proposed Highest Efficiency Equipment Standards would, if implemented, require all new space and water heating equipment sold and installed in BC by 2030 to be at least 100% efficient, accelerating the adoption of heat pumps that provide both heating and cooling in new and existing buildings. Underpinning the proposed standard, the BC Government also recently committed to continued incentive funding of \$100M through 2025 and 2026 to reduce the cost of heat pumps in apartment buildings housing residents who are vulnerable to extreme heat.

The policy toolkit complements these efforts by focusing on actions local governments can take in the next five years, including advocacy to other levels of government.

Policy Toolkit for Local Governments to Advance Thermal Safety

The main deliverable from this project is a policy toolkit (Reference 2) primarily for local governments that identifies actions including advocacy to other levels of government to support thermal safety in buildings. The toolkit outlines policy options for local governments together with other partners to ensure apartment owners and tenants in the Lower Mainland have access to the information, technologies and supports they need to safeguard their thermal safety.

The toolkit outlines 31 policy options organized in four categories to address typical barriers to thermal safety retrofits:

- *Awareness and understanding* – Expanding knowledge of thermal safety risks and solutions among tenants, building owners, and decision makers;
- *Policy and legislation* – Removing regulatory barriers and enacting policies that enable widespread adoption of cooling measures;
- *Funding and financing* – Increasing access to and affordability of cooling retrofits, including exploring municipal financial tools to support installations; and,
- *Industry and technology* – Strengthening industry capacity to design, install, and maintain effective cooling solutions.

The policy options were derived from a variety of sources, including an extensive literature review, subject matter and practitioner expertise, and industry insights. Although the primary audience for the toolkit is municipal and regional governments in BC's Lower Mainland, other local governments across the province, health authorities, and the BC Government, among others, may take an interest in the findings. Many of the policy options are highly collaborative in nature, requiring several organizations to work together to effectively implement. Similar projects to this one are now underway in the cities of Toronto, New York, Washington DC, and Austin.

Supporting Local Government Action on Thermal Safety

Metro Vancouver staff, along with the project partners, will engage with interested member jurisdictions to discuss implementation of the toolkit, determine priorities including advocacy to provincial and federal governments, and explore opportunities for collaboration or support on actions to improve thermal safety in apartments.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

Metro Vancouver's financial contribution to this project was \$50,000, allocated from the 2023 Air Quality and Climate operating budget, which matched partner funding contributions. The City of North Vancouver contributed \$25,000 and led procurement for the project, VCH Public Health contributed \$25,000 and staff time for project management, and the City of Vancouver contributed in-kind.

CONCLUSION

Thermal safety in buildings is an increasing concern for residents in Metro Vancouver as temperatures rise. This project provides a toolkit for local government to consider opportunities for improving thermal safety in low-rise apartment buildings. Successfully reducing indoor heat risks will require collaboration. This report represents a first step in identifying opportunities for Metro Vancouver and other local governments to collaborate on future work.

ATTACHMENTS

1. Presentation re: "Local Government Policy Toolkit for Improving Thermal Safety in Apartment Buildings", dated May 9, 2025.

REFERENCES

1. Vancouver Coastal Health. (2023). *Vancouver Coastal Health's 2023 Chief Medical Health Officer Report*. Retrieved from <https://www.vch.ca/en/chief-medical-health-officer-report>. Last Accessed 2025, April 11.
2. Metro Vancouver. (April 2025). *Thermal Safety in Existing Multi-Unit Residential Buildings: A Policy Toolkit for Local Governments in BC's Lower Mainland*. Retrieved from <https://metrovancover.org/services/air-quality-climate-action/Documents/thermal-safety-in-existing-multi-unit-residential-buildings.pdf>. Last Accessed 2025, April 25.



Smoky air in Surrey

Local Government Policy Toolkit to Improve Thermal Safety in Apartment Buildings

Erik Blair

Senior Planner, Air Quality and Climate
Action Services

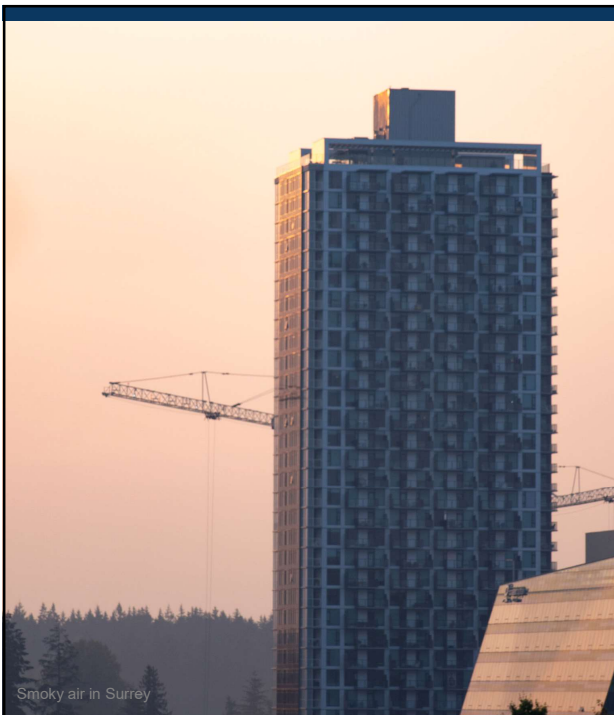
Air Quality and Climate Committee, May 9, 2025
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Morgan Braglewicz

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Smoky air in Surrey

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HEAT RISK IS REAL AND GROWING

- 619 deaths in BC during the 2021 Heat Dome
- 12-fold increase in days requiring cooling expected by 2080s
- Heat risks disproportionately affect seniors, low-income residents, and those with health conditions

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DEFINING THERMAL SAFETY

A state in which indoor temperatures are maintained at a level that prevents adverse health effects

The BC Building Code now requires a maximum design temperature of 26°C in at least one room



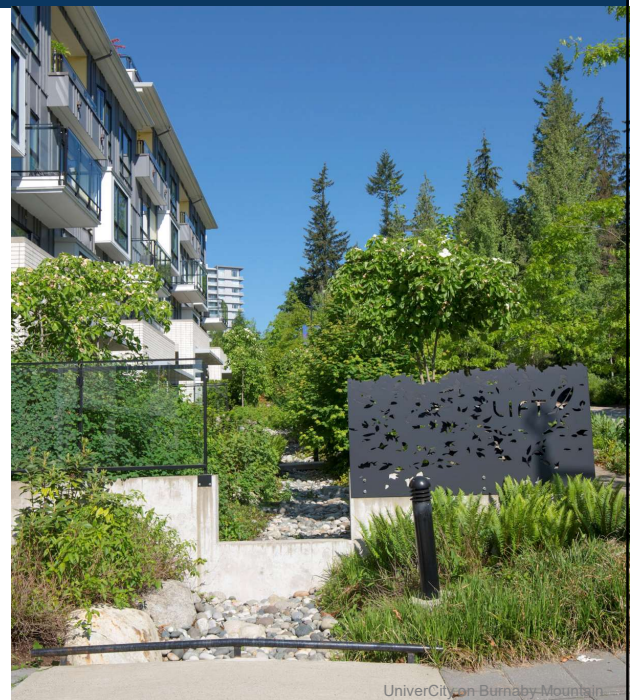
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POLICY TOOLKIT

- Purpose: promote actions to protect residents in apartments during extreme heat
- Target audience: local governments and regional authorities



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THERMAL SAFETY SOLUTIONS

- Installing heat pumps to provide **active cooling**
- Adding **exterior shading** or trees to block sun
- Adding **windows that open** to improve airflow
- Placing a small **air conditioner** in a common room as a temporary measure
- Measures with cooling co-benefits such as a green roof

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ACTION THEMES



Awareness & Understanding

Expanding knowledge of thermal safety risks and solutions among tenants, building owners, and decision makers



Policy & Legislation

Removing regulatory barriers and enacting policies that enable widespread adoption of cooling measures



Funding & Financing

Increasing access to and affordability of cooling retrofits, including exploring municipal financial tools to support installations



Industry & Technology

Strengthening industry capacity to design, install, and maintain effective cooling solutions

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NEXT STEPS

Supporting Local Government Action on Thermal Safety

Engage with member jurisdictions to explore priorities and use of the toolkit

Support implementation of priority actions where there's interest

Collaborate with provincial partners to align on retrofit policies

Advance priority actions for improving thermal safety in apartment buildings without cooling

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Vancouver Skyline

Thank you

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To: Air Quality and Climate Committee

From: Lise Townsend, Division Manager, Air Quality and Climate Action Services
Sara Muir, Air Quality Planner, Air Quality and Climate Action Services

Date: April 10, 2025 Meeting Date: May 9, 2025

Subject: **BC Utilities Commission Decisions on BC Hydro's Distribution Extension Policy and 2024 Rate Design Applications**

RECOMMENDATION

That the MVRD Board receive for information the report dated April 10, 2025, titled "BC Utilities Commission Decisions on BC Hydro's Distribution Extension Policy and 2024 Rate Design Applications."

EXECUTIVE SUMMARY

As directed by the MVRD Board, Metro Vancouver participated with member jurisdictions (City of Richmond, City of Vancouver, and District of North Vancouver) as local government interveners in two BC Utilities Commission proceedings for BC Hydro's Distribution Extension Policy and 2024 Rate Design. The local government interveners recommended the BC Utilities Commission approve both applications, stating support along with suggested areas for improvement and analysis.

The BC Utilities Commission approved the new Distribution Extension Policy, effective July 5, 2025, and the 2024 Rate Design, with most changes in effect as of April 1, 2025. A separate Net Metering Service Rate proceeding, stemming from the Rate Design process, is underway to address compensation for customer-generated electricity exported to the grid. Local government interveners' input informed BC Hydro's commitments to engage local governments on small-scale multi-unit housing connections and to the BC Utilities Commission directing BC Hydro to report on rate impacts for low-income households. Metro Vancouver staff will continue to engage with BC Hydro, the Province and the BC Utilities Commission to support policies and rate designs aligned with local government energy transition goals.

PURPOSE

To inform the MVRD Board of the outcomes of two BC Utilities Commission Proceedings that Metro Vancouver participated in as an intervener, including relevance to local government policy goals and interests in the energy transition.

BACKGROUND

As outlined in the report to the Climate Action Committee on September 5, 2024, titled "BC Hydro's 'Distribution Extension Policy' and '2024 Rate Design' Applications to the BC Utilities Commission" (Reference 1), the MVRD Board directed staff to:

- a) participate as an intervener in the BCUC proceedings for BC Hydro's applications for "Distribution Extension Policy" and "2024 Rate Design";

- b) analyze and provide input to the proceedings to align with Board-adopted policies and targets including for regional air quality, clean and renewable energy and GHG reduction, including submitting comments, evidence, and a final argument; and
- c) report back to the Climate Action Committee and Board on outcomes of the proceedings as outlined in the report.

Consistent with Board direction and BC Utilities Commission (BCUC) requirements, Metro Vancouver coordinated with the City of Richmond, City of Vancouver, and District of North Vancouver in the proceedings on information requests and submitted final arguments jointly as the Local Government Interveners.

Metro Vancouver's board-endorsed *Climate 2050 Energy Roadmap* includes targets and strategies to plan for the region's transition to clean, renewable, and resilient energy. Actions include working with member jurisdictions to provide input to relevant utility and regulatory processes, and advocating to the provincial government, the BCUC, and utilities for coordinated long-term planning for the energy transition.

LOCAL GOVERNMENT INTERESTS IN ELECTRICAL DISTRIBUTION POLICY AND RATES

The Metro Vancouver region, and society more broadly, is transitioning to clean, reliable, and resilient energy for services, buildings, and industries. Metro Vancouver, member jurisdictions and utilities are engaged in this transition while grappling with challenges such as scaling electrical infrastructure to accommodate rapid growth while maintaining affordable and fair electricity rates. BC Hydro's policies and rates can support or delay local governments' progress on affordability, growth, and climate goals. Consistent with previous BCUC proceedings, Metro Vancouver's participation leverages its role in convening member jurisdictions to offer meaningful input on energy planning matters most efficiently addressed at a regional scale.

As outlined in the September 2024 report to the Climate Action Committee, the interests of the Local Government Interveners in each proceeding are primarily as follows:

- In the Distribution Extension Policy proceeding, addressing long-standing concerns about unpredictable costs and timelines for electrical connections for new development that can impede delivery of new housing and skew decisions toward gas-based systems.
- In the 2024 Rate Design proceeding, ensuring that rates are equitable, protect low-income customers, and support efficient electrification aligned with air quality and climate goals.

BCUC PROCEEDING: BC HYDRO'S DISTRIBUTION EXTENSION POLICY APPLICATION

Distribution infrastructure refers to the network of wires, poles, transformers, and substations that delivers electricity from high voltage transmission lines to individual homes, businesses, and other end users at a lower, usable voltage. BC Hydro's Distribution Extension Policy application (Reference 2) was filed with the BCUC on June 27, 2024. The Distribution Extension Policy guides the allocation of costs of new electrical service for connections of 35 kV and under. BC Hydro's application was the first update to the policy in 16 years. The application aims to "modernize" the approach to paying for new and upgraded electrical distribution extensions, including allocation of cost and responsibilities for the addition or modification of infrastructure to serve new or increased

electricity demand. It also seeks to address stakeholder concerns regarding cost predictability and fairness in distribution extensions, while supporting affordable and sustainable housing development and electrification.

Local Government Interveners Input to the BCUC Proceeding on BC Hydro's Distribution Extension Policy Application

The Local Government Interveners' final argument on the Distribution Extension Policy application, submitted on December 2, 2024, stated overall support for the policy due to improved cost predictability and fairness in distribution extensions, expediting housing development, and supporting electrification. The LGI noted the application represents a significant and overdue improvement and recommended the BCUC find the application in the public interest and approve it without delay or conditions. The LGI also recommended five areas for improvement, including:

1. Continue to engage with local governments to explore reducing the uncertainty and cost of **small-scale multi-unit housing (i.e., four to six units per building)** connections, and report back within two years;
2. Provide equal treatment for system improvement investments for **thermal energy centres** compared to building-scale extensions;
3. Provide contribution for service upgrades for **existing customers** as well as new dwellings;
4. Update future **contribution calculations** to ensure they reflect accelerated electrification and growing per-customer power consumption; and
5. The BCUC should initiate an inquiry to **update the system extension test guidelines** to ensure they more consistently and comparably apply to modern utility practices and conditions, including integrated planning of electrical, gas and thermal energy systems.

The BCUC approved the application on March 5, 2025, and the new Distribution Extension Policy will come into effect on July 5, 2025. The new policy will shift system upgrade costs (e.g., upgrades to a distribution line triggered by a development application) from new customers to the broader rate base. BC Hydro will provide the BCUC with an evaluation report by December 5, 2028, to assess the policy's effectiveness, including an evaluation of service connection effectiveness for small-scale multi-unit housing, and will continue to engage with local governments on this topic.

BCUC PROCEEDING: BC HYDRO'S 2024 RATE DESIGN APPLICATION

BC Hydro's 2024 Rate Design proposal (Reference 3) was filed on June 27, 2024, outlining proposed rate design changes, including residential service rates, net metering¹, non-integrated area rates, and the Electric Tariff Terms and Conditions.

The Local Government Interveners submitted their final argument for BC Hydro's 2024 Rate Design application (excluding net metering) on November 28, 2024. The Local Government Interveners' final argument indicates overall support of the 2024 Rate Design application, with four suggested areas for improvement:

¹ BC Hydro requested and was granted an extension to its net metering proposal to March 20, 2025, in a related but separate proceeding. All registered interveners, including the LGI, were automatically registered into the Net Metering Proceeding, which remains underway at the time of this report.

BC Utilities Commission Decisions on BC Hydro's Distribution Extension Policy and 2024 Rate Design Applications

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1. Include more robust analysis of impacts to low-income customers;
2. Explore additional rate options for low-income customers in future rates application to be submitted by end of 2025;
3. Include assessment of greenhouse gas (GHG) emissions implications resulting from rate design changes in future rate design applications; and,
4. Investigate incentives for thermal storage technologies related to thermal energy networks.

The BCUC approved the 2024 Rate Design application on February 24, 2025. The new rate design makes a flat electricity rate available to all customers, starting April 1, 2025. Under this new flat rate residential electricity rates will no longer increase above a threshold of 1,350 kwh in a two-month billing period, which helps support the adoption of heat pumps and EVs. Though the flat rate aligns with direction from the BCUC and was supported by Metro Vancouver and the other local government intervenors, the BCUC agreed with input from the Local Government Interveners that a shift to the flat rate could negatively impact low-income customers who use relatively less electricity. BCUC directed BC Hydro to examine this issue more closely in their next Revenue Requirements Application, to be filed December 2028.

Net Metering Service Rates Proceeding

In February 2025, the BCUC approved BC Hydro's request to create a separate review proceeding for the Net Metering portion of the 2024 Rate Design Application and on March 20, 2025, BC Hydro submitted its Net Metering Service Rates evidentiary update (Reference 4). The Net Metering Service Rates submission includes a proposed excess generation price for self-generation customers and a new community generation rate for multiple account holders invested collectively in generation facilities for compensation for electricity exported to the BC Hydro grid. Metro Vancouver staff, together with other local governments, are currently reviewing BC Hydro's net metering submission to confirm their level of involvement, and staff will report back to the AQC and Board on any LGI input provided and outcomes of this final phase later in 2025 or early 2026.

LOCAL GOVERNMENT POLICY IMPLICATIONS

Metro Vancouver, together with the City of Vancouver, City of Richmond and District of North Vancouver, offered important input as local government intervenors on the BC Hydro Distribution Extension Policy and 2024 Rate Design applications (excluding Net Metering Service Rates).

The updated Distribution Extension Policy represents an improvement in the administration of extensions and cost recovery for extensions and BC Hydro has committed to: meeting with local governments every six months to advance its small scale multi-unit housing commitments; analyzing small scale multi-unit housing connection requests and sharing its findings with local governments; and implementing process and business practice improvements to facilitate efficient small scale multi-unit housing connections.

In response to the Local Government Intervener input on the 2024 Rate Design application, the BCUC directed BC Hydro to provide more data with each future rate change, including bill impacts by customer consumption level and, where available, the proportion of low-income customers affected. BC Hydro has also committed to assessing the legal basis for a potential income-qualified

BC Utilities Commission Decisions on BC Hydro's Distribution Extension Policy and 2024 Rate Design Applications

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discount. Noting that BC Hydro plans to initiate customer engagement in early 2025, the BCUC did not mandate a specific timeline regarding additional rate applications.

Metro Vancouver staff will continue to engage with BC Hydro, the Province and the BCUC to advocate for further policy improvements and rate designs that support local government energy transition goals, including issues not fully addressed in the present proceedings. Some of these issues may include:

- the broader issue of proactive investments in the distribution grid for future load growth;
- opportunities analyses and support for distributed energy resources; and
- energy self-sufficiency and microgrid feasibility to support critical infrastructure and community resilience.

Future BCUC proceedings that could present opportunities for Metro Vancouver and other local governments to assess and engage on the regulation of these and related matters include:

- BC Hydro's Evaluation Report
- BC Hydro's F2027-F2028 Revenue Requirements Application
- BC Hydro's 2025 Integrated Resource Plan
- FortisBC Energy Inc. (FEI) 2026 Long Term Gas Resource Plan

Staff would seek Board direction on intervening in these or other BCUC proceedings.

NEXT STEPS

The Local Government Interveners (excluding City of Richmond) are participating in BCUC's proceeding on BC Hydro's Net Metering Rates and are currently reviewing BC Hydro's recently submitted net metering evidentiary update. The timing on BCUC's final decision for BC Hydro's net metering application is yet to be determined. Staff will report back to the Board on the outcomes of the BCUC net metering proceeding via a future Air Quality and Climate Committee meeting.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

This report is for information and does not have any direct financial implications. Costs to hire a consultant to support the LGI participation in these BCUC proceedings were provided for in the departmental operating budget and are being shared among the LGI parties. Electricity policies and rates can have significant financial implications for residents, businesses, and Metro Vancouver's corporate operations, and is one of the central interests to Metro Vancouver in these proceedings.

CONCLUSION

Consistent with Board direction and previous BC Utilities Commission proceedings, Metro Vancouver participated jointly with other jurisdictions as local government interveners in the BC Utilities Commission proceedings for BC Hydro's Distribution Extension Policy and 2024 Rate Design

BC Utilities Commission Decisions on BC Hydro's Distribution Extension Policy and 2024 Rate Design Applications

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applications. The Local Government Interveners recommended the BC Utilities Commission approve both applications and provided input on areas for improvement.

Metro Vancouver staff are continuing to engage with BC Hydro, the Province and the BCUC to support policies and rate designs aligned with local government energy transition goals. Staff will report back to the MVRD Board on outcomes of the Net Metering update, which is the final stage of the original 2024 Rate Design proceeding.

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To: Air Quality and Climate Committee

From: Geoff Doerksen, Air Quality Planner, Air Quality and Climate Action Services
Ken Reid, Superintendent Environmental Sampling and Monitoring, Air Quality and Climate Action Services

Date: April 7, 2025 Meeting Date: May 9, 2025

Subject: **Air Quality Advisory Program and Preparedness for 2025**

RECOMMENDATION

That the MVRD Board receive for information the report dated April 7, 2025, titled “Air Quality Advisory Program and Preparedness for 2025”.

EXECUTIVE SUMMARY

For over 30 years, Metro Vancouver has operated an air quality advisory program in collaboration with health authorities and partners. Metro Vancouver issues air quality warnings to protect public health when regional air quality degrades. In 2025, the name “air quality advisory” will change to “air quality warning”, aligning with provincial and federal partners to improve public understanding of air quality warnings.

The risk of wildfire and smoke this season depends on May and June rainfall, which can influence the length and intensity of the wildfire season in BC. Lower snowpack levels are also important indicators of increased wildfire risk in summer. Average snowpack levels are below normal in BC (73 percent on March 1) and Metro Vancouver’s watersheds (80 percent on April 3). Metro Vancouver is experiencing the impacts of a changing climate now, with wildfire smoke and heat waves degrading regional air quality in seven of the last ten summers.

PURPOSE

To provide information about Metro Vancouver’s air quality advisory program, wildfire smoke preparedness, and advisory planning activities for the 2025 advisory season.

BACKGROUND

The Air Quality and Climate Committee 2025 Work Plan includes an item to provide a report on the air quality advisory program and preparedness for the 2025 season. This air quality advisory program began in 1993 and is operated under Metro Vancouver’s delegated authority to manage air quality in the Metro Vancouver region and through a shared service agreement for the Fraser Valley Regional District.

AIR QUALITY AND HEALTH IMPACTS

Air pollution significantly affects human health, the environment, and the economy. Health-harming air contaminants (commonly referred to as “air pollutants”) that Metro Vancouver residents breathe directly impact their health and lifespan, and also have costs to society, including increased medical treatments and lost productivity.

The potential regional health benefits from implementing Metro Vancouver’s Clean Air Plan over a ten-year period have been estimated to be as much as \$1.6 billion, based on Health Canada data.

Health Canada estimates that air pollution from human sources and wildfires contributes to 1,900 premature deaths per year in British Columbia (Reference 1), and recent research on the health effects of wildfire smoke exposure has demonstrated that relatively low smoke concentrations can still lead to an increase in asthma-related physician visits (Reference 2). For these reasons, it is important to warn residents when air quality is degraded so that they can take action to protect themselves from air pollution.

METRO VANCOUVER AIR QUALITY ADVISORY PROGRAM

Metro Vancouver operates one of the most comprehensive air quality advisory programs in Canada. Metro Vancouver issues advisories, now called warnings, for the entire Lower Fraser Valley airshed, including Metro Vancouver and parts of the Fraser Valley Regional District, when air quality is degraded or expected to degrade. The program is delivered in collaboration with Environment and Climate Change Canada, the BC Ministry of Environment and Parks, Fraser Valley Regional District, Vancouver Coastal Health Authority, Fraser Health Authority, First Nations Health Authority, and the BC Centre for Disease Control.

Metro Vancouver’s air quality monitoring network provides data that is available in real time on AirMap.ca (Reference 3) and informs the air quality advisory program. Air contaminants of primary concern are those with greatest potential to reach levels in the region that may be harmful to human health:

- **ground-level ozone**, or smog, is produced by a chemical reaction between nitrogen oxides and volatile organic compounds on hot and sunny days, and
- **fine particulate matter**, from sources including wildfire smoke, residential wood smoke, vehicle exhaust, industrial processes, and chemical reactions.

These contaminants are measured against Metro Vancouver’s ambient air quality objectives, which are benchmarks for acceptable air quality.

Metro Vancouver is updating the name of “Air Quality Advisories” to “Air Quality Warnings” this season. While the underlying advisory program will remain unchanged, the terminology is being revised to support greater consistency and clarity. This change aligns with ongoing collaboration between Metro Vancouver and provincial and federal partners to improve public understanding and communication of air quality warnings. Social media posts in the spring will notify the public of this change, and related web pages will be updated.

Metro Vancouver staff provide on-call coverage seven days a week from June to mid-September, when air quality has historically been degraded, with further coverage if needed. Staff use tools, such as data from the air quality monitoring network, air quality and wildfire smoke forecasts, and satellite imagery, to guide decisions about issuing a warning, and regularly consult with advisory program partners.

PUBLIC COMMUNICATION

As air quality deteriorates, staff post summaries of conditions on Metro Vancouver's website (Reference 4) and email the summaries to a public subscription list (Reference 5). The summaries inform the public, municipalities, and emergency managers that Metro Vancouver is considering issuing an air quality warning, which may help guide actions to protect public health, such as opening clean air spaces.

An air quality warning is issued when air quality exceeds or is predicted to exceed thresholds defined by Metro Vancouver's air quality objectives. Warnings are intended to reflect regional conditions rather than localized air quality issues (e.g., small structure fire). Warnings are sent to media outlets, a public subscription list, health authorities, and other government agencies, and posted on Metro Vancouver's website, AirMap.ca, and provincial and federal websites. The warning contains information about the reason for the warning being issued, where it is in effect, important information such as checking the Air Quality Health Index (AQHI) regularly, and other actions residents can take to protect their health.

Metro Vancouver may also post information on social media before and during a warning. Posts may include updates about current conditions, health advice, how to receive air quality warnings, where to find information on local air quality conditions, and other resources. For more information about the health impacts of wildfire smoke and ways to reduce exposure, such as using air filtration, residents can visit the BC Centre for Disease Control website (Reference 6).

OUTLOOK FOR THE 2025 SEASON

Summer wildfire conditions across the province will depend on the amount of rain that falls in May and June, as the amount and duration of rain during these months influence the length and intensity of the wildfire season. Provincial and regional snowpack levels are also important indicators leading into wildfire season. Lower snowpacks can limit drought recovery heading into the summer. As of March 1, snowpack levels across the province were below normal, averaging about 73 percent of normal (Reference 7), while snowpack levels in Metro Vancouver's watersheds were about 80 percent of normal on April 3. The BC River Forecast Center has indicated that low snowpacks and lingering impacts from on-going drought combined with warm seasonal weather forecasts are pointing towards elevated drought hazards for this upcoming spring and summer (Reference 7). As of April 4, BC Wildfire Service has yet to publish their Spring 2025 Seasonal Outlook.

CLIMATE CHANGE IMPACTS ON AIR QUALITY

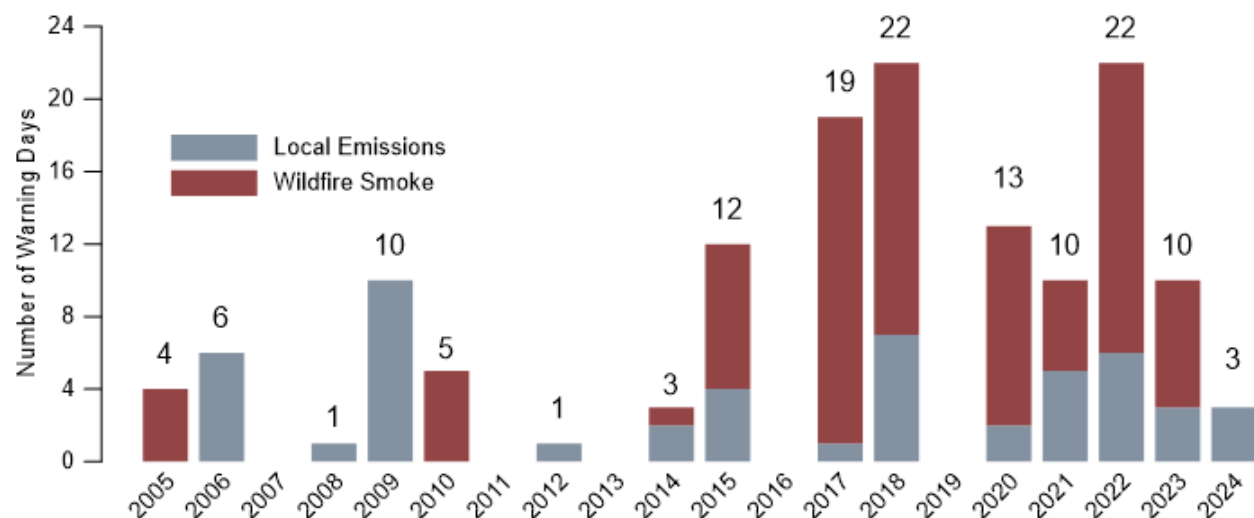
Air quality in the region is already being degraded by the impacts of climate change, and poor air quality causes a wide range of adverse health effects and associated costs. The region is facing

impacts and costs associated with climate change, with increased flooding, crop damage, wildfires, and heat waves, the latter two of which significantly impact air quality.

The summer heat dome in 2021 saw ground-level ozone levels not experienced since the 1980s, and on May 15, 2023, Metro Vancouver issued its earliest ozone advisory since the air quality advisory program began in 1993. Metro Vancouver's *Regional Ground-Level Ozone Strategy* is being updated to consider more extreme temperatures and new sources of emissions, including wildfires, and is included in the Air Quality and Climate Committee's 2025 Work Plan.

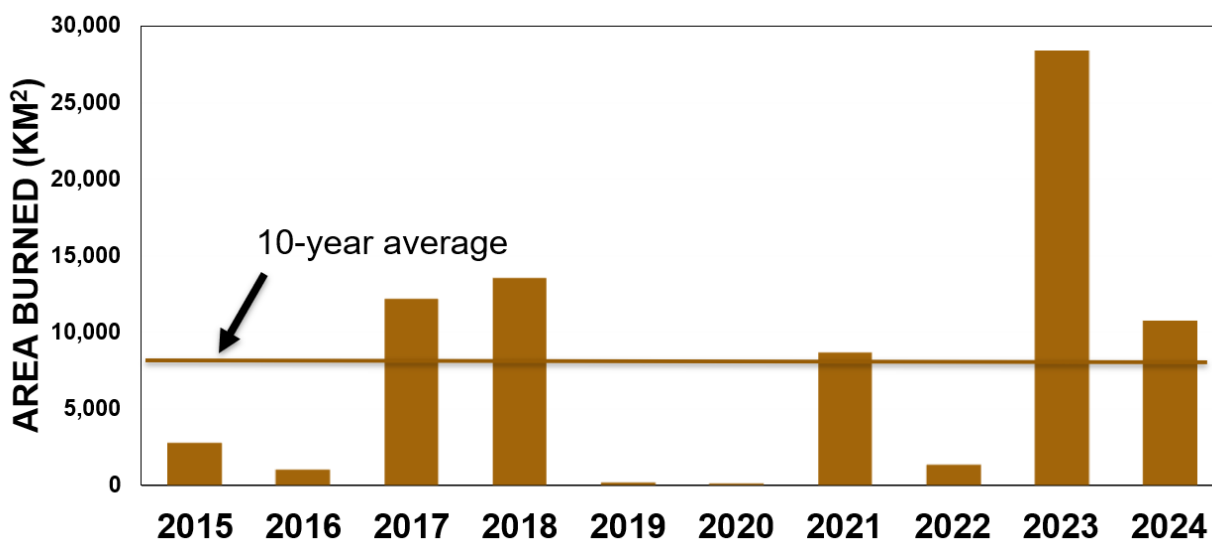
Extensive wildfire smoke impacts have occurred in seven of the last ten summers (Figure 1). Research indicates that after nearly a century-long decline, wildfire activity in BC has increased significantly since 2005 (Reference 8). More area has burned in BC in a recent 7-year period (2017-2023) than in the 58 years preceding (1959-2016). Figure 2 shows the area burned in BC by year in the last 10 years. The combined effects of climate-induced changes and altered wildfire fuels is causing more frequent years of intense and prolonged wildfire activity. With a changing climate, the region can expect warmer, drier summers, and longer periods of drought in the Metro Vancouver region, which can lead to more frequent and severe wildfire smoke impacts and elevated levels of ground-level ozone.

Figure 1: Number of days of air quality warnings (previously called advisories) in the Lower Fraser Valley



Note: Trigger levels for advisories have changed over the years; care must be taken when interpreting these trends.

Metro Vancouver's *Climate 2050* strategy has identified actions to help residents adapt to climate-related impacts on regional air quality, such as accelerating the use of electric heat pumps to cool homes while also reducing greenhouse gas emissions. The *Clean Air Plan* outlines strategies for continuous improvement in regional air quality, including actions to: provide better protection against wildfire smoke (such as public clean air spaces), develop resources to help residents and businesses manage indoor air quality, and provide high quality information to the public during air quality advisories.

Figure 2: Area burned in British Columbia over the last ten years.

Note: Data obtained from the BC Wildfire Service.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

Staff time for the air quality advisory program is included in annual operating budgets, including overtime for evening and weekend work. Consideration of increased resource levels in long term financial planning may be needed as wildfire activity continues to increase in the future.

CONCLUSION

Metro Vancouver staff work closely with health authorities and other partners to continuously improve the air quality advisory program to protect public health. This year the term Air Quality Warning will be used when referring to the public notification of degraded air quality, which replaces the use of Air Quality Advisory. Rainfall amounts and snowpack levels in the next several months are important in shaping the severity of the upcoming wildfire season. The region is experiencing the impacts of a changing climate now, with wildfire smoke impacting the region in seven of the last ten summers. It is essential that Metro Vancouver continues to accelerate actions to reduce greenhouse gas emissions, adapt to a changing climate, and improve regional air quality.

ATTACHMENT

1. Presentation re: "Air Quality Advisory Program and Preparedness for 2025", dated May 9, 2025.

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View of Howe Sound from Brunswick Mountain

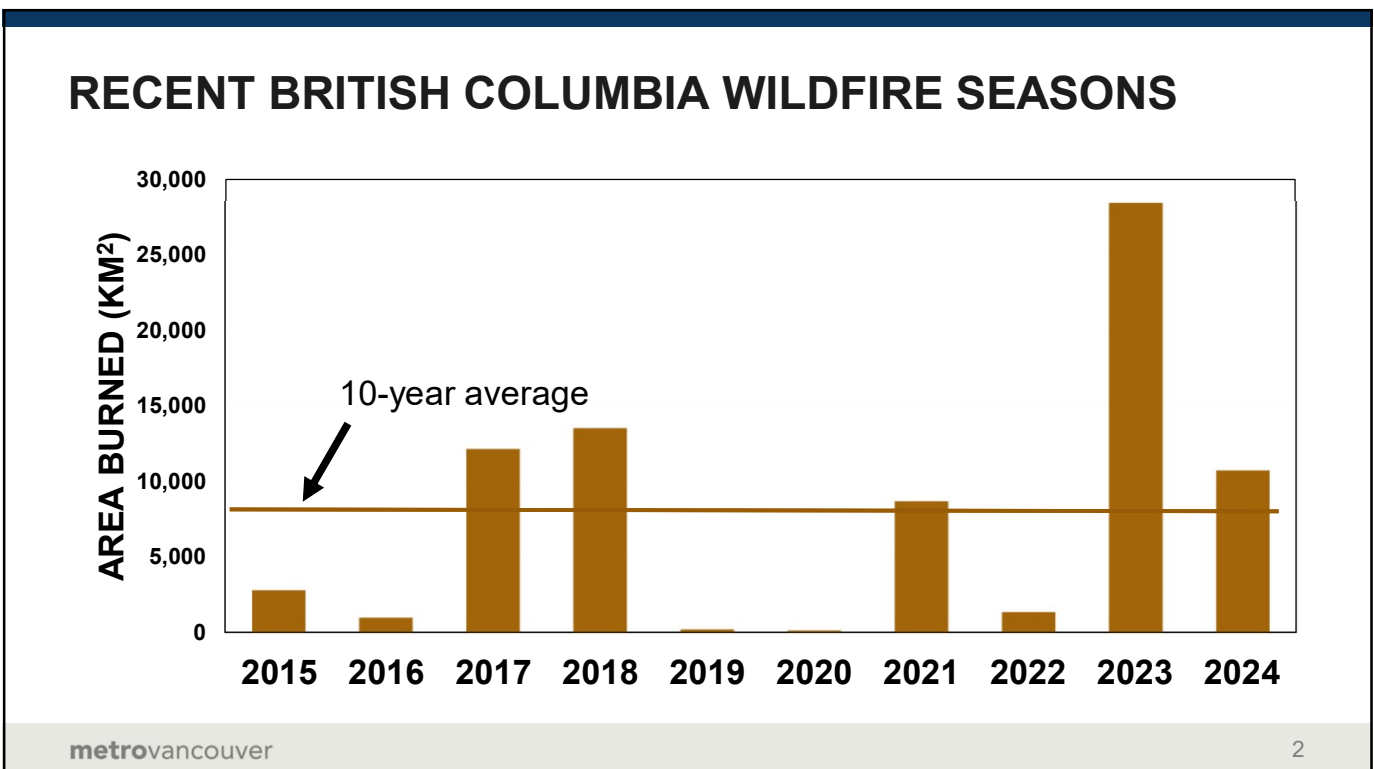
Air Quality Advisory Program and Preparedness for 2025

Geoff Doerksen, M.Sc.
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75350737

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Superintendent, Environmental Sampling and Monitoring

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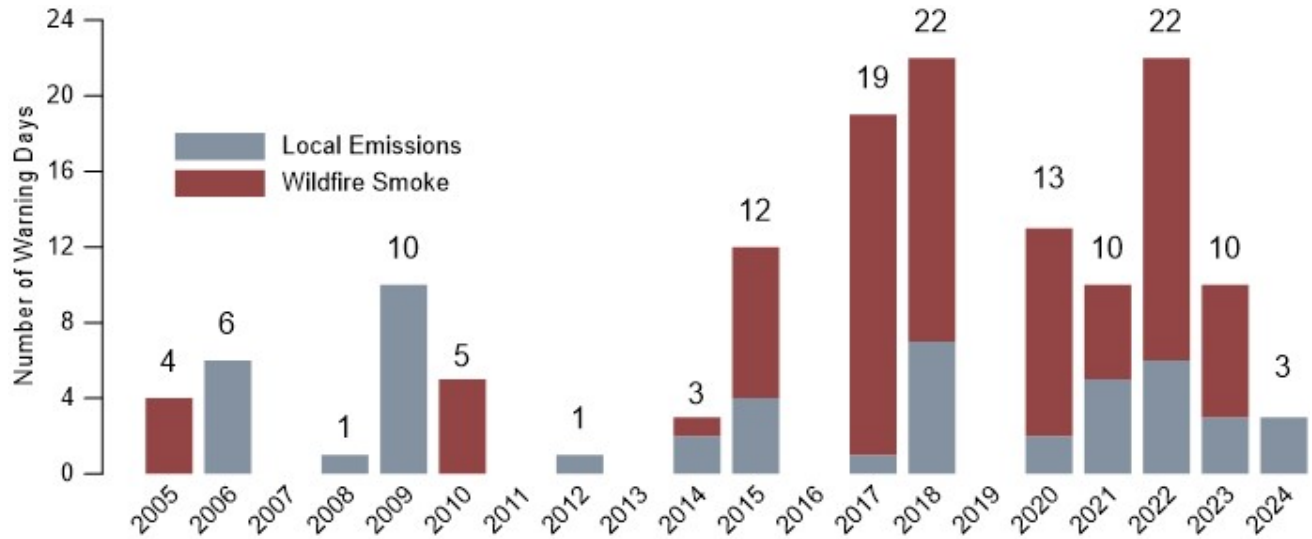
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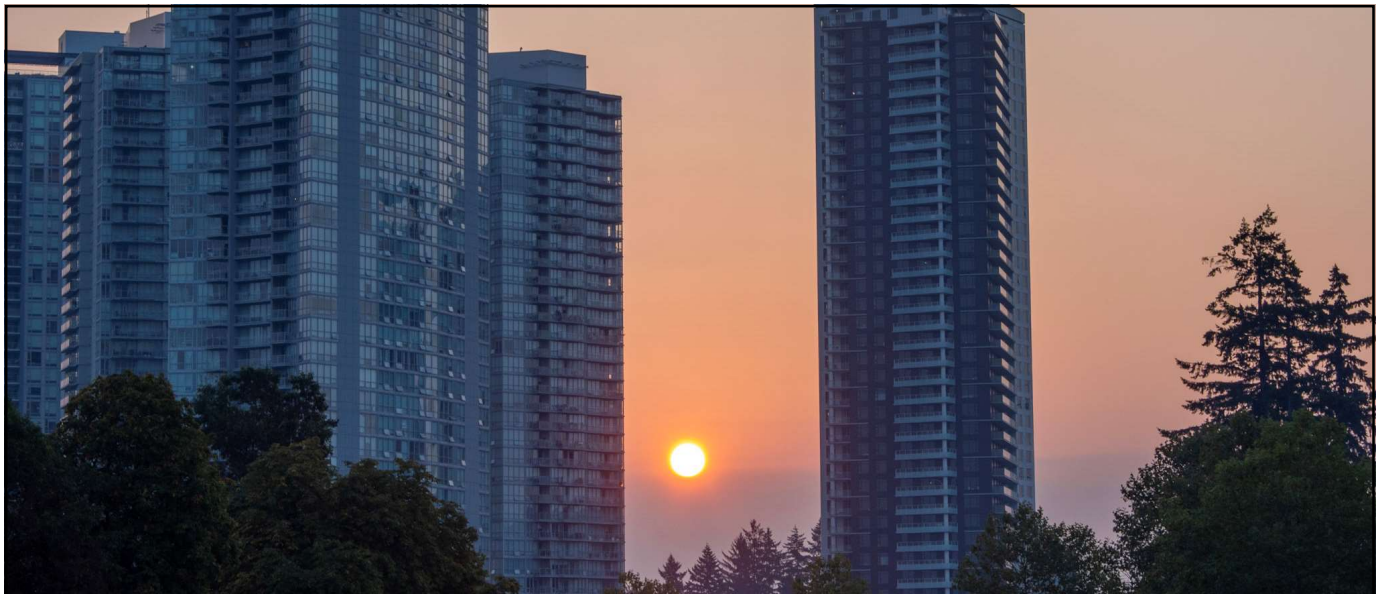
AIR QUALITY WARNINGS 2005-2024



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Around Hawthorne Park, Surrey (2022)

Questions?

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Together we make our region strong

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To: MVRD Board of Directors

From: Conor Reynolds, Director, Air Quality and Climate Action Services

Date: May 15, 2025

Meeting Date: May 23, 2025

Subject: **Proposed Amendments to Air Quality Management Fees: Initiating Engagement**

AIR QUALITY AND CLIMATE COMMITTEE RECOMMENDATION

That the MVRD Board direct staff to engage with interest holders on proposed amendments to the *Metro Vancouver Regional District Air Quality Management Fees Regulation Bylaw No. 1330, 2021*, based on the discussion paper in the report titled “Proposed Amendments to Air Quality Management Fees: Initiating Engagement”, dated May 15, 2025.

At its May 9, 2025 meeting, the Air Quality and Climate Committee considered the attached report titled “Proposed Amendments to Air Quality Management Fees: Initiating Engagement”, dated April 7, 2025. The Committee subsequently requested that additional information be provided in advance of the upcoming Board meeting regarding proposed amendments to MVRD Bylaw No. 1330, 2021, related to:

- the facilities this bylaw applies to;
- what the fees collected are used for (i.e., fair cost recovery);
- why the fee rates are being reduced; and
- input received to date from permit holders.

About MVRD Air Quality Fees Bylaw No. 1330, 2021

MVRD Air Quality Fees Bylaw No. 1330, 2021 sets the rates that Metro Vancouver charges for authorized discharges under Metro Vancouver’s authority to manage and regulate air quality. The bylaw covers air contaminants that impact human health or the environment, including odorous air contaminants. A key principle of the bylaw is that fees are charged based on emissions limits described in a permit, and if a limit is not specified in the permit the fees are charged based on measured (or estimated) emissions.

Facilities this Bylaw Applies To

There are approximately 150 facilities in the region with a valid Metro Vancouver air quality permit. Of these, seven facilities have permits that include odorous air contaminants. These include refineries, organic waste management facilities, and feed manufacturers.

Metro Vancouver’s Approach to Fair Cost Recovery

Metro Vancouver’s air quality regulatory function adheres to the principles of fair cost recovery, discharger pays, and encouragement to reduce emissions. Public polling confirms support for these principles, in particular ‘discharger pays’. Revenues pay for labour, equipment, and regulatory program activities. These include reviewing air quality permit applications, issuing permits, assessing compliance with permits, responding to complaints, developing and amending bylaws,

Proposed Amendments to Air Quality Management Fees: Initiating Engagement

MVRD Board Regular Meeting Date: May 23, 2025

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and taking enforcement action. Odorous air contaminants are the leading cause of the 2500 to 4500 air quality complaints that are received by Metro Vancouver each year. There is a modest budget for legal fees, which are difficult to predict; actual legal costs are recovered from this budget and reserves from prior years.

In 2024, the total amount invoiced to all 150 permitted facilities (i.e., with or without an odour component) was about \$3 million. This covers the majority of the program costs to regulate permitted facilities. However, the portion of the program cost related to the regulation of odorous air contaminants (which is about \$300,000, or 10% of total costs in an average year) are not currently being recovered. This is due to inconsistencies in the bylaw language between odorous contaminants and other air contaminants that affect cost recovery.

The Board has directed staff to move closer to full cost recovery. The proposals in the attached report, if implemented, would get us toward cost recovery for managing odorous air contaminants in an average year by 2030.

Proposed Amendments to Fix Inconsistencies and Reduce Fee Schedule

The current bylaw introduces two distinct sets of fee rates for odorous air contaminants: fee rates effective from Jan 1, 2022 to Dec 31, 2024 and fee rates effective from Jan 1, 2025 onwards. The fee rates for 2025 onwards are too high; they were originally developed in 2020 when there were significant odour complaints associated with specific facilities in the region. They also assumed uptake of odour control technologies that did not come to bear.

Staff seek to fix inconsistencies in the bylaw language and adjust the fee rates. Together, these actions will remove ambiguity in implementation and allow revenue to grow steadily towards cost recovery. Figure 1 below shows this.

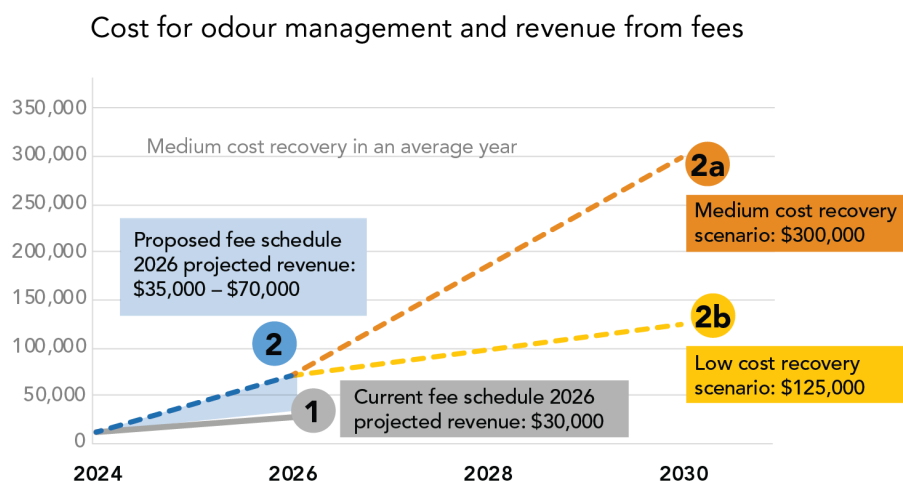


Figure 1: Proposal to move towards cost recovery for managing odorous air contaminants

Figure 1 demonstrates the bylaw (grey, 1), the proposed fee schedule for 2026 reflecting a range of fees (blue, 2), and two options to move toward cost recovery (yellow and orange, 2a and 2b).

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Input from Permit Holders to Date

Staff have heard concerns from permit holders about the 2025 fee rates, and received requests for clarification about inconsistencies in the bylaw.

As an example, one of the larger facilities in the region was invoiced \$5,000 in 2024 for emissions of odorous air contaminants, based on permit limits. The facility expressed concern that in 2025, due to the new fee schedule, it could be charged up to \$700,000. In the proposed amendment scenario, the facility would be charged about \$13,000 in 2026, rising to between \$50,000 and \$120,000 in 2030.

Next Steps

If the Board approves the recommendation, staff will seek input from permit holders, member jurisdictions, and partner agencies (such as health authorities), as well as residents and community representatives impacted by odorous air contaminants. Staff will then return to the Board with refined bylaw amendments for consideration. If supported by the Board, the bylaw amendments would come into effect as soon as possible.

This matter is now before the Board for its consideration.

ATTACHMENTS

1. "Proposed Amendments to Air Quality Management Fees: Initiating Engagement", dated, April 7, 2025.

76286582



To: Air Quality and Climate Committee

From: Gaurav Singh, Air Quality Planner, Air Quality Bylaw and Regulation Development,
Air Quality and Climate Action Services
Esther Bérubé, Division Manager, Air Quality Bylaw and Regulation Development,
Air Quality and Climate Action Services

Date: April 7, 2025 Meeting Date: May 9, 2025

Subject: **Proposed Amendments to Air Quality Management Fees: Initiating Engagement**

RECOMMENDATION

That the MVRD Board direct staff to engage with interest holders on proposed amendments to the *Metro Vancouver Regional District Air Quality Management Fees Regulation Bylaw No. 1330, 2021*, based on the discussion paper in the report titled “Proposed Amendments to Air Quality Management Fees: Initiating Engagement”, dated April 7, 2025.

EXECUTIVE SUMMARY

The MVRD Board directed staff to continue to work toward cost recovery for Metro Vancouver’s air quality regulatory function. Staff propose to engage with interest holders on amendments to *Metro Vancouver Regional District Air Quality Management Fees Regulation Bylaw No. 1330, 2021* (MVRD Bylaw No. 1330, 2021), a bylaw that establishes regulatory fees to recover program costs for air quality management and encourage emission reduction.

The proposed amendments are needed to reduce the scheduled increase to fee rates to balance cost recovery while avoiding undue financial impact on industry and regional affordability. Some program costs have decreased since MVRD Bylaw No. 1330, 2021 was adopted, which warrants a reduction in fee rates. However, odorous air contaminants remain an important generator of air quality complaints and program costs, so it is critical to set a fee structure that enables a reasonable level of program cost recovery for future years.

This report includes a discussion paper that describes the proposed amendments and that will serve as the foundation for the engagement. Staff will consider input from affected audiences and present refined proposed amendments, together with a summary of input and how it was considered, to the MVRD Board in late 2025. If adopted, implementation would proceed in 2026 or sooner if feasible.

PURPOSE

To seek MVRD Board approval to engage with interest holders on proposed amendments to MVRD Bylaw No. 1330, 2021 (Reference 1).

Proposed Amendments to Air Quality Management Fees: Initiating Engagement

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BACKGROUND

At its October 29, 2021 meeting, the MVRD Board adopted MVRD Bylaw No. 1330, 2021, replacing *Air Quality Management Fees Regulation Bylaw No. 1083, 2008*, to set out an updated fee structure for Metro Vancouver's air quality permits, approvals, and emission regulations. The Air Quality and Climate Committee's 2025 work plan identifies the need for engagement to inform updates to MVRD Bylaw No. 1330, 2021, as an opportunity to hear feedback after three years' experience in implementation, changes in legislation referred to in the bylaw, and the current context of economic and geopolitical uncertainty.

This report summarizes the proposed amendments and the engagement approach and seeks direction to initiate engagement with interest holders.

REGIONAL FRAMEWORK FOR AIR QUALITY FEES

Metro Vancouver protects air quality through emission regulations and site-specific permits and approvals to control the discharge of air contaminants. Metro Vancouver charges regulatory fees for authorized air emissions and for applications for authorization to recover administrative costs and to encourage emissions reduction. However, regulatory fees for odorous air contaminants have recovered only a small part of the cost of managing those contaminants, despite them being the leading cause (75-90%) of the 1,500-4,000 air quality complaints received per year by Metro Vancouver. Odorous air contaminants are the main cause of air quality complaints for many air quality regulators (Reference 2).

Public opinion research conducted in 2020 found that 80% of residents believed that businesses emitting pollutants should pay most or all of the costs for regulating those emissions (Reference 3). MVRD Bylaw No. 1330, 2021 was adopted to enhance cost recovery for overall air quality management and incentivize emissions reduction, partly through a significant increase in fee rates for odorous air contaminants scheduled for 2025. Those fee rates were intended to support cost recovery for a rise in odorous air contaminant-related air quality complaints (Reference 4) and appeals (Reference 5) of Metro Vancouver permit decisions observed from 2016 to 2020. While the cost of managing permits and complaints remains high, the effort and cost associated with complaints has decreased at this time.

NEED FOR UPDATES

Metro Vancouver strives to balance environmental protection with economic considerations. As such, Metro Vancouver's air quality regulatory framework requires periodic updates to provide clarity to regulated businesses, update cost recovery, and maintain alignment with federal and provincial legislation. Staff are also looking to address feedback received from regulated businesses in the current context of economic and geopolitical uncertainty.

1. Review of fee calculations

There have been requests for clarification on how fee rates apply when an air contaminant meets the definition of more than one category of air contaminants. Staff are also responding to concerns about the scheduled removal of the fee rate for Total Reduced Sulphur (TRS) compounds in 2025, which could result in higher fees for some facilities when 2025 fee rates for odorous air contaminants apply.

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2. Review of application fees

There is currently no upper limit on application fees for businesses applying for permits and other authorization to discharge air contaminants. This may result in relatively high costs for some businesses. Staff have identified a need to review and adjust these fees to reflect Metro Vancouver's experience with processing applications for large, complex facilities.

3. Need for alignment with recent updates to federal and provincial legislation

In its definitions, MVRD Bylaw No. 1330, 2021 references other legislation in which there have been recent changes. Two to note are the *Canadian Environmental Protection Act, 1999* (CEPA) and its list of toxic substances, as well as the *BC Public Notification Regulation* and its definition of minor amendments to permits.

PROPOSED AMENDMENTS

The four main proposed amendments are described in the discussion paper in Attachment 1 and summarized below.

1. Clarifying the calculation of emission fees for multi-category air contaminants

The proposed amendments would clarify that when an air contaminant meets the definition of more than one category, the highest applicable emission fee rate would apply. This approach would support consistency and align fees with the most significant potential impacts of emissions.

2. Reducing fee rates for odorous air contaminants

The proposed amendments would reduce fee rates for odorous air contaminants to balance cost recovery with regional affordability. Extending the use of the 2024 emission fee rate for Total Reduced Sulphur compounds is also proposed, with a phased increase over time. These fee rates would continue to encourage emissions reduction in coordination with how Metro Vancouver manages odorous air contaminants in current issued permits and approvals. Additional clarifications are proposed regarding the calculation of fees where emission limits are specified in permits or approvals or where emissions are measured above or below analytical method detection limits. This will maintain fairness and predictability for businesses subject to emission fees.

3. Reducing maximum fees for applications for authorization, and applying interest on overdue payments

The proposed amendments would introduce a limit of \$450,000 on application fees for businesses applying for authorization to discharge air contaminants. This limit reflects the historical effort to process large, complex facilities' applications for authorization.

The proposed amendments would also introduce a provision to charge interest on overdue payments, consistent with provisions under other Metro Vancouver bylaws.

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4. Updating definitions

The proposed amendments would refine definitions for hazardous air pollutants (HAP), volatile organic compounds (VOC), and other air contaminants. The bylaw would also be updated to reflect recent changes to the *Canadian Environmental Protection Act, 1999* and the *BC Public Notification Regulation*. The definition of “minor amendment” to permits and approvals will reflect changes to that definition in the revised *BC Public Notification Regulation*.

ENGAGEMENT APPROACH

Staff propose engaging with interest holders including those likely to comment, be impacted, or have a role in implementation. These would include regulated businesses as well as First Nations, member jurisdictions, government agencies, health authorities, and members of the public with an interest in air quality and related health impacts. Metro Vancouver would ensure the opportunity for public input, particularly for residents that live or work near permitted facilities or have indicated an interest in the management of odorous air contaminants. Staff will use this input to refine the proposed amendments.

The purpose of the engagement is to:

- Provide information on the process to update the bylaw and opportunities for input;
- Hear and record the findings from the identified key audiences; and
- Demonstrate through reporting how the input was considered in final policy recommendations.

Examples of the activities that will be promoted to support this engagement are:

- A website with information about this engagement process and the discussion paper;
- Meetings to share information and hear feedback; and
- An online feedback form.

ALTERNATIVES

1. That the MVRD Board direct staff to engage with interest holders on proposed amendments to the *Metro Vancouver Regional District Air Quality Management Fees Regulation Bylaw No. 1330, 2021*, based on the discussion paper in the report titled “Proposed Amendments to Air Quality Management Fees: Initiating Engagement”, dated April 7, 2025.
2. That the MVRD Board receive for information the report dated April 7, 2025, titled “Proposed Amendments to Air Quality Management Fees: Initiating Engagement”.

FINANCIAL IMPLICATIONS

Under Alternative 1, staff will proceed with engagement on proposed amendments. Funds for this engagement are included in the approved program budget for 2025.

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Included in the engagement will be a review and potentially a proposal to reset the scheduled fees for 2025 in MVRD Bylaw No. 1330, 2021, as odour management costs can vary widely from year to year, and therefore could lead to over or under recovery of costs and have a cumulative effect on future fees. Current scheduled fees are based on the years with the highest levels of air quality complaints and associated regulatory costs. The proposed fee rates and bylaw clarifications seek to progressively align fee rates with low to medium levels of regulatory costs estimated to range from \$125,000 to \$300,000 per year. The MVRD Board has directed staff to continue to work toward cost recovery for Metro Vancouver's air quality regulatory function to avoid over or under cost recovery as we set regulatory rates.

CONCLUSION

Proposed amendments to MVRD Bylaw No. 1330, 2021 aim to improve clarity, reduce fee rates to balance cost recovery with regional affordability while encouraging emissions reduction, and align with federal and provincial legislation and other standards. These updates support the objectives outlined in the *Clean Air Plan* and *Board Strategic Plan 2022-2026*. The proposed amendments include clearer calculation of fees, reduced fee rates, a limit on application fees for permits and other authorizations, and updated definitions.

Staff recommend Alternative 1, that the MVRD Board direct staff to engage with interest holders, before returning to the Board with refined proposed bylaw amendments for consideration.

ATTACHMENTS

1. Discussion paper on proposed amendments to Metro Vancouver's Air Quality Management Fees Regulation Bylaw No. 1330, dated May 2025.
2. Presentation re: "Proposed Amendments to Air Quality Management Fees", dated May 9, 2025.

REFERENCES

1. Metro Vancouver Regional District, Bylaw No. 1330, 2021, *MVRD Air Quality Management Fees Regulation Bylaw, Unofficial Consolidation, 2021*. Retrieved from https://metrovancover.org/boards/Bylaws/MVRD_Bylaw%201330_Consolidated.pdf Last accessed 2025, April 6.
2. Nicell, J. A. (2009) Assessment and regulation of odour impacts. *Atmospheric Environment*. 43. (1): 196-206.
3. Justason Market Intelligence Inc., 2020. *Air Quality Fees Survey*. Retrieved from <https://metrovancover.org/services/air-quality-climate-action/Documents/air-quality-fees-survey-2020.pdf>. Last accessed 2025, April 6.
4. Metro Vancouver Regional District, 2025. *GFL Delta Organics Facility*. Retrieved from <https://metrovancover.org/services/environmental-regulation-enforcement/air-quality-regulatory-program/gfl-delta-organics-facility> . Last accessed 2025, April 6.
5. Metro Vancouver Regional District, October 2021. *MVRD Air Quality Management Fees Regulation Bylaw No. 1330, 2021*. Agenda item G 2.1. Retrieved from https://metrovancover.org/boards/GVRD/RD_2021-Oct-29_AGE.pdf#243. Last accessed 2025, April 7.



Proposed Amendments to Metro Vancouver's Air Quality Management Fees Regulation Bylaw No. 1330

Discussion Paper

May 2025

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Summary

Metro Vancouver regulates the discharge of air contaminants from businesses and other emission sources within the region. Businesses with emissions authorized under permits, approvals, or emission regulation bylaws pay fees based on the quantity and potential impact of authorized air contaminants.

In response to feedback from regulated businesses, Metro Vancouver proposes focused amendments to the *Metro Vancouver Regional District Air Quality Management Fees Regulation Bylaw No. 1330, 2021* (MVRD Bylaw 1330, 2021). The proposed amendments would clarify the fee structure, reduce some fee rates to balance cost recovery with impacts on regulated businesses and regional affordability, and align definitions with federal and provincial legislation. These updates align with Metro Vancouver's commitments under the *Clean Air Plan* and the *Board Strategic Plan 2022-2026*, and are guided by continuous improvement.

Proposed amendments would:

- clarify which fees apply to air contaminants that fall within more than one category of air contaminants;
- reduce fee rates for odorous air contaminants (OACs), and clarify how these fees are applied;
- reduce the maximum fee for applications for permits, approvals, and amendments;
- apply interest to overdue payments; and
- update definitions to align with federal and provincial legislation that has changed since MVRD Bylaw 1330, 2021 was adopted in October 2021.

The proposed amendments emphasize the principle of cost recovery from emitters of air contaminants, requiring businesses to bear financial responsibility in proportion to the potential impacts of their emissions. This approach encourages emissions reduction and promotes fairness across regulated businesses.

Metro Vancouver invites feedback on the proposed amendments by August 1, 2025. All input will be considered until the Metro Vancouver Board makes a decision on the final amendments.

Purpose of this Discussion Paper

The proposed changes reflect Metro Vancouver's commitment to balancing environmental protection with economic considerations, ensuring the region's air quality management framework remains effective, equitable, and responsive to evolving needs.

This discussion paper serves to:

- Provide detailed information on the proposed amendments;
- Explain the rationale behind the proposed amendments, emphasizing alignment with the principles of cost recovery and regional affordability; and

- Support engagement with interest holders likely to comment, be impacted, or have a role in implementation.

This discussion paper may be of interest to:

- Businesses subject to air quality regulatory fees;
- First Nations;
- Metro Vancouver's member jurisdictions;
- Provincial, federal, and other government agencies;
- Health authorities; and
- The broader public, including those with an interest in air emissions, or who may be impacted by this bylaw (for example, through proximity to a permitted facility).

Metro Vancouver welcomes feedback from all interest holders on the proposed amendments. Input will be considered until the Metro Vancouver Board decides on amendments to MVRD Bylaw 1330, 2021.

Context

The Metro Vancouver Regional District (MVRD) consists of 21 municipalities, one electoral area, and one Treaty First Nation. Under authority delegated by the provincial government initially through Letters Patent and then through the British Columbia *Environmental Management Act* (EMA), Metro Vancouver has been responsible for managing air quality and regulating the discharge of air contaminants in the region for over 50 years. Section 31 of the EMA grants the Metro Vancouver Board the power to “prohibit, regulate and otherwise control and prevent the discharge of air contaminants” and “establish [...] rates or levels of fees” through bylaws.

The *Greater Vancouver Regional District Air Quality Management Bylaw No. 1082, 2008* (GVRD Bylaw 1082, 2008) provides the regulatory framework for managing air emissions. Under this bylaw, emissions of air contaminants are prohibited unless authorized through a valid permit, approval, order, or emission regulation. GVRD Bylaw 1082, 2008 also requires that emissions do not cause pollution, irrespective of the authorization status.

The *Clean Air Plan*, endorsed in 2021, guides Metro Vancouver's vision and actions for managing air quality over the next decade. These initiatives aim to achieve ambitious air quality goals and compliance with or improvement on ambient air quality standards and objectives at the federal and regional levels, respectively.

MVRD Bylaw 1330, 2021 and its predecessor air quality management fee regulation bylaws were established to support the regulatory measures in GVRD Bylaw 1082, 2008 and to define the fee structure to recover costs for air quality regulatory services. The fee structure is designed to encourage emitters to reduce emissions, thereby supporting the goals of the *Clean Air Plan*. MVRD Bylaw 1330, 2021 imposes different fees on air contaminants depending on their relative potential impacts on people and the environment. These fees are guided by the discharger-pay principle, ensuring that those

responsible for emissions bear the financial responsibility for managing their impacts. This approach incentivizes businesses to minimize their emissions to avoid higher costs, promotes continuous improvement in air quality, and aids in the achievement of regional goals.

Defining the Problem

Since the Metro Vancouver Board adopted MVRD Bylaw 1330, 2021 in October 2021, there have been changes to the economic and regulatory landscape that have influenced the impact of the bylaw's fees, such as:

- Economic and geopolitical uncertainty have increased pressure on regional affordability;
- Regulated businesses have sought greater clarity regarding applicable fee rates, particularly when an air contaminant belongs to multiple categories of air contaminants;
- Regulated businesses have raised questions about the implications of the scheduled discontinuation of the fee rate for Total Reduced Sulphur compounds (TRS) in 2025. This change will result in the application of fee rates for specified odorous air contaminants (OACs) and for whole emission discharge of OACs, which are currently much higher.
- There is currently no upper limit on application fees for businesses applying for authorization to discharge air contaminants, which may result in high application fees for some businesses.
- The federal government updated the *Canadian Environmental Protection Act, 1999* (CEPA) and its list of toxic substances, which affects the definition of hazardous air pollutants (HAP) in MVRD Bylaw 1330, 2021.
- The provincial government updated the *BC Public Notification Regulation* (PNR) and its definition of "minor amendment" for permits and approvals, which affects which types of permit and approval applications qualify as minor amendments under MVRD Bylaw 1330, 2021.

Guiding Principles

The proposed revisions aim to align with the following principles that provided the foundation for the current air quality management fees in MVRD Bylaw 1330, 2021:

- Minimize the risk to human and environmental health from emissions of air contaminants;
- Assess fees that reflect the potential harmful impacts on human health and the environment;
- Support continuous improvement in air quality by reducing emissions to achieve regional ambient air quality objectives;
- Support the discharger-pay principle, where dischargers such as permit holders and regulated businesses, pay more for emissions that can have more impact;
- Support the user-pay principle, where users who benefit from regulatory services pay for increased service needs;
- Incentivize the reduction of air emissions; and
- Recover regulatory program costs in an effective, fair, and efficient manner.

Proposed Changes to the Fees

Metro Vancouver's air quality management framework has played a vital role in reducing emissions and supporting regional air quality goals to protect human health and the environment. However, an evolving landscape calls for the following proposed bylaw amendments to provide clarity on fee calculations to the regulated community, balance cost recovery with impacts on regulated businesses and regional affordability, and align with updated federal and provincial legislation.

Clarifying the Calculation of Emission Fees for Multi-Category Air Contaminants

Metro Vancouver proposes to clarify that the highest applicable emission fee rate will be charged when an air contaminant meets the definition of more than one class or group of air contaminants because of its physical and chemical properties or health impacts. For example, an air contaminant may be classified as both a metal and a hazardous air pollutant, or as part of TRS compounds and as a specified odorous air contaminant. This approach would support consistency and align fees with the most significant potential impacts of emissions and associated effort for emissions management.

Reducing Fee Rates for Odorous Air Contaminants

Metro Vancouver proposes to adjust the fee structure for odorous air contaminants (OACs) to improve clarity, balance cost recovery with regional affordability, and better reflect how these emissions are currently managed through emission limits and emission measurement requirements in permits and approvals. This adjustment would account for the effects of OACs on health, environment, and the normal conduct of business.

The proposed amendments would:

- reduce the emission fee rates for specified OACs as shown in Appendix 1;
- reduce the maximum emission fee rate for specified OACs not to exceed \$10,000 per tonne;
- reduce the emission fee rate for whole emission discharge of OACs to \$5 per billion cubic metre odour units where there is an odour unit emission limit in a permit or approval;
- reduce the emission fee rate for whole emission discharge of OACs to \$20 per billion cubic metre odour units where there is no odour unit emission limit in a permit or approval;
- extend the use of the 2024 emission fee rate (\$800/tonne) for TRS compounds up to 2026;
- phase in increases to the emission fee rates for specified OACs, whole emission discharge of OACs, and TRS compounds until 2030 as shown in Appendix 1 to move closer to recovering the lower to medium range of annual costs for odour management;
- In Schedule B, section 5, align the calculation of the emission fee rate for an OAC not listed in Schedule B, Table 9 with the calculation used to develop the proposed emission fee rates for specified OACs shown in Appendix 1, which takes the form:

Emission fee rate for OAC = Emission fee rate for hydrogen sulphide (H₂S) x
(Odour detection threshold for H₂S / Odour detection threshold for OAC)

where “odour detection threshold” means the lowest concentration of a specified odorous air contaminant that can be detected by an odour panel, as set out in the reference noted for the substance listed in Column A of Table 3 in Appendix 1, or as set out in another reference approved by the district director.

- clarify that if there is a quantity of a specified OAC authorized by permit or approval, the emission fee will be calculated based on that authorized quantity to be consistent with how fees are assessed for all other air contaminants. In cases where the quantity of a specified OAC in the discharge is not stated in a permit or approval, fees will be calculated based on measured concentrations of specified OACs, as the bylaw already stipulates for whole emission discharge of total OACs;
- clarify that in cases where there is no permitted emission limit, and measured emissions of a specified OAC are below the detection limit for the analytical method used, the associated emission fee rate will apply to 25% of the analytical method detection limit for OACs that are in Table 9 and for those that are not.

Updates to Application Fees and Payment of Fees

Reducing maximum application fees for authorizations

Metro Vancouver proposes to limit the maximum application fee for permits, approvals, and amendments to \$450,000. Currently, there is no upper limit on these fees, which can result in relatively high costs for a few businesses with high emissions. This limit would reflect Metro Vancouver’s experience with the application process for high-emitting businesses.

Charging Interest on Overdue Payment of Fees

Currently, MVRD Bylaw 1330, 2021 does not include provisions for interest on late payments. Metro Vancouver proposes to charge interest on overdue invoices if payment is not received within 30 days of the invoice date, to encourage timely payments. Overdue accounts would be subject to interest charges of 1.25% per month or 15% per annum, which is the standard interest that Metro Vancouver charges on the type of invoices related to regulation and enforcement. Interest would continue to accrue on outstanding fees even if, as set out under MVRD Bylaw 1082, 2008, the permit or approval is suspended due to non-payment beyond 75 days.

A reinstatement fee will continue to be 50 percent of the total amount of all fees owing at the time a permit or approval is suspended. For clarity, the calculation of the reinstatement fee would not include accrued interest.

Updates to Definitions and Fee Exemptions

Metro Vancouver intends to update definitions and provisions related to air contaminants and fee exemptions to improve clarity and alignment with federal and provincial legislation. The updates will:

- refine classifications for hazardous air pollutants, volatile organic compounds, and other regulated air contaminants to avoid overlaps and improve transparency;
- align definitions with recent regulatory changes to the CEPA and its list of toxic substances.

Metro Vancouver will update the definition of “minor amendment” to align with the relevant parts of the updated definition in the PNR (changes in bold), which are:

- a decrease in the authorized quantity of the discharge, **emission or stored material**;
- an increase in the authorized quantity of the discharge, **emission or stored material** that does not exceed 10% of the authorized quantity;
- a change in the authorized quality of the discharge, **emission or stored material** such that, in the opinion of the district director, the change has or will have **an equal or lesser** impact on the environment;
- a change in a monitoring program; or
- a change to the works, method of treatment or any other condition of a permit or approval such that, in the opinion of the district director, the change has or will have **an equal or lesser** impact on the environment.

This update will expand the types of permit and approval applications that qualify for the application fee for minor amendments. The existing definition and fee for "administrative amendment" will remain unchanged.

These updates aim to support clear and consistent regulatory application while achieving the goals of the *Clean Air Plan*.

Providing Feedback and Comments

Metro Vancouver is seeking input on the proposed amendments to *MVRD Air Quality Management Fees Regulation Bylaw No. 1330, 2021*, as outlined in this discussion paper. Feedback from the public, regulated businesses, and other interested and affected parties will help shape the final amendments.

The MVRD Board will receive a summary of the feedback collected to inform their decision-making process. Metro Vancouver staff and contractors will treat the comments received with confidentiality. However, comments and any information identifying you as the source may be subject to disclosure under the *BC Freedom of Information and Protection of Privacy Act*.

How to Provide Feedback

Submit your feedback by August 1, 2025, via email to AQBylaw@metrovanancouver.org

Visit Metro Vancouver’s website for additional engagement opportunities (search for “2025 Updates to Bylaw 1330”). If you have any questions or require further information, please call 604-432-6200.

Thank you for taking the time to provide input on the proposed amendments to MVRD Bylaw 1330, 2021. Your feedback is valuable and will be carefully considered in the development of the updated bylaw.

Appendix - 1

Metro Vancouver proposes to replace the fee rates for permitted levels of specified odorous air contaminants (OACs) in Table 9 of Schedule B in MVRD Bylaw 1330, 2021 for January 1, 2025 and onward with the following table of fee rates. Proposed fee rates could take effect in 2026 or sooner if possible. The emission fee for a specified OAC is based on the odour detection threshold of the specified OAC from Nagata, 2003^a. In cases where no threshold is available in Nagata, 2003 for a specified OAC, another reference is used as noted in the table below.

The proposed fee rates for measured levels of specified OAC would follow the same approach as the current bylaw and be calculated as four times the permitted fee rate.

The maximum proposed fee rates for permitted and measured levels of specified OAC would be limited to \$10/kg in 2026 or sooner if possible, increasing in phases until 2030 to between \$35/kg and \$85/kg to recover the lower to medium range of annual costs for odour management. The current maximum fee rate for specified OACs is \$1,000/kg.

Table 1. Fee rates for permitted levels of Total Reduced Sulphur (TRS) compounds

Odorous Air Contaminant	Fee rate in 2024 (current bylaw) (\$/tonne)	Fee rate in 2025 (current bylaw) (\$/tonne)	Proposed fee rate in 2026 (\$/tonne)	Option 1	Option 2
				Potential fee rate in 2030 (lower range of historic annual costs for odour management) (\$/tonne)	Potential fee rate in 2030 (medium range of historic annual costs for odour management) (\$/tonne)
Total Reduced Sulphur (TRS)	800	N/A	800	\$2,900	\$7,000

Table 2. Fee rates for permitted and measured levels of Odour Units

Odorous Air Contaminant	Fee rates in 2025 (current bylaw) (\$/billion cubic metres)	Proposed fee rates in 2026 (\$/billion cubic metres)	Option 1 Potential fee rates in 2030 (lower range of historic annual costs for odour management) (\$/billion cubic metres)	Option 2 Potential fee rates in 2030 (medium range of historic annual costs for odour management) (\$/billion cubic metres)
Permitted Odour Units (OU)*	60	5	20	40
Measured Odour Units (OU)	240	20	80	160

*There are no permits or approvals that specify permitted levels of odour units. The amendment to the fee rate for permitted odour units is proposed to maintain consistency with how fee rates for permitted and measured OACs are determined.

Table 3. Fee rates for permitted levels of specified odorous air contaminants ^a

Odorous Air Contaminant	Fee rates in 2025 (current bylaw) (\$/kg)	Proposed fee rates in 2026 (\$/kg)	Option 1 Potential fee rates in 2030 (lower range of historic annual costs for odour management) (\$/kg)	Option 2 Potential fee rates in 2030 (medium range of historic annual costs for odour management) (\$/kg)
1-nonene	22	0.22	0.80	1.91
1-octene	13	0.25	0.91	2.18
2,3-pentanedione ^b	2.8	0.05	0.20	0.48

Odorous Air Contaminant	Fee rates in 2025 (current bylaw) (\$/kg)	Proposed fee rates in 2026 (\$/kg)	Option 1 Potential fee rates in 2030 (lower range of historic annual costs for odour management) (\$/kg)	Option 2 Potential fee rates in 2030 (medium range of historic annual costs for odour management) (\$/kg)
2,6-nonadienal ^b	810	10.00	35.00	85.00
2-chlorophenol ^b	15	0.29	1.07	2.56
2-heptanone (methyl n-amyl ketone)	1.8	0.001	0.002	0.005
2-methyl butanoic acid ^b	7.5	0.03	0.13	0.30
2-methyl-1-propanol (isobutanol)	1.8	0.14	0.53	1.27
2-methylpropionic acid (isobutyric acid)	11.1	0.21	0.77	1.85
3-methyl butanoic acid (isovaleric acid)	181	3.51	12.80	30.69
3-methylbutanal (isovaleraldehyde)	171	3.24	11.84	28.39
Acetic acid (ethanoic acid)	4.0	0.08	0.28	0.68
Allyl sulphide	58	1.71	6.25	14.99
Butanal ^b	30	0.04	0.15	0.36
Butanoic acid (butyric acid)	88	1.67	6.09	14.61

Odorous Air Contaminant	Fee rates in 2025 (current bylaw) (\$/kg)	Proposed fee rates in 2026 (\$/kg)	Option 1 Potential fee rates in 2030 (lower range of historic annual costs for odour management) (\$/kg)	Option 2 Potential fee rates in 2030 (medium range of historic annual costs for odour management) (\$/kg)
Butyl mercaptan	1,000	10.00	35.00	85.00
Decanal (decaldehyde, capradehyde) ^b	23	0.19	0.71	1.70
Diacetyl	341	6.49	23.69	56.80
Diallyl disulphide	58	0.86	3.13	7.50
Diethyl disulphide	6.0	0.10	0.37	0.88
Diethyl sulphide	493	9.39	34.27	82.16
Dimethyl disulphide	7.0	0.13	0.49	1.18
Dimethyl sulphide	7.8	0.15	0.55	1.31
Dimethyl trisulphide ^b	6.8	0.13	0.48	1.15
Ethyl isobutyrate	575	10.00	35.00	85.00
Ethyl isovalerate	868	10.00	35.00	85.00
Ethyl mercaptan (ethanethiol)	1,000	10.00	35.00	85.00
Ethyl n-butyrate	316	6.01	21.95	52.63
Ethyl n-valerate	103	1.95	7.12	17.07
Ethyl propionate	2.1	0.03	0.13	0.30

Odorous Air Contaminant	Fee rates in 2025 (current bylaw) (\$/kg)	Proposed fee rates in 2026 (\$/kg)	Option 1 Potential fee rates in 2030 (lower range of historic annual costs for odour management) (\$/kg)	Option 2 Potential fee rates in 2030 (medium range of historic annual costs for odour management) (\$/kg)
Hexanal (hexaldehyde) ^b	54	0.02	0.07	0.17
Hexanoic acid (caproic acid)	21	0.40	1.46	3.51
Hydrogen sulphide	105	2.00	7.30	17.50
Isoamyl mercaptan	1,000	10.00	35.00	85.00
Isobutyl acetate	1.6	0.03	0.11	0.26
Isobutyl acrylate	13	0.25	0.90	2.15
Isobutyl amine	136	0.25	0.93	2.23
Isobutyl isovalerate	1.8	0.05	0.17	0.40
Isobutyl mercaptan	1,000	10.00	35.00	85.00
Isobutyl n-butyrate	6.4	0.13	0.49	1.17
Isohexanoic acid	32	0.60	2.20	5.26
Isooctanol	1.2	0.02	0.08	0.20
Isopentanol	9.8	0.19	0.68	1.63
Isopropyl mercaptan	1,000	10.00	35.00	85.00
Isopropyl n-butyrate	2.7	0.04	0.14	0.34
Isopropyl propionate	3.1	0.06	0.21	0.51

Odorous Air Contaminant	Fee rates in 2025 (current bylaw) (\$/kg)	Proposed fee rates in 2026 (\$/kg)	Option 1 Potential fee rates in 2030 (lower range of historic annual costs for odour management) (\$/kg)	Option 2 Potential fee rates in 2030 (medium range of historic annual costs for odour management) (\$/kg)
Isopropylbenzene	1.5	0.04	0.16	0.37
Isobutylaldehyde	58	1.11	4.04	9.69
Methacrolein	2.5	0.05	0.17	0.41
Methyl acrylate	4.9	0.09	0.34	0.81
Methyl allyl sulphide	119	2.26	8.26	19.81
Methyl isoamyl ketone	6.1	0.13	0.48	1.16
Methyl isobutyrate	7.6	0.14	0.52	1.24
Methyl isovalerate	5.7	0.11	0.40	0.96
Methyl mercaptan (methanethiol)	437	8.30	30.29	72.62
Methyl n-butyrate	20	0.04	0.14	0.34
Methyl n-valerate	5.7	0.11	0.40	0.96
Methylamine	2.2	0.03	0.09	0.22
n-Amyl mercaptan	1,000	10.00	35.00	85.00
n-Butyl acrylate	21	0.44	1.60	3.83
n-Butyl n-butyrate	2.1	0.04	0.15	0.35
n-Butylaldehyde	30	0.58	2.11	5.06

Odorous Air Contaminant	Fee rates in 2025 (current bylaw) (\$/kg)	Proposed fee rates in 2026 (\$/kg)	Option 1 Potential fee rates in 2030 (lower range of historic annual costs for odour management) (\$/kg)	Option 2 Potential fee rates in 2030 (medium range of historic annual costs for odour management) (\$/kg)
n-Butylbenzene	1.3	0.03	0.10	0.24
n-Decanol	12	0.25	0.91	2.17
n-Decylaldehyde	23	0.44	1.59	3.81
n-Heptanol	2.6	0.05	0.18	0.44
n-Heptylaldehyde	71	1.34	4.88	11.69
n-Hexanol	2.4	0.05	0.17	0.41
n-Hexyl acetate	5.7	0.12	0.44	1.04
n-Hexyl mercaptan	827	10.00	35.00	85.00
n-Hexylaldehyde	52	1.00	3.64	8.72
n-Nonanol	11.3	0.22	0.80	1.91
n-Nonylaldehyde	30	0.58	2.11	5.06
n-Octylaldehyde	1,000	10.00	35.00	85.00
Nonanoic acid ^b	4.6	0.09	0.32	0.77
n-propyl isobutyrate	6.3	0.12	0.44	1.05
n-propyl isovalerate	182	3.83	13.99	33.54
n-propyl n-valerate	3.1	0.06	0.21	0.51
Octanal	1,000	0.08	0.29	0.71

Odorous Air Contaminant	Fee rates in 2025 (current bylaw) (\$/kg)	Proposed fee rates in 2026 (\$/kg)	Option 1 Potential fee rates in 2030 (lower range of historic annual costs for odour management) (\$/kg)	Option 2 Potential fee rates in 2030 (medium range of historic annual costs for odour management) (\$/kg)
p-Diethylbenzene	28	0.67	2.46	5.91
Pentanal (valeraldehyde)	42	0.79	2.89	6.92
Pentanoic acid (valeric acid)	400	7.39	26.99	64.70
p-Ethyltoluene	1.5	0.03	0.12	0.28
Propanal (propionaldehyde)	25	0.48	1.76	4.21
Propionic acid	3.5	0.07	0.24	0.58
Propyl mercaptan (propanethiol)	1,000	10.00	35.00	85.00
Propylbenzene	3.1	0.09	0.34	0.82
Pyridine	143	0.01	0.02	0.05
sec. Butyl mercaptan	542	10.00	35.00	85.00
sec. Butyl acetate	5.3	0.10	0.37	0.88
tert. Butyl mercaptan	561	10.00	35.00	85.00
Tetrahydrothiophene	27	0.51	1.87	4.47
Thiophene	31	0.59	2.16	5.19
Trimethylamine	107	10.00	35.00	85.00

Odorous Air Contaminant	Fee rates in 2025 (current bylaw) (\$/kg)	Proposed fee rates in 2026 (\$/kg)	Option 1 Potential fee rates in 2030 (lower range of historic annual costs for odour management) (\$/kg)	Option 2 Potential fee rates in 2030 (medium range of historic annual costs for odour management) (\$/kg)
Undecanal ^b	3.3	0.10	0.35	0.83

^a The fee rates for columns 3, 4, and 5 in Table 3 were determined using the odour detection threshold values for individual odorous air contaminants from the following study: [Nagata, Yoshio, Measurement of Odor Threshold by Triangle Odor Bag Method, 2003](#). References for other compounds without odour detection thresholds in the Nagata list were taken from:

^b [Devos, M, Standardized human olfactory thresholds, 1990](#)



View to Burnaby Mountain and northeast Metro Vancouver

Proposed Amendments to Air Quality Management Fees

INITIATING ENGAGEMENT

Gaurav Singh
Air Quality Planner
Climate Action Committee, May 9, 2025
74483169

Esther Bérubé, P.Eng.
Division Manager, Air Quality Bylaw and Regulation Development

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1

GUIDING PRINCIPLES

Cost recovery

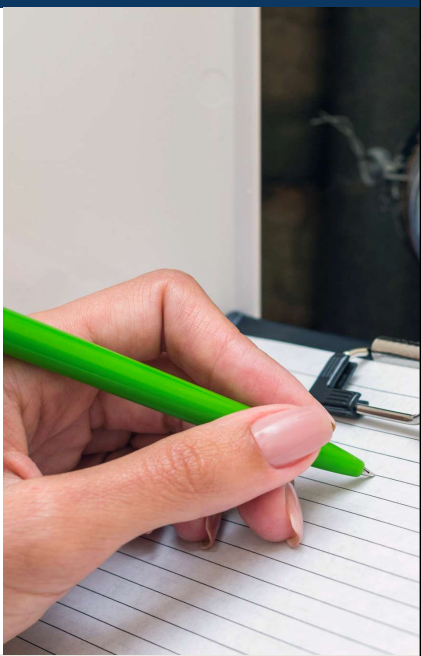
- Recover regulatory costs while maintaining affordability

Discharger-pay

- Have emitters bear financial responsibility for their emissions that can impact public health and the environment

Emissions reduction

- Encourage businesses to adopt cleaner practices to reduce emission fees



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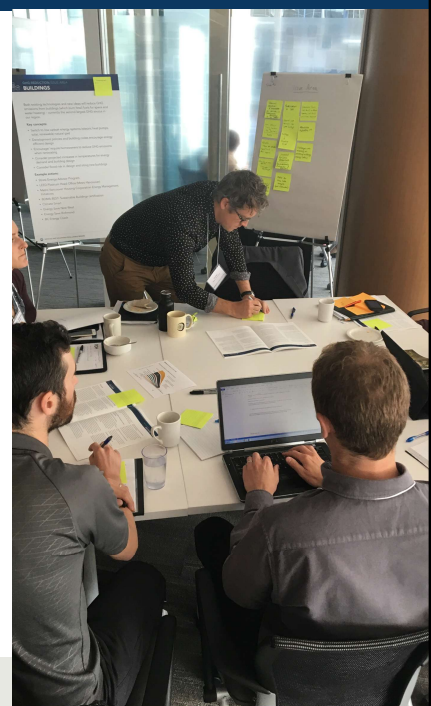
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1

SEEKING APPROVAL TO ENGAGE

- It is critical to engage with interest holders including regulated businesses, First Nations, member jurisdictions, and the public
- Provide information and collect feedback on proposed bylaw amendments
- Use feedback to refine amendments before returning to the Board in late 2025

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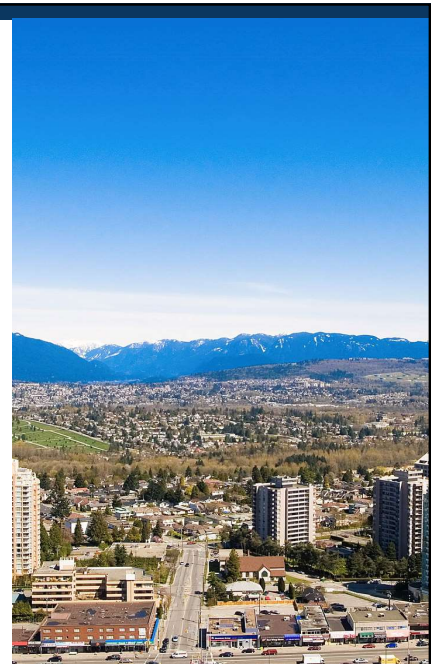


3

PROPOSED BYLAW AMENDMENTS

- Update bylaw definitions
- Clarify which emission fees will apply to air contaminants that belong to two or more fee categories
- Reduce scheduled odorous air contaminant emission fee rates, and enhance cost recovery over time
- Limit application fee for authorizations
- Charge interest on overdue fee payment

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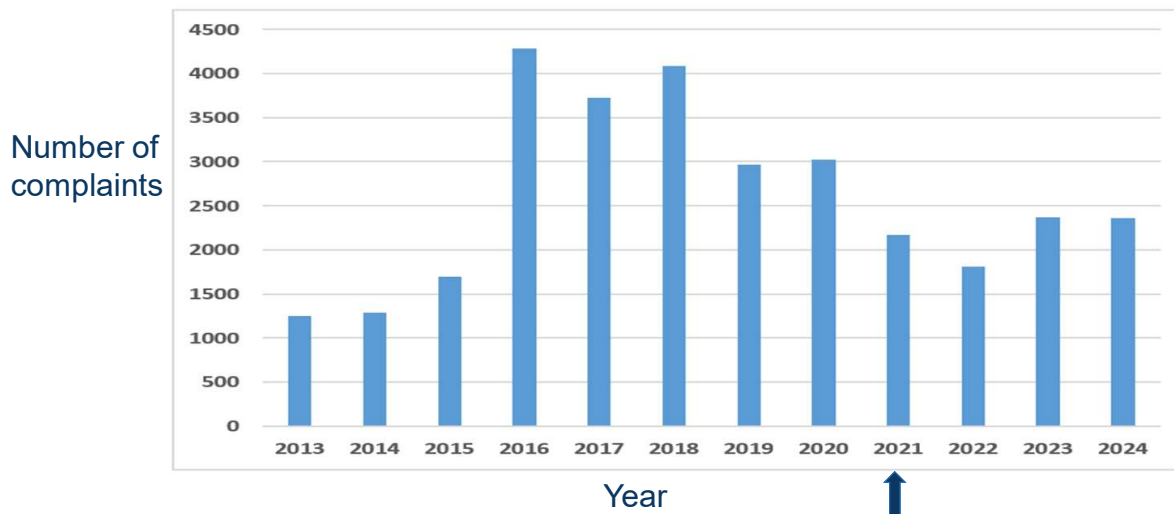


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RESPONDING TO A CHANGING CONTEXT

Annual air quality complaints before and after adoption of MVRD Bylaw 1330, 2021

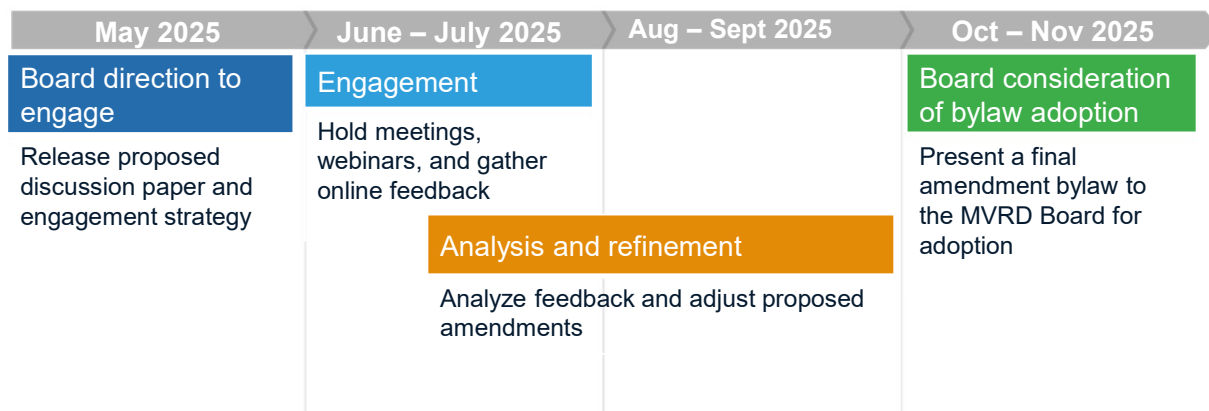


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PROPOSED TIMELINE AND NEXT STEPS



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7



To: Electoral Area and Small Communities Committee

From: Marcin Pachcinski, Division Manager, Implementation and Electoral Area Services,
Regional Planning and Housing Services

Date: April 15, 2025 Meeting Date: May 15, 2025

Subject: **Barnston Island Dike Improvement Project – Work Plan**

RECOMMENDATION

That the MVRD Board receive for information the report dated April 15, 2025, titled "Barnston Island Dike Improvement Project – Work Plan".

EXECUTIVE SUMMARY

Metro Vancouver is the local government for Barnston Island and is responsible for emergency management for the Island. There is a 10-km ring dike on the Island to protect it from flooding that is maintained by the local resident-volunteer Barnston Island Diking District and overseen directly by the Province. The Province provided Metro Vancouver with a grant of \$5.25 million in 2023 to manage the process and implementation of dike improvements. Metro Vancouver also committed \$1.5 million of the Growing Communities Fund grant towards this project.

Following an update in 2024 to the Barnston Island Dike Assessment Report (2012), the MVRD Board directed staff to use the priority projects identified in the update as a guide for implementing dike improvements. Through a competitive procurement process, Metro Vancouver recently entered into a contract with Northwest Hydraulic Consultants Ltd. to complete five priorities:

Barnston Island Drainage and Dike Improvement Project Work Plan	Approximate Cost
Task 1: Design for the replacement of the flood box and pump station for the Barnston Island dike	\$500,000
Task 2: Drainage ditch study and drainage ditch upgrades on Barnston Island	\$95,000
Task 3: Bank erosion study and erosion monitoring network	\$69,000
Task 4: Dike seepage assessment	\$85,000
Task 5: Operation and maintenance manual for the dike.	\$21,000
Total	\$770,000

The associated work plan is presented in this report for information.

PURPOSE

To present the work plan for the Barnston Island Dike Improvement Project to the Electoral Area and Small Communities Committee and MVRD Board for information.

BACKGROUND

At its March 2024 meeting, the MVRD Board passed the following resolution:

That the MVRD Board:

- a) receive for information the report dated February 8, 2024, titled “Barnston Island Dike Improvement Project – Updated Dike Assessment”; and*
- b) direct staff to use the cost and priority rating table, as presented in Table 1 of this report, as a guide for implementing individual Barnston Island dike infrastructure improvements.*

In March 2025, Metro Vancouver concluded a competitive procurement process and entered into a contract with the successful bidder: Northwest Hydraulic Consultants Ltd. Their work plan is now presented for information.

BARNSTON ISLAND DIKE

Barnston Island is part of Metro Vancouver’s Electoral Area A and is protected by a 10-km ring dike, on top of which there is a Ministry of Transportation and Infrastructure-maintained road. A portion of the dike and road run across Katzie First Nation IR#3. The dike does not meet current Dike Design & Construction Guidelines set by the Province. Metro Vancouver is the local government for Barnston Island, but is not responsible for the dike, and the MVRD Board has expressed concerns regarding the proposed transfer of diking district responsibilities to local governments, in this case, Metro Vancouver. Oversight of the dike and the Barnston Island Diking District remains with the Province.

The Drainage, Ditch and Dike Act, enacted in 1907, enabled five autonomous diking districts, including the Barnston Island Diking District, to collect taxes to construct and maintain works for diking and drainage. The Barnston Island Diking District is comprised of a few local resident volunteers, who collect approximately \$15,000 annually from Barnston Island property owners. The annual amount typically covers basic maintenance, such as mowing and drainage channel clearing. While the local resident volunteers are committed to doing what they can to maintain the dike, the very limited tax base of Barnston Island coupled with the scale and complexity of the upgrades identified in the Barnston Island Dike Assessment (2012) mean the upgrades cannot be properly assessed (e.g. engineering studies), funded and coordinated by relying on the Barnston Island Drainage District.

In recognition of the challenges described above, the Province provided Metro Vancouver with a grant of \$5.25 million in summer 2023 under the *Emergency Program Act* (now the *Emergency and Disaster Management Act*). The funds are to be used for dike improvements to advance flood protection and to help ensure that Barnston Island remains a viable place for living and farming. Metro Vancouver also committed \$1.5 million of the Growing Communities Fund grant towards this project.

BARNSTON ISLAND DIKE ASSESSMENT UPDATE

Following receipt of the provincial grant and board direction to use it for dike improvements, Metro Vancouver retained Northwest Hydraulic Consultants Ltd. to review and update the Barnston Island Dike Assessment Report from 2012, including updating previously estimated costs of recommended improvements and re-evaluating priority ratings.

The Barnston Island Dike Assessment Update Report (Reference 1) includes a table that shows the improvement priority rankings alongside a comparison of costs and funding between the 2012 report and the current one. In March 2024, the MVRD Board directed staff to use this priority table as a guide for implementing individual Barnston Island dike infrastructure improvements.

Staff used the priority table to prepare a request for proposal (RFP) package that was put out for bids in fall 2024. The RFP focused on high priority projects and was organized around the following five tasks:

1. Pump station and flood box replacement design
2. Drainage ditch network upgrade design
3. Bank erosion assessment
4. Dike seepage assessment
5. Development of a dike operations manual

WORK PLAN

A consultant team led by Northwest Hydraulic Consultants Ltd. was the successful bidder and in March 2025 Metro Vancouver entered into a contract with them worth approximately \$770,000 for the five tasks summarized below and described in greater detail in the work plan (Attachment 1).

1. Pump station and flood box replacement design (present – November 2026)

- a. *Phase 1 – Start-Up and Conceptual Design*
Includes water level monitoring, a geotechnical analysis, a preliminary environmental impact assessment, and the preparation of a conceptual design memo that will analyze at least three options and consider design risks, construction phasing and costs.
- b. *Phase 2 – Detailed Design and Tender Support*
Entails preparation of design drawings, contract documents, cost estimates, a construction environmental management plan, and a final environmental impact assessment, along with tender support and applying for necessary provincial and federal permits.
- c. *Phase 3 – Construction Services and Contract Administration*
Entails preparation and issuance of construction drawings and specifications and post-construction record drawings, construction meetings and field reviews, project commissioning, and environmental monitoring.

Staff note that the actual construction of the pump station and flood box replacement are not included in the contract with Northwest Hydraulic Consultants Ltd. and will be paid for from the remaining grant funds.

2. Drainage ditch network upgrade design (present – January 2026)

- a. *Phase 1 – Drainage Ditch Study*
Involves assessing current conditions and preparing a technical report with conceptual options and recommendations.
- b. *Phase 2 – Drainage Ditch Upgrades – Detailed Design, and Tender Support*
Entails preparation of design drawings, a design reports, a construction environmental management plan, and a final environmental impact assessment, along with tender support and applying for necessary provincial and federal permits.
- c. *Phase 3 – Contract Administration*
Includes site meetings, inspections and instructions, review of contractor submittals, construction field review, and environmental monitoring.

3. Bank erosion assessment (present – August 2025)

Entails a scour and erosion assessment, boat survey of the shoreline, the establishment of an erosion monitoring program, and an arborist assessment of trees located around the perimeter of Barnston Island.

4. Dike seepage assessment (depends on permit timelines; report takes 2 months to finish)

Includes a geotechnical analysis based on a review of existing information and a field investigation to estimate seepage rates through the existing dike, the results of which will be presented in a report with preliminary design recommendations for a seepage barrier.

5. Development of a dike operations manual (present – August 2025)

Involves the creation of a manual (currently none exists) that consolidates information on infrastructure history, construction, maintenance and inspection records, operating procedures and other relevant information.

ONGOING CONSULTATION

Since preparing the update to the dike assessment in 2024, Metro Vancouver staff have continued to engage with the Katzie First Nation, the Barnston Island Diking District, Barnston Island residents, relevant provincial agencies, and others (e.g. Port) on this work. This will continue throughout the phases of this contract and will include both virtual meetings (e.g. technical updates) and in-person meetings on Barnston Island (site visits and community meetings to update residents). A community meeting to present this work plan and answer any questions from residents is being planned for early summer.

Metro Vancouver staff will also provide updates to the Electoral Area and Small Communities Committee and MVRD Board at key milestones in the projects' implementation and through the annual budget process.

GRANT TIMELINE

The agreement for \$5.25 million dollar provincial grant currently stipulates that the work must be complete by March 2026. Given the work plan expects that work on the five tasks will not be complete until November 2026, Metro Vancouver have contacted provincial staff to revise the deadline. Provincial staff have confirmed that they understand the work plan timelines, are amenable to an extension of the grant deadline, and have requested that both sides revisit a deadline extension request in the next 4-6 months. Staff will update the Electoral Area and Small Communities Committee and MVRD Board once the extension request has been submitted.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

Costs associated with this work plan and future work related to the Barnston Island dike improvement project will be covered by the \$5.25-million-dollar provincial grant Metro Vancouver received in 2023 and by the \$1.5-million-dollar portion of the Growing Communities Fund that Metro Vancouver has dedicated for this project. There are no impacts to the Electoral Area A tax requisition as part of this work. The current grant amount and budgeted uses will be reflected in the Electoral Area Financial Plan that is presented to the Electoral Area and Small Communities Committee and MVRD Board annually.

To date, approximately \$60,000 of the grant funds have been spent, primarily on the update to the dike assessment from 2012, which was used to identify the priority tasks that are now starting to be implemented. Additional work was also done to understand current conditions of the dike, bank erosion, and archeological values.

The table below shows the approximate costs of the five tasks that are presented in this report.

Barnston Island Drainage and Dike Improvement Project Work Plan	Approximate Costs
Task 1: Design for the replacement of the flood box and pump station for the Barnston Island dike	\$500,000
Task 2: Drainage ditch study and drainage ditch upgrades on Barnston Island	\$95,000
Task 3: Bank erosion study and erosion monitoring network	\$69,000
Task 4: Dike seepage assessment	\$85,000
Task 5: Operation and maintenance manual for the dike.	\$21,000
Total	\$770,000

CONCLUSION

As the local government responsible for emergency management on Barnston Island, Metro Vancouver has an interest in strengthening the integrity of the Barnston Island dike. The work plan presented in this report represents the start of the implementation of the high-priority tasks identified in the 2024 Barnston Island Dike Assessment Update.

ATTACHMENT

1. Barnston Island Dike and Drainage Improvement Project Work Plan (titled “Section 4 – Project Methodology, Work Plan, Tasks and Schedule”).

REFERENCES

1. Northwest Hydraulic Consultants (NHC). (2024, May). *2024 Barnston Island Dike Assessment Update*. Retrieved from <https://metrovancover.org/services/regional-planning/Documents/barnston-island-dike-assessment-update2024.pdf>. Last accessed 2025, April 15.

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Section 4 – Project Methodology, Work Plan, Tasks and Schedule





INTRODUCTION TO METHODOLOGY

Despite being located in the populous Metro Vancouver, the 567 ha Barnston Island is an isolated rural area that provides the home for a vibrant community for Katzie First Nation (Barnston IR3), numerous active agricultural farmyards, and parkland. It is located in the sand bed reach, near the outlet, of the longest river within BC, and one of the longest unregulated rivers in North America, the Fraser River. The main channel of the Fraser River flows directly along the north side of the island; this reach is known as Bishop Reach. The south channel, Parson Channel, flows as an arch around the south and west side of the island. The majority of flow is conveyed within Bishop Channel, as Parson Channel is narrower, shallower, and nearly 50% longer. The construction of the Golden Ears bridge, less than 1 km upstream, and end of channel maintenance has likely resulted in reduced depth along Parson Channel, further limiting its conveyance.

As an island within the Fraser River, it subject to a wide range of water level resulting from high flows within the Fraser River originating from spring snowmelt in the upper watershed as well as periodic moderately high flows in the lower Fraser River and downstream entering Pitt River resulting from intense fall and winter storms (such as the 2021 November 15th atmospheric river). In addition, the water level in the river fluctuates daily with the tidal cycle of the Salish Sea.

The island has an elevation that ranges from 1 to 4 m above sea level. In comparison the Fraser River has a 50-year (2% AEP) flood level of 4.5 to 5.5 m and a potential design flood level as high as El. 6.4 m (1894 flood or ~0.2% AEP with freeboard). To resist frequent flooding the island is protected by a dike that surrounds the majority of the island; with some land and a few buildings located outside of the dike. However, the dike is insufficiently high, potentially overtopping during a 40-yr flood, and susceptible to seepage, erosion, and undermining. Since the island is surrounded by a dike, intense and prolonged rainfall in which the Lower Mainland is know for, can become contained within the dike threatening production on the agricultural fields as well as safe use of the island. To account for the drainage of this stormwater, a series of ditches convey flow to the western side of the island. An aging flood box allows for drainage of this water during low Fraser River levels (i.e., low flow and low tides) with a pump station providing capacity when Fraser River water levels are high.

The structural mitigations that provide the island a level of flood protection are aging and in need of support. This will be exasperated with climate change. Ongoing global climate change is expected to increase the intensity of storms over the present century by 40% to 90% near Barnston Island (GHD, 2018). This will increase the demand on the drainage network. It is



projected, that with warming temperatures snowpack across the Fraser River basin will be less, potentially counteracting the increased precipitation and moderating the increase in freshet flows. However, fall and winter flows, dominated by lower watershed storm events, are likely to increase resulting in higher and prolonged Fraser River water levels in the fall and winter. Increased precipitation and duration of high Fraser River levels fall through winter may increase the rate and extent of geomorphic channel changes (e.g., channel scour, degradation, aggradation migration, widening) and will increase the reliance on the flood box and pump station to keep Barnston Island safe from flooding and viable for farming.

Metro Vancouver is aware of the present state of flood protections and projected future risks. In response, they have conducted a number of studies, *such as the 2024 and 2012 Barnston Island dike assessments conducted by NHC*, to identify needs and Metro Vancouver secured a \$5.2M grant from the Province to improve flood protections on Barnston Island. This grant was initially to be applied by 2026, highlighting the need for timely design and implementation of the flood protection improvements. The flood protection at Barnston Island are complex and should be prioritized, potentially based on present risk, projected future risk, community priorities, and available funding. Often communities prioritize frequent, operationally disruptive flooding (e.g., drainage and pumping requirements) higher than catastrophic flooding (e.g., dike failure). Multi-generational agricultural communities and First Nations, as located on Barnston Island, potentially prioritize multi-generational risks as they place a higher value on future generations. The local values and priorities will need to be considered in the prioritization and communication of the flood mitigation plan.

This proposal has been prepared to provide a team of passionate, technical experts to develop detailed design for all elements of the Dike and Drainage Improvements on Barnston Island. The following subsections describe each of the phases presented within the RFP as individual tasks:

1. Pump station and flood box replacement design
2. Drainage ditch network upgrade design
3. Bank erosion assessment
4. Dike seepage assessment
5. Development of a dike operations O&M manual



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1 DESIGN FOR THE REPLACEMENT OF THE BARNSTON ISLAND FLOOD BOX AND PUMP STATION

1.1 Project Understanding

One pump station, located on the west side of the island, serves the entire island through a network of drainage ditches. Additional privately operated pump(s) are located on the northeast end of the island to serve the flooding and draining of the cranberry fields. The single community pump station was originally built in 1937. The timber-frame, corrugated steel structure is secured to a minimal concrete foundation. The pump station contains two pumps:

- Lead pump, which is active
installed in 1997, with 1953 35 HP, 440 V, 690 RFP 3-phase electric motor,
rated for 630 L/s (10,000 US GPM)
- Spare pump, which is not in use
unknown HP, rated for 160 L/s (2,500 USGPM)

The lead pump has undergone a series of minor electrical and mechanical upgrades, including replacement of the motor in 1953, replacement of the pump in 1997, rewinding of the motor in 2010, and basic safety upgrades in 2021, which involved installing a new portable generator.

In our review of the background information for this project, we identified several safety and operational concerns for the existing station and recommended a full replacement of the pump station. Based on other work conducted in the area, the soils at the site are anticipated to be vulnerable to seismic-induced liquefaction under the design earthquakes. Future design of a replacement pump station will need to address liquefaction susceptibility in the soils.

The existing flood box is also aging. Past concerns include potential piping under the structure, deteriorating hinge pins, deteriorating gates or stop logs, and potential erosion. There may be opportunity to lower the flood box invert to increase drainage during low water.

Replacement of the pump station and flood box are included in the overall dike improvements project as part of the RFP scope. According to RFP Addendum #4, we understand that the pump station will be designed as a post-disaster facility using the 6th Generation Seismic Hazard Model of Canada. The pump station design must comply with the 2024 BC *Building Code*, which requires review at 1:2,475 annual exceedance probability (AEP) for ultimate limit state and a service-level performance review at 1:475 AEP.



Drawing from our previous experience supporting Metro Vancouver with the Barnston Island Pump Station the following environmental concerns were identified in addition to the structural and electrical issues.

1.1.1 Environmental Considerations

Pump stations that are not designed for fish passage will likely harm or kill fish when the pumps are activated. This is especially the case for many older pump stations throughout the Fraser River and Lower Mainland, including the current Barnston Island pump station. More recently, fish-friendly pump station designs have significantly lowered fish mortality rates. It will be critically important to create a pump station design that provides safe passage from the Fraser River (i.e., via the flood box) and back to the Fraser River for all fish species expected to utilize the Barnston Island drainage ditch network.

Regulators will likely reject a design that is expected to result in fish mortality, so it will be imperative to:

- Assess potential environmental impacts of the design options on the environment (e.g., timing and frequency of hydraulic conditions in relation to fish species and life stage)
- Provide design input that avoids harming or killing fish or other valued species and their habitat (e.g., ramping of water levels where the drainage network provides aquatic habitat, appropriate pump intake hydraulics at screens or use of Archimedes screw pumps)
- Prepare and oversee a construction plan that avoids potential harmful alteration or death of fish.

The environmental specialist will consult with regulators throughout the design phase to ensure the design meets all regulatory expectations. NHC contends that Metro Vancouver can avoid killing fish during the construction and operation of the pump station and flood box through appropriate design. Notifications, authorizations, reviews or permits may be required from the Department of Fisheries and Oceans Canada (DFO) under the *Federal Fisheries Act*, from the province through *Section 11* of the *Water Sustainability Act* (WSA), and in the form of a project environmental review (PER) from the Vancouver Fraser Port Authority (VFPA).

1.2 Project Methodology and Work Plan

This section of NHC's proposal discusses our proposed methodology for executing Task 1 of this project and includes a detailed work plan covering the services identified in all three phases of Task 1, as specified in RFP No. 24-517. Task 1.

Phase 1: Our proposed methodology includes details on our proposed approach for the project's start-up and conceptual design phase, which includes details on our proposed



geotechnical investigation, conceptual design, geotechnical analysis and report, and preliminary environmental impact assessment.

Phase 2: This section presents NHC's proposed approach to provide the detailed design, drawings, contract documents, cost estimates, development of a construction environmental management plan (CEMP), obtaining the required regulatory approvals, and supporting the tender process.

Phase 3: This section provides details on NHC's proposed environmental monitoring, construction services, and contract administration.

1.2.1 Subconsultants engaged

NHC has assembled a specialized project team that is tailored to the project's requirements. For Task 1, each proponent will be responsible for project components as follows:

- NHC – project management and design oversight, hydrology, and hydrotechnical design
- Water Street – pump station and flood box civil design
- GEA – structural design
- MTS – electrical, instrumentation and controls design
- Thurber – Geotechnical design
- Roe – environmental review and permitting

Each of these work components support and interact with findings from the other components.

1.2.2 Phase 1 – Start-Up and Conceptual Design

Phase 1 activities will include review of the data and the site as well as development of conceptual design options. NHC's specialist team will communicate and collaborate with Metro Vancouver during this and all three task phases to maintain alignment with the project direction, expectations, and project requirements.

When completing Phase 1 tasks, our objectives will be to eliminate assumptions, reduce risk, and report transparently. Our approach will enable our design team to accelerate detailed design for the low-risk aspects of the project while more broadly discussing aspects of the project that will require greater team focus. We will work closely with our subcontracting partner Water Street Engineering to develop pump station replacement options, and we will develop critical design criteria that will include design flow(s) for the station, water levels associated with various pumping rates, and required invert and capacity amounts for the flood box.

Our team will conduct desktop research by reviewing previously prepared and available background reports, and we will conduct a site visit to review existing conditions and infrastructure and identify and investigate any new site constraints. We will also revisit the



necessary flood scenarios during the drainage study and provide inputs for the pump station design as required, including the station design flow.

Water-Level Monitoring Equipment

NHC's previous dike assessments have included recommendations to install equipment to monitor water levels and provide design inputs for the pump station and flood box. Providing meaningful design inputs requires equipment to be in place for several years before a representative period of record can be established.

Since this project is to proceed to detailed design, the value of the water level monitoring task is substantially diminished and therefore has not been included in our proposal. Instead, we will seek out existing hydrometric data and draw upon hydraulic analyses and calculations to inform design parameters.

Geotechnical Investigation

We propose to investigate subsurface conditions by drilling two solid-stem auger test holes to a maximum depth of approximately 10 m. One test hole will be supplemented with a seismic cone penetration test to a maximum depth of roughly 30 m (or to refusal), which will provide information on deep soil characteristics for the seismic assessment. Because the test holes will be located on an existing dike, our investigation will follow the steps described in the Ministry of Forests, Lands and Natural Resource Operations (Ministry) *General Guidelines - Exploratory Geotechnical Testing Within a Dike or Dike Right of Way*.

In addition to collecting data and other details in the field to characterize soil and groundwater conditions, our experienced geotechnical technicians will take and retain disturbed samples for inhouse laboratory testing of routine moisture content and visual classification. We will also carry out Atterberg limit testing and sieve analyses on selected representative samples. After developing our investigation plan, we will provide the Ministry with plan details and will seek approval for testing under the *Dike Management Act*. Our team will also seal and grout the test holes in general accordance with BC Groundwater Protection Regulations and additional Ministry requirements, and we will survey the test hole locations using a handheld GPS.

Before advancing the test holes, we will submit a BC 1 Call ticket to notify all utility owners of our intention to disturb the ground during our investigation. We will also contact utility owners that are not a part of the BC 1 Call system. Our team will engage a utility locate subcontractor to clear the test hole locations for the underground services¹.

¹ Please note that the utility locate subcontractor can locate conductive conduits only; non-metallic pipes, such as PVC water and gas lines, cannot be reliably detected. NHC and Thurber will not be responsible for damage to utilities that are not shown or incorrectly located on the drawings provided to us, or not located by the utility locate contractor.



NHC and Thurber will retain a traffic control subcontractor during the utility locating and drilling and will follow the traffic management plan submitted as part of the permitting process. We expect the drill rig will leave some marks on the asphalt and disturb dirt and grass on site, particularly if the ground is saturated. We will attempt to clean up the site as much as reasonably possible, but some surface disturbance should be expected along the test hole travel route and at the test hole locations. Repairs will include reinstating the test hole to surface grade and topping holes in the road surface with cold-mix asphalt. Our team can complete additional repairs as needed at an additional cost.

Conceptual Design Memo

Following a review of the existing systems, our team will prepare content for inclusion in the conceptual design technical memorandum. The following components are examples of content that we will include:

- **Options Analysis:** NHC will develop at least three options for the pump station and flood box replacement, which may include combinations of the following:
 - Various general pump station arrangements based on typical practices along the Fraser and Pitt rivers; steel pile vs. concrete intake structure; forebay configuration; elevation and location of control room; provision of intermediate deck and other access considerations; ability to remove pumping units; screen types (bar racks are typical); number and types of pumping units (two axial-flow units are typical); and sizing of the force main and profile through the dike. Our team will develop conceptual structural designs and drawings for two options: one with the kiosk (please refer to section 1.2.3 of this proposal) and another with a building.
 - The need to protect fish and fish habitat will affect the selection of both the new pump station and the flood box. We anticipate that the most common type of drainage pumps in use along the Fraser River are Flygt pumps from Xylem Water Solutions, which are not typically considered fish-friendly. At the conceptual design stage, our team will consider alternative manufacturers of fish-friendly drainage pumps, potentially including Bedford, Pentair, Rodelta, and Bosman. We may also consider several Archimedes screw pump manufacturers.
 - Various options for the flood box include sizing and invert elevation options, as well as choices in pipe materials and types of outlet gates and headwalls. The RFP does not specify whether fish passage is required in either direction through the facility, but consideration will be given to both fish passage and fish monitoring at the conceptual design stage. Various gate types are available (e.g., top- or side-hinged), and racks or slots can be added for installing antennas and monitoring radio-tagged fish; additionally, other facilities can be added to accommodate manual counting.



- Access, reliability, maintainability, and safety are key. Staff must be able to work safely, remove and install heavy equipment, and operate and clean system trash racks, sometimes under severe conditions. At the same time, the public must be protected and excluded from hazardous areas.
 - Erosion protection such as riprap will be required at the outlet of the flood box and especially at the station's force main. NHC will design the erosion protection.
- **Design Risks:** NHC will identify aspects of the design that will require an additional detailed examination to ensure the project meets all desired criteria.
- **Construction Phasing Strategies:** NHC will review the available construction execution strategies to identify issues, such as site access, instream work requirements and environmental constraints, demolition or decommissioning of the existing pump station, bypass pumping, and temporary electrical considerations. The findings of this review will later inform development of the inspection plan, the startup and commissioning plan, and tender documents, including the schedule of prices and special conditions.
- **Costs:** While the conceptual design stage does not include a cost estimate, we anticipate that we will provide Metro Vancouver with high-level cost factors for the purposes of options development, comparison, and discussion. These may include qualitative rankings (e.g., identifying some options as more or less costly than others) or quantitative comparisons of specific sub-components and equipment, such as pumping units provided by different manufacturers.

At a minimum, NHC has identified the following opportunities for collaboration during Phase 1:

- project kickoff meeting with Metro Vancouver
- site visit and meeting (in-person)
- conceptual design / options selection review meeting

Geotechnical Analysis and Report

After reviewing existing reports and other available information and considering the results of our geotechnical investigation and lab testing, our team will carry out the geotechnical analyses. Our reports will include the results of our site investigation, as well as details from our results discussion and recommendations on the following topics:

- seismic site classification, seismic hazard, and liquefaction susceptibility
- recommendations for ground improvement works using stone columns to reduce liquefaction-induced and post-seismic ground displacements of the new pump station to within tolerable deformation limits
- foundation design, assuming a grade-supported structure is positioned on stone columns
- below-grade structure design, including lateral Earth pressures
- discharge pipe and flood box penetrations through the existing dike



- subgrade preparation and settlement estimates
- seismic performance, including seismic deformations of the proposed structures using simplified empirical methods
- densification criteria for ground improvement
- construction considerations, including preliminary discussion of dewatering and temporary excavation shoring considerations; we assume the detailed design of temporary shoring and construction dewatering will be the contractor's responsibility

NHC assumes the pump station will be a rigid, short-period structure (i.e., lateral period 0.5 s or less), and a site-specific ground response analysis will not be required.

Preliminary Environmental Impact Assessment

The NHC environmental team (Roe) will conduct an initial preliminary environmental overview assessment to identify the valued ecosystem components that could be affected by the project. This overview assessment will provide the background information required to conduct the preliminary environmental impact assessment of conceptual design options, which in turn will inform selection of the final design. The overview assessment and impact assessment can be combined into a single environmental impact assessment (EIA) report, which will be submitted as a component for the WSA Change Approval application, the *Fisheries Act* Authorization request to DFO, and the VFPA project and environmental review process. We will include the following components:

- project overview and description of works
- environmental regulatory context to the Project
- environmental overview assessment, including background research, desktop review of environmental databases, and field assessment of identified valued environmental components within, adjacent to, and near the pump station
- fish sampling to identify species present
- impact analysis of the design options on the identified valued environmental components

1.2.3 Phase 2 – Detailed Design and Tender Support

Phase 2 of Task 1 will require the most amount of coordination between NHC's project team and others. We will incorporate comments and pertinent information from Metro Vancouver and other project stakeholders into the design. We have budgeted an additional site visit during this phase to confirm site details once the design has progressed past the conceptual stage.

While the conceptual design phase may consider various layout options and pump types, our budget for detail design is based on a control enclosure that is either a kiosk or a small pre-engineered building that will not require a building permit. In addition, our proposed budget includes the use of axial-flow pumping units. An example of a typical installation is provided in

Section 1.2.3 below. If a building permit or the use of Archimedes screw pumps are required, additional funds will need to be added to the budget.

Similarly, our budget for detailed design is based on the provision of a flood box facility, including a precast concrete inlet and outlet structures, pipe(s), and top-hinged control gate(s). Other potential design configurations, including the use of custom, cast-in-place concrete structures or self-regulating gates, could also require additional effort and budget.



Example Kiosk Style Pump Station, Quaamitch Drainage Pump Station, Nicomen Island

The style of pump station shown in the photo above has a large controls kiosk nearby that is not shown in the photo. NHC is aware that Metro Vancouver already owns kiosk-style sewage pump stations, including a Hudson PS with two 15-HP pumps, Willingdon PS with two 15-HP pumps, and Gleneagles No. 4 and No. 5. Such a kiosk is easy and convenient for Diking District personnel to access and use while providing a cost-effective solution for accommodating pump station components.

Design Drawings

Our team will produce drawings for the 50%, 90%, and final submission stages. Following are examples of drawings that may be included for the project:

- cover sheet
- general notes
- site plan
- discharge pipe – plan and profile
- pump station – plan and sections
- flood box profile details



- erosion protection – plan and sections (if required)
- structural notes (e.g., concrete outline, reinforcing)
- electrical, instrumentation, and control

We will refine the final design throughout the detailed design process and will consider the following components:

- Construction Phasing Strategy: Throughout the detailed design development phase, NHC will revisit and re-evaluate construction considerations, building off the findings from the conceptual design phase.
- Control Narratives: NHC will coordinate with the electrical engineer to prepare operational control philosophies for the proposed systems.

Contract Documents

Our team will provide technical specifications for the 90% and final submissions and will prepare the complete technical specifications package at the final submission, which will form part of the contract documents. We assume that relevant standard Metro Vancouver specifications will be made available.

The contract documents package will include a schedule of quantities. We will provide a draft statement of qualifications at the 50% submission stage and will update the draft at the 90% submission stage.

Cost Estimates

Our design team will provide updated construction cost estimates at each submission stage, including 50%, 90%, and final).

In the RFP Metro Vancouver requested Class B estimates for all design submissions; however, earlier submissions, such as the 50% design, may better suit a Class C estimate instead. Similarly, a Class A estimate may be better suited at the final design submission for tender comparison. We will be happy to discuss and confirm these details with Metro Vancouver during the project start-up phase.

Tender Support

NHC's team will provide engineering services during the tendering of the contract documents. We will be available to answer questions, provide clarifications and addenda, and assist with the review of the tender packages, as required.

The following opportunities for collaboration have been allotted during Phase 2:

- 50% and 90% design review meetings (virtual)



- one additional site visit
- tender support

Construction Environmental Management Plan

Our team will prepare a CEMP, which will provide a framework for protecting the valued environmental components identified in the EIA and identify required mitigations for the contractor during construction. Like the EIA, the CEMP is a typical component that must be included in the WSA Change Approval application, the DFO request for project review, and VFPA PER permit application. We anticipate the following components to be included in the CEMP:

- environmental monitoring and supervision requirements
- erosion and sediment control
- waste management
- clearing and grubbing
- working in and around water
- fish protection and salvage
- instream isolation
- water quality management
- tree protection
- hazard tree management
- soil protection and conservation
- invasive plant management
- wildlife protection and mitigation – species at risk protection
- Air quality and noise mitigation, and dust control
- spill prevention and emergency response
- site restoration and planting
- offsetting implementation and effectiveness monitoring

Regulatory Approval and Permit Acquisition

We anticipate that replacing the pump station and flood box will require a WSA Change Approval for conducting changes in and about a stream, as well as a PER permit from the VFPA. A request for project review must also be submitted to DFO, and their approval will be required. Following are the tasks included during this project phase:

- preliminary consultation with regulatory contacts for guidance on conceptual design
- preparation of necessary components for application submissions, including EIA, CEMP, and 70% design drawings
- compilation of application package and formal submission to regulatory bodies
- consultation and responses to comments from regulators and reviewing First Nations



- required revisions and resubmissions of application package components

Final Environmental Impact Assessment

The environmental impact assessment of the final design is to be prepared as a revision of the preliminary environmental impact assessment, which details only the final design. This assessment is to be included in the EIA for inclusion in the application packages to be submitted to regulators.

1.2.4 Phase 3 – Construction Services and Contract Administration

Following project award, NHC and our project partners will issue a set of drawings and specifications for construction. We will incorporate into the construction documents any updates or changes highlighted via the addenda during the tender stage. Construction services will be performed as required and may include providing input toward administering progress payments, requests for information, change requests, site reviews, shop drawing reviews, monthly meetings, coordination, required drawing updates, and project oversight

On behalf of NHC's team, Water Street will lead contract administration during construction of the pump station. Primary duties will include conducting construction reviews, performing contract administration services, and other duties, as described in the RFP. Additionally, each field review will be followed up with a field review report that will provide details on work completed in addition to any deficiencies found. We assume that field reviews will be conducted twice per month, in addition to monthly site meetings, and three structural field reviews will take place.

A startup and commissioning plan and operation and maintenance manual will be finalized for the pump station. We assume we will use the pump station operations and maintenance manual as an input for the dike operations and maintenance manual (RFP Task 5).

During Phase 3, our team will conduct field reviews; we also anticipate several collaboration opportunities :

- construction kick-off meeting
- construction progress meetings as required (assumed monthly)
- pre-commissioning meeting

The following activities are expected to occur during the Services During Testing and Commissioning Phase:

- Review testing and commissioning plan submitted by the contractor; update and complete as necessary. Establish standards and strategies for commissioning (i.e., performance requirements).



- Prepare and maintain log of results for the above checkouts and tests through start-up and commissioning. Review the test documentation and recommend it for acceptance.
- Coordinate with Metro Vancouver Project Engineer to facilitate all testing to be performed by contractor.
- Review contractor's request for pre-operational checkout. Monitor and coordinate pre-operational checkout activities for the contractor and equipment manufacturer representatives. Pre-operational checkout activities include, at minimum: circuit continuity testing, measurement of insulation resistance, and loop testing. Advise the Corporation's Project Manager of any issues or concerns. Review contractor-submitted test results and recommend acceptance as appropriate.
- Review contractor's request for equipment and system performance testing. Monitor and coordinate contractor's equipment and system performance testing activities. Witness testing and acknowledge acceptance when a test is successful by signing the test results form). Equipment and system performance testing activities include functional and operational testing. Define range of operation for operational testing. Advise Metro Vancouver Project Manager of any issues or concerns. Review test results submitted by the contractor and recommend acceptance of test results.
- As required, provide specialists to witness, with Metro Vancouver, major equipment testing to ensure the supplied equipment meets or exceeds the specifications and all applicable codes and standards. Compile test reports and submit with the acceptance for commissioning package.

To close out the project, we will sign and seal the record drawings. In addition, we will finalize the project completion reports, including submittals, shop drawings, test reports, and other information, which demonstrate the satisfactory completion of the project, and complete an updated process control narrative. In addition, our team will be available to work through warranty issues, as required.

Environmental Monitoring

As a typical permit condition, environmental monitoring of construction activities is required for projects with instream works. We assume that Metro Vancouver will retain an appropriate professional to satisfy the conditions of environmental monitoring; however, we anticipate that Metro Vancouver will also need to audit the contractor to ensure alignment with the Metro Vancouver permit conditions.

The environmental monitoring requirements will depend on the environmental permit approvals and contractor schedule. We will confirm the actual effort once these details materialize. For this proposal, we anticipate 6 site inspections or visits to audit the contractor during construction. Note that we will concentrate the timing of inspections around sensitive times in the project



schedule, including during instream work and after project kick-off. Following are NHC's proposed monitoring tasks for the Owner's Qualified Environmental Professional (QEP):

- Routinely perform sensitive, work-specific environmental audits to evaluate contractor compliance with work practices and procedures; assess the effectiveness of implemented mitigation measures in meeting contract terms; confirm the project meets the conditions of regulatory approvals, with the CEMP; and verify the project complies with the Environmental Protection Plan details, procedures, and work plans.
- Provide recommendations to the contractor to achieve compliance with the CEMP and regulatory requirements.
- Maintain regular contact and meet with Metro Vancouver, project design teams, and the contractor as required, throughout the project's lifecycle.
- Review the contractor's environmental monitoring reports, memorandums, and incident reports to check completeness and accuracy and to assess the success of applied mitigation measures.
- Report to Metro Vancouver on the effectiveness of implemented mitigation measures to avoid or limit project-related impacts, including details on the difficulties encountered and how they are managed.
- As the project advances, coordinate and communicate with regulatory agencies, interested and potentially affected public stakeholders, First Nations, and local communities, as required.
- Recommend suspension of construction activities to Metro Vancouver when encountering non-compliance with the CEMP, contravention of regulatory permits and approvals, or if environmental damage is observed outside of the anticipated project scope; construction activities must remain suspended until appropriate solutions can be identified and implemented.
- Provide additional services at Metro Vancouver's request, including environmental management and monitoring services.
- Compile a construction summary monitoring report based on the contractor's qualified environmental professional (QEP) reports to submit after substantial completion to the regulators

Post-construction inspections are not included in this proposal, but they may be required in future, depending on permit approval terms. Requirements of a WSA Change Approval can include preparing a restoration or compensation plan and implementing an offsetting and effectiveness monitoring plan to monitor the success of the restoration plans over time. These plans are generally required to receive a minimum of five annual inspections per year, including reporting.



1.3 Schedule

NHC's 2024 dike assessment update states that projects implemented under the current grant funding must be completed by March 2026; however, we expect that an extension will be required, based on lead time for tendering and environmental permit approvals. Following is NHC's proposed project timeline:

- | | |
|--------------------------------|------------------------|
| • Contract award | February 2025 |
| • Drainage study completion | June 2025 |
| • Pump station task start-up | June 2025 |
| • Conceptual design submission | August 2025 |
| • 50% submission | September 2025 |
| • 90% design submission | December 2025 |
| • Final design submission | February 2026 |
| • Tendering | February to March 2026 |
| • Construction | April to October 2026 |
| • Project completion | November 2026 |

This timeline is based on the contract award date of February 2025; in addition, this is also the proposed timeline for the NHC's conceptual drainage network study. Note that construction and completion dates will depend on when permitting is issued, including a *Fisheries Act* Authorization and WSA S.11 permit, which both have lengthy approval periods.

In addition, the schedule is based on Metro Vancouver providing one consolidated set of comments within 2 weeks of each submission. Longer review times, multiple rounds of reviews, or changes in design direction are all associated with substantial schedule risks that may delay the project's overall timeline.

1.4 Project Management and Adequacy of Resources

Please see Section 6 (Project Management and Adequacy of Resources) for a description of NHC's approach to project management and allocation of staff and resources for this project.



2 DRAINAGE DITCH STUDY AND DRAINAGE DITCH UPGRADES

2.1 Project Understanding

This section of our proposal presents our understanding of potential Barnston Island drainage ditch improvements, which we have supported in various capacities for the past 13 years. Below we discuss project objectives and environmental considerations, identify potential challenges associated with ditch monitoring and maintenance, and explore seepage and piping concerns. Also presented is our approach to construction coordination.

Barnston Island is a flat, low-lying area encircled by a perimeter dike. Outflow from the island is facilitated solely through the flood box and pump station located on the island's west side. Inflows contribute to potential flooding and originate from several sources:

1. Fraser River freshet – which drives seepage flow through the dike.
2. Pumped drainage – cranberry farming operations can contribute to water entering the island.
3. Rainfall and snowmelt runoff – which can lead to localized flooding in low-lying areas, particularly in Katzie IR3.

The island's ditch network, which may have been designed with adequate capacity, is hindered by insufficient maintenance, which reduces its functional capacity. The Central (Main) Ditch spans 3.4 km and is operated by the Barnston Island Drainage District (BIDD). Apollo Cranberry Farm shares responsibility for sections of the Main Ditch adjacent to its property, while the Ministry of Transportation and Transit maintains upstream segments (eastern end of the island) that also function as public road ditches. Lateral and southern ditches are the responsibility of individual landowners and are not consistently maintained.

Drainage issues are particularly severe at Katzie IR3, the south portion of the island. Here resident areas not connected to the island's central drainage system experience persistent ponding. The southeastern corner of the island does not drain into the Central Ditch and reportedly flows overland into Katzie IR3. Surface ponding at Katzie IR3 was reportedly exacerbated when neighbouring ditches, along the east and west perimeter of the reserve, were filled in.



2.1.1 Objectives

Deficiencies have been identified in the existing drainage system, including deteriorating or blocked culverts, sloughing ditch segments, and in-filled lateral ditches. A comprehensive assessment of the existing Barnston Island drainage system and design of drainage improvements is necessary to address these issues.

The new design must accommodate monitoring and maintenance requirements, which emphasize low-maintenance solutions to mitigate the effects of insufficient upkeep. Phased construction will be essential in minimizing disruptions to residents, businesses, and the environment. Similarly, coordination of flood box and pump station upgrades (Task 1) is critical to improve system performance and reduce construction-related disruptions.

2.1.2 Environmental Considerations

BC *Habitat Wizard* provides no indication that fish are present in the drainage ditches. However, likely they are likely considered habitat with maintenance works having potential to impact salmonids and other sensitive species. In which case, the drainage ditch network must be afforded environmental protection. Drainage ditch upgrades must be constructed in a way that avoids undue harm to these species and their habitat, and upgrade work may provide opportunities to enhance riparian values.

Within the proposed team, Roe will be responsible for: conducting an environmental assessment to inform on potential impacts of proposed design options; consulting with regulators and providing guidance on obtaining regulatory permits during the design process; preparing and overseeing a construction mitigation plan and a restoration or offsetting compensation plan, as required. We anticipate that this task can be completed without harming fish or destroying their habitat. A *Fisheries Act* Authorization is not anticipated to be required, however a WSA Change Approval will likely be required.

2.1.3 Potential Challenges

Successful implementation of ditch upgrades on Barnston Island will undoubtedly include an acknowledgement that multiple concerned parties exist, each with potentially competing needs and priorities. There are also physical constraints, including hydraulic, geotechnical, access, and land use challenges.

Monitoring and Maintaining the Ditch Network

Regular, coordinated management and maintenance of the ditch network is challenging due to shared responsibility of the Central Ditch and private ownership of lateral ditches. Poor drainage performance is primarily caused by inadequate maintenance, as evident by plugged culverts,



overgrown vegetation, fallen trees, and infilled ditches. Many landowners and farm operators may lack the resources to perform regular maintenance of the lateral ditches on their properties.

Addressing Seepage and Piping Concerns

Seepage takes place both through and under the dike, contributing water to the island when Fraser River levels are high and potentially can result in internal erosion (i.e., piping) and subsequent dike failure (NHC, 2013). While seepage may be reduced through dike upgrades, seepage under the structure may still occur when there are sufficient head differentials across the dike. Seepage is of particular concern at Katzie IR3, where residents report that internal water levels fluctuate with changing river levels, suggesting a well-defined hydraulic connection between the river and the land on other side of the dike. Localized pumping of ponded water can appear to be a desirable interim solution. However, this can result in an increased driving head between the river and the protected lands resulting in increased seepage and possibly lead to piping of the dike or underlying materials.

Coordinating Construction Activities

Construction activities will require careful planning to address permitting and environmental considerations, implement temporary diversions, facilitate machinery access, and integrate the flood box and pump station upgrades. Phased construction will be essential to reduce potential disruption to residents, farm operations, and operation of the drainage system.

Accommodating Ditch Geometric Design

Barnston Island's flat, low-lying topography and single pump station results in a low gradient to convey water across the island. Any resistance to flow, such as excessive vegetation or obstructed culvert, can effectively prevent drainage conveyance. Furthermore, the lack of established drainage from IR3 lands needs to be addressed to improve conditions for the residents as well as reduce the temptation for use of local pumping of ponded water. Excessive excavation can also increase seepage from the river or the adjacent cranberry fields, which could impose unnecessary loads on the drainage system and negatively influence cranberry farm operations.

To address these constraints, the design should include strategically widened ditches in select locations to enhance flow and in-ditch storage. This approach will help balance capacity requirements while mitigating potential impacts on dike stability and surrounding agricultural areas.



2.2 Project Methodology

This section of our proposal includes details on: 1) our proposed methods for Phase 1, the drainage ditch study; 2) drainage ditch upgrades, including the detailed design, tender support; and 3) contract administration.

2.2.1 Subconsultants engaged

The drainage study will be primarily completed by NHC, with support from Roe for environmental and permit application items. It is expected that Katzie First Nation will either be an active partner or substantially consulted through this task.

2.2.2 Phase 1 – Drainage Ditch Study

During Phase 1, NHC will thoroughly assess the existing drainage ditch network on Barnston Island, identifying its deficiencies and limitations. The findings will inform the design criteria for Phase 2, which will focus on upgrades to the drainage ditches. Additionally, we will develop conceptual upgrade options and recommendations to support Metro Vancouver's selection of the preferred approach for implementation in Phase 2 of the project.

Project Management – Virtual Start-up Meeting and In-person Site Visit

At project initiation, NHC will attend a virtual kick-off meeting and in-person site visit with Metro Vancouver staff and others. NHC assumes the virtual kick-off and in-person site visit will be 1 to 2 hours in duration, respectively, and will be hosted by Metro Vancouver. During these interactions, NHC will provide an overview of the upcoming work, answer questions from Metro Vancouver and others, and take notes on community partner's concerns, priorities, and objectives.

NHC's proposed Project Manager and one team member will attend meetings with Metro Vancouver Staff and others to provide progress updates and facilitate discussion and input, as needed. NHC assumes these meetings will occur bi-weekly, will be virtual, and will last for 1 hour. We will be available to attend additional virtual or in-person meetings as necessary at an additional cost.

Technical Memo – Existing Conditions of Barnston Island Drainage Network

NHC will complete a comprehensive review of the current Barnston Island drainage ditch network by conducting both desktop research and a field investigation. NHC will leverage our existing database and knowledge of the Barnston Island drainage network from our previous studies, and request additional information from Metro Vancouver, BIDD, and others to fill any gaps we identify. NHC assumes that a one day field investigation will be sufficient to supplement available desktop information.



We will compile the data we collect into GIS software, which our project team can use to support our assessment and design of upgrades to the drainage ditch network. We expect to include the following details in our maps as part of this project:

- existing drainage infrastructure on Barnston Island, including main, lateral, and minor ditches, culverts, and the pump station
- existing orthoimagery, land use, and terrain data
- property boundaries

We will develop a preliminary hydrological-hydraulic model to provide a high-level overview of the drainage ditch system's existing performance. Later, the model will provide a baseline for comparing potential upgrade options.

NHC will prepare a technical memorandum that will include the aforementioned maps showing the current drainage ditch network on Barnston Island, as well as a summary of information on ditch geometry, condition, and ownership; existing infrastructure, such as culverts; and other pertinent information. The memo will summarize our team's preliminary hydrological-hydraulic model development and identify the shortcomings of the current ditch network, which in turn will inform the design basis and subsequent tasks.

Technical Report – Drainage Ditch Study – Conceptual Options and Recommendations

NHC will collaborate with Katzie First Nation, Metro Vancouver, BIDD, and relevant stakeholders when developing a comprehensive design basis, which will include confirming the design return period for rainfall events. We will also complete a local hydrological assessment to estimate rainfall amounts for the selected design return period based on data from nearby rain gauges, and we will assess potential climate change impacts on rainfall amounts. When conducting the hydrological assessment, NHC will prefer rain gauges with good record lengths and close proximities to Barnston Island, such as the Surrey Kwantlen Park gauge.

Next, we will develop a refined hydrological-hydraulic model to evaluate drainage performance and identify potential surface ponding issues. We will then use the model to determine the governing peak runoff rates for storm duration, create up to three concept-level upgrade options, and conduct a high-level performance assessment for each option.

NHC will summarize the proposed options in a technical report and will include details on the selected design rainfall event, development of the hydrologic-hydraulic model, and the rationale, configuration, and expected performance of the proposed upgrade options. Additionally, we will include Class D cost estimates, anticipated permitting requirements, and an estimated implementation timeline for each option.

First Nation and Stakeholder Engagement (Optional, Per Meeting)

NHC is strongly committed to meaningful engagement with local First Nations, as well as other community members and stakeholders, and we understand how important each engagement



activity is a project's long-term success. NHC offers Metro Vancouver direct engagement and meeting facilitation experience, and we provide technical support to engagement efforts led by others. We have provided a per-meeting rate for this optional task, and we assume attendance at a 1-hour virtual meeting, as well as 2 hours to prepare supporting information (e.g., maps, figures). We can also attend meetings in at Metro Vancouver's request.

2.2.3 Phase 2 – Drainage Ditch Upgrades – Detailed Design, Tender Support, and Contract Administration

Supplementary Field Investigation

NHC has included one supplementary field investigation in our budget to support the engineering design process. The purpose of this fieldwork is to address gaps or outdated information regarding existing ground conditions, properties, or infrastructure if any gaps are identified the existing data or data collected during Phase 1. We anticipate that a Project Engineer and a Field Technician can complete the investigations in 1 day. This proposed scope does not include additional geotechnical investigations; however, Thurber Engineering can perform such investigations at an additional cost, if needed.

Engineering Design Drawing Submission (50% Design)

NHC will import the preferred concept into CAD software, and we will refine ditch alignments and sizing to account for local terrain and space requirements. If necessary, we will update the hydrologic-hydraulic model to ensure the refined ditch geometry meets stated performance criteria. As specified by Metro Vancouver, the concept will be advanced to the 50% design stage. NHC will prepare a schedule of quantities and a Class B cost estimate; we will submit the 50% engineering design drawings for review by Metro Vancouver staff.

Technical Report – Draft Design Report

NHC will prepare and submit a draft design report to Metro Vancouver staff for review, which will also support permitting efforts. The report will summarize the design criteria, the condition and limitations of the existing drainage system, the results of hydrologic and hydraulic analyses, and a description of the proposed drainage ditch upgrades.

Following contract award and in collaboration with Metro Vancouver, NHC will develop a phased construction strategy intended to minimize disruptions, including to drainage system operations, road networks, and agricultural activities. This strategy will also address potential construction challenges, such as environmental and drainage operation considerations, and propose suitable timelines, sequences, and work windows to effectively mitigate these challenges.



Engineering Design Drawing and Specifications Submission (90% Design)

Following review by Metro Vancouver staff, NHC will advance the 50% design to the 90% design stage, incorporating feedback from the Metro Vancouver project team. We will develop design specifications, compile general notes and details on phasing and implementation, and provide material specifications, in addition to preparing an updated schedule of quantities and cost estimate. Any recent local unit rates that Metro Vancouver or BIDD have will be requested to improve accuracy of the cost estimate. We will then submit the 90% engineering design drawings for review by Metro Vancouver decision makers.

Engineering Design Drawing and Specifications Submission (Final IFC)

The 90% design will then be finalized as Issued for Construction (IFC) drawings that will incorporate additional feedback from the Metro Vancouver, communities, and stakeholders. We will also finalize design specifications and prepare a final schedule of quantities and update the cost estimate to Class B as possible with the available rate information.

Technical Submittal – Final Design Report

NHC will update the draft design report to address Metro Vancouver comments and reflect the final IFC drawings. We will submit a final, sealed version of the design report along with the IFC drawings.

Technical Submittal – Environmental Impact Assessment

Roe will conduct an environmental overview assessment to identify the valued ecosystem components that the Project may affect. This overview assessment will provide the background and rationale required for the environmental impact assessment of the drainage ditch upgrades. We will then combine the overview assessment and impact assessment into a single EIA report, which will also become a component of the WSA Change Approval application and the DFO request for project review. This EIA report will include:

- project overview and description of works
- description of environmental regulatory context
- details of environmental overview assessment, including background research, desktop review of environmental databases, and field assessment of valued environmental components within, adjacent to, and near the pump station
- fish sampling conducted to identify the species present near the project
- impact analysis of the design options on the valued environmental components

Technical Submittal – Construction Environmental Management Plan

NHC will work with Roe to prepare a CEMP, provide a framework for protecting the valued environmental components identified in the EIA, and identified required mitigation measures that the contractor must adhere to during construction. The CEMP, like the EIA, is a typical



component of the WSA Change Approval application and the DFO request for project review submission. NHC anticipates the components of the CEMP will include the following:

- environmental monitoring and supervision requirements
- erosion and sediment control
- waste management
- clearing and grubbing activities
- work in and around water
- fish protection and salvage
- instream isolation
- water quality management
- tree protection
- hazard tree management
- soil protection and conservation
- invasive plant management
- wildlife protection and mitigation – species at risk protection
- air quality and noise mitigation, dust control
- spill prevention and emergency response
- site restoration and planting
- offsetting implementation and effectiveness monitoring

Regulatory Approval and Permit Acquisition

NHC and Roe anticipate that the drainage ditch upgrades will require a WSA Change Approval for changes in and about a stream and that a request for project review will need to be submitted to DFO for project approval. Tasks involved with seeking regulatory approvals and permits include:

- preliminary consultation with regulatory contacts for guidance on conceptual design
- preparation of necessary components for application submissions, including EIA, CEMP, and 70% design drawings
- compiled application package and formal submission to the above-noted regulatory bodies
- consultation and responses to comments from regulators and reviewing First Nations
- required revisions and component resubmissions from the application package

Tender Support

NHC will support the tendering process by providing written responses to questions received. We have not included allocations for such tasks as developing the RFP, compiling Metro Vancouver-controlled specifications (beyond NHC's technical specifications), or evaluating bids, but we can assist with such tasks as additional scope.



2.2.4 Phase 3 – Contract Administration

Contract administration requirements will depend on items such as the final design, the contractor's methodology and quality of work, and requirements in regulatory permit approvals. These details are presently unknown; however, NHC has assumed a base effort to cover the following activities:

- coordination of and attendance at site meetings, including preparation of agendas and meeting minutes
- review of contractor submittals
- construction field review
- review of change order and progress pay requests
- responses to requests for information
- issue of site instructions and change orders

NHC will undertake a post-construction inspection to identify deficiencies and verify substantial completion, and record drawings will be issued. NHC assumes that the contractor will provide a satisfactory post-construction survey as well as marked-up drawings showing as-built configurations relative to design.

Contract Administration

As a typical permit condition, environmental monitoring is required for instream works projects during construction. Metro Vancouver can choose to have the contractor retain an appropriate professional to satisfy environmental monitoring conditions; however, we anticipate Metro Vancouver will also require contractor auditing to ensure alignment with Metro Vancouver permit conditions. We anticipate 12 site inspections or visits to audit the contractor during construction. Inspections will be concentrated around sensitive times in the project timeline, including during instream work and following project kick-off. Following are the monitoring tasks for Metro Vancouver's QEP:

- Perform routine, sensitive, work-specific environmental audits to evaluate the compliance of the contractor's work practices, procedures, and effectiveness in implementing mitigation measures within the terms and conditions of regulatory approvals, and in compliance with the CEMP, the Environmental Protection Plan, and other relevant procedures, and work plans.
- Provide recommendations to the contractor to achieve compliance with the CEMP and regulatory approvals.
- Maintain regular contact and meet with Metro Vancouver, the design teams, and the contractor as required.
- Review the contractor's environmental monitoring reports, memorandums, and incident reports for completeness, accuracy, and assessment of applied mitigation measures.



- Report to Metro Vancouver on the effectiveness of the implemented mitigation measures to avoid or limit project-related impacts or difficulties encountered, and how they are managed.
- Coordinate and communicate with regulatory agencies, interested and potentially affected public stakeholders, First Nations, and local communities, as required
- Recommend suspension of construction activities to Metro Vancouver based on non-compliance with the CEMP, contravention of regulatory permits and approvals, or if environmental damage outside the Project scope is observed, until appropriate solutions can be identified and implemented.
- Provide additional services at Metro Vancouver's request, including environmental management and monitoring services.
- Compile a construction summary monitoring report based on the contractor's QEP reports and submit to the regulators after substantial completion.

Post-construction inspections are not included in the base scope and will be confirmed based on permit approval requirements. Typical requirements of a WSA Change Approval include preparing a restoration or compensation plan and implementing an offsetting implementation and effectiveness monitoring plan to monitor the success of the restoration plans over time. These plans are generally required to include a minimum of five annual inspections and reports.

2.3 Schedule

This section presents the schedule for completing Phases 1 and 2 of the project, assuming contract award prior to the end of February 2025. The key milestones are summarized in the following table. NHC will review and confirm the project schedule during the kick-off meeting and make adjustments as necessary.

1. Assumed award	February 2025
2. Site inspection	March 2025
3. Phase 1 Drainage Ditch Study report	June 2025
4. Supplementary fieldwork	July 2025
5. 50% Design drawings + draft report	September 2025
6. Environmental permit applications	November 2025
7. 90% Design drawings and specifications	November 2025
8. IFC drawings and specifications	January 2026
9. Phase 2 drainage ditch upgrades report	January 2026
10. Environmental submittals (EIA + CEMP)	January 2026



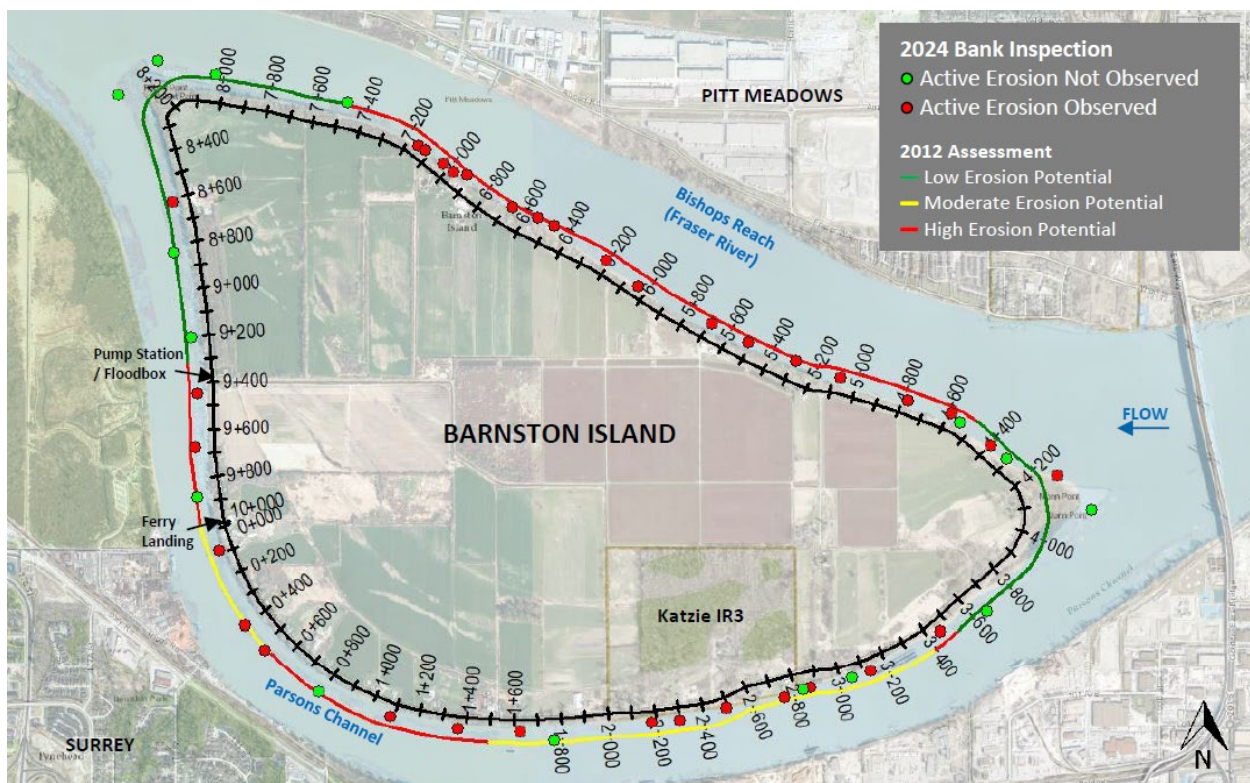
2.4 Project Management and Adequacy of Resources

Please see Section 6 (Project Management and Adequacy of Resources) for a description of NHC's approach to project management and allocation of staff and resources for this project.

3 BANK EROSION STUDY AND EROSION MONITORING NETWORK

3.1 Project Understanding

Undermining scour or progressing bank erosion of the Barnston Island ring dike could threaten its integrity and cause it to fail without it overtopping overtopped. Previous work by NHC, including an assessment in 2012 and an update in 2024, identified locations of concern for erosion hazard, mainly based on observed active bank erosion and proximity of the current dike alignment to an eroding bank. The figure below from this previous work illustrates locations where active erosion has been identified (red dots) and areas of high erosion potential (red lines).



Locations of active erosion, from the NHC 2024 Update.

The previous preliminary assessments did not provide sufficient scope for a thorough investigation of the potential for largescale bank retreat in response to channel migration,



widening, or scour. We recommended a more detailed erosion assessment, including survey, to analyze the potential for undermining to occur along the toe of the bank.

NHC's previous assessments include details on trees collapsing into the river and acting as mechanisms that promote bank retreat, their roots damaging the bank when each tree is pulled up, and local scour appearing around the exposed root balls. Leaning trees could be pre-emptively removed; an arborist assessment will be required to identify the hazard trees suitable for removal.



Typical leaning trees with exposed root structures causing local scour along the north side of Barnston Island, from NHC's 2024 Update.

Lastly, NHC recommends ongoing monitoring of progressive bank erosion to track hazards to the dike. Implementing an erosion monitoring plan will enable consistent documentation of conditions and identification and warning of bank retreat.

3.2 Project Methodology

This section of our proposal presents our proposed methods for the site inspection, scour and erosion assessment, erosion monitoring, and arborist assessment.

3.2.1 Subconsultants engaged

NHC will complete all components of the erosion assessment, with the exception of the arborist assessment, which Roe will undertake.



3.2.2 Scour and Erosion Assessment

The scour and erosion assessment includes a site inspection, bathymetric survey of the highest risk areas, and a desktop analysis, with the goal of improving understanding to present conditions to reduce the risk of dike failure from scour and erosion. The assessment will focus on the north side of Barnston Island, where future dike raising has been recommended; however, findings relating to the full shoreline may be documented as relevant.

Site Inspection

NHC will perform a site inspection to gain an understanding of current site conditions. We have budgeted a full day for a project Geomorphologist and Field Technician, which includes the inspection, as well as travel to and from the site. NHC will arrange the inspection, which will be completed by boat, ideally during low water, day-time conditions (typical of spring and summer), prior to excessive spring emergence of vegetation.

NHC previously inspected the site during the 2024 dike assessment. This inspection will focus on identifying changes and trends, particularly where they are indicative of present or future threats to the dike. The site inspection will primarily be focussed on erosion, with analysis of bathymetric survey used to assess scour.

Survey

Understanding of past and present bed conditions is imperative to identify where the channel is degrading, migrating, or scouring towards the banks and potentially undermining the dikes. To limit cost, a complete survey of the entire Bishop Reach and Parson Channel (left and right banks) is not included in the proposed scope. Instead we propose to include three on-water days of survey to collect bathymetry along the the highest risk areas; that is the north side of the island along Bishop Reach and the southwester edge of the island in Parson Channel.

The survey is to be conducted using a boat mounted multi-beam sounder positioned with an on-board survey grade RTK GPS. NHC routinely collects similar multi-beam surveys for a number of bridge and tunnel projects on the Fraser River. Using the same crew and equipment as we routinely use enables us to provide efficient data collection, efficient data processing, and high-quality results. The presence of log booms and shallow areas will limit the extent of data collected. NHC will target high water day-time levels (typical of winter conditions) as much as possible within project timelines to limit the influence of these constraints. Furthermore, dikes fronted by shallow areas are likely of less risk from scour, and hence of less need for bathymetric survey.



Scour and Erosion Assessment

NHC will undertake an initial scour and erosion assessment with respect to threat to the dike. Approaches for mitigating erosion and scour will be presented where required. This assessment will include reviewing and summarizing the previous relevant scour and erosion studies, comparing present and available historical bathymetric data, and making preliminary recommendations. Findings will be presented in a technical report.

If based on our initial assessment, additional work is required, then it will be discussed with Metro Vancouver.

Erosion Monitoring Network

NHC will identify key locations along Barnston Island to establish a monitoring program. This program may include the installation of offset benchmarks to allow for routine measurement of bank distances. Period measurements can then be used to track bank retreat. Our team will work with Metro Vancouver, BIDD, and other project partners on the install and program initiation. We have allocated one day for one professional and one technician to install such equipment.

The erosion assessment document will include instructions for erosion monitoring, including operational procedures and a recommended monitoring interval. Future monitoring is expected to be undertaken by the local organizations, not the NHC team.

3.2.3 Arborist Assessment

The arborist assessment will consist of an inventory and risk assessment of trees located at the top of the bank of the Fraser River around the perimeter of Barnston Island. The risk assessment will use a combination of approaches from the Tree Risk Assessment Qualification (TRAQ) and the provincial Wildlife Danger Tree Assessor course (WLDTAC). The assessment of all trees on the bank is expected to take an arborist team (including an arborist and an arborist technologist) three 8-hour days to complete the assessment by foot, supplemented by one 8-hour day of assessment by boat from the Fraser River. Both the onshore assessment and the water-based assessment are expected to provide the most accurate assessment of trees, achieve a suitable angle of trees, and identify and assess potentially exposed roots. Tasks will include:

- tree inventory and risk assessment by an ISA-certified Arborist, accompanied by an arborist technologist, using TRAQ or BC WLDTAC standards
- preparation of arborist report to identify risk ratings of inventoried trees and endorsed by an ISA-certified Arborist
- communication, coordination, background review, and reasonable revisions to the arborist report



3.3 Schedule

Assuming contract award in February 2025, the site inspection and arborist assessment will take place during winter 2025, while no leaves are present on trees. Bank visibility is required; if contract award is delayed, these fieldwork components may need to be pushed to late fall 2025 or winter 2026. The erosion assessment and monitoring network development will follow. We propose the following schedule:

- | | |
|---------------------------|---------------|
| • Assumed award | February 2025 |
| • Background review | March 2025 |
| • Site inspection | April 2025 |
| • Arborist assessment | April 2025 |
| • Erosion assessment | May 2025 |
| • Erosion monitoring plan | May 2025 |
| • Draft report | July 2025 |
| • Final report | August 2025 |

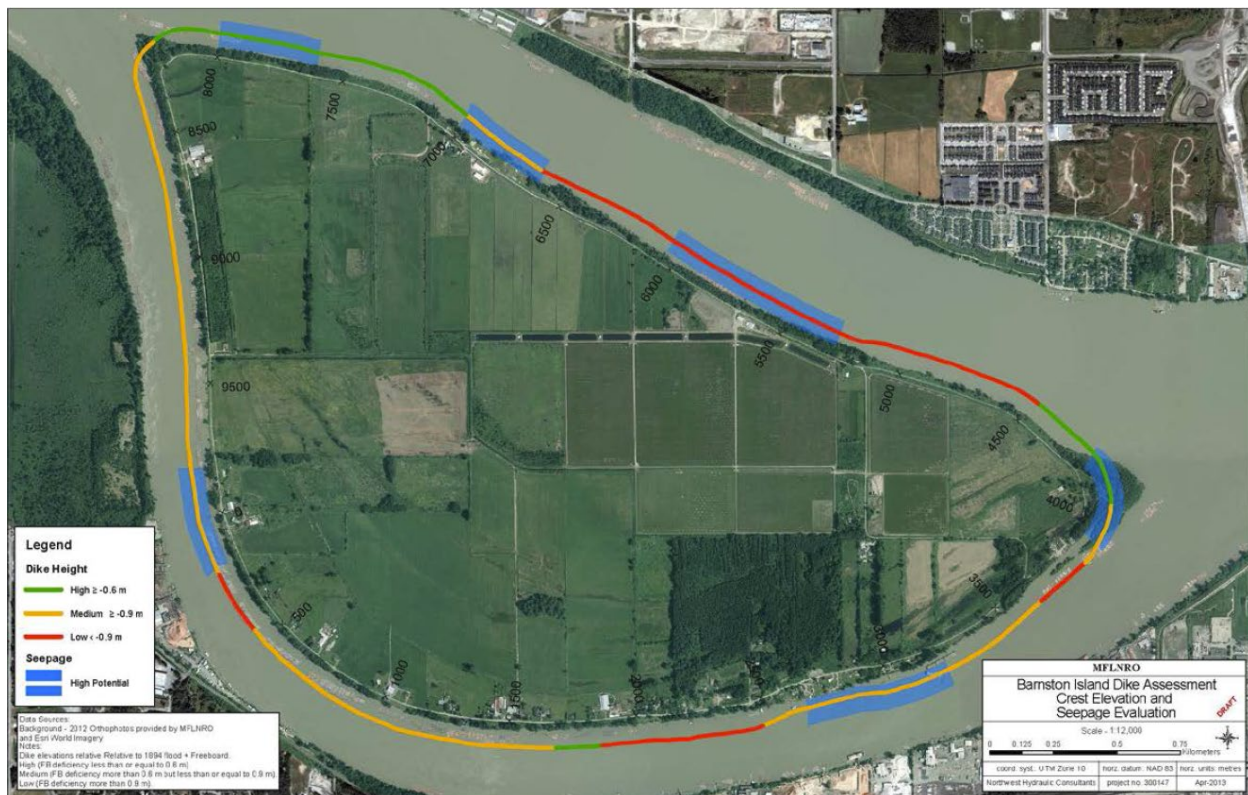
3.4 Project Management and Adequacy of Resources

Please see Section 6 (Project Management and Adequacy of Resources) for a description of NHC's approach to project management and allocation of staff and resources for this project.

4 DIKE SEEPAGE ASSESSMENT

4.1 Project Understanding

NHC's proposed seepage assessment is planned to cover approximately 3 km of dike based on our present understanding of the project. However, any new information from Metro Vancouver or other project partners on areas of high observed seepage is appreciated. The areas expected to be of concern are shown on the figure below, taken from NHC's 2012 dike assessment.



Areas with high seepage potential from NHC's 2012 dike assessment.

Thurber completed a previous geotechnical assessment of Barnston Island dikes in 2013, which included previous test hole information and seepage assessments. Based on this and our previous experience at the site, we expect the following soil conditions along the island's dikes:



- **South Barnston Island dike:** dike soils to typically consist of sand and silty sand to sandy silt fill over a sequence of native silt and sand to depth
- **North Barnston Island dike:** granular dike fill over natural silt with varying amounts of clay and organics

4.2 Project Methodology

The proposed methodology includes a geotechnical analysis to estimate seepage rates through the existing dike. A field geotechnical investigation is required, and hence proposed, to support the analysis.

4.2.1 Subconsultants engaged

As prime consultant, NHC will liaise with Metro Vancouver to coordinate the scope of work. Thurber will complete all geotechnical tasks.

4.2.2 Seepage analysis

Geotechnical Investigation

Our investigation will follow *General Guidelines - Exploratory Geotechnical Testing Within a Dike or Dike Right of Way* (Ministry of Forests, Lands and Natural Resource Operations). We propose investigating the subsurface conditions by drilling test holes as follows:

- 14 solid-stem auger test holes to a maximum depth of approximately 8 m. The test holes will be spaced at approximately 250 m intervals. The geotechnical investigation for Task 4 is considered appropriate for preliminary design but would need to be supplemented with additional test holes when the project proceeds to detailed design.
- Per the RFP requirements, we will complete a site visit during the high freshet period to review ground conditions for signs of high seepage. We assume that we will be granted permission to access private property on the landside of the dike during this investigation.

An experienced geotechnical specialist will log the soil and groundwater conditions in the field and retain disturbed samples for testing in our laboratory. In addition, all soil samples will be subjected to routine lab moisture content and visual classification testing. We will also carry out Atterberg limit testing and sieve analyses on selected representative samples.

NHC will inform the Ministry of our investigation plan and obtain approval under the *Dike Maintenance Act*. We will seal and grout the test holes in general accordance with BC groundwater protection regulations and Ministry requirements. We will record the test hole locations using a handheld GPS.



Prior to advancing the test holes, we will submit a BC 1 Call ticket to notify all utility owners of our intention to disturb the ground during the investigation. We will also contact utility owners that are not a part of the BC 1 Call system. Thurber will engage a utility locate subcontractor to clear the test hole locations of underground services. Please note that the utility locate subcontractor can locate conductive conduits only; non-metallic pipes, such as PVC water and gas lines, cannot be reliably detected. The NHC team (including Thurber) will not be responsible for damage to any utilities that are not shown or incorrectly located on the provided drawings, or not located by the utility locate contractor.

Thurber will retain a traffic control subcontractor during the utility locating and drilling and will follow the traffic management plan submitted as part of the permitting process.

The drill rig will leave some marks on the asphalt and disturb the local grass cover and surface soils, particularly if the ground is wet. We will attempt to clean up the site as much as reasonably possible, but some surface disturbance and settlement should be expected where the drill travels to access test holes and at the test hole locations. Repairs will include reinstating the test hole to surface grade and topping holes in the road surface with cold-mix asphalt. Additional repairs, if requested, can be completed at additional cost.

Geotechnical Analysis and Reporting

Based on the review of existing information, the results of our geotechnical investigation, and laboratory testing, we will conduct the geotechnical analyses. We assume that we will be provided with survey data showing relevant dike geometry and adjacent land topography.

Our report will include the results of the site investigation, as well as discussion and recommendations on the following:

- estimated soil hydraulic conductivities based on the site investigation and laboratory testing
- preliminary comparison of seepage rates through the existing dike and seepage rates through the dike with a seepage barrier
- potential landside heave and internal erosion design concerns for the dike under flood conditions; a preliminary piping risk assessment for the dike configuration in the two-dimensional finite element analysis software, D-Geo Flow.
- preliminary design recommendations for the seepage barrier.

4.3 Schedule

The geotechnical report should be available approximately 8 to 10 weeks after completion of drilling if all other design inputs are provided by the project team.



4.4 Project Management and Adequacy of Resources

Please see Section 6 (Project Management and Adequacy of Resources) for a description of NHC's approach to project management and allocation of staff and resources for this project.



5 OPERATION AND MAINTENANCE MANUAL FOR THE DIKE AND PUMPSTATION

5.1 Project Understanding

There is currently no operations and maintenance (O&M) manual for Barnston Island's flood protection infrastructure. This type of manual typically includes consolidated information on infrastructure history, construction, maintenance and inspection records, operating procedures, and other relevant information. Details from the O&M manual will provide Metro Vancouver and BIDD with pertinent information for managing existing infrastructure and with easily located records that can provide a basis for future improvements.

5.2 Project Methodology

NHC will develop a dike O&M manual, following the provincial template. Proposed methodology is described in the sections that follow.

5.2.1 Subconsultants engaged

NHC will be responsible for compiling the O&M manual, and will seek out input as required from subconsultants involved in the pump station and flood box design (Task 1). Much of the time allocated for documenting O&M requirements with respect to the pump station and flood box have been allocated under that task (Task 1). Under the present task there is an allocation for Thurber to provide geotechnical input.

5.2.2 O&M Manual development

At initiation of Task 5, NHC will attend a virtual start-up meeting with Metro Vancouver and others to discuss objectives and available information. In-person meetings are not expected to be required under this task's scope. NHC will prepare the O&M manual, following the provincial template. The manual is expected to include the following information:

- description of works
- Bishop Reach and Parson Channel geomorphic form and process (i.e., stream behavior and historical records)
- description of flood hazards
- rights-of-way
- administrative stakeholders



- relevant legislation
- inspection requirements, procedures, and available records
- maintenance requirements, procedures, and available records
- emergency response plan

Any available pertinent information, such as records of present infrastructure, past inspections and maintenance reports, historic surveys and drawings, etc. is encouraged to be provided by Metro Vancouver and BIDD. Our scope does not include development of components that are not already available except for those for the pump station and flood box. NHC will undertake a gap analysis to identify missing components for discussion with Metro Vancouver and BIDD. We are available to support development of missing O&M components as additional work.

5.3 Schedule

NHC anticipates that O&M compilation will be initiated following contract award and is expected to take approximately 16 weeks to complete, depending on information availability. A final update will be issued following completion of the pump station and flood box.

5.4 Project Management and Adequacy of Resources

Please see Section 6 (Project Management and Adequacy of Resources) for a description of NHC's approach to project management and allocation of staff and resources for this project.



6 PROJECT MANAGEMENT AND ADEQUACY OF RESOURCES

6.1 Project Management

On any project, NHC's highest priority is to meet our client's needs while delivering high-quality, technically innovative, and purpose-built solutions. Our project management philosophy centres around clear communication of activities and expectations, regular discussions amongst the client and project team, and thorough reviews and quality assurance and quality control (QA/QC) checks of all work products.

NHC considers providing quality service, adhering to agreed schedules, and controlling costs as integral aspects of our successful performance. We have learned through experience that effective budget, schedule, and quality control on a project begin as soon as the project starts. Well-executed projects do not happen by chance. They are the result of participants developing clear expectations at a project's outset, proactively identifying issues and implementing timely solutions, and openly communicating with one another throughout a project's full life cycle. Our proposed project and technical management approach is intended to facilitate success and efficiency. All members of our proposed project team share a proven track record of performing at or above deliverable expectations, of producing effective, innovative results within agreed budgets and schedules.

Management Approach

Backed by more than 50 years of consulting experience in the water resources sector, NHC's approach to project management and quality assurance/quality control (QA/QC) is to listen to and act on feedback from both our clients and our staff throughout the project delivery process.

Following are some key features that ensure successful projects with NHC:

- **A single point of contact** between our client and project team – NHC's project manager for your project is an individual who has been carefully chosen for their technical and project management capabilities and experience.
- **A detailed workplan** – At the start of each project, NHC's team will develop a detailed work plan and clear descriptions of responsibilities and deliverables.
- **Weekly in-house cost summaries** and staff hourly reporting for our entire project team so you can stay on track of your project's ongoing budget and schedule.



- **Regular meetings** and conference calls between NHC's project team and our client's project management team to inform everyone regularly of work progress and any resolve technical concerns as they arise.
- **Clear and concise monthly invoicing** includes progress reports from NHC that describe completed work items, expected work for the upcoming month, and the status of the project budget and schedule.
- **Quality assurance and quality control** of all work products by our principal-in-charge before we release them for review.

6.2 Adequacy of Resources

We continually track our existing workloads and future commitments to ensure we have sufficient capacity to provide the required services to Metro Vancouver for this project. In addition, we have confirmed that the key personnel listed in this proposal all have the required availability to execute this project following contract award.

Our workload tracking is further supported by planning software that captures and projects our short-term and long-term project and resourcing needs company wide. Weekly staff and team meetings provide additional opportunities to review existing workloads and workload forecasts. These weekly staff and team meetings are further supported by our company's owners through ongoing workload conflicts meetings set up to resolve conflicts, give our staff and projects the support they need, and enable immediate adjustments to resources as changing conditions require.

NHC employs many qualified professionals who can provide additional backup support to this project as needed, which ensures work will be completed on schedule, or some work of a project team member may be assigned to another project to provide additional capacity within the Metro Vancouver team. Additionally, NHC works collaboratively with other North American and international offices in our network, and we can supplement project resources in the short term whenever required.

Our Mission

We provide innovative science and engineering solutions to water-related challenges.

Our Vision

We will remain at the forefront of water resources engineering and science by strengthening operations and strategically expanding our services.

Our Values

Passion We love working with water.

Excellence We are dedicated to technical excellence.

Client Focus We partner with our clients to develop practical solutions to fit their needs.

Sustainability We support social and environmental sustainability.

Employee Focus We foster the professional development and well-being of our employees.

Respect We value workplace diversity and treat people with respect.

Minimal Hierarchy We are collaborative and non-bureaucratic.

Integrity We maintain ethical business practices and provide unbiased recommendations.

Autonomy We will remain an independent, employee-owned firm.

Financial Responsibility We are financially accountable to our clients and each other.





To: Electoral Area and Small Communities Committee

From: Marcin Pachcinski, Division Manager, Electoral Area and Implementation Services
Regional Planning and Housing Services

Date: April 15, 2025 Meeting Date: May 15, 2025

Subject: **Electoral Area A Community Works Fund – University Neighbourhoods Association (UNA) Dog Park Project**

RECOMMENDATION

That the MVRD Board approve funding from the Electoral Area A Community Works Fund as described in the report dated April 15, 2025, titled “Electoral Area A Community Works Fund – University Neighbourhoods Association (UNA) Dog Park Project” up to \$200,000.

EXECUTIVE SUMMARY

The Community Works Fund is delivered to all local governments in British Columbia through a direct annual allocation to support local eligible priorities, and is distributed within Electoral Area A based on community population. Including 2025’s annual allocation, the Electoral Area A Community Works Fund Reserve stands at approximately \$1.1 million, with 81% of that apportioned based on population to UBC, which includes the University Neighbourhoods Association (UNA).

The UNA oversees residential neighbourhoods around UBC’s campus and provides municipal-like services (including parks) to its residents. In late 2024, the UNA conducted a public engagement process for a new dog park that sought feedback on its design and features. The proposed dog park received strong support from residents, and in March 2025, the UNA Board endorsed the project moving forward to Metro Vancouver for consideration of funding in the amount of \$200,000.

If the MVRD Board approves the recommendation, Metro Vancouver will enter into an agreement with UBC (on behalf of the UNA) to reimburse them for eligible costs up to \$200,000 upon submission of required documentation.

PURPOSE

To provide the Electoral Area and Small Communities Committee and the MVRD Board with the opportunity to consider funding a project in the UNA through the Electoral Area A Community Works Fund.

BACKGROUND

At its April 29, 2016 meeting, the MVRD Board (then GVRD Board) passed the following resolution:

That the GVRD Board endorse the distribution of monies from the Community Works Fund to areas within Electoral Area A based on population, as described in the report titled “Distribution of Electoral Area A Community Works Fund Monies”, dated March 29, 2016.

In March 2025, the UNA Board, with support from UBC, endorsed seeking funding for a dog park project, which is now presented in this report for the Committee and MVRD Board’s consideration.

COMMUNITY WORKS FUND

The Community Works Fund is one of the funding streams of the renewed 2024-2034 Canada Community-Building Fund. The Community Works Fund allocates funding to all local governments in BC based on a per capita formula that includes a funding floor. Local governments may direct the funding towards eligible costs of eligible projects as set out in the Community Works Fund agreement (see Reference 1 for eligible project information and Reference 2 for grant amounts allocated to each local government). The UNA dog park project is eligible for funding under the recreation infrastructure category.

Consultation

In recognition of the governance and advisory bodies that exist in the Point Grey area of Electoral Area A, including the University Neighbourhoods Association (UNA), the University Endowment Lands (UEL) Administration and Community Advisory Council (CAC), and the University of British Columbia (UBC), the Electoral Area A Director and Metro Vancouver staff are in regular contact with these entities to provide them with information on the Electoral Area Community Works Fund (e.g. as eligibility, funding amounts, and the decision making process and principles). Each organization typically conducts their own public consultation process for potential projects, which the Electoral Area A Director accompanies to gauge resident participation and support. When the UBC/UNA and UEL/CAC have completed their public consultation processes, they provide a project description and cost summary to Metro Vancouver staff who prepare a report for Committee and Board consideration.

For rural communities, the small annual apportioned amounts mean that projects are infrequent and staff look for potential projects to which the funds may apply, as was done for Barnston Island in 2021 (see table below).

For the dog park project, as noted in the Attachment, the UNA conducted a six-week long public engagement process in November and December 2024 that saw 277 survey responses and 113 community conversations. Over 70% of the survey responses supported the addition of a dog park at the proposed site.

Electoral Area A Community Works Fund – University Neighbourhoods Association (UNA) Dog Park Project

Electoral Area and Small Communities Committee Regular Meeting Date: May 15, 2025

Page 3 of 4

Previously Funded Projects

The table below shows projects that the MVRD Board has previously funded through the Electoral Area A Community Works Fund.

Year	Community	Amount	Project
2024	UEL	\$157,000	Chancellor Blvd. sidewalk project
2022	UBC/UNA	\$100,000	Acadia neighbourhood active transportation improvements
2022	UBC/UNA	\$139,276	Solid waste (recycling) receptacle replacement
2022	UBC/UNA	\$195,824	Electric vehicle charging stations
2021	Barnston Island	\$12,100	Dike pump house electrical upgrades
2019	UEL	\$138,575	Green infrastructure to mitigate storm water impacts from climate change
2019	UBC/UNA	\$424,925	Pedestrian and cycling improvements to the Wesbrook Mall and University Boulevard intersection

UNA DOG PARK PROJECT DESCRIPTION (Attachment)

The UNA dog park is proposed to be located in the UNA's Wesbrook Community in an area that has been earmarked for a future elementary school. The dog park design incorporates, and is expected to be compatible with, the future school site.

The dog park design features include separate large and small dog areas, pedestrian pathways, fencing, play terrain, enhanced open passive recreation lawn, and amenities such as shading structures, seating, and drinking fountains. Additional details are provided in the attachment.

The total cost for the UNA dog park project (including contingency) is expected to be \$224,208. The UNA is requesting \$200,000 from the Electoral Area A Community Works Fund to pay for the project, with the UNA covering the contingency expenses.

ALTERNATIVES

1. That the MVRD Board approve funding from the Electoral Area A Community Works Fund as described in the report dated April 15, 2025, titled "Electoral Area A Community Works Fund – University Neighbourhoods Association (UNA) Dog Park Project" up to \$200,000.
2. That the Electoral Area and Small Communities Committee receive the report dated April 15, 2025, titled "Electoral Area A Community Works Fund – University Endowment Lands Project" for information.

FINANCIAL IMPLICATIONS

Funding of this project has no property tax implications for Electoral Area A, as it would be funded in whole by the Community Works Fund grant. Including 2025's annual allocation, the Electoral Area A Community Works Fund Reserve stands at approximately \$1.1 million. Metro Vancouver can expect to receive approximately \$160,000 annually between 2024-2029 from the Community Works Fund. The annual amounts received are kept in a separate Electoral Area A Community Works Fund Reserve and can accumulate until the MVRD Board approves funding of specific projects.

If the MVRD Board supports the recommended alternative, project costs incurred by the UNA will be reimbursed to the UNA after entering into an agreement with Metro Vancouver and submitting required financial information.

If the MVRD Board supports the recommended alternative, the remaining amounts apportioned by population to each community would be:

	Electoral Area A Population (%) 2021 Census	Community Works Fund Balance Remaining
UBC/UNA	15,103 (81.1%)	\$800,000
UEL	3,193 (17.2%)	\$111,000
RURAL*	316 (1.7%)	\$26,000
TOTAL	18,612 (100%)	\$937,000

*Given the small \$ amounts, all communities outside of UBC/UNA and UEL have been grouped into Rural for this table.

CONCLUSION

The Electoral Area A Community Works Fund is used to fund eligible local priority projects. The UNA undertook a public consultation process that indicates resident support for the proposed dog park, and therefore the UNA Board is requesting \$200,000 for this eligible project. Metro Vancouver staff will continue to work with UBC/UNA, UEL, and rural communities to bring forward projects for consideration of funding by the MVRD Board. Staff recommend Alternative 1.

ATTACHMENT

1. University Neighbourhoods Association Dog Park Project Description.

REFERENCES

1. Union of BC Municipalities (UBCM). (2021, August). *Community Works Fund – Examples of Eligible Projects*. Retrieved from https://www.ubcm.ca/sites/default/files/2021-08/Examples%20of%20Eligible%20Projects_August%202021_0.pdf. Last accessed 2025, April 15.
2. Union of BC Municipalities (UBCM). (2024, April). *Community Works Fund – Allocations by Local Government*. Retrieved from https://www.ubcm.ca/sites/default/files/2024-04/CWF_Allocations_5%20year_web%20publish_final.pdf. Last accessed 2025, April 15.



UNIVERSITY
NEIGHBOURHOODS
ASSOCIATION

Report Date: April 9, 2025
From: Wegland Sit, Operations Manager
To: Marcin Pachcinski, Division Manager, Metro Vancouver Area A
Subject: UNA Dog Park Project – Community Works Funds

Dear Marcin,

The UNA Dog Park Project was approved/endorsed by the UNA Board for advancement to Metro Vancouver.

The project descriptions for the Dog Park Project are as follows:

UNA Dog Park Design Overview

Site Location:

This area has been earmarked as the site for a [future elementary school](#). The planning team developed an approximation of the future school site based on the City of Vancouver's recently constructed schools at Lord Tennyson and Maple Grove.

The dog park design incorporates the estimated future school site to best support longer-term viability at this location. The dog park's footprint is expected to be compatible with the planned school site.

UNA Dog Park Design Features:

- **Separate Large and Small Dog Areas:** The design features separate fenced areas for small and large dogs.
- **Pedestrian Pathways:** The design features looped pedestrian pathways within each of the fenced dog spaces. The project will further enhance external pathways, improving accessibility and connecting Webber Lane and Ross Drive to the core community space.
- **Fencing:** Both the small and large dog areas will be fenced with a controlled shared entry point.
- **Play Terrain:** The terrain within the dog spaces may feature the existing berm and ground cover, along with other design elements.
- **Enhanced Open Passive Recreation Lawn:** The design leaves plenty of open green space to enhance the passive recreation functions of the space.
- **Amenities:** Shading structures, seating elements and drinking fountains in both large and small dog area.



Public Engagement Summary

The goal of this engagement was to provide community with information about the construction of a new dog park in Wesbrook Place and to seek feedback on the **design** and **features** of the park.

A six-week public engagement period occurred during November and December 2024. The UNA dog park planning team received 277 survey responses and 113 community conversations. The proposed dog park received strong support from the community members with **over 70%** (60% strongly agreed and 10% agreed) of the survey responses supported the additional of a dog park in the proposed site.

Financial Implications

Project Budget Estimates

The project budget is approximately \$230,000. A detailed project cost breakdown is attached below.

Dog Park Project Cost Estimation		
Item	Descriptions	Cost
Demolition and Site Preparation	Mobilization, general earthworks to prepare and shape the site	\$ 30,000
Hard Landscape Elements	Setup perimeter fence, circular and connection pathways	\$ 72,240
Soft Landscapes Element	Setup shrubs and trees around the dog park. Repair the new enhance lawn area	\$ 39,600
Other Site Furnishing and Other Landscape Elements	Setup shading structures, drinking fountains and other amenities	\$ 45,000
Sub-Total Dog Park Build		\$186,840
Construction Cost Contingency - 20%		\$ 37,368
Total Dog Park Build		\$224,208

Table 1 – Cost breakdown for UNA Dog Park Project

Community Works Fund - Funding Request

The total cost for the UNA Dog Park project (including contingency) is expected to be at \$224,208 plus applicable taxes.

This total cost of the UNA Dog Park project will be covered by the Community Works Fund (CWF) and the UNA budget. Currently, the UNA has approximately \$200,000 remains unallocated in the CWF, with the UNA covering the remaining \$30,000 for contingency expenses.

Therefore, the CWF funding request for the UNA Dog Park will be at \$200,000 to support the UNA Dog Park Project construction.



Attachments

1. Revised UNA Dog Park Design
2. UNA Proposed Dog Park Public Engagement ["What We Heard Report" Online Report](#)

As Presented to the Community-Fall 2024 Engagement Process

Preliminary dog park design

The preliminary dog park design considered current terrain, existing land use, proximity to complementary community amenities, and future land use. The design features separate large and small dog areas, pedestrian pathways, fencing, play terrain, and an enhanced open passive recreation lawn.



Direct Excerpts from UNA Report
(UNA Proposed Dog Park in Westbrook Place | "What We Heard Report")

Original Budgeting Summer
Fall 2024 \$1276K
"all in"

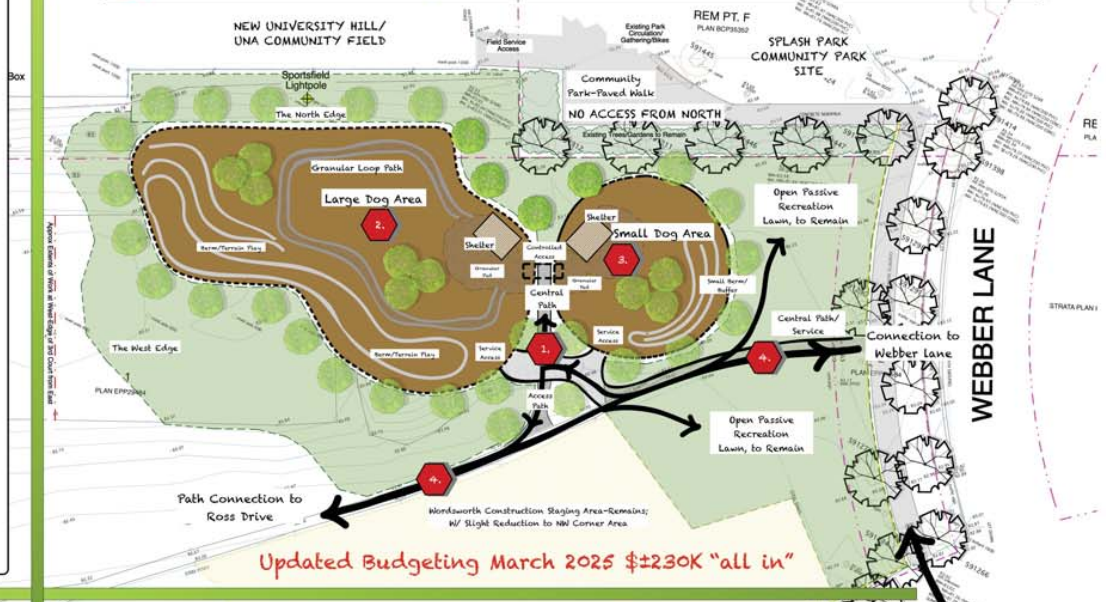
Quantitative Survey Results

Respondents were asked to rank the below-mentioned dog park features by importance.



UPDATED DESIGN FOR BOARD APPROVAL w/some site context

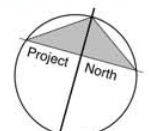
Legend:



Design Elements/Features



Issued for UNA
MARCH 18/25
BOARD MEETING



L-9

UNA Westbrook Community Dog Park Exploration and Planning
(School Site South of Park and Splashpad)

Updated Design After
Community Engagement



Scale=1:200 Metric



metrovancouver

SERVICES AND SOLUTIONS FOR A LIVABLE REGION

To: Electoral Area and Small Communities Committee

From: Marcin Pachcinski, Division Manager, Electoral Area and Implementation Services
Regional Planning and Housing Services

Date: April 28, 2025 Meeting Date: May 15, 2025

Subject: **Reforming the Local Government Act Survey – Electoral Area A Comments**

RECOMMENDATION

That the MVRD Board, as Local Government for Electoral Area A, direct staff to respond to the Reforming the Local Government Act: Roadmap Survey with the responses in the General Comments and Comments on Draft Recommendations section of the report dated April 28, 2025, titled “Reforming the Local Government Act Survey – Electoral Area A Comments”.

EXECUTIVE SUMMARY

The Province and UBCM are currently gauging interest from regional districts and local government area associations to move forward with legislative reforms focused on regional districts. As an initial step, local government area associations, including the Lower Mainland Local Government Association, engaged a legal firm (Lidstone & Company) to prepare a discussion paper titled “Regional District Legislation Roadmap” and recently distributed a survey requesting feedback on the paper and its draft recommendations.

Metro Vancouver staff have reviewed the discussion paper and survey, and recommend that the Board direct staff to submit comments provided in this report as they relate to Electoral Area A. For clarity, the recommendation is specific to Electoral Area A and does not mean Metro Vancouver is submitting these comments on behalf of other member jurisdictions.

PURPOSE

The purpose of this report is to seek direction from the Electoral Area and Small Communities Committee and the MVRD Board to submit survey comments related to future potential legislation changes that would apply to Metro Vancouver’s role as the local government for Electoral Area A.

BACKGROUND

The *Community Charter* and *Local Government Act* are the main pieces of legislation under which local governments function in BC. The adoption of the *Community Charter* in 2004 reformed how municipalities function, and since that time, there has been an awareness of the need to also reform the *Local Government Act* to update regional district powers and legislative requirements. Metro Vancouver, through the MVRD, is the local government for Electoral Area A, and this role derives most of its powers and responsibilities from the *Local Government Act*.

The Regional District Legislation Roadmap discussion paper (Reference 1) was released in late February 2025, along with a request to provide feedback via a survey (Reference 2) by May 31, 2025. This report presents survey response comments staff have prepared for Board consideration, which would be submitted by the deadline if the recommendation is supported.

DISCUSSION PAPER SURVEY COMMENTS RELATED TO ELECTORAL AREA A

Staff have reviewed the discussion paper and survey and have prepared general comments and other comments in support of specific draft recommendations, as presented below (see Reference 1 for more information). This report and the comments below are specific to Electoral Area A; Metro Vancouver may provide further comments to the survey that are not-specific to Electoral Area A separately.

General Comments

Regarding the discussion paper's introduction, principles, and executive summary, Metro Vancouver staff recommend submitting the following comments (bolded bullet points) in relation to Metro Vancouver's role as the local government for Electoral Area A:

- **Metro Vancouver supports the modernization of the Local Government Act, which would enable greater nimbleness in how services are provided to Electoral Area A.**
- **Metro Vancouver requests that the review of current legislation as it applies to regional districts also consider how changes may apply to UBC and the University Endowment Lands (UEL), which are part of Electoral Area A but which have their own legislation.**
- **Metro Vancouver would benefit from the ability to consider regulating tree removal and additional regulatory powers to address climate change, wildfires, and flooding in Electoral Area A.**
- **Metro Vancouver supports making the introduction of a new local area service process more efficient (e.g. removing need for approval from the provincial inspector).**

Comments on Draft Recommendations

Regarding the discussion paper's draft recommendations referenced by their number below, Metro Vancouver staff recommend submitting the following comments (bolded bullet points) in relation to Metro Vancouver's role as the local government for Electoral Area A:

2. *The legislation should place municipalities and regional districts on the same level plane in relation to status and recognition, since the current statute recognizes municipalities as an order of government within their jurisdiction in accordance with principles based on the municipal charter of rights adopted by the Union of British Columbia Municipalities, yet it recognizes regional districts with a lesser status. One option is to apply the wording of section 1 CC [Community Charter] in regional district legislation. Another option is to include regional districts in Section 1 CC. (Reference 1, pdf page 14)*

- **Metro Vancouver supports placing municipalities and regional districts on the same level plane in relation to status and recognition.**
6. *Regional districts should have "natural person powers" (legal capacity, rights, powers, and privileges of a natural person of full capacity). (Reference 1, pdf page 16)*
- **Metro Vancouver supports regional districts being given "natural person powers".**
7. *Regional boards should have the broad, overarching regulatory authority of a municipality under section 8 CC in the rural areas to regulate, prohibit, or impose requirements in relation to regulatory matters, subject to provisions analogous to sections 9 and 10 and Part 3 CC. (Reference 1, pdf page 16)*
8. *Without limiting the recommendation in paragraph 7, regional districts should have the authority such as that under section 8 of the Community Charter to impose requirements in relation to their areas of regulatory authority, except in relation to firearms and business. (Reference 1, pdf page 16)*
9. *Regional boards in a regulatory bylaw should be able to provide for a system of licenses, permits, or approvals and take advantage of the list of regulatory standards and controls countenanced under section 15 CC, without being limited to a service. (Reference 1, pdf page 16)*
10. *The regional district authority to enter on property should be modernized to be the same as for municipalities in section 16 CC. (Reference 1, pdf page 16)*
- **Metro Vancouver supports expanding the regulatory authorities currently provided to municipalities in the Community Charter to regional district boards.**
11. *In order to be proactive and take leadership in the context of potential catastrophes, the Province and regional districts need to consider options for application of a regional district building regulation bylaw without prior establishment of a building bylaw regulatory service. (Reference 1, pdf page 17)*
12. *To address climate change, adaptation, and resilience, regional districts need the same building regulation authority as municipalities, and not the limited list essentially from the 1979 Municipal Act, to deal with building construction in rural areas where the regional districts have elected to provide for building inspections and regulation. (Reference 1, pdf page 17)*
13. *Regional district legislation should be augmented by a provision like section 10 CC to provide that a municipal bylaw is not inconsistent with another enactment if a person who complies with the bylaw does not by this contravene the other enactment. (Reference 1, pdf page 17)*
- **Metro Vancouver supports revisions to regional districts' building regulation authority to be more proactive and broader, and adding section 10 of the Community Charter (or similar) regarding bylaw consistency.**

14. *The process for establishing rural area services, paying for them, and getting taxpayer buy-in for the services, could be streamlined to be like the municipal local area service regimes, taking advantage of all the experience and case law related to such schemes. This would also eliminate much of the delay and regional district administrative capacity issues about which regional districts have complained.* (Reference 1, pdf page 17)

- **Metro Vancouver supports streamlining the process for establishing rural area services.**

15. *The interface between the LGA and other provincial statutes needs to be reviewed and clarified for practical purposes – for example, the Environmental Management Act and statutes governing water.* (Reference 1, pdf page 17)

16. *There is virtually unanimous agreement that the cross reference provisions in the LGA (for example, referring to CC provisions) should be spelled out in new regional district legislation in lieu of the internal cross references or the regional district and municipal provisions that are identical should be in one statute.* (Reference 1, pdf page 17)

- **Metro Vancouver supports reviewing the *Local Government Act* and other provincial statutes for practical purposes and spelling out applicable provisions instead of cross-referencing them.**

25. *Land use and development are not part of our review, but Province could consider legislation to address several specific issues raised consistently by regional districts in addition to approving officer roles:*

- *Crown corporations should be subject to regional district regulatory bylaws, despite section 14(2) Interpretation Act;*
- *fringe area development (in rural areas contiguous to municipalities) could benefit from effective mandatory joint planning processes in the context of the land ultimately becoming boundary extension areas for the municipalities. As stated, subdivisions/servicing should not be administered by Highways staff acting as approving officers;*
- *regional districts attempting to protect aquifers or other natural resources have lost court cases repeatedly over the supremacy of mining permits that go beyond the provincial interest, so regional districts are looking for a degree of balance in the legislation. The removal of gravel, and the operation and remediation of gravel pits, generally escape regional district soil removal and pit remediation bylaws and permits merely due to the legislation and regulations protecting “mining” permits.* (Reference 1, pdf page 19)

- **Metro Vancouver requests that the review of current legislation as it applies to regional districts also consider potential amendments to section 56 (requirement for geotechnical report) of the *Community Charter* to address instances where there is a provincial lease on Crown Land with no land title and where a local government building regulation bylaw applies. Metro Vancouver’s experience has been that the province is unwilling to raise title when a cabin owner wishes to do work that triggers a building permit and where the building inspector considers there is risk of potential natural hazard. In such instances, even when the cabin owner presents an acceptable geotechnical report, Metro Vancouver**

has been unable to issue a permit because the province will not raise title to be able to register the report before the permit is issued (as required by the legislation), leaving the cabin owner in a catch-22 situation between local and provincial governments.

NEXT STEPS

Metro Vancouver staff are following this process as it progresses at UBCM and other local government forums. The discussion paper notes that the paper and options will be considered at the five area association conferences this year, including at the Lower Mainland Local Government Association, and that this may give rise to recommendations to the Province and UBCM at the September 2025 UBCM convention. Metro Vancouver staff will continue to bring back any relevant information and action items to the committee and board for consideration.

ALTERNATIVES

1. That the MVRD Board, as Local Government for Electoral Area A, direct staff to respond to the Reforming the Local Government Act: Roadmap Survey with the responses in the General Comments and Comments on Draft Recommendations section of the report dated April 28, 2025, titled “Reforming the Local Government Act Survey – Electoral Area A Comments”.
2. That the Electoral Area and Small Communities Committee receive for information the report dated April 28, 2025, titled “Reforming the Local Government Act Survey – Electoral Area A Comments”.

FINANCIAL IMPLICATIONS

There are no financial implications associated with this report.

CONCLUSION

The Regional District Legislation Roadmap discussion paper and accompanying survey represent an initial step towards reforming the *Local Government Act* to better serve regional districts. Metro Vancouver is the local government for Electoral Area A and in that capacity can lend its voice to shape these potential reforms.

REFERENCES

1. Lidstone K.C., Don. (February 28, 2025). *Regional District Legislation Roadmap*. Retrieved from https://avicc.ca/wp-content/uploads/2025/03/LR-Roadmap_FEB-2025.pdf. Last accessed 2025, April 28.
2. Joint Area Association. (February 28, 2025). *Reforming the Local Government Act: A Roadmap Survey*. Retrieved from <https://www.surveymonkey.com/r/LQD3BW9>. Last accessed 2025, April 28.

To: MVRD Board of Directors

From: Jean Lawson, Program Manager, Intergovernmental Relations

Date: May 6, 2025

Meeting Date: May 23, 2025

Subject: **UBCM 2025 Community Excellence Awards Nominations**

RECOMMENDATION

That the MVRD Board support Metro Vancouver's submission of the following entries for the Union of BC Municipalities (UBCM) 2025 Community Excellence Awards:

- a) Excellence in Service Delivery: Construction Impact Mitigation Framework;
 - b) Excellence in Asset Management: Leveraging Professional Governance Act;
 - c) Excellence in Sustainability: Solid Waste Services Repair Cafes; and
 - d) Excellence in Governance: Solid Waste Management Plan Update Collaborative Engagement Program.
-

EXECUTIVE SUMMARY

The UBCM Community Excellence Awards recognize UBCM members that have implemented projects or programs that demonstrate excellence in meeting the purposes of local government.

Metro Vancouver is seeking Board support for the following projects:

- "Construction Impact Mitigation Framework";
- "Leveraging Professional Governance Act";
- "Solid Waste Services Repair Cafes"; and
- "Solid Waste Management Plan Update Collaborative Engagement Program".

PURPOSE

To seek Board support for four Metro Vancouver projects to be considered for the UBCM 2025 Community Excellence Awards.

BACKGROUND

Metro Vancouver is a member of UBCM and may submit one project per award category for the UBCM Community Excellence Awards. UBCM requires a Board resolution indicating support for projects to be considered for a 2025 Community Excellence Award.

UBCM 2025 COMMUNITY EXCELLENCE AWARDS

The UBCM Community Excellence Awards recognize UBCM members that have implemented projects or programs that demonstrate excellence in meeting the purposes of local government. Awards will be presented during UBCM's 2025 Convention.

Award categories include:

- Excellence in Service Delivery
- Excellence in Asset Management
- Excellence in Sustainability
- Excellence in Governance

All applications will be scored against the following criteria:

- Leadership
- Financial management and planning
- Partnerships and collaboration
- Innovation and promising practices
- Engagement and communications
- Transferability
- Performance measurement

Staff have reviewed the award categories and criteria and are recommending the following entries in four categories.

Excellence in Service Delivery

This category includes projects/programs that provide effective services in a proactive manner, demonstrate benefit to the community, and are integrated with community plans and aligned with financial plans.

Construction Impact Mitigation Framework

The Construction Impact Mitigation Framework (CIMF) is a transparent, consistent, equitable, and fiscally responsible approach to mitigating impacts on Metro Vancouver's member jurisdictions during construction of region-serving utility infrastructure. Previously, these impacts were addressed through informal, project-by-project negotiations, leading to inconsistent outcomes, uncertainty, and unpredictable effects on project scope, cost, and schedule. This new framework enhances collaboration between Metro Vancouver staff and members by following a standardized approach to assessing and mitigating construction-related impacts, allowing for mutually agreeable solutions that minimize construction impacts to improve levels of service to member jurisdictions. As a result, this will in turn reduce risks and uncertainty for capital project delivery — specifically water, liquid waste, and solid waste utility capital projects.

The CIMF exemplifies outstanding service delivery by aligning with the core objectives of local government in BC — ensuring efficiency, transparency, and equity in community services. The framework ensures that Metro Vancouver's utility capital projects are delivered to a high standard. Through a commitment to fiscal responsibility, CIMF fosters a governance culture that balances immediate project success with long-term planning, specifically through the creation of a shared database of impacts and mitigations to promote continuous improvements for future projects. As a model of proactive planning, coordination, and continuous improvement, the framework serves as a valuable reference for other local governments aiming to enhance their own infrastructure project delivery and impact management strategies.

Excellence in Asset Management

Asset management is an integrated business approach that involves planning, finance, engineering, and operations to effectively manage existing and new infrastructure in order to maximize benefits, reduce risk and provide satisfactory levels of service to community users in a sustainable manner. This category includes projects/programs that demonstrate a comprehensive system of asset management policies and practices that meet and/or exceed accepted best practices.

Leveraging Professional Governance Act Compliance to Enhance Organizational Quality Management and Continuous Improvement

The Professional Governance Act (PGA) came into effect in 2021, providing a new, consolidated framework for professional regulators in the natural and built environment, including Engineers and Geoscientists BC as well as regulators for forestry, agrology, biology and applied science. This new framework resulted in significant changes for Metro Vancouver, as the organization is one of the largest public sector engineering and geoscience firms in BC with over 400 EGBC Registrants.

Metro Vancouver leveraged organization-wide efforts to comply with BC's PGA and progress organizational quality management and continuous improvement to the next level, resulting in tangible changes in business processes and practices across the organization. These included, but are not limited to: conducting a PGA compliance gap analysis with an external advisor; the creation of an annual internal organization-wide quality audit program; capital project quality management program improvements; setting up peer utility working groups with other large public sector organizations in BC; and the creation of an internal Lean Six Sigma training program that has been completed by over 200 staff. These actions have driven continuous improvement initiatives and projects that will yield millions of dollars in efficiency reductions across the organization.

The implementation of the program exemplifies excellence in asset management by ensuring professional services meet regulatory standards while prioritizing public safety and environmental protection. A quality management system governance model was established with organization-wide staff representation to review and approve initiatives/improvements before implementation, with employee participation encouraged through dedicated working groups for each improvement initiative.

Excellence in Sustainability

This category recognizes UBCM members that incorporate a long-term sustainability lens by considering the four pillars — cultural, social, economic, and environmental issues — in planning, policy and practice.

Solid Waste Repair Cafes

Repair cafes are events where residents bring broken items for free repairs and advice from skilled community volunteers. Metro Vancouver is working toward the ambitious goal of supporting 100 repair cafes annually across the region in collaboration with member jurisdictions. The increasing popularity of repair cafes is evident in their success, with 1,400 out of 2,100 repair attempts in 2024 effectively extending the lifespan of everyday items. Even when an item can't be restored, residents value the effort, insights, and hands-on learning provided by the volunteers.

The expansion of repair cafes meets all four pillars of the excellence in sustainability category. Culturally, repair cafes support the ability of future generations to meet their own needs by reviving essential repair-based skills such as sewing and wiring. Socially, repair cafes encourage community engagement through public events that attract thousands of people to learn about repair with specific emphasis on equity-denied populations, such as seniors-only repair events. Economically, repair cafes enhance affordability by providing free repair services, allowing residents to extend the

lifespan of their items instead of purchasing replacements. Environmentally, repair cafes drive waste reduction and reuse by extending the lifespan of items and combating resource consumption. This creates a shift from a take-make-waste resource management system to a circular economy model of sustainable resource conservation.

Excellence in Governance

This category recognizes UBCM members that utilize governance processes and policies that are outcomes-based and consensus oriented; support and encourage citizen participation in civic decision-making; are efficient, equitable and inclusive, open and transparent; and exemplify best practices in accountability, effectiveness, and long-term thinking.

Solid Waste Management Plan Update Collaborative Engagement Program

Metro Vancouver is updating its regional solid waste management plan, and is committed to delivering robust, inclusive engagement to support the process. The collaborative engagement program is one key component within a comprehensive community engagement program designed to help inform the plan update. The collaborative engagement program provides funding (of up to \$5,000), resources, and support for not-for-profit organizations to engage with their networks to provide ideas and feedback. Over 1,500 individuals have been engaged through the program, and Metro Vancouver plans to continue offering the program for the next phase of the plan update: options analysis.

The Collaborative Engagement Program demonstrates excellence in governance by enhancing current engagement processes to further enable underrepresented or equity-denied groups to share their valuable feedback on the solid waste management plan update. The goal of this program is to address the issue of advancing diversity, equity, and inclusion in Metro Vancouver's engagement processes by collaborating with and hearing from audiences and organizations who otherwise may not be aware of or have access to opportunities to provide input to Metro Vancouver. This includes organizations that represent underrepresented or equity-denied communities, youth, seniors, urban Indigenous people, and environmental groups. By engaging audiences who traditionally do not participate in processes supporting civic decision-making, the collaborative engagement program has broadened the diversity of voices involved, fostering a more inclusive, open, and transparent approach to regional governance. Furthermore, this program shows leadership by being the first of its kind within Metro Vancouver to leverage the trust and relationships that participating organizations already held with their members and audiences.

ALTERNATIVES

1. That the MVRD Board support Metro Vancouver's submission of the following entries for the Union of BC Municipalities (UBCM) 2025 Community Excellence Awards:
 - a) Excellence in Service Delivery: Construction Impact Mitigation Framework;
 - b) Excellence in Asset Management: Leveraging Professional Governance Act;
 - c) Excellence in Sustainability: Solid Waste Repair Cafes; and
 - d) Excellence in Governance: Solid Waste Management Plan Update Collaborative Engagement Program.
2. That the MVRD Board receive the report dated May 6, 2025 titled "UBCM 2025 Community Excellence Awards Nominations" for information.

FINANCIAL IMPLICATIONS

There are no financial implications to this report.

CONCLUSION

The UBCM Community Excellence Awards recognize members and projects that demonstrate promising practices and innovation. The recommended projects for the 2025 awards are strong examples of Metro Vancouver's collaboration and innovation that can be replicated by other jurisdictions. With the support of the MVRD Board, these award applications would help profile outstanding projects and programs delivered by Metro Vancouver and increase awareness of Metro Vancouver and its services.

75839448

To: MVRD Board of Directors

From: Jacque Killawee, Deputy Corporate Officer

Date: May 13, 2025

Meeting Date: May 23, 2025

Subject: **Metro Vancouver External Agency Status Report – May 2025**

RECOMMENDATION

That the MVRD Board receive for information the following submissions from Metro Vancouver representatives to external agencies:

- a) Agriculture Advisory Committee;
- b) Board of Trustees of the Sasamat Volunteer Fire Department;
- c) Delta Heritage Airpark Management Committee;
- d) Fraser Basin Council;
- e) Fraser Valley Regional Library Board;
- f) ḱíčəy̓ (Katzie First Nation) Treaty Negotiations;
- g) Lower Mainland Local Government Association;
- h) Municipal Finance Authority;
- i) National Zero Waste Council;
- j) Metro Vancouver Regional Parks Foundation;
- k) Solid Waste and Recycling Industry Advisory Committee;
- l) Union of British Columbia Municipalities, Executive;
- m) Union of British Columbia Municipalities, Indigenous Relations Committee;
- n) Zero Emission Innovation Centre Board of Directors;

as provided in the report dated May 13, 2025, titled “Metro Vancouver External Agency Status Report – May 2025”.

EXECUTIVE SUMMARY

This report provides updates from representatives to Metro Vancouver external agencies.

PURPOSE

To provide updates to the Board on the recent activities of external agencies to which the MVRD Board has appointed representatives for 2025.

BACKGROUND

Each year, the Board appoints Metro Vancouver representatives to various external organizations. In accordance with board policy, appointees are required to provide the Board a written summary of key current and planned activities of the External Organization twice each year, in May and October. Submissions received are attached to this report and are for the Board’s information only.

ALTERNATIVES

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

FINANCIAL IMPLICATIONS

There are no financial implications in this report for information.

CONCLUSION

This report provides updates to the Board on the activities of Metro Vancouver's representatives to external agencies.

ATTACHMENTS

1. External Agency Status Report: Agricultural Advisory Committee, dated May 9, 2025.
2. External Agency Status Report for Sasamat Volunteer Fire Department Board of Trustees, dated May 2, 2025.
3. External Agency Status Report for Delta Heritage Airpark Management Committee, dated April 30, 2025.
4. External Agency Status Report for the Fraser Basin Council, dated April 23, 2025.
5. External Agency Status Report for Fraser Valley Regional Library Board, dated May 5, 2025.
6. External Agency Status Report for ᑭᓴᓴᓴ (Katzie First Nation) Treaty Negotiation Table, dated April 8, 2025.
7. External Agency Status Report for The Lower Mainland Government Association, dated May 8, 2025.
8. External Agency Status Report for Municipal Finance Authority, dated May 1, 2025.
9. External Agency Status Report for National Zero Waste Council, dated May 5, 2025.
10. External Agency Status Report for Metro Vancouver Regional Parks Foundation, dated May 9, 2025.
11. External Agency Status Report for Solid Waste and Recycling Industry Advisory Committee, dated May 5, 2025.
12. External Agency Status Report for Union of British Columbia Municipalities, dated May 5, 2025.
13. External Agency Status Report for UBCM Indigenous Relations Committee, dated May 13, 2025.
14. External Agency Status Report for Zero Emissions Innovation Centre (ZEIC), dated May 9, 2025.

71714011



To: MVRD Board of Directors

From: Nicole MacDonald, Director, Metro Vancouver Board

Date: May 9, 2025 Meeting Date: May 23, 2025

Subject: **External Agency Status Report: Agricultural Advisory Committee**

RECOMMENDATION

That the MVRD Board receive for information the report dated May 9, 2025, titled “External Agency Status Report: Agricultural Advisory Committee”.

EXECUTIVE SUMMARY

This report provides a summary of the 2025 Agriculture Work Program presented at both the February and April 2025 meetings of the Agricultural Advisory Committee. The Agricultural Advisory Committee is a volunteer committee of Metro Vancouver, with membership appointed by the MVRD Board Chair.

PURPOSE

To provide the MVRD Board with an update on the work program and activities supported by the Agricultural Advisory Committee (AAC).

BACKGROUND

Under Board policy, representatives appointed to external organizations are required to report to the Board on key current and planned activities of those organizations, twice annually in May and in October.

The AAC provides a critical and direct conduit to the agricultural sector in the region and is administered by Regional Planning staff. The Metro Vancouver AAC is a unique advisory committee with a direct connection to the Metro Vancouver Regional Planning Committee. This connection also supports work under *Metro 2050*, the regional growth strategy, which has a key strategy to protect the supply of agricultural land and strengthen agricultural viability. The AAC operates in four-year terms, solicits volunteer representation directly from member jurisdictions, industry stakeholders and a MVRD Board representative, and requires its members be appointed by the MVRD Board Chair.

2025 AGRICULTURE WORK PROGRAM

The Regional Planning 2025 agriculture and food system work program includes several initiatives described below and will continue to evolve based on direction from the AAC, the Regional Planning Committee and MVRD Board.

Regional Food System Strategy Update

Metro Vancouver is updating the *Regional Food System Strategy* (RFSS), originally endorsed in 2011. The RFSS is being updated to ensure the document remains relevant, and that previously unaddressed issues, as well as newly identified areas of concern, are recognized, considered, and

External Agency Status Report for Agricultural Advisory Committee

MVRD Board Meeting Date: May 23, 2025

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addressed. The engagement process was designed to use a variety of methods to connect with all segments and sectors of the region's food system to capture specific issues directly from practitioners as they have experienced them over the past 10-15 years. Audiences include member jurisdictions, local First Nations, agricultural producers, food processors, academic institutions, health authorities, food industry associations, and other social service and food-focused agencies.

Engagement activities included targeted one-one interviews, an on-line survey, a dedicated project webpage, provision of a project backgrounder, and in-person and online workshops with local government, health authority staff and members of non-governmental organizations involved in the regional food system. While the majority of engagement for the project was completed in 2024, an additional Forum will be held in 2025 to address key issues identified during the initial engagement work and to focus on solutions to integrate into the updated Strategy. The Strategy will help to identify actions within Metro Vancouver's mandate as well as guide advocacy to the Provincial government on issues related to regional food systems.

Agriculture Awareness Grants

The Agriculture Awareness Grant program started in 2008 and provides annual funding to non-profit organizations that undertake awareness and educational initiatives such as hosting events, workshops and educational programs in schools and communities. On February 3, 2025, agricultural-related organizations, community groups and municipal staff liaisons were notified about the opening of Metro Vancouver's 2025 Agriculture Awareness grants application period with an invitation to submit applications.

The Agricultural Advisory Committee reviews the submitted applications and based on the evaluation criteria, make recommendations on recipients and grant allocation to the Regional Planning Committee and MVRD Board. Evaluation criteria is based on: 1) regional scope, 2) project uniqueness; 3) diverse or youth-focused groups, 4) support for regional policy, and 5) financial need.

Ecosystem Services on Agricultural Land (PESPAL)

As recommended in the "Agricultural Ecosystem Services in Metro Vancouver" report endorsed by the MVRD Board in June 2023 (Reference 1), Metro Vancouver has been conducting research to better understand how to move forward with a long-term strategy to support the use of ecosystem services on agricultural land in the region. This work has been supported by a grant through the joint Federal and Provincial Conservation Fiscal Incentives Project (CFIP) fund. The results of the research will be shared with the Agricultural Advisory Committee so members can provide feedback and input for Metro Vancouver staff to consider.

Information Sharing

The AAC meets approximately 5 times a year, and receives reports and information from others working in or supporting the agricultural sector. Committee member successes noted in 2024 meetings included the completion of the 2023 BC Farmer's Market Economic Impact Study; Hopcott Farms achieving Canada's Outstanding Young Farmer's Award; and Econation Innovative Solutions winning the joint Canadian Space Agency / NASA Deep Space Food Challenge for its CanGrow Modular Food Production System. As a result, invited presentations for 2025 include: Eco-action

External Agency Status Report for Agricultural Advisory Committee

MVRD Board Meeting Date: May 23, 2025

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and Maia Farms – CANGrow Modular Production and Deep Space Food Challenge, Invest Vancouver – Update on Tariffs, Grocery Code of Conduct, Farm Credit Canada, a farm tour of Hopcott Farms, National Young Farmers Coalition and Cleanfarms.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

There are no financial implications.

CONCLUSION

This report provides a summary of the 2025 Agriculture Work Program, components of which were presented at both the February and April 2025 meetings of the Agricultural Advisory Committee. The Agricultural Advisory Committee is a volunteer committee of Metro Vancouver, with membership appointed by the MVRD Board Chair.

References:

1. Metro Vancouver. (2023, June). Agricultural Ecosystem Services in Metro Vancouver Report, Retrieved from https://metrovancover.org/boards/GVRD/RD_2023-Jun-2_AGE.pdf#page=290. Last accessed 2025, May 9.



To: MVRD Board of Directors

From: Darrell Penner, Alternate Director

Date: May 2, 2025

Meeting Date: November 20, 2024
March 6, 2025

Subject: **External Agency Status Report for Sasamat Volunteer Fire Department Board of Trustees**

RECOMMENDATION

That the MVRD Board receive for information the report dated May 2, 2025, titled “External Agency Status Report for Sasamat Volunteer Fire Department”.

PURPOSE

To report to the Board of Directors on the activities of the Sasamat Volunteer Fire Department.

BACKGROUND

Board policy requires the reporting of activities twice annually in May and October.

KEY ACTIVITIES

Fire Hall Conceptual Drawings – Liberty Construction Group

At the November 20th meeting, Scott Zukiwsky shared a presentation on screen and provided a background on the scope of the project.

Scott reviewed the features of the drawings of the Belcarra fire hall and then Anmore.

Presentation slides provided a breakdown and then total estimated project totals: Belcarra at \$7,658,516 and Anmore at \$13,445,543.

The projected totals are complete project costs including site work and reflect today’s costs.

Discussion and questions followed regarding more specific details such as the various types of generators. Scott confirmed that included within the budget is an energy model to analyze the needs of the fire halls.

SVFD Service Review

Metro Vancouver staff Dorothy Shermer provided a verbal update on the Service Review initiated under s. 257 of the *Local Government Act* by the Village of Belcarra.

Representatives for Metro Vancouver, Anmore, and Belcarra attended a Preliminary Meeting for the Sasamat Volunteer Fire Department Service Review on September 27, 2025. It was agreed that the scope of the Service Review would be to review the following three options for allocation of capital costs:

1. Apportionment based on the net taxable value of land and improvements for each municipality;
2. Apportionment based on the size of the geographical area of each municipality; and
3. Apportionment based on the population size of each municipality.

Negotiations will begin by no later November 26, 2024, with Metro Vancouver providing the three options to each of the three review participants.

Staff noted that a Service Conversion Bylaw will need to be in place before any changes can be made to the service, and that, with the agreement of Service Review representatives, Metro Vancouver staff have been preparing a Service Conversion Bylaw for consideration at the MVRD Board meeting to be held on November 29, 2024. The provisions in the Service Conversion Bylaw will match current provisions in the Supplementary Letters Patent as much as possible.

While the SVFD Board of Trustees resolved at the previous meeting that costs associated with the Service Review will be the responsibility of the Village of Belcarra as the initiator of the Review, and the cost of developing the Service Conversion bylaw would be split equally between Anmore and Belcarra, staff noted that section 356(1)(c) of the *Local Government Act* stipulates that any costs incurred by the board in relation to the Service Review are deemed to be the costs of the service and must be apportioned and recovered from the service area on the same basis as other cost of the service. Staff further noted that all work on the Service Review and the Service Conversion Bylaw have been performed by Metro Vancouver staff, that no outside costs have been incurred, with the result that there are currently no requirements to recover any costs associated with the review.

Staff provided further information on the expected timeline for consideration of the Service Conversion Bylaw, noting that the Bylaw will go to the Metro Vancouver Board at the November 29th meeting; after 3 readings, it will be referred to the Villages of Anmore and Belcarra. There will be a reasonable timeline to consider this at the respective council meetings – maybe sometime in January.

Chair Penner notes that these processes have not happened before, this is a unique situation, and all members are trying to find a way through a complicated process.

Update to Budget Impact for the Construction of New Fire Halls

Metro Vancouver staff Sonu Kailley provided a verbal update.

Metro Vancouver staff worked with BC Assessment and Belcarra Village staff for a more accurate number of households. The previous calculations included water lots.

The updated table provided a 10 million borrowing scenario as well.

SVFD Service Review

On June 19, 2024, the Village of Belcarra initiated a Service Review of the Sasamat Volunteer Fire Department (SVFD) Service under the Local Government Act (the Act). The process remains ongoing and representatives for Metro Vancouver, Anmore, and Belcarra attended a preliminary meeting for the SVFD Service Review on September 27, 2024. All parties agreed that a service bylaw should be drafted, and three options have been made available for the village of Anmore and Village of Belcarra to consider on allocation of capital costs. The Conversion Bylaw received three readings, was referred to participating areas for approval, and has now been forwarded to the Inspector of Municipalities for approval. Once the Inspector of Municipalities approves the Bylaw, it can be adopted by the Board.

SVFD Conversion Bylaw

Villages of Belcarra and Anmore have had the opportunity to review with their respective councils and approval obtained. The Conversion Bylaw has now been forwarded to the Inspector of Municipalities for approval.

(To this date, no final review has been received from the province).

2024 Financial Actuals – Sasamat Fire Protection Service

Brant Arnold-Smith provided a high-level overview of the expenditures with Trustees. On a budget with total expenditures of \$416,195, the expenditures for 2024 were \$304,362, with an under budget of \$111,833. The underspend was primarily due to an underspend on salaries and contracted services (volunteer remuneration).

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

There are no unplanned/unbudgeted financial implications associated with these activities to date.

SUMMARY/CONCLUSION

The Sasamat Fire Department Board of Trustees continues to oversee the planning, budgeting, and operation of the fire department through regular meetings and ongoing communication with the Fire Chief and Metro Vancouver SSEM staff.



To: MVRD Board of Directors

From: Councillor Alicia Guichon, Metro Vancouver Appointed Representative

Date: April 30, 2025 Meeting Date: May 23, 2025

Subject: **External Agency Status Report for Delta Heritage Airpark Management Committee**

RECOMMENDATION

That the MVRD Board receive for information the report dated April 30, 2025, titled "External Agency Status Report for Delta Heritage Airpark Management Committee".

EXECUTIVE SUMMARY

This report provides a summary of activities of projects at the Delta Heritage Airpark by the Recreational Aircraft Association (RAA) Chapter 85. The Association operates the Airpark for its members and for the enjoyment of the general public. This report provides an update on the past 6 months of operations at the Delta Heritage Airpark.

PURPOSE

To provide the MVRD Board with an update on the activities of the Delta Heritage Airpark Management Committee.

BACKGROUND

Delta Heritage Airpark (DHAP) is owned by Metro Vancouver and operated by Recreational Aircraft Association Chapter 85 by way of a License Agreement. The License Agreement defines a Management Committee membership comprising of representatives from Airpark neighbours, Province of British Columbia, nonprofit organizations, Recreational Aircraft Association, Metro Vancouver Staff, and staff from the City of Delta. The Management Committee formulates operation rules governing the Airpark and advises Metro Vancouver on policy matters. The Committee meets a minimum of two times per year.

MANAGEMENT COMMITTEE MEETING

The fall 2024 Delta Heritage Airpark Management Committee meeting was held on November 7, 2024 and conducted by videoconference. At the meeting, the Committee reviewed the Reserve Statement, Capital Projects, Flight Incidents, Events and Activities. The next meeting will be held in June 2025.

DELTA HERITAGE AIRPARK OPERATIONS

Flying Activities

The Flight Monitoring Sub-Committee reviews and reports on incidents concerning flight safety at the airpark to ensure adherence to federal regulations. When incidents are observed and reported, pilots are provided with guidance and education on the aerodrome procedures outlined in the Canadian Flight Supplement.

External Agency Status Report for Delta Heritage Airpark Management Committee

MVRD Board Meeting Date: May 23, 2025

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Activities at the Airpark

A pancake, ham, and egg breakfast is served on the second Sunday of each month at Mary's Place, located near the three flagpoles. This popular event draws many attendees, with some using it as a destination for an early Sunday morning flight. The annual Remembrance Day ceremony was held on November 11, 2024, and was followed by a luncheon.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

There are no financial implications.

CONCLUSION

This report provides information on the activities of the Delta Heritage Airpark Management Committee and the RAA Chapter 85. The Management Committee meets twice per year. The fall 2024 delta Heritage Airpark Management Committee meeting was held on November 7, 2024. The spring 2025 Delta Heritage Airpark Management Committee will be scheduled in June.

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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

To: MVRD Board of Directors

From: Judy Dueck – Councillor, City of Maple Ridge

Date: April 23, 2025

Meeting Date: February 12 & 13, 2025

Subject: **External Agency Status Report for Fraser Basin Council**

RECOMMENDATION

That the MVRD Board receive for information the report dated April 23, 2025, titled “External Agency Status Report for Fraser Basin Council”

EXECUTIVE SUMMARY

The Fraser Basin Council held meetings on February 12 & 13, 2025. The Board received several committee updates regarding; governance, operations, finances, climate action, water programs, salmon safe program and federal and provincial marine initiatives. The FBC also provided feedback on the overview of the 2026-2031 Strategic Plan Phases.

BACKGROUND

Reports from the Chair and Chief Executive Officer

Elder Alec Dan welcomed the FBC Board and staff to Musqueam territory, shared background on the Musqueam people, and performed the Seven Sisters Welcome Song.

FBC Board Chair Colin Hansen and CEO David Marshall provided opening remarks, reflecting on key developments since the last Board meeting. Highlights included the Salmon-Safe certification of three new urban development projects in January 2025, a partnership with Urban Systems to develop an Active Transportation Network Plan for the City of Williams Lake, and a recent meeting with Honourable Kelly Greene, Minister of Emergency Management and Climate Readiness, where FBC advocated for support of Community Wildfire Round tables and assistance for communities utilizing new climate resilience tools.

Additional updates included the Nechako Watershed Round table, which recently convened First Nations and community leaders to identify regional priorities for climate resilience.

Governance Reports

Board recruitment efforts were acknowledged, and new Board Directors were introduced.

The 2024-2025 Annual Operating Plan Progress Report and 2025-2026 Annual Operating Plan were reviewed and discussed.

Chief Financial Officer Adriana Ruso presented FBC’s financial results, after which the 2025-2026 provisional budget was approved. Directors also authorized the use of up to \$140,000 from the Stabilization Fund for the Organizational Development exercise.



The Terms of Reference for the Indigenous Partnerships and Initiatives Committee was approved, establishing a structure with two co-Chairs, one Indigenous and one non-Indigenous, and membership open to both Indigenous and non-Indigenous participants.

Musqueam Nation Overview David Marshall introduced special guest Mary Point, Director of Indigenous Relations for YVR, who highlighted Musqueam's role in welcoming both local Indigenous peoples and newcomers at YVR. The presentation covered YVR's Salmon-Safe certification, renewed in 2022 through collaboration with FBC and recognize the Fraser River's cultural significance.

Organizational Development Action Plan.

David Marshall reviewed the plan that prioritizes strengthening leadership, refining internal processes, and fostering collaboration to improve decision-making, optimize resource allocation, and expand stakeholder engagement. By aligning governance with sustainability objectives, FBC aims to remain adaptive and effective in addressing climate resilience, water management, and regional development.

2026-2031 Strategic Plan

The Strategic Plan is the framework that will guide FBC's annual operating plans, roles, partnerships, work plans and decisions to devote time, money and energy to the fulfillment of our collective vision and mandate. Steve Litke, Director of Water Programs, guest Brenda Kuecks, and David Marshall provided an overview of the 2026-2031 Strategic Plan Phases.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

There are no financial implications.

CONCLUSION

The main focus of the meetings was to inform the future direction of FBC, including the next five-year strategic plan (2026-2031). The process is being steered by the Executive Team with a focus on FBC's mission, mandate, and strategic priorities.



To: MVRD Board of Directors

From: Jen McCutcheon, Director, Electoral Area A

Date: May 5, 2025

Meeting Date: May 23, 2025

Subject: **External Agency Status Report for Fraser Valley Regional Library Board**

RECOMMENDATION

That the MVRD Board receive for information the report dated May 5, 2025, titled “External Agency Status Report for Fraser Valley Regional Library Board”.

EXECUTIVE SUMMARY

This report provides highlights related to the Fraser Valley Regional Library (FVRL) from the Metro Vancouver appointee to the FVRL Board of Directors for 2025. As required under the *Library Act*, Metro Vancouver’s appointee to the FVRL Board of Directors is the Electoral Area A Director. Since the start of 2025, three FVRL Board meetings have been held. Highlights from the agendas are provided in this report.

PURPOSE

To provide the MVRD Board with information related to recent FVRL Board activities.

BACKGROUND

Representatives appointed by Metro Vancouver to various external organizations are required to report to the Board of Directors on the activities of those organizations.

As required under the *Library Act*, Metro Vancouver’s appointee to the FVRL Board of Directors is the Electoral Area A Director. The Director attends FVRL Board meetings to represent the interests of residents on Barnston Island, which is the sole portion of Electoral Area A that participates in the FVRL District.

FRASER VALLEY REGIONAL LIBRARY BOARD STATUS UPDATE

Key items from meetings held in 2025 are summarized below.

January 22, 2025 FVRL Board Meeting

- The FVRL Board elected members and appointed representatives to external agencies:
 - Councillor Hayes was acclaimed as FVRL Board Chair.
 - Councillor Plecas was acclaimed as FVRL Board Vice Chair.
 - Councillor Driessen was acclaimed as FVRL Board Second Vice Chair.
 - Councillor Wallace was acclaimed as the BC Library Trustees Association (BCLTA) representative.
 - Director McCutcheon was acclaimed as InterLINK representative.
 - Councillor Schiller was acclaimed as Alternate InterLINK representative.

External Agency Status Report for Fraser Valley Regional Library

MVRD Board Meeting Date: May 23, 2025

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- The FVRL Board received the CAO's Year End Report, which highlighted 2024 achievements ranging from enhancing customer experience and expanding digital services to improving staff development and investing in sustainable practices.

February 19, 2025 FVRL Board Meeting

- The FVRL Board received reports from 14 local libraries operating in the library region, including Library Live & On Tour (LiLi), which reduces barriers to literacy and libraries throughout the FVRL communities via programs for adults and children, as well as attending community events.
- The FVRL approved up to \$10,000 to support the extension the Library Champions program by approximately 2 years. The Library Champions Project is a three-month volunteer program through which newcomers to Canada learn to conduct outreach to other newcomers. The Project's training sessions focus on building communication, presentation, and outreach skills and on gaining an understanding of the range of programs, services, and resources that are provided by libraries and immigrant and community service agencies.

April 16, 2025 FVRL Board Meeting

- The FVRL Board received reports from 12 local libraries operating in the library region.
- Following receipt of updated estimated costs, the FVRL Board approved funding not to exceed \$15,000/year for two years to support the Library Champions project.
- The FVRL Board approved the 2024 Financial Statements Report and the 2024 Audited Financial Statement.
- The FVRL Board received information related to potential US tariff impacts. FVRL's budget is relatively insulated in the short term, but two new vulnerabilities were identified: the Administrative Center generator project and possible Canadian book tariffs. Mitigation strategies have been developed to address potential impacts.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

There are no financial implications associated with this report.

CONCLUSION

The FVRL Board has held three meetings in 2025 and received information from FVRL staff on library activities and funding requests. An additional six meetings are scheduled for the rest of 2025.

To: MVRD Board of Directors

From: Director Steve Ferguson, Township of Langley

Date: April 8, 2025

Meeting Date: May 23, 2025

Subject: **External Agency Status Report for ᑭᑭᑭᑭ (Katzie First Nation) Treaty Negotiation Table**

RECOMMENDATION

That the MVRD Board receive for information the report dated April 8, 2025, titled “External Agency Status Report for ᑭᑭᑭᑭ (Katzie First Nation) Treaty Negotiation Table”.

EXECUTIVE SUMMARY

This information report provides an overview of the ᑭᑭᑭᑭ treaty table negotiation efforts over the past six months including: background on ᑭᑭᑭᑭ, information on the First Nation’s Statement of Intent area, the status of negotiations, and the roles and responsibilities of the local government representative sitting at the treaty table.

PURPOSE

To provide the MVRD Board with a status report from the appointed local government representative at the ᑭᑭᑭᑭ treaty negotiations table.

BACKGROUND

As a representative appointed by Metro Vancouver to various external organizations, under Board policy, a report is to be provided to the Board of Directors on the activities of the external agency, twice annually in May and in October.

The Memorandum of Understanding between the Union of British Columbia Municipalities and the Ministry of Indigenous Relations and Reconciliation, renewed on September 17, 2024 at the Union of BC Municipalities Convention, includes a process for local government participation in the negotiation and implementation of treaties. Local government representatives have a seat at the ᑭᑭᑭᑭ treaty table as part of the provincial negotiation team.

ᑭᑭᑭᑭ TREATY NEGOTIATION TABLE

ᑭᑭᑭᑭ, with a current total population of approximately 655 members, has five First Nation Reserves located within the boundaries of four different local governments: Pitt Meadows, Township of Langley, Maple Ridge, and two within Metro Vancouver’s Electoral Area A.

ᑭᑭᑭᑭ has been operating under a *Land Code* since 2017. A Land Code is a comprehensive law created by a First Nation to replace 44 sections of the *Indian Act* that relate to land management.

Since 2005, ᑭᑭᑭᑭ has also entered into Forest and Range Consultation and Revenue Sharing agreements (Reference 1) with the provincial government.

External Agency Status Report for ǵícǎy (Katzie First Nation) Treaty Negotiation Table

MVRD Board Meeting Date: May 23, 2025

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ǵícǎy has been involved at the treaty negotiation table since 1994. Its Statement of Intent area (corresponding to the First Nation's traditional territory) envelops the following local government jurisdictions: Burnaby, Coquitlam, Delta, City of Langley, Township of Langley, Maple Ridge, Metro Vancouver's Electoral Area A, New Westminster, Pitt Meadows, Port Coquitlam, Richmond, Surrey, and White Rock (Attachment 1).

UPDATE ON TREATY TABLE ACTIVITIES

The ǵícǎy treaty table is in Stage 4 of the six-stage BC Treaty Process (Agreement-in-Principle stage). However, ǵícǎy is not following the traditional 6-step process as part of its treaty negotiations. Instead, ǵícǎy is pursuing a new approach to self-government that focuses on the needs, values, and priorities of the Nation. This new process, called incremental self-government, is being outlined in a Memorandum of Understanding negotiated between ǵícǎy, BC, and Canada.

As part of this incremental approach, ǵícǎy might negotiate several separate agreements with the provincial and federal governments, which together could constitute a legally binding and constitutionally protected self-government agreement.

ǵícǎy's new approach to treaty negotiations focuses on key principles such as:

- negotiations are based on the recognition of Indigenous title and rights
- support for Indigenous self-government
- treaties and agreements seen as flexible and living partnerships and as mechanisms to implement the *United Nations Declaration on the Rights of Indigenous Peoples*.

Tripartite negotiations have continued to take place regularly over the reporting period. ǵícǎy treaty negotiation meetings are held in-camera. As per the *2024 Memorandum of Understanding* between the Union of BC Municipalities and the Province (Reference 2), negotiation updates can only be shared in-camera by the local government representative. However, for the purposes of this report, the following information can be shared publicly as it was released by the BC Treaty Commission as part of its *2024 Annual Report* (Reference 3).

In recent months, ǵícǎy has been focusing on land and resource management work, self-governance, and identifying and supporting economic opportunities. ǵícǎy increased government-to-government engagement efforts. The Nation continues to work toward an updated election code.

Incremental self-government negotiations at this table are expected to continue at the current pace in 2025.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

ǵícǎy treaty main table and working group meetings are scheduled once a month. Table meetings over the past year have been held online. These meetings are anticipated to continue to take place online for the rest of this year. As such, the financial implications of attending treaty table meetings

External Agency Status Report for ǵícǵǵ (Katzie First Nation) Treaty Negotiation Table

MVRD Board Meeting Date: May 23, 2025

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are minimal. Metro Vancouver pays the meeting honoraria for local government representation at the ǵícǵǵ treaty table, and those costs were included in the 2025 budget. Thus, expenses incurred relate primarily to honoraria and staff time to attend virtual meetings.

The roles and responsibilities of table representatives, as developed over time by local and provincial government staff, are set out in Attachment 2 of this report.

CONCLUSION

ǵícǵǵ has been involved in treaty negotiations since 1994. Currently, ǵícǵǵ is pursuing an incremental self-government agreement with BC and Canada. The table continues to meet on a regular monthly basis. The focus of negotiations has been on the exploration of options to recognize and protect ǵícǵǵ inherent title and rights within its traditional territory.

Attachments

1. Statement of Intent Area Map: Traditional Territory Boundary, Katzie First Nation.
2. The Roles and Responsibilities of Table Representatives.

References

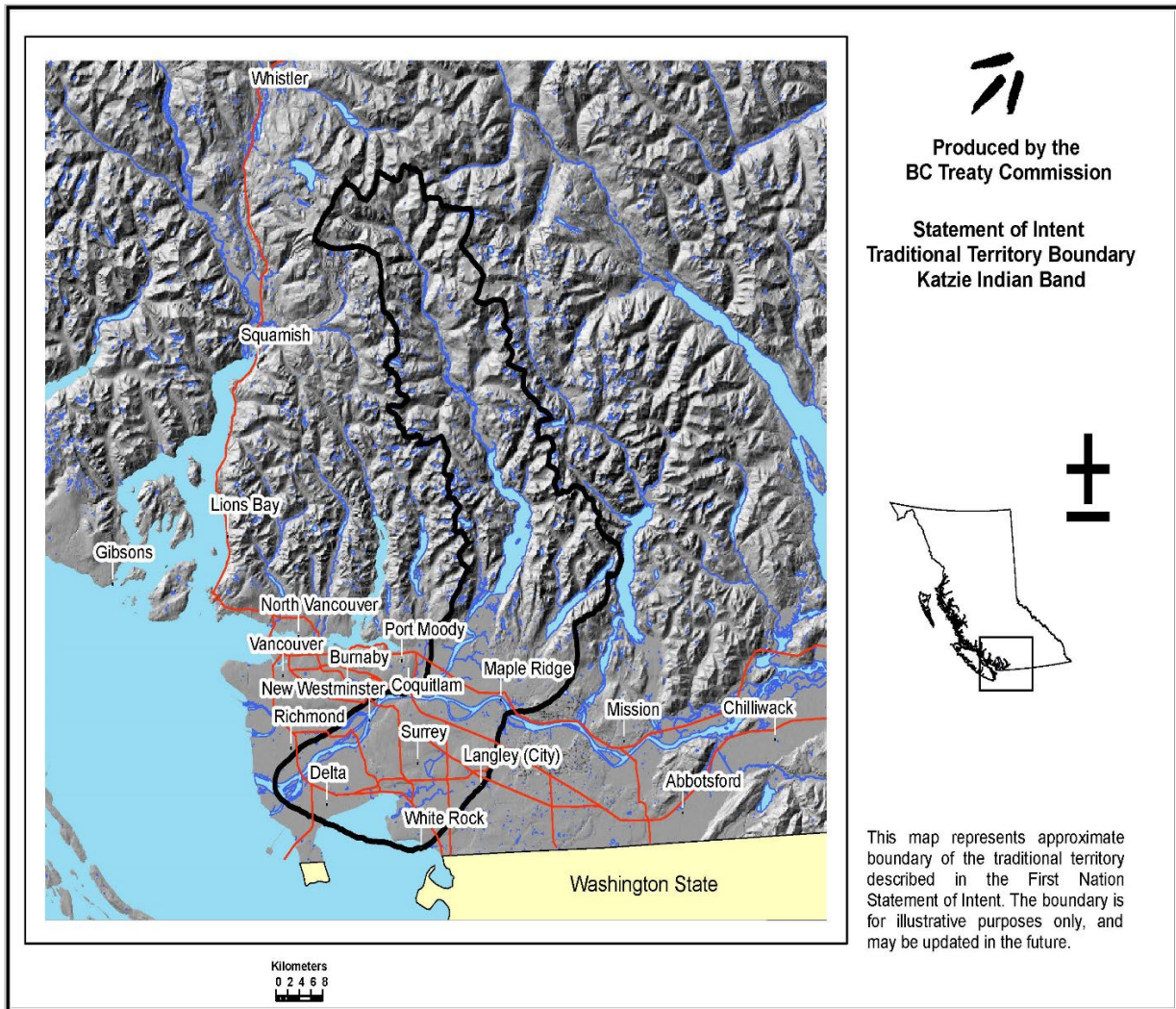
1. Katzie First Nation Forest and Range Consultation and Revenue Sharing agreements may be found here [Katzie First Nation - Province of British Columbia](#)
2. Memorandum of Understanding between the Union of British Columbia Municipalities and the Ministry of Indigenous Relations and Reconciliation can be found here: [MIRR-UBCM MOU – September 17, 2024, Final.pdf](#)
3. 2024 Annual Report from the BC Treaty Commission can be found here: [BC-Treaty-Commission-Annual-Report-2024.pdf \(bctreaty.ca\)](#)

External Agency Status Report for ąĩćą (Katzie First Nation) Treaty Negotiation Table

MVRD Board Meeting Date: May 23, 2025

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ATTACHMENT 1



Source: https://katzie.ca/wp-content/uploads/2022/05/Katzie_SOI_Map.pdf

ATTACHMENT 2**The Roles and Responsibilities of Treaty Table Representatives****Provide information to the Indigenous Relations Committee from the Treaty Table**

1. Attend Metro Vancouver's Indigenous Relations Committee meetings, engage in discussion, and record outcomes.
2. Provide regular verbal information reports on table activities.
3. Provide advice and commentary on emerging issues.
4. Provide regular written information reports and related documentation for circulation to the Indigenous Relations Committee.
5. Regularly forward original table documentation to keep the master record updated.
6. Forward technical and other information requests from the treaty table to the Indigenous Relations Committee for action.
7. Develop a personal information records system for table specific documentation.
8. Adhere to all confidentiality requirements.

Provide information from the Indigenous Relations Committee to the Treaty Table (via BC negotiators)

1. Attend table meetings, engage in discussion, and record outcomes.
2. Keep informed on treaty issues and Indigenous relations.
3. Represent member local government interests.
4. Provide advice and commentary from a community perspective on issues impacting local government interests.
5. Report back on technical and other information requested by the treaty table.
6. Develop a personal information records system for table specific documentation.



To: MVRD Board of Directors

From: Nathan Pachal

Date: May 8, 2025

Meeting Date: May 23, 2025

Subject: **External Agency Status Report for Lower Mainland Local Government Association**

RECOMMENDATION

That the MVRD Board receive for information the report dated May 8, 2025, titled "External Agency Status Report for Lower Mainland Local Government Association".

EXECUTIVE SUMMARY

The Lower Mainland Local Government Association ("LMLGA") held its 2025 Annual Conference at the Westin Whistler Resort from April 29, 2025, through May 1, 2025.

PURPOSE

Inform the board of the key current and planned activities of the LMLGA.

BACKGROUND

This report is required per Board policy.

LMLGA KEY CURRENT AND PLANNED ACTIVITIES

The LMLGA Executive planned and hosted its 2025 Annual Conference & AGM from April 29, 2025, through May 1, 2025, at the Westin Whistler Resort. The LMLGA members adopted an update to their bylaws, which will enable the Town of Gibsons to become a member of the LMLGA as well as First Nations.

The LMLGA Executive will be updating its strategic planning this summer, planning to have "advocacy days" for the provincial governments, and presenting the work of the LMLGA to member local governments at council meetings.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

There are no financial implications.

CONCLUSION

The LMLGA Executive continues to focus on its conference, education, and advocacy goals.

To: MVRD Board of Directors

From: Malcolm Brodie, Linda Buchanan, Sav Dhaliwal, Mike Hurley, Pardeep Kooner,
Dylan Kruger, John McEwen, Dan Ruimy, Mark Sager, Brad West, Eric Woodward

Date: May 1, 2025

Meeting Date: May 23, 2025

Subject: **External Agency Status Report for Municipal Finance Authority of BC**

RECOMMENDATION

That the MVRD Board receive for information the report dated May 1, 2025, titled “External Agency Status Report for Municipal Finance Authority of BC”.

PURPOSE

To report to the Board of Directors on the activities of the Municipal Finance Authority of British Columbia (“MFA”).

BACKGROUND

The following is a review of activities of the MFA in 2024 during the period of October 1st to the first quarter of 2025 up to May 1st, with a focus on the activities of the past six months.

GOVERNANCE

The MFA is governed by 40 Members of the Authority from 28 regional districts (“Members”) and its 10-member Board of Trustees (“Trustees”), representing every community in British Columbia.

The last meeting of the Members of the Authority was April 24th, 2025 (Annual General Meeting).

Since October 1st, 2024, the Trustees met with management four times to review operating performance, access to the financial markets, administration, and other miscellaneous items, as well as to provide oversight for MFA’s Pooled Investment Funds. Trustees and management made presentations on behalf of the MFA at various local government conferences during the year.

RESULTS

Income from Operating Activities, Short-Term Debt Fund, Retention Fund, and Capital Adequacy

MFA's Retention Fund grew to \$129 million at the end of 2024, a \$13 million increase from 2023. This was accomplished by a combination of income from operations of \$4 million, Short-Term Debt Fund earnings of \$3 million, and interest earned on the Retention Fund itself of \$6 million. The \$13 million increase included a ~\$1.5 million fair market value gain (including expected credit loss provisions) on investment holdings for accounting purposes only (these are not realized economic gains).

The Retention Fund (\$129 million) and the Debt Reserve Fund (\$124 million) collectively comprise the total capital (\$253 million) for the organization to help support MFA's AAA ratings. MFA's Capital Adequacy Policy was adopted by the Board of Trustees in September 2019. Capital is needed to absorb credit or other losses at the Authority, protecting bond investors. As a AAA issuer, MFA currently holds appropriate capital of \$253 million which is adequate given the relative risks associated with assets held and the nature of its regional infrastructure banking operations.

Asset and Investment Management

MFA's assets under management were \$10.2 billion at the end of 2024. Assets comprise its long-term loans to clients of \$5.4 billion, representing 1,436 outstanding long-term requests for financing through 28 regional districts and three other entities. MFA's short-term loans outstanding of \$508 million represented 481 short-term loans for financing (including equipment financing arrangements). Included in MFA's assets are cash and investments of \$4.2 billion managed internally. Of these, \$3.9 billion are held as sinking funds which reflect payments collected from clients and invested for the future retirement of debenture obligations. MFA also internally manages the Debt Reserve Fund, with investments valued at \$124 million, and the Retention Fund, containing investments valued at \$129 million at the end of the 2024.

LENDING AND BOND ISSUANCE

Investor Relations

Management continues to actively promote our credit story to institutional investors around the world. Investor development meetings are done in various formats, including one-on-one teleconference calls, one-on-one in-person meetings, and group conference presentations. Investor development is critical in differentiating MFA and achieving continuous access to the markets and the lowest cost of funds among our peers.

Triple A Credit Ratings

Annual credit rating presentations were held April 28-29, 2025. The representatives for MFA included the Chair, Vice-Chair, Chief Executive Officer, and Chief Financial Officer. MFA is, at the time of writing this report, rated AAA by all three credit rating agencies, with a stable outlook from all three.

The Province of BC's recent string of deficits, fast rising overall debt levels and lack of a plan to return to balance have put pressure on its credit ratings. Both Moody's and S&P downgraded the Province's credit rating in April 2025, from Aaa to Aa1 and from AA- to A+ respectively while both maintained negative rating outlooks. A negative outlook signifies that there is a 1 in 3 chance that the provincial credit rating may be downgraded again in the medium term.

In light of the negative provincial ratings news, Moody's had a due diligence call in April with MFA's management and re-confirmed its AAA rating with stable outlook. However, we should note that despite MFA having very strong standalone credit fundamentals, the local government sector relies on its strong links with and supports from the Province and it therefore unclear that MFA will be able to retain our AAA ratings by all three rating agencies going forward. In particular, it would be quite rare for a lower level of government to have a ratings differential with upper layers of government of more than 2 to 3 notches. S&P currently rates the Province at A+, which is four notches lower than MFA's current AAA rating. The current credit ratings of the Province of BC appear below.

Province of British Columbia Long-term Issuer Credit Rating (As of Apr.2, 2025)			
Moody's Investors Service	Standard & Poor's	Morningstar DBRS	Fitch Ratings
Aa1	A+	AA (high)	AA+
Negative	Negative	Stable	Stable
April 2, 2025*	Apr.2, 2025*	May 22, 2024*	March 29, 2024*

*Last credit review publication

External Agency Status Report for Municipal Finance Authority of BC

MVRD Board Meeting Date: May 31, 2024

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Long-term Lending

For MFA's next public issues, 2 separate bonds will be issued in the market (a dual-tranche approach) to fund sizeable new loan requests. These new issues will likely be done in May and June, following the approval to fund new loan requests of approximately \$700 million at the Annual General Meeting on April 24th.

New Long-Term Loans – 2024 Full Year		
Size	Number	Aggregate Amount (\$)
< \$1 million	15	\$ 8,514,589
Between 1 & < 5 million	21	57,965,669
Between 5 & < 10 million	5	36,022,620
Between 10 & < 15 million	5	51,614,955
≥ 15 million	1	17,200,00
	1	25,250,000
	1	31,500,000
	1	38,380,000
	1	50,000,000
	1	59,000,000
	1	76,000,000
	1	154,000,000
Total	54	\$605,447,833

Note: Figures are gross of expected credit loss provisions

Commercial Paper and Short-term Lending

The Commercial Paper Program continues to provide low-cost short-term and equipment financing to our members. MFA's short-term lending rate is currently 3.39%. As of the 2024-year end, MFA had \$600 million in commercial paper outstanding, funding approximately \$508 million of short-term and equipment financing loans. MFA is well-positioned to increase the program and respond to other short-term loan demands from members.

External Agency Status Report for Municipal Finance Authority of BC

MVRD Board Meeting Date: May 31, 2024

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Short-term Outstanding Loans December 31, 2024		
Size	Number	Aggregate Amount (\$)
< \$50,000	164	\$ 3,438,313
Between 50,000 & 149,999	117	11,542,479
Between 150,000 & 499,999	99	26,009,919
Between 500,000 & 999,999	40	26,283,354
Between 1 & 4.99 million	38	72,763,303
Between 5 & 9.99 million	13	84,364,683
≥ 10 million	10	283,531,606
Total	481	\$507,933,657

Note: Figures are gross of expected credit loss provisions

Pooled Investment Funds

	Pooled Investment Funds Assets under Administration				
	Market Value (millions)			Performance 1-Year Total Return (%) as of Dec.31, 2024	
	Dec.31, 2024	Dec.31, 2023	Change (\$)	Fund	Benchmark
Pooled High Interest Savings Accounts (aggregate)	1,832	1,905	(73)	N/A	N/A
Money Market Fund	1,838	1,580	258	4.83	4.59
Gov't Focused Ultra-short Bond Fund	438	444	(5)	5.33	5.25
Short-term Bond Fund	914	845	69	5.53	5.50
FFF Short-term Bond Fund	239	226	13	5.39	5.50
Mortgage Fund	312	270	42	6.13	5.45
Diversified Multi-asset Class Fund	706	456	250	17.48	17.41
FFF Diversified Multi-asset Class Fund	125	74	51	20.25	18.93
Total Assets under Administration	6,405	5,800	605	--	--

A favourable investment environment and focused Client engagement supported MFA Pooled Fund assets-under-administration growth in 2024. The overall program increased in size by about \$0.6 billion (10%). Excluding the Pooled High Interest Savings Accounts program, the Pooled Investment Funds increased in size by almost \$0.7 billion as a result of robust market returns and strong subscriptions into the Money Market and DMAC funds.

The following market factors supported MFA's Funds and led to strong returns in 2024:

- Bond returns were strong as overall interest rates were lower in 2024. Bank of Canada began cutting interest rates as inflation cooled while credit spreads remained tight.

- Returns from the equity markets were outstanding as well resulting from artificial intelligence enthusiasm, improved economic conditions, and stronger sentiment from lower interest rates.

As a result of continued outreach effort and delivery of value-adding complementary services (e.g. educational presentation, investment policy review, etc), MFA's DMAC and FFFDMAC grew by 55% (\$250 million) and 69% (\$51 million) in size in 2024. While new investors were welcomed into the DMAC fund, several existing participants in both DMAC and FFFDMAC funds also added to their positions during the year. Both funds benefited from the exceptionally strong equity performance in 2024. Investors in these Funds were rewarded with 1-year fund performance ranging between 17.5% and 20.3%.

MFA always seeks to improve the deposit terms offered to its Clients through its Pooled High Interest Savings Account program – and was successful in increasing the rate on offer from one of its PHISA partners twice during 2024. Furthermore, MFA has introduced an enhancement to the Scotiabank PHISA to Clients in January 2025, the Pooled High Interest Notice Plan Account (PHINA). The PHINA provides Scotiabank PHISA account holders with a premium interest rate of 15 basis points above the current PHISA account rate, based on Client commitment to provide 31 days advance notice prior to withdrawing funds.

To further improve the economies of scale of the Pooled Fund program, MFA is collaborating with the First Nations Finance Authority (FNFA) to offer MFA investment products to FNFA's First Nation clients. This is legislatively permitted and the Board of Trustees along with the Ministry of Finance and the Ministry of Housing & Municipal Affairs have been informed on key updates regarding this pursuit and have indicated strong support. MFA staff are currently working with the pooled fund manager (PH&N) and custodian (CIBC Mellon) to finalize the operational protocols to enable this new partnership.

CLIMATE & SUSTAINABILITY

In 2024, standard setters, regulators, and institutional investors within Canada and globally, began to coalesce around a common set of sustainability and climate-related financial risk disclosures. The international IFRS sustainability and climate standards (IFRS S1 and S2) were published in the summer of 2023 for the private sector, initially targeting financial institutions and publicly traded companies. Jurisdiction and sector specific standards aligned with this international global baseline were spawned in 2024, including the Canadian Sustainability Disclosure Standards (CSDS 1 and CSDS 2) finalized in December 2024, and an IPSASB exposure draft proposing a public sector climate disclosure standard which is expected to be finalized by the end of 2025. Absent sectoral regulation or jurisdictional legislation, these standards are

voluntary. Regulatory bodies and policymakers in Canada have endorsed these international and Canadian standards for the private and public sector, and the federal government has announced its intention to work with provinces and territories and securities regulators to make these standards mandatory. At present, only federally regulated financial institutions in Canada are required to comply with the OSFI regulator guidelines for climate-related risk and GHG impact disclosures.

MFA is proactively preparing for these standards to become mandatory by working towards integration of climate risk into our enterprise risk management processes and alignment of our financial and non-financial disclosures with the IFRS sustainability standards.

Members are referred to the Management Discussion and Analysis accompanying our 2024 audited financial statements for disclosure of climate-related financial risk information alongside discussion of our financial position and performance.

SPONSORSHIP & EDUCATION SUPPORT

MFA continues to be the major, non-commercial supporter of education and conference events each year for both local government elected officials and staff in BC. This practice builds financial and operational strength for clients and expands and benefits the MFA's reputation as part of the local government system. Funds primarily support financial education, in direct line with MFA's own mandate, but also support training in related topics such as management, leadership, asset management, risk management, and cybersecurity. In 2024, the MFA sponsored and either presented, moderated, or attended the following organizations' events and initiatives:

- GFOABC
- UBCM
- LGLA and its chapters
- LGMA and its chapters
- Vancouver International Privacy and Security Conference & Local Government Sector Day on Cybersecurity
- Asset Management BC

In addition, MFA's staff team presented and led courses for Capilano University and other professional development training through GFOABC.

Sustaining Educational Alliance

In 2024, MFA created the Sustaining Education Alliance by partnering with the Local Government Management Association of BC (LGMA). In early 2025, the Government Finance Officers

Association of British Columbia (GFOABC) also entered this education partnership. The Alliance formalizes our existing relationship with our core local government education partners and provides stable and significant funding for these partners annually. The increased funding serves many goals of the MFA, including enhancing our visibility and influence, and providing budget certainty for our like-minded, local government partners. We refer to the provision of education focused on finance and broader business best practices for our clients as our 'Third Pillar' alongside our lending and investment programs.

SEMI-ANNUAL MEETING 2025

The Semi-Annual Meeting of the Members is set to take place in person in Victoria on Tuesday, September 23, 2025, in conjunction with the UBCM Annual Convention.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

There are no financial implications.

SUMMARY / CONCLUSION

The 2025 Financial Forum and Annual General Meeting (AGM) took place in Victoria on April 24th. In attendance were 37 out of 40 Members. During the election for the Board of Trustees, two new Trustees were elected and the remaining members returned for another term.

We are pleased to announce our 2025-2026 Board of Trustees:

Chair Malcolm Brodie, Metro Vancouver Regional District

Vice-Chair Al Richmond, Cariboo Regional District

Trustee Doug Kobayashi, Capital Regional District

Trustee Melanie McCollum, Comox Valley Regional District

Trustee Rob Gay, Regional District of East Kootenay

Trustee Kyle Sampson, Regional District of Fraser-Fort George

Trustee John McEwen, Metro Vancouver Regional District

Trustee Brad West, Metro Vancouver Regional District

Trustee Eric Woodward, Metro Vancouver Regional District

Trustee Barry Pages, North Coast Regional District



To: MVRD Board of Directors

From: Craig Hodge, Director, Metro Vancouver Board, and Chair, National Zero Waste Council Management Board
Sarah Kirby-Yung, Director, Metro Vancouver Board, and National Zero Waste Council Management Board Member

Date: May 5, 2025 Meeting Date: May 23, 2025

Subject: **External Agency Status Report for the National Zero Waste Council**

RECOMMENDATION

That the MVRD Board receive for information the report dated May 5, 2025, titled “External Agency Status Report for the National Zero Waste Council”.

EXECUTIVE SUMMARY

The National Zero Waste Council was established in 2012 to advance waste prevention in Canada, recognizing that Metro Vancouver’s local waste reduction targets could only be achieved through collaboration, knowledge-building, knowledge-sharing, and advocacy across sectors and jurisdictions on a national scale.

Since the November 1, 2024, update to the Board, the Council has advanced several activities in its workplan focused on three key priority areas: circular food systems, the built environment, and reuse. It led and supported several strategic collaborations and advanced advocacy with respect to plastics used in electronic products. Strategic planning has also been underway as part of a larger recalibration process that started earlier in 2024. This process is ongoing.

PURPOSE

To provide the MVRD Board of Directors with an update on the activities of the National Zero Waste Council.

BACKGROUND

Metro Vancouver established the National Zero Waste Council in 2012 to advance waste prevention in Canada, as a strategy to support waste reduction in the Metro Vancouver region. The Council was formed recognizing that achieving ambitious waste reduction targets would require collaborative action and harmonized policy and practice throughout supply chains, and across sectors and jurisdictions on a national scale.

Directors Craig Hodge and Sarah Kirby-Yung are Board-appointed members of the National Zero Waste Council Management Board, with Director Hodge serving as the Chair of the Council.

The last External Agency Status Report on the National Zero Waste Council was provided to the Board in November 2024. This report provides an update since that time.

NATIONAL ZERO WASTE COUNCIL UPDATE

Since the last update to the MVRD Board of Directors in November 2024, the Council has advanced activities in the three priority areas of circular food systems, the circular built environment, and reuse; continued to lead and support efforts in several strategic collaborations including the Circular Cities and Regions Initiative, the Canada Plastics Pact, the Circular Construction Innovation Hub, and the Government-to-Government Circular Economy Policy Incubator; and advanced advocacy with respect to electronics. In addition to advancing key deliverables in the Council's workplan, strategic planning on the future orientation of the Council continues.

Circular Food Systems*Canadian Standards Association Technical Committee and International Organization for Standardization Mirror Committee*

Creating standards that support food loss and waste prevention and reduction facilitates the adoption of new solutions by creating harmonized definitions, targets, and measuring approaches. The National Zero Waste Council participates in the Canadian Standards Association Technical Committee and the International Organization for Standardization Mirror Committee on Food Loss and Waste to create a national framework for terminology, measurement, and characterization of food loss and waste that is internationally aligned. Intended primary users of this standard are businesses, with governments, non-profit organizations, and researchers categorized as interested parties. The committee is completing a draft framework and will engage on the framework before publishing it.

Love Food Hate Waste Canada

Love Food Hate Waste is a globally recognized behaviour change campaign owned by the Waste and Resources Action Programme (WRAP) to prevent household food waste. Metro Vancouver, through the National Zero Waste Council, secured the license from WRAP to bring the campaign to Canada in 2018 and stewarded the national campaign through 2024.

At its April 4, 2024, meeting, the Zero Waste Committee received a report that indicated Metro Vancouver was working to relinquish coordination of the national campaign while maintaining its role as a regional implementation partner. FoodMesh became the national administrator of the campaign in January 2025 through an agreement with WRAP, and the focus since November has been on ensuring a smooth transition of the national administration to FoodMesh.

Food Waste: Combatting Grocery Costs and the Climate Crisis (Media Interview)

The Council was interviewed by Virgin Radio on food waste in the context of rising grocery costs and climate change. Hosted by Sarah Christie, the Earth Day podcast was one of a series that aired through the month of April to recognize climate activists and advocates across Canada.

Circular Built Environment

The Council hosted the Local Government and the Circular Built Environment: Policy and Practice webinar on November 12, 2024, featuring speakers from Metro Vancouver, Grande-Rivière, and Portland. Deconstruction for commercial and residential buildings, house moving, and adaptive reuse were among the strategies discussed. The webinar was attended by over 100 industry and government practitioners and policymakers.

Reuse

The Council has an active Reuse Working Group, representing leaders in business, government, and the non-profit sectors. Since November, the Reuse Working Group has published six case studies to demystify how reuse works. The case studies feature the following businesses: Friendlier, CHEP, Fresh Prep, Refill Coalition, TURN Systems, and Aelen-Soapstand. The case studies were well received, generated media coverage and were profiled at PACK EX in Montreal in November 2024. The Working Group also hosted a webinar on March 5, 2025, titled, “What to Know About Reuse in Food and Beverage”. Over 250 leaders from across sectors registered for the webinar.

Circular Cities and Regions Initiative

The Circular Cities and Regions Initiative is national collaboration developed and managed by the National Zero Waste Council, the Federation of Canadian Municipalities (FCM) Green Municipal Fund, the Recycling Council of Alberta, and RECYC-QUEBEC to build circular economy knowledge and capacity among local governments in Canada.

The focus since November has been on renewing the partnership between the founding partners and developing a two-year workplan to commence in June 2025. FCM will be leading the coordination of the program with the partners helping to shape and deliver knowledge sharing activities on common areas of interest – including peer-to-peer sessions with the existing cohort of cities and regions (over 25 local governments from across Canada) and national webinars. Individual coaching and tailored support are also offered through FCM.

Canada Plastics Pact

The Canada Plastics Pact is a pre-competitive platform bringing together corporate leaders and other stakeholders across the plastics supply chain to build a circular economy for plastics packaging. The Council played a leadership role in developing the Canada Plastics Pact and currently participates on the Advisory Board and three working groups on reuse, compostable plastics, and source reduction. On March 17, 2025, the Council helped facilitate a Canada Plastics Pact virtual reuse workshop on washing infrastructure. On April 24, 2025, the Council received the Knowledge and Insights Leadership Award for leading efforts to eliminate unnecessary plastic waste through waste prevention and reuse.

Government-to-Government Circular Economy Policy Incubator Initiative

The National Zero Waste Council continues to support, and participate in, the Circular Economy Leadership Canada’s Government-to-Government Policy Incubator with participation from cities and provinces across the country. The incubator is a platform for multi-level government collaboration to facilitate knowledge exchange and peer-to-peer dialogue to support coordinated, harmonized, and scaled circular economy policy in Canada. Since November, meetings have been held to review two documents in development – a circular economy initiatives inventory and a circular economy policy inventory. Reuse case studies are also being developed.

Circular Construction Innovation Hub

Designed as a social and technical innovation lab, the Circular Construction Innovation Hub operated by Circular Economy Leadership Canada, is a multi-stakeholder initiative that supports coordination across industry and government – facilitating knowledge sharing and capacity building across the value chain to accelerate the adoption of circular practices within Canada’s construction and real estate sector. The National Zero Waste Council sits on the steering committee and has brought members of its Circular Built Environment Working Group into the lab. Two workshops

were co-hosted by Circular Economy Leadership Canada and the National Zero Waste Council in November and December of 2024 to select priority focus areas for future innovation challenges and potential projects. Federal, provincial, and local government policy leaders, construction industry representatives, and academic thought-leaders attended.

Advocacy

The National Zero Waste Council and Metro Vancouver provided input to Environment and Climate Change Canada's public consultation on the development of a roadmap to extend the life of plastics in electronics in a joint letter dated February 25, 2025. The letter emphasized the role of data collection, collaboration, and innovation in reducing plastics waste and improving the circularity of electronics in Canada.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

Metro Vancouver provides core funding for the National Zero Waste Council. Council initiatives have been supported through additional funding and in-kind support from partners and funding agencies.

CONCLUSION

The National Zero Waste Council has been advancing Metro Vancouver's ambitious waste reduction objectives through cross-sector collaboration since 2012. In the past year, a strategic planning process has been underway to explore how the Council's structure and programming can best deliver on local priorities with the resources available. This process is ongoing. At the same time, activities have rolled out that deliver on existing workplan commitments with respect to the priorities areas of circular food systems, the built environment and reuse – and support to strategic collaborations and advocacy development has continued.

References

1. [National Zero Waste Council](#)
2. [Canada Plastics Pact](#)
3. [Circular Cities and Regions Initiative](#)



To: MVRD Board of Directors

From: John McEwen, Vice-Chair, Metro Vancouver Board, and Chair, Regional Parks Committee
Rebecca Bligh, Director, Metro Vancouver Board and Vice-Chair, Regional Parks Committee

Date: May 9, 2025 Meeting Date: May 23, 2025

Subject: **External Agency Status Report for Metro Vancouver Regional Parks Foundation (MVRP Foundation)**

RECOMMENDATION

That the MVRD Board receive for information the report dated May 9, 2025, titled “External Agency Status Report for Metro Vancouver Regional Parks Foundation (MVRP Foundation).”

EXECUTIVE SUMMARY

This report highlights the activities and operations of the Metro Vancouver Regional Parks Foundation over a six-month period.

PURPOSE

To provide the MVRD Board with an update on Metro Vancouver Regional Parks Foundation’s activities and highlights for the period October 2, 2024 to May 8, 2025.

BACKGROUND

Formed in 2000, the Metro Vancouver Regional Parks Foundation (MVRP Foundation) is a registered charity dedicated to protecting and enhancing Metro Vancouver’s regional parks system. With a mission to complement government funding, the MVRP Foundation raises essential funds for special projects and programs that ensure the long-term stewardship and enjoyment of these parks.

The MVRP Foundation is guided by an independent board of volunteer directors who meet at least four times per year to oversee its management and operations. Since 2007, Metro Vancouver has provided annual contribution funding, which has played a crucial role in supporting the MVRP Foundation's efforts.

In addition to securing project funding, the MVRP Foundation ensures its compliance with regulations by maintaining both its status as a registered charity and a society in good standing. Each year, the MVRP Foundation undergoes an audit of its financial statements, with its fiscal year running from October 1 to September 30.

As the MVRP Foundation approaches its 25th anniversary, it is not only looking back on its achievements but also focusing on significantly raising awareness and funds. Through efficient use

External Agency Status Report for Metro Vancouver Regional Parks Foundation (MVRP Foundation)

MVRD Board Meeting Date: May 23, 2025

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of contribution funding, the MVRP Foundation aims to further its impact, ensuring that it remains a vital force in the region for years to come.

HIGHLIGHTS

Highlights of the MVRP Foundation's activities over the past six months are highlighted below.

Inaugural Park Partner Roundtable

The MVRP Foundation successfully hosted an inaugural Park Partner gathering, bringing together 10 Park Partners and 28 guests for a morning of collaboration and vision-sharing. This roundtable event represents the strong relationships being cultivated between the MVRP Foundation and key stakeholders across the region. Each partner shared updates on their projects, challenges, and aspirations for the year ahead, solidifying their commitment to shared impact.

Expanded Community Presence & New Connections

The MVRP Foundation attended five external events to increase the awareness of both the Foundation and CTS Youth Society. These events included Goodbye Chums, Burnaby Horseman Show, Night Quest, Lower Mainland Local Government Association Trade Show, and the BC Outdoor & Travel Show.

Through these events, the MVRP Foundation engaged with over 3,000 attendees and captured the interest of more than 600 new prospects through giveaways and conversations — expanding its audience, donor base, and program reach.

Record-Breaking Park Partner Celebration

This year's annual Park Partner Celebration was the most successful to date, generating a combined \$45,000 in support for programs through the MVRP Foundation, CTS Youth Society, and Park Partners. Three new partners were welcomed into the Park Partner community:

- Nature Kids BC
- Youth Climate Corps
- Coquitlam Valley Environmental Society

Reel Earth Day Challenge – Creative Industry Champions Nature

The 5th annual Reel Earth Day Challenge, held in partnership with Reel Green (Creative BC) and the BC Film & Television Industry, overcame industry challenges to raise a phenomenal \$82,000 for eight environmental and youth-based initiatives:

- Picnic in the Park – \$5,000
- CTS Indigenous Youth Camps – \$20,000
- Bird Viewing Tower Project – \$15,000
- Owl and Bat Habitat Support – \$10,000
- Nature House Operations – \$15,000
- Invasive Species Removal – \$10,000

External Agency Status Report for Metro Vancouver Regional Parks Foundation (MVRP Foundation)

MVRD Board Meeting Date: May 23, 2025

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- Salmon Research and Restoration – \$10,000

Media Momentum

Over the past six months, the MVRP Foundation was able to garner a significant amount of media and social media coverage with an extensive reach, including:

- Global BC Morning Interview
- Nat & Drew and Holly & Nira Radio Segments
- Langley Advance Times Interview
- Feature Podcast Interview
- Instagram endorsement by Eric McCormack (Will & Grace) which had over 40,000 views.

Strategic Funding Growth

The MVRP Foundation submitted a record number of grant proposals and were awarded six grants totalling \$100,000 to advance environmental stewardship and youth engagement programs across the region.

These projects represent a collective effort from the MVRP Foundation to restore, maintain, and create spaces that support the health of regional parks, and will directly contribute to the future sustainability of these vital ecosystems.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

There are no financial implications.

CONCLUSION

The MVRP Foundation continues to deliver on its mission under the direction of its volunteer Board of Directors. In collaboration with Metro Vancouver staff and park partners, the MVRP Foundation remains active in its commitment to fundraising for programs and projects that benefit regional parks.

REFERENCES

Further information on the activities of the Metro Vancouver Regional Parks Foundation can be found at www.mvrpfoundation.ca.



To: MVRD Board of Directors

From: Craig Hodge, Director, Metro Vancouver Board, and Co-Chair, Solid Waste and Recycling Industry Advisory Committee

Date: May 5, 2025 Meeting Date: May 23, 2025

Subject: **External Agency Status Report for Solid Waste and Recycling Industry Advisory Committee**

RECOMMENDATION

That the MVRD Board receive for information the report dated May 5, 2025, titled “External Agency Status Report for Solid Waste and Recycling Industry Advisory Committee”.

EXECUTIVE SUMMARY

The Solid Waste and Recycling Industry Advisory Committee (Industry Advisory Committee) provides a forum for industry contribution, discussion, and advice on management planning, operations, and policy issues related to solid waste and recycling services in Metro Vancouver, as well as the ongoing solid waste management plan update.

The 2025 Industry Advisory Committee consists of 34 members, including 27 returning members. Key discussion topics in late 2024 and early 2025 were developed in collaboration with the committee and Co-Chairs and have included the review of draft components of the updated solid waste management plan such as metrics, goals, hierarchy, and options analysis evaluation criteria. Industry Advisory Committee members contribute to the development of an annual work plan identifying priority topics (Attachment 1).

PURPOSE

To provide the MVRD Board an update on the activities of the Solid Waste and Recycling Industry Advisory Committee.

BACKGROUND

In July 2021 the Board received for information the terms of reference for the Industry Advisory Committee. The committee held its first meeting in January of 2022. The Industry Advisory Committee reports through its Co-Chairs to the Zero Waste Committee and provides advice and recommendations to Metro Vancouver staff. Director Hodge serves as the Zero Waste Committee representative and Co-Chair of the Industry Advisory Committee. Under the terms of reference, the second Co-Chair is elected by the members of the Industry Advisory Committee. Lori Bryan, of the Waste Management Association of British Columbia, was re-elected as Co-Chair at the April 2025 meeting.

Any member of the public is welcome to observe Industry Advisory Committee meetings. Online meetings are live-streamed and recordings are posted to the website. Observers must attend in-person for in-person meetings.

External Agency Status Report for Solid Waste and Recycling Industry Advisory Committee

MVRD Board Meeting Date: May 23, 2025

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A previous External Agency Status report on the Industry Advisory Committee was provided in November 2024, and this report provides update from that time.

INDUSTRY ADVISORY COMMITTEE

The Industry Advisory Committee membership is comprised of representatives of private waste and recycling collection and processing companies and their industry associations affected by existing and proposed operational and policy items related to Metro Vancouver's solid waste and recycling plans, policies, and services.

Membership is voluntary, self-selecting, and carries a term of one year. The call for membership is advertised on Metro Vancouver's website and through Metro Vancouver's solid waste and recycling industry mailing list each year in January. Existing members wishing to continue participation on the committee are asked to re-submit their statement of interest annually.

The 2025 committee held its first meeting on March 4, 2025, with 34 members attending including 7 new members.

Key Topics of Discussion

The Industry Advisory Committee's 2025 work plan is included as Attachment 1. Based on suggestions from members and feedback from the solid waste management plan update project team, the 2025 Industry Advisory Committee will discuss key topics including:

- Vancouver Landfill and Long-Term Disposal Planning
- Solid Waste Management Plan Update:
 - Performance Metrics
 - Residuals Management
 - Regulatory Framework
 - Options Analysis and Targets
- Recycling Statistics

Since the last update to the MVRD Board in November 2024, the committee has met five times to provide feedback on the following topics:

For input:

- Draft Goals and Waste Hierarchy
- Recycling and Waste Centre Strategy
- Options Analysis Criteria
- Performance Metrics

For information and Q&A:

- Recycling and Garbage Statistics
- Notice of Bylaw Violation – Tipping Fee Bylaw
- Climate 2050 Solid Waste Primer

Feedback summaries related to small group discussions are posted to the Industry Advisory Committee webpage.

External Agency Status Report for Solid Waste and Recycling Industry Advisory Committee

MVRD Board Meeting Date: May 23, 2025

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Feedback received through Industry Advisory Committee discussions related to the solid waste management plan will be considered along with other engagement feedback received during the plan update process. Committee feedback is also published on the Industry Advisory Committee webpage. In November 2024, a report describing Industry Advisory Committee feedback was provided to the Zero Waste Committee.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

Coordination of the Industry Advisory Committee is included in the Solid Waste Services work plan and budget.

CONCLUSION

The Solid Waste and Recycling Industry Advisory Committee provides a forum for industry contribution, discussion, and advice on management planning, operations, and policy issues related to solid waste and recycling services in Metro Vancouver, as well as the ongoing solid waste management plan update. With 34 members as of April 2025, the committee is focused on key topics identified in the 2025 work plan. The committee continues to refine its approach and focus and demonstrates its value in involving a broad range of waste and recycling industry representatives.

Attachments

1. 2025 Industry Advisory Committee work plan
2. 2025 Solid Waste and Recycling Industry Advisory Committee member biographies

References

1. [Solid Waste and Recycling Industry Advisory Committee Web Page](#)

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SOLID WASTE AND RECYCLING INDUSTRY ADVISORY COMMITTEE 2025 WORK PLAN

May 5, 2025

Quarter 1	Status	Approach
Draft 2023 Recycling and Garbage Statistics	Complete	Plenary
Notice of Bylaw Violation Engagement - Tipping Fee Bylaw	Complete	Plenary
Source Reduction Incentive Program	Pending	Small group
SWMP: Timeline Update	Complete	Plenary
SWMP: Climate 2050 Solid Waste Roadmap	Complete	Plenary
SWMP: Draft Goals and Hierarchy	Complete	Small Group
SWMP: Options Analysis Criteria	Complete	Plenary
Quarter 2	Status	Approach
Concrete and Asphalt Study Report	Pending	Plenary
Soil Management	Pending	Plenary
Vancouver Landfill/Long-Term Disposal Planning and Options	Pending	Small group
SWMP: Residuals Management Options Report and Discussions	Pending	Small group
SWMP: Targets and Performance Metrics	Complete	Small group
SWMP: Idea Generation Report Back	Pending	Plenary
Quarter 3	Status	Approach
Public Education – role of public and private entities	Pending	Small group
SWMP: Regulatory Framework	Pending	Small group
SWMP: Recycling and Waste Centre Strategy Development	In-progress	Small group
Quarter 4	Status	Approach
Share/Reuse/Repair Update	Pending	Plenary
SWMP: Recycling Statistics/Metrics	Pending	Small group
SWMP: Options Analysis	Pending	Small group

Solid Waste and Recycling Industry Advisory Committee – Member Biographies 2025



Director Craig Hodge, Co-Chair

Metro Vancouver Board Director Craig Hodge is a City of Coquitlam Councillor, a title he has held since 2011. Director Hodge serves on the Metro Vancouver Board, and is the Vice-Chair of the Zero Waste

Committee. Director Hodge is also Chair of the National Zero Waste Council Management Board, and serves on the Metro Vancouver Regional Parks Committee and Water Committee.



Lori Bryan, Co-Chair

Lori Bryan is the Executive Director of the Waste Management Association of BC (WMABC). Lori has helped guide the association through a number of campaigns to ensure the private waste & recycling sector has a voice

at government level discussions, advocating for collaboration on solutions and maintaining an open and competitive market.

Lori started in the waste sector by working for a small company in the 1990's, who she represented at WMABC meetings. She began raising a family in 1996, while continuing to be involved by working with independent companies and took on the ED position for the WMABC in 2010. Recently, she participated on the Emergency Management of BC (EMBC) committee, both for COVID-19 and the 2021 Flooding emergencies, providing guidance on waste & recycling issues to the Province.

Lori was part of the working group that brought about the Metro Vancouver IAC and became a member to continue to work together on industry solutions.



Achilles Mallari

Achilles Mallari is the President of Sierra Waste Services Ltd. Achilles' background is in Operations and Quality Management through BCIT and been focused on collection and processing of solid waste and recycling, including logistics management over the past 23 years.

Through his work, Achilles has been involved in all aspects of operations at materials recovery processing facilities (MRF) including design, set up, and management of various facilities in BC and MB. Achilles currently leads and directly

manages teams in the collection of residential curbside and ICI materials. Achilles is also involved with municipal partners to review, design, and implement environmental initiatives. Through working with local processing facilities and participating in their meetings related to current policies and industry best practices, helps to understand the requirements for program success.

Achilles joined the IAC to collaborate and share his experience in the industry, and to contribute and assist Metro Vancouver as they plan new and innovative initiatives for the industry and region.

Solid Waste and Recycling Industry Advisory Committee – Member Biographies 2025

Aiden Kiani

Aiden Kiani is a Professional Engineer (P.Eng.), Geotechnical / Materials and has a Master's degree in Engineering. He also holds a Master's degree in Business Administration and a Master's degree in Educational

Technology and Learning Design. Aiden is the CEO of Lock-Block Ltd. & Green-Stone Aggregate, and is an instructor at BCIT in Civil Engineering.

Aiden joined the IAC to contribute to the development of public policies, engage in the activities of the community of practice, and help shape a sustainable lifestyle in our society.

Angus MacFarlane

Angus MacFarlane has dedicated over nine years to the waste and recycling industry, involved in various roles such as management and logistics. Angus is passionate about the industry and problem-solving. Angus' passion for

sustainability, both in his career and outdoor pursuits, reflects his commitment to making a positive impact on the environment and personal well-being.

Seeing things firsthand has inspired Angus to help find solutions and support efforts for continuous innovation in our local waste processing. By joining IAC, Angus' aim is to actively contribute to the waste and recycling goals while also bringing his passion, experiences, and perspectives.



Ataollah Kheyrandish

Ataollah Kheyrandish is a PhD graduate from the University of British Columbia, specializing in water and wastewater treatment. Over the years, Ataollah has worked on various environmental projects, including contaminated

soil management, industrial water treatment, and waste handling. They have also collaborated with First Nations and small communities to help deliver clean water solutions, ensuring access to safe drinking water in underserved areas.

For the past three years, Ataollah has worked as an Environmental Manager at a metal recycling facility, focusing on sustainability, regulatory compliance, and environmental protection. Their work includes waste management in metal recycling processes, managing industrial wastewater, and implementing best practices for responsible waste handling.

Ataollah is passionate about improving waste management strategies, enhancing resource recovery, and supporting sustainable recycling initiatives.



Brent van Beusekom

Brent van Beusekom has served as Operations Manager with Product Care, a non-profit association, for 15 years. Previously Brent worked in the private sector in hazardous waste disposal and environmental emergency response.

Brent possesses thorough knowledge of Provincial and Federal laws and regulations for dangerous goods and hazardous waste and works with other vendors in the Metro Vancouver Region to facilitate the processing and disposal of paint, flammable liquid, lights, alarms and pesticide products.

Brent is interested in being included in the discussions about waste management in the region.

Solid Waste and Recycling Industry Advisory Committee – Member Biographies 2025



Christian Dietrich

Christian Dietrich is the Vice President of Recycling and Waste Services at Ecowaste Industries. Christian's entire work experience centers around waste management, specifically hazardous waste and solid waste management. He has

worked in and led teams to design, commission, operate and maintain five separate waste processing plants ranging from a hazardous waste fuel blending facility in Tennessee, to fuel production from residential waste in London UK, to anaerobic digestion of food and garden waste in Surrey, BC.

Christian has also taken part in operational teams to improve safety and operational performance at a variety of waste processing plants including, material recovery facilities, mechanical biological treatment, combined heat and power incinerator, and waste-gasification. Christian holds a BSc Environmental Science from Lake Superior State University and an MBA from Seattle University.



David Millman

David Millman has over 30 years of experience in the waste and recycling industry working with the private and public sector. David has worked through implantation of: Waste Bans, Bylaw changes, Recycling, Organics, Short and

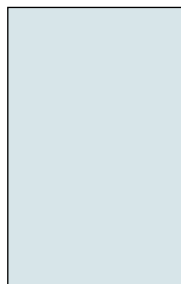
Longterm Disposal Options, and COVID Protocol. Proving solution to problems in both the private and public sector. David joined the IAC to work closely with all industry partners to find cost effective solutions to current and longterm issues.



Dayton Skei

Born and raised on BC's Sunshine Coast, Dayton Skei graduated from Mount Allison University and UBC with a focus on sustainability management. Dayton has worked in the waste industry for 6 years, and is currently the Sales Director

for EverGen Infrastructure Corp. Carrying a particular passion for organic waste, Dayton manages the feedstocks and outputs for each of EverGen's facilities. Dayton joined the IAC to foster connections with waste industry members and stay updated on Metro Vancouver's solid waste initiatives and policy.



Dimitri Pantazopoulos

Dimitri Pantazopoulos is a government relations and public policy consultant with a decade of experience in the waste industry. In addition, Dimitri owns and operates a public opinion research firm, that specializes in public policy and reputation management.

Dimitri joined the IAC to assist their client, Waste Connections, to represent their interests and the broad interests of a competitive market system and an approach to government management that emphasizes fiscal prudence.

Solid Waste and Recycling Industry Advisory Committee – Member Biographies 2025



Glen Furtado

Glen Furtado, M.A.Sc., P.Eng. is the Senior Director of Construction Innovation for the Cement Association of Canada. Glen's experience in design, management, and leadership roles extends over 25 years

in the private and public sectors in USA and Canada. Glen sits on several industry Boards and Committees including serving as Director on the Boards of Concrete BC and Concrete Alberta and is currently Vice-Chair of the Transportation Association of Canada's Environment and Climate Change Council. Glen joined the IAC to learn more about Metro Vancouver's solid waste and recycling policies and plans and to contribute to collaborative opportunities for waste management.



Gord Johnson

Gord Johnson is a co-founder that developed a proprietary process for the recovery of 100% of the material from asphalt shingles. Gord has 30 plus years of experience in building, growing, and managing companies. Gord

is the former CEO of Save Energy Walls, Lodgeview Entertainment & Intrepid Security.

Gord is involved with multiple jurisdictions in Canada and the US with regard to material recovery facilities and the collection of solid waste as it relates to Construction & Demolition waste especially asphalt shingles.

Gord joined the IAC as he has some experience in this field and wants to understand and apply the best practices for solid waste management not only for Gord's company but across the region and assess if they can be applied in other areas.



Grant Hankins

Grant Hankins has been involved in the industry for close to 30 years working for private and publicly traded companies in Canada and the United States. Grant currently owns assets and investments in the industry and is the Chair of

the Waste Management Association of BC as well as a member of Metro Vancouver's Solid Waste Management Plan Public/Technical Advisory Committee. Grant has a MBA, an undergraduate degree in business from SFU and business diploma with Capilano University and is currently a consultant to various companies in the industry in Canada and the US.

Grant has an interest in working collaboratively with government to develop policies and processes that create a better environment. While creating a business environment that creates an open competitive and efficient market to drive higher environmental standards while doing it in a fiscally responsible manner for tax payers.

Solid Waste and Recycling Industry Advisory Committee – Member Biographies 2025



Izzie Abrams

Izzie Abrams is Vice President Government & External Affairs, Waste Connections of Canada. Izzie's career has spanned over 5 decades in the waste industry, and Izzie has held various executive positions successfully developing

and implementing growth strategies as well as government and community affairs programs. Izzie has also held leadership roles in various trade associations, charitable foundations and not for profit organizations. Izzie holds numerous community and industry awards having been inducted into the National Waste and Recycling Association Hall of Fame in 2014.

Izzie joined the IAC to provide his industry experience and insights. As well as make a positive contribution for the advancement of better waste management practices as they relate to policy issues regarding solid waste and recycling services in Metro Vancouver.



James Collins

James Collins has worked in the local waste industry for over 20 years, starting with Philip Services Inc. providing environmentally responsible hazardous waste management. More recently with Tymac Launch Service Ltd. providing

waste management services to Canada's west coast shipping industry.

James joined the IAC because he thinks it is important to participate and give back to the community. The more people that do this, the better the place is in which to live.



Jamie Kaminski

Jamie Kaminski is a Zero Waste Business Associate (ZWA, TRUE Advisor) and is President of Happy Stan's Recycling Services Ltd. Zero Waste. Jamie is a Board Member of Zero Waste Canada and the Zero Waste International Alliance, and is

Chair of the Zero Waste Definition and Zero Waste Hierarchy working group.

Jamie's 27 years plus of experience is in solid waste management from both a ground level and policymaking perspective. Jamie's area of expertise lies within international best practices, specifically internationally accepted zero waste policies and programs. Jamie works with fellow policy advisors to create strong, practical and enforceable policies that drive change towards zero waste. Jamie has developed extensive experience in understanding how regional policies and bylaws affect the existing waste management system from the perspective of the service provider, the client, as well as the region as a whole.

Jamie joined the IAC to support Metro Vancouver in their desire to incorporate more Zero Waste programs, policies and metrics into their solid waste management plan update.

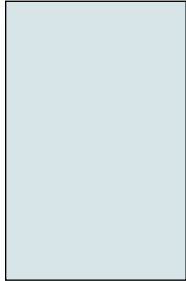


Jeremy Crawford

Jeremy Crawford has worked in the industry for the past 14 years in various roles and is currently the General Manager of Waste Control Services, where one of Jeremy's responsibilities is to operationalize the company's strategy and execute its business plans.

Jeremy joined IAC to collaborate with peers within the industry and Metro Vancouver, to assist and support decision making by Metro Vancouver as it relates to solid waste and recycling services in the Metro Vancouver region.

Solid Waste and Recycling Industry Advisory Committee – Member Biographies 2025



Josh JansenVandoorn

Born and raised in Langley BC, Josh JansenVandoorn graduated from Trinity Western University and is the father of three kids.

Josh has worked in the waste industry for 12 years both on the hauling and processing side. Josh

has been a director with the Waste Management Association of BC for the last 8 years.



Lorne Skoropada

Lorne Skoropada is a hard-working innovative individual with experience and education in solid waste management. Lorne has served as Operations Director for Ridge Meadows Recycling since 2007. A member of SWANA, and

the Coast Waste Management Association, Lorne is Looking forward to sharing their industry experience.



Kurt Johnston

Kurt Johnston is a Vancouver-based business leader with over fifteen years of experience in strategic operations, sales, and social enterprise management. Currently, Kurt serves as CEO of CleanStart Property Services, an award-winning

social enterprise committed to providing junk removal, cleaning, and pest control services while creating job opportunities for individuals facing barriers to employment. Kurt's professional journey has spanned diverse industries, from innovative construction solutions to insurance services and the outdoor industry.

Kurt is excited to join the IAC and bring Kurt's expertise in sustainable operations and social enterprise management. Kurt aims to contribute strategic insights to drive impactful, inclusive solutions for our community's social and environmental challenges.



Maya Moucachen

Maya Moucachen is an Electrical Engineer and Director of Business Development at Merlin Plastics. Maya holds a MS from University of Illinois at Urbana-Champaign, an MBA from INSEAD.

Maya joined Merlin Plastics in 2012.

Since 1987, Merlin Plastics has planned, developed, and refined the re-processing of PE, PP, LDPE, and PET. The company began its recycling business out of a 2,000 square foot warehouse in Delta, B.C. and now operates recycling facilities totaling over one million square feet with sister plants in Alberta, Ontario, California and Oregon. Merlin Plastics has been honoured to receive various awards.

Maya is passionate about the environment, and feels blessed to have a career that is consistent with her personal environmental values. Maya is honoured to be a member of the Solid Waste and Recycling Industry Advisory Committee.

Solid Waste and Recycling Industry Advisory Committee – Member Biographies 2025



Michael Zarbl

Michael Zarbl joined the Major Appliance Recycling Roundtable as the Executive Director in July 2017. Prior to that, Michael was the Director of Operations at Recycle BC (formerly MMBC) the Extended Producer Responsibility

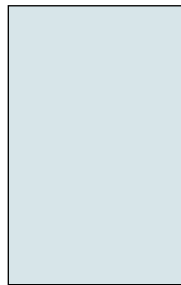
program for packaging and printed paper in British Columbia. Before joining Recycle BC, he was the Senior District Manager for Waste Management of Canada Company for four years, where he was responsible for the entire operation of the Vancouver Hauling District. Prior to that, Michael held various private sector positions at major corporations such as Director of Operations with Ryder Container Terminals, a large export/import and distribution facility for Canadian manufacturers and major Canadian retailers, Distribution Centre Manager for Martin Brower of Canada (distributor for McDonald's Restaurants of Canada), and with Coca-Cola Bottling Co. He has an extensive supply chain management background with direct experience in the key activities along the supply chain, culminating in direct waste management industry experience.



Mike Lannin

Mike Lannin has been working in the waste industry in varying capacities for nearly 20 years. He is currently a manager at Super Save Group, a private waste hauling organization. Mike joined the IAC as an opportunity

to learn more about the issues surrounding the solid waste industry in the area currently, and to contribute to the ongoing development of the industry going forward.



Nicole Stefenelli

Nicole Stefenelli is the CEO and Founder of Urban Impact Recycling, a local waste management service provider. Nicole has been involved in the industry since 1990 and looks forward to serving on the Industry Advisory Committee.



Patrick MacNeil

Patrick MacNeil is an advocate for recycling and environmentally conscious waste handling procedures and policies that are feasible and long term minded. Patrick has worked in the waste and recycling industry for 19 years.

Patrick joined the IAC to help form policy that will have a beneficial outcome for generations to come.

Solid Waste and Recycling Industry Advisory Committee – Member Biographies 2025

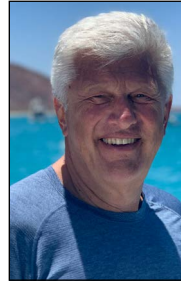


Pinky Vargas

In 2021, Pinky Vargas joined Republic Services. Prior to joining the company, Pinky worked for Washington energy utilities for 14 years, on Energy Efficiency, Community Outreach, and Account Management. Pinky also served

on Bellingham City Council for eight years and completed their term in December 2021. Pinky has extensive experience in project and account management and working with government entities on a host of issues. Pinky was born and raised in Canada and moved to the United States 24 years ago. Pinky holds a Bachelor of Science Degree in Business Management and has training in mediation and negotiation.

Pinky has been actively involved in conservation and sustainability for over 15 years. Managing our waste sustainably and responsibly is a critical issue in our world today and Pinky is compelled to be part of the solution. Pinky enjoys working among those who have the greatest impact and helping each other come to solutions for the long term. It is Pinky's personal purpose to lead local communities in environmental solutions and advocate for a circular economy, effective government, economic development, social justice, women's equality, outdoor recreation, wellness, and a good quality of life.

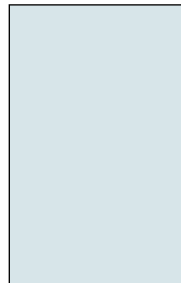


Ralph McRae

Ralph McRae is the Chairman & CEO of Revolution and a participant in the waste and recycling industry in Metro Vancouver for 35 years. Ralph has been involved in solid waste collection and disposal,

ICI recycling, composting, construction and demolition materials processing and the production of alternate fuels.

Ralph joined the IAC to improve the management of solid waste in the region and bring fiscal accountability to the process.



Rustam Punja

Rustam Punja has been involved in the waste industry since 2005 and has worked in collection, recycling, and environmental remediation. In 2013, Rustam took on the role of alternative fuels manager at Lafarge Canada's Richmond

cement plant. Rustam's primary focus is identifying and commercializing waste streams or byproducts that could serve as viable replacements for virgin fuel and raw materials consumed by Lafarge's cement operations in Western Canada.



Sam Agassiz

Sam Agassiz is a finance professional with experience in public practice accounting, operational finance, and operational management, Sam works with West Coast Reduction managing their

Vancouver facility. Sam looks forward to meeting and collaborating with other waste and recycling industry stakeholders.

Solid Waste and Recycling Industry Advisory Committee – Member Biographies 2025



Sandy Sigmund

Sandy Sigmund is Vice President Development & Chief Marketing Officer of Encorp Pacific Canada. Sandy has been a senior executive with Encorp since its inception in 1995 and leads the stewardship agency's marketing,

communications and program development efforts. Prior to Encorp, Sandy had an extensive career in retail management specializing in sales, marketing, and merchandising. Sandy is the Past President of the board for the Ridge Meadows Recycling Society and serves on the management board of the National Zero Waste Council.

As Encorp strives to increase the recovery and recycling rate for the obligated products under the stewardship plan we continuously search for new and innovative ways to collaborate and partner with others in the industry.



Sean Kawakami

Sean Kawakami is the Business Development Manager for Convertus Group who specialize in the design, construction, finance, and operation of organic waste processing facilities. Convertus operates 12 facilities in Canada,

notably including the Nanaimo Circular Waste BC and Surrey Biofuel sites. Sean started in the industry with Rehrig Pacific and his experience in supply, collection and processing affords him a unique perspective of the solid waste industry in our province.

As a resident of the lower mainland and a solid waste professional, contributing to the long-term success of the solid waste industry in the region is important to Sean on numerous levels. Sharing information from different stakeholders on the committee can help manage the unique challenges of solid waste in our region and it is the best way to ensure industry and government are working together to develop a sustainable plan for our future.



Shad Prasad

With over 30 years in the logistics/warehousing industry, Shad Prasad has seen a large amount of waste. Shad is driven to change habits and approach to recycling by educating people on available recycling alternatives through awareness and education.

Shad is the Plant Manager for Cascades Recovery +, Vancouver and Surrey, where the company is involved in recycling fibre from commercial facilities throughout the lower mainland. Cascades Recovery + is committed to reducing fibre waste entering the landfills.

Shad joined the IAC to gain knowledge on future recycling goals and initiatives and how he can contribute to a greener community.



Tessa Janzen

A dedicated environmental stewardship professional with over eight years of experience in the non-profit, post-secondary, and private business industries.

Tessa Janzen revels in bringing people together to tackle complex problems and find innovative solutions that make life better for people and the planet. When not working Tessa enjoys snowboarding, camping and hiking with their dog.

Tessa has worked with Recycle BC for five-years on curbside, multi-family, and depot residential recycling programs. They are currently the Manager of Collection for residential recycling EPR programs.

Solid Waste and Recycling Industry Advisory Committee – Member Biographies 2025



Wesley Muir

Wesley Muir has been in the solid waste management industry for 23 years with Waste Management, Progressive Waste Solutions and Veolia as well as a consultant to provincial governments on a wide range of non-hazardous waste

management issues. Throughout their career, Wes has been active in all activities throughout the waste services continuum including collection, transfer, waste diversion and recycling, energy recovery, landfill disposal and new technologies.

Wesley is also an active volunteer with public and private waste services associations including BC SWANA, Coast Waste Management Association and the Waste Management Association of BC.

Wesley's interest in the Industry Advisory Committee is to help contribute to the urgent public policy debate on how Metro Vancouver can address its current and future challenges.



To: MVRD Board of Directors

From: Director Craig Hodge

Date: May 05, 2025

Meeting Date: May 23, 2025

Subject: **External Agency Status Report for UBCM**

RECOMMENDATION

That the MVRD Board receive for information the report dated May 5, 2025, titled “External Agency Status Report for UBCM”.

PURPOSE

To report to the Board of Directors on the activities of the Union of BC Municipalities (“UBCM”).

BACKGROUND

The Union of BC Municipalities (UBCM) represents the common interests of local governments in dealings with the provincial and federal governments. UBCM is a non-partisan, member-based organization. The policy basis for the organization is developed through resolutions endorsed at its annual meeting, complemented by direct consultation and a range of working groups and committees. The Executive of UBCM, to which the GVRD provides a direct appointment, meets quarterly.

UBCM’s Recent Activities

- UBCM’s board members met with over 30 members from all parties of the legislative assembly in April to highlight key priorities for local government: the need for expanded infrastructure funding; the need for greater provincial effort to address gaps in the housing spectrum; and the financial impact on local governments as we provide emergency health care in response to the mental health and opioid crises.
- Key meetings to discuss the points above were held Premier David Eby, Housing and Municipal Affairs Minister Ravi Kahlon, Finance Minister Brenda Bailey, Health Minister Josie Osborne and Leader of the Opposition John Rustad.
- UBCM used these meetings to remind government of the value of stimulus infrastructure funding as a strategy to keep British Columbians working and to stimulate the economy. Given the risks that the current trade war with the United States poses a risk to BC’s economy, UBCM has commissioned a forecast by
- Oxford Economics which validates the positive impact of an infrastructure stimulus program for the Canadian economy.
- UBCM has also provided local governments with made in BC legal bulletin on the considerations essential for local governments updating procurement policies to include “buy Canadian” considerations.

ALTERNATIVES

This is an information report. No alternatives are presented.

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To: MVRD Board of Directors

From: Director Dhaliwal

Date: May 13, 2025

Meeting Date: May 23, 2025

Subject: **External Agency Status Report for UBCM Indigenous Relations Committee**

RECOMMENDATION

That the MVRD Board receive for information the report dated May 13, 2025, titled "External Agency Status Report for UBCM Indigenous Relations Committee".

EXECUTIVE SUMMARY

The summary of the report is presented under the Highlights section of this report.

PURPOSE

To share with the Board the main points of discussions and decision taken by the committee during the reporting period.

BACKGROUND

As per the Board policy, representatives to external organizations are required to report to the Board on key activities/highlights of their respective organization twice a year.

MEETINGS HIGHLIGHTS

Policy Development and Activities:

The Committee received for information a status report on the implementation of UBCM's MOU with the provincial government, represented by the Ministry of Indigenous Relations and Reconciliation (MIRR). Terms of Reference have been finalized for this work, which the Committee received and UBCM staff are participating in a working group with provincial staff.

Delegation with Ministry of Housing and Municipal Affairs Staff:

The Committee received a delegation from Michelle Dann and Brent Mueller from HMA. They gave a presentation on provincial advice to local governments implementing UNDRIP and the UNDRIP toolkit for local governments that HMA worked on with the Union of BC Indian Chiefs (UBCIC), and which UBCM was engaged. They also provided an update on HMA's Declaration Act action items (i.e. inclusive governance and naming of local governments) and legislative changes related to closed council meetings with First Nations. HMA advised that local governments use UNDRIP articles, and the Truth and Reconciliation Calls to Action as a policy lens for developing bylaws.

In addition, HMA is looking at partnering with colleagues in MIRR and the Declaration Act Secretariat to provide local governments with the practical guidance they are looking for. Following the presentation, discussion focused largely on the toolkit and inclusive governance. The Committee sought a commitment that UBCM be part of this work. Committee members urged the ministries to prioritize developing a practical guide and engage UBCM members, given that local governments across the Province vary in terms of where they are on their reconciliation journey

External Agency Status Report for UBCM Indigenous Relations Committee

MVRD Board Meeting Date: May 23, 2025

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and in their relationships with First Nations. They also vary in capacity and size. It was suggested that a proposed solution would be to provide a guide with a spectrum of guidance or advice for local governments to consider. Committee members communicated that UBCM members are looking for a concise and clear document with an interpretation of DRIPA for local governments in plain language. It was noted that local governments don't have capacity to do this, and local governments are looking to the Province for support. Committee members also discussed the varying First Nations perspectives in relation to UNDRIP and inclusive governance. It is important to engage local governments and First Nations on the topic of governance. Following the delegation, Committee members debriefed and confirmed the need for the UBCM President to write the Minister of Housing and Municipal Affairs about UBCM's interests and concerns with respect to the UNDRIP toolkit for local governments. This was a recommendation made to the Executive in February, which staff held off on taking action until HMA's delegation with the Committee.

Correspondence and Information Items:

The Committee received correspondence from the federal Minister of Crown-Indigenous Relations on the additions to reserve redesign. Other items received for information included a news release from the Prime Minister's Office on federal recognition of Haida Aboriginal Title and a summary of a recent federal court decision that expands on the duty to consult.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

There are no financial implications.

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To: MVRD Board of Directors

From: Director Jen McCutcheon, Electoral Area A

Date: May 9, 2025 Meeting Date: May 23, 2025

Subject: **External Agency Status Report for the Zero Emissions Innovation Centre (ZEIC)**

RECOMMENDATION

That the MVRD Board receive for information the report dated May 9, 2025 titled “External Agency Status Report for the Zero Emissions Innovation Centre (ZEIC).”

EXECUTIVE SUMMARY

The Zero Emissions Innovation Centre (ZEIC) is an independent, non-profit charitable organization dedicated to catalyzing innovation, economic development, and market transformation for urban climate action in BC. ZEIC was established by the Government of Canada and the Federation of Canadian Municipalities with a mandate to support provincial, regional, and local governments in meeting their greenhouse gas emissions reduction targets.

This report provides an update on ZEIC’s key activities over the last two quarters, including:

- The BC Retrofit Accelerator (BCRA) reach and impact;
- The Local Government Offsite Housing Accelerator Initiative focused on the rapid deployment of housing in urban centres across BC;
- The Building2Electrification Coalition’s Commercial Building Electrification Guide, BC Building Electrification Scorecard, and Innovation Fund;
- Carbon Leadership Forum BC’s Low Carbon Material Sourcing Guide and Embodied Carbon Leadership Awards coming up on May 22, 2025;
- The Women4Climate program 2025 cohort with 40 exceptional leaders and an expanded catchment which now includes all of Metro Vancouver; and
- Ongoing building decarbonization programs that support capacity building and evidence dissemination among local and regional governments and industry actors.

PURPOSE

This report provides an update on the key activities of the Zero Emissions Innovation Centre (ZEIC) over the past two quarters as they align with regional climate action and Metro Vancouver services.

BACKGROUND

Seeded by a \$21.7 million federal endowment, ZEIC (Reference 1) is a purpose-built non-profit charitable organization dedicated to market transformation and enabling zero carbon communities and economies across the region and province. ZEIC is part of the Low Carbon Cities Canada network (Reference 2) established by the Government of Canada and the Federation of Canadian Municipalities.

External Agency Status Report for the Zero Emissions Innovation Centre (ZEIC)

MVRD Board Regular Meeting Date: May 25, 2025

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ZEIC works closely with local, regional, and provincial governments and Indigenous communities to advance urban climate solutions, policy, and action plans. Further, ZEIC enables industry to pursue market transformations through programs, collaborations, pragmatic research, impact investment, granting, and education, training, and capacity-building. Equity, affordability, community health and well-being, environmental protection, and economic development are integral to how ZEIC develops and delivers climate action programs.

PROGRAM AND ACTIVITY UPDATES

ZEIC works with dozens of funders and collaborators to deliver a variety of programs that support climate policy, market transformation, and economic prosperity—with over 11,000 newsletter subscribers and social media followers. Key programs and initiatives from the last two quarters that align with Metro Vancouver's services and advance priority policy areas are highlighted below.

Of particular note: Metro Vancouver Regional District has provided seed funding for ZEIC's flagship program, the BC Retrofit Accelerator (BCRA), which positioned ZEIC to leverage over \$14 million in additional program funding from NRCan and philanthropic sources. BCRA is now kickstarting climate and energy upgrades across hundreds of commercial and residential buildings in urban areas across BC (more information below).

See the ZEIC website for more information (Reference 1), including dedicated program pages for access to resources (Reference 3). ZEIC publishes a regular newsletter (Reference 4).

Recognition as a Leader

ZEIC was awarded the Cleantech Supporter of the Year Award from Foresight Canada, to recognize its support for the building sector to accelerate climate solutions by creating a thriving ecosystem where innovators, governments, and industry collaborate to drive meaningful advancements for a sustainable, prosperous future.

Building Decarbonization Programs

ZEIC continues to offer a range of programs and supports for the BC building industry and local government staff as they work to reduce operational and embodied emissions from both new and existing Part 9 (small) and Part 3 (large) buildings (Reference 3). ZEIC's programs address gaps in support, understanding, and access to innovative in the building sector happening across the region and province. Featured updates over the last two quarters are provided below for each program:

The BC Retrofit Accelerator

In October 2024, ZEIC launched the BC Retrofit Accelerator (BCRA)—a three-year, multi million program supported through various funders that aims to kick-start climate and energy upgrades across hundreds of BC's large commercial and residential buildings (Reference 5). Many property owners and managers want to upgrade their buildings by transitioning to all-electric heating, cooling, ventilation, and water heating—especially as the provision of cooling is a priority for thermal safety of residents due to intensifying heat waves and degraded air quality. However, there are a range of barriers, including low awareness of options, complexity, and challenges in sourcing financing. The BCRA provides expert guidance and navigation support to overcome these challenges.

There are four streams of support for buildings within the BCRA: strata, market rental, non-market rental, and commercial. The BCRA program page provides more information on how to participate. ZEIC directly delivers services to support strata buildings there are 2,613 units presently engaged across 38 stratas. Notably, there are 27 commercial buildings engaged in BCRA services, representing 568,516 m2 of commercial space.

Local Government Offsite Housing Accelerator Initiative

The Local Government Offsite Housing Accelerator Initiative (Offsite Housing Accelerator), a three-year project funded by the Real Estate Foundation of BC and ZEIC, advances new approaches to offsite wood frame and mass timber construction and local and regional land use policy and practice to enable the rapid deployment of housing in urban centres across BC, supporting local economic development, workforce, and positive climate outcomes for communities.

The initiative has focused on raising awareness and building capacity over the past several months: over the last two quarters, bringing 615+ local governments and industry leaders together share knowledge and collaborate.

Building to Electrification Coalition (B2E)

B2E is a coalition of over 200 industry, government, and other groups working together to advance building electrification. The first edition the B2E Commercial Building Electrification Guide was published in November 2024. This Guide was identified as a priority from the membership and is aimed at providing an accessible and in-depth resource on advanced commercial building electrification retrofit planning and implementation for the engineering community.

Also, the BC Building Electrification Scorecard was recently released, accounting for progress on a variety of actions identified in the province's *Building Electrification Roadmap*. This is an important tool to track progress related to a variety of indicators, keeping different actors and groups informed and accountable, as well as highlighting gaps in the electrification agenda.

The last call from the *B2E Innovation Fund* (a granting program) funded five projects, disbursing \$120,000 of funding, which leveraged \$324,000 from other sources. In addition to progressing electrification innovation, the projects support equity priorities. For example:

- *Advancing Decarbonization and Safe Indoor Temperatures in Rental Buildings*, which aims to support the lower income market;
- *Exploring Co-op Business Models for Heating Ventilation and Air Conditioning (HVAC) Contractors*, which will enable small-scale HVAC trades workers to transition to and benefit from business ownership; and
- *Accelerating Cost-Effective Electrification Window-mounted Heat Pump Technology*, which aims to demonstrate the viability of these recent technologies and that may be better able to cost-effectively meet the needs of less affluent multi-family buildings.

A new intake for the *B2E Innovation Fund* will kick off in May 2025.

Carbon Leadership Forum BC (CLF BC)

The CLF BC program accelerates the reduction of embodied carbon in buildings through the promotion of best practices and by fostering collaboration, peer-learning and knowledge sharing—ultimately building confidence and influencing progress on embodied emissions policy, regulation, and practice.

CLF BC delivered a major resource in the fall—the Low Carbon Material Sourcing Guide. This guide has had 2,000 page visits and has become a go to resource for the local design community. This comprehensive database helps small building designers and builders minimize carbon emissions associated with materials and provides a resource to help them to choose low-carbon alternatives.

CLF BC will hold the BC Embodied Carbon Awards celebration on May 22, which recognize leaders and projects in the embodied emissions community in BC.

Economic Development & Market Transformation Initiative

ZEIC provides programming focused on economic development and market transformation through climate action within the building sector. Highlights from the last two quarters include:

Heat Pump Working Group

The Heat Pump Working Group, comprised of private and public sector members, is working to make heat pump technology for heating and cooling solutions more accessible and activate the Heat Pump Technology Attraction Strategy, identifying barriers in policy and certifications that stand in the way of higher performance equipment adoption.

To unlock cleaner, high-performance heating technology for Canadians, the Heat Pump Working Group joined industry partners in calling on the federal government to update outdated refrigerant rules. Aligning with US and European standards would open the door to next-generation, low-emission equipment—and would speed up the shift to efficient, low-carbon buildings.

Sustainable Workforce Coalition (SWC)

With over 40 members, the Sustainable Workforce Coalition (SWC) is working to catalyze an equitable transition for workers in Metro Vancouver and BC to a clean economy through strategic convening, research, and capacity building.

The SWC team secured a competitive grant from Future Skills Canada to map the training and retraining pathway for five key sustainable jobs with a focus on emerging workers, youth and transitioning workers, and newcomers. The project will produce tangible, user-friendly solutions that help jobseekers thrive in the clean economy.

Women4Climate (W4C)

The W4C program reflects ZEIC's commitment to equity in climate action as well support for current and emergent leaders in climate action. ZEIC collaborated on the delivery of the program when it was hosted at the City of Vancouver, as part of a C40 global initiative. In 2023, C40 wrapped up its involvement and in 2024 ZEIC became the primary delivery organization, extending the regional boundary to include all of Metro Vancouver.

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The intake for the 2025 cohort kicked off in November with an event that celebrated women's leadership in the clean economy, bringing together 75+ people including past mentors and mentees, industry leaders, academics, and elected officials. The 2025 cohort has been announced (Reference 6) which includes 20 mentees driving local action in a variety of ways, including: the advancing circular construction practices; strengthens climate resilience in urban Indigenous housing; scales EV infrastructure and low-emission delivery; finances deep retrofits for vulnerable communities; and uses nature-based solutions to tackle flooding risks.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

There are no financial implications associated with this report.

CONCLUSION

ZEIC was established by the Government of Canada to help provincial, regional, and local governments reach their greenhouse gas reduction goals. Through its wide range of programs and initiatives, ZEIC fosters peer-to-peer learning and cross-sector collaboration, building the momentum, capacity, and resources needed to drive meaningful change in policy, markets, and industry. The ultimate goal: a more inclusive, healthy, and prosperous future. ZEIC welcomes local governments and like-minded organizations to connect, share ideas, and explore opportunities for collaboration.

REFERENCES

1. Zero Emissions Innovation Centre (n.d.). *Zero Emissions Innovation Centre – Homepage*. Retrieved from: <https://zeic.ca/>. Last Accessed 2025, May 5.
2. Low Carbon Cities Canada (n.d.). *Low Carbon Cities Canada – Homepage*. Retrieved from: <https://lc3.ca/>. Last Accessed 2025, May 5.
3. Zero Emissions Innovation Centre (n.d.). *Zero Emissions Innovation Centre – Programs*. Retrieved from <https://zeic.ca/programs/>. Last Accessed 2025, May 5.
4. Zero Emissions Innovation Centre (n.d.). *Zero Emissions Innovation Centre – Newsletter Subscription*. Retrieved from <https://zeic.us17.list-manage.com/subscribe?u=1f3d3bf0555078c3e00f0b5b0&id=f0c89c3136>. Last Accessed 2025, May 5.
5. Zero Emissions Innovation Centre (n.d.). *BC Retrofit Accelerator Program*. Retrieved from: <https://zeic.ca/programs/bc-retrofit-accelerator/>. Last Accessed 2025, May 5.
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To: Finance Committee

From: Laurel Cowan, Division Manager, Regional Land Use Planning,
Regional Planning & Housing Services

Date: April 18, 2025 Meeting Date: May 15, 2025

Subject: **MVRD Development Cost Charge Waiver for Agricultural Development Designed to Result in a Low Environmental Impact Bylaw No. 1418, 2025**

RECOMMENDATION

That the MVRD Board:

- a) give first, second, and third reading to *Metro Vancouver Regional District Development Cost Charge Waiver for Agricultural Development Designed to Result in a Low Environmental Impact Bylaw No. 1418, 2025*; and
 - b) adopt *Metro Vancouver Regional District Development Cost Charge Waiver for Agricultural Development Designed to Result in a Low Environmental Impact Bylaw No. 1418, 2025*.
-

EXECUTIVE SUMMARY

In April 2025, the Finance Committee and MVRD Board endorsed the proposed criteria for a Regional Park Land Acquisition Development Cost Charge (DCC) waiver for agricultural developments designed to result in a low environmental impact, and directed staff to return with a waiver bylaw. The attached bylaw establishes eligibility criteria to demonstrate low environmental impact and authority for “agricultural development” that meets the criteria to receive a full waiver from the current Park Land Acquisition DCC. The waiver is commensurate with regional and municipal jurisdictions surveyed as part of the early review of DCC programs across the province. The total number of agricultural developments is quite low ranging from 0-24 per year over the past five years, and based on feedback from the agricultural sector, under current DCC rates, no applications would move forward as they would not be financially viable.

A Water DCC Reduction Bylaw is also being proposed for eligible agricultural development. Over the long term, and through the 2027 DCC Bylaw update process, a sub-category for non-residential based on further data analysis, including a specific category for agricultural development, will be created.

PURPOSE

To adopt *Metro Vancouver Regional District Development Cost Charge Waiver for Agricultural Development Designed to Result in a Low Environmental Impact Bylaw No. 1418, 2025*, which establishes a waiver for Regional Park Land Acquisition DCCs for eligible agricultural developments.

BACKGROUND

Metro Vancouver Regional District Development Cost Charge Bylaw No. 1369, 2023 (Reference 1) was adopted on March 22, 2024, establishing the Regional Park Land Acquisition DCC. The bylaw came into effect on January 1, 2025. Prior to the introduction of regional water and parks DCCs in 2023 and 2025 respectively, the only regional DCCs were for liquid waste and as most agricultural development is located outside the regional sewerage areas, DCCs did not apply. In late 2024 the agricultural sector raised concerns that regional water and regional parks DCCs being applied to approvals for agricultural developments such as greenhouses were significantly impacting financial viability. Given the large size of these types of buildings and structures, the general 'non-residential' DCC rate is not appropriate for agricultural developments that are designed to result in a low environmental impact.

In February 2025, the Finance Committee and MVRD Board directed staff to advance work to establish eligibility criteria for agricultural developments designed to result in a low environmental impact that would form the basis for a regional parks DCC waiver bylaw and water DCC reduction. Proposed criteria and requirements were reviewed by the Finance Committee and MVRD Board in April 2025 and staff were directed to proceed with drafting bylaws for Committee and Board consideration. This report advances the proposed bylaw for achieving a Regional Park Land Acquisition DCC waiver.

PROPOSED REGIONAL PARK LAND ACQUISITION DCC WAIVER BYLAW

The proposed bylaw was developed based on draft content presented to the Finance Committee and MVRD Board in April 2025 (Attachment 1). Key inputs included:

- Feedback from Finance Committee and MVRD Board at the February and April meetings;
- A review of Park Land Acquisition DCC approaches in other municipal and regional district contexts, showing that no Parks DCCs are charged for agricultural development;
- Available data that showed water consumption by the agricultural sector makes up 1.4% of total metered water use, and the potable water use by agricultural developments such as greenhouses represents only a portion of this amount;
- Engagement with key representatives from the agricultural sector, including Metro Vancouver's Agricultural Advisory Committee, Greenhouse Growers Association, BC Landscape & Nursery Association, United Flower Growers Co-op, Delta Farmer's Institute, and the BC Agriculture Council; and
- General engagement with the agricultural sector through an on-line survey and webinar to better understand specific challenges and concerns and obtain feedback on proposed criteria and requirements for an interim Waiver/Reduction bylaw.

The proposed bylaw would establish a full waiver of Regional Park Land Acquisition DCCs for eligible agricultural developments designed to result in a low environmental impact. Eligibility would be determined based on the development meeting the following proposed definition and criteria:

**MVRD Development Cost Charge Waiver for Agricultural Development Designed to Result in a Low Environmental Impact
Bylaw No. 1418, 2025**

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Definition:

“agricultural development” – means any non-residential building or structure that is used for agricultural production or is located on agricultural land, and will connect to and use potable water, including, but not limited to: greenhouses, retail nurseries, manufacturing and processing facilities for agriculture-related products, development intended for intensive indoor livestock operations, or development intended for non-farm commercial businesses, related to agriculture, as permitted by the *Agricultural Land Commission Act*.

Criteria:

- The proposed development meets the definition for “agricultural development”;
- The proposed development has the following:
 - a design plan demonstrating that a potable water meter will be installed; and
 - a water management plan outlining how the development will minimize potable water consumption and maximize conservation, particularly during peak demand season (May to September).

Metro Vancouver will administer the proposed Park Land Acquisition DCC Waiver Bylaw to determine compliance with the eligibility criteria.

ALTERNATIVES

1. That the MVRD Board:
 - a) give first, second, and third reading to *Metro Vancouver Regional District Development Cost Charge Waiver for Agricultural Development Designed to Result in a Low Environmental Impact Bylaw No. 1418, 2025*; and
 - b) adopt *Metro Vancouver Regional District Development Cost Charge Waiver for Agricultural Development Designed to Result in a Low Environmental Impact Bylaw No. 1418, 2025*.
2. That the MVRD Board receive for information the report dated April 18, 2025 titled “Metro Vancouver Regional District Development Cost Charge Waiver for Agricultural Development Designed to Result in a Low Environmental Impact Bylaw No. 1418, 2025.”

FINANCIAL IMPLICATIONS

DCCs are imposed to recover the capital costs of infrastructure attributable to growth from the development industry and reduce the impact on existing rate payers. The non-residential category was calculated following the provincial best practices guide and largely focused on industrial and commercial growth impacts.

**MVRD Development Cost Charge Waiver for Agricultural Development Designed to Result in a Low Environmental Impact
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Should an agricultural development applicant meet the criteria to be eligible for a waiver, the current Regional Park Land Acquisition DCC rate of \$0.24/sf will be waived. Over the past five years, the number of building permits under this category ranged from 0 – 24 per year across the region with development sizes ranging from 150m² to up to 100,000m². This indicates significant variability in agricultural developments, and staff will continue to monitor the development applications and amount of DCCs waived and report back to the Finance Committee and MVRD Board. Data collection and further analysis will be undertaken through the full DCC Bylaw update process for 2027 to identify a long-term rate for agricultural development that is appropriate.

CONCLUSION

Metro Vancouver is proposing a Regional Park Land Acquisition DCC Waiver Bylaw for agriculture developments that are designed to result in a low environmental impact. This work was identified as a priority to resolve unintended consequences of Metro Vancouver's new water and regional parks DCCs on the agricultural sector. Draft criteria were developed in consultation with the agriculture sector and presented at the April 2025 Finance Committee and MVRD Board where staff were directed to advance a DCC Reduction Bylaw for Water (98% reduction) and DCC Waiver Bylaw for Regional Parks (100% waiver). Staff recommend Alternative 1, to proceed with adopting the Regional Park Land Acquisition DCC waiver bylaw to ensure the viability of agricultural development in the region until a longer-term solution can be achieved through the 2027 DCC Bylaw update.

ATTACHMENTS

1. *Metro Vancouver Regional District Development Cost Charge Waiver for Agricultural Development Designed to Result in a Low Environmental Impact Bylaw No. 1418, 2025.*
2. "Proposed Criteria for Water Development Cost Charge Reduction and Park Land Acquisition Development Cost Charge Waiver Bylaws for Agricultural Development Designed to Result in a Low Environmental Impact", dated, March 21, 2025.

REFERENCES

1. Metro Vancouver. (2023). Metro Vancouver Regional District Development Cost Charge Bylaw No. 1369, 2023 – Retrieved from https://metrovancover.org/boards/Bylaws/MVRD_Bylaw_1369.pdf. Last accessed 2025, April 11.

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METRO VANCOUVER REGIONAL DISTRICT
BYLAW NO. 1418, 2025
A Bylaw to Establish a Waiver of Development Cost Charges for Agricultural Development
Designed to Result in a Low Environmental Impact

WHEREAS:

- A. Pursuant to subsections 563(1) of the *Local Government Act, RSBC 1996, c.323*, the Metro Vancouver Regional District (MVRD) Board, may, by bylaw, waive or reduce a development cost charge imposed by bylaw pursuant to section 559 of the *Local Government Act, RSBC, 1996, c.323* for an “eligible development”; and
- B. It is deemed desirable to establish eligibility requirements and conditions for a waiver of development cost charges for agricultural developments that are designed to result in a low environmental impact.

NOW THEREFORE the Board of the Metro Vancouver Regional District enacts as follows:

Citation

- 1. The official citation of this bylaw is “Metro Vancouver Regional District Development Cost Charge Waiver for Agricultural Development Designed to Result in a Low Environmental Impact Bylaw No. 1418, 2025”. This bylaw may be cited as “MVRD Development Cost Charge Agricultural Development Waiver Bylaw No. 1418, 2025”.

Definitions

- 2. In this bylaw:

“Agricultural Development” means any non-residential building or structure that is used for agricultural production or is located on agricultural land, and will connect to and use potable water, including, but not limited to:

- (a) greenhouses,
- (b) retail nurseries,
- (c) manufacturing and processing facilities for agriculture-related products,
- (d) development intended for intensive indoor livestock operations, or
- (e) development intended for non-farm commercial businesses related to agriculture, as permitted, by the *Agricultural Land Commission Act*;

“Applicant” means a person who, in respect of an Agricultural Development, submits to GVWD an application pursuant to section 6 of this bylaw for a reduction of Development Cost Charges pursuant to section 5 of this bylaw;

“Development Cost Charge” means a development cost charge payable by a person to a Member Municipality on behalf of MVRD, pursuant to the Metro Vancouver Regional District Development Cost Charge Bylaw No. 1369, 2023; and

“Member Municipality” means a municipality that is a member of the MVRD.

Metro Vancouver Regional District Development Cost Charge Waiver for Agricultural Development
Designed to Result in a Low Environmental Impact Bylaw No. 1418, 2025

3. Terms defined in the Metro Vancouver Regional District Development Cost Charge Bylaw No. 1369, 2023, or incorporated by reference into that bylaw have the same meaning in this bylaw.
4. References in this bylaw to an enactment include the enactment as it may be amended or replaced from time to time.

Waiver of Development Cost Charges

5. Notwithstanding section 4.1 of the Metro Vancouver Regional District Development Cost Charge Bylaw No. 1369, 2023, and subject to section 6 of this bylaw, the MVRD will, for the following eligible development(s), waive 100% of the Development Cost Charges that would otherwise, prior to obtaining an approval of a Subdivision or a Building Permit for the Development, be payable by the Applicant to the Member Municipality on behalf of MVRD:
 - (a) Agricultural Development having the following:
 - i. a design plan demonstrating that a potable water meter will be installed; and
 - ii. a water management plan outlining how the development will minimize potable water consumption and maximize conservation, particularly during peak demand season (May to September).
6. MVRD may not grant a waiver of Development Cost Charges pursuant to section 5 unless an Applicant's application for a waiver of Development Cost Charges has been submitted to, and approved by, the MVRD as fulfilling the eligible development requirements set out in section 5(a).

Record Keeping

7. For every 12-month period comprising January 1 to December 31, each Member Municipality must provide statements to MVRD, setting out:
 - (a) the name of the Applicant;
 - (b) the site address; and
 - (c) the size in square meters

of each Agricultural Development in respect of which an approval of a Subdivision or a Building Permit was required, and for which Development Cost Charges were waived in accordance with this bylaw.

Reporting

8. Each year MVRD will report annually to the MVRD Board of Directors, and any time upon the request of the Board, the number and cost of MVRD Development Cost Charge reductions granted under this bylaw.

Severability

9. If any part or provision of this bylaw is for any reason held to be invalid or unenforceable by a decision of a court of competent jurisdiction, that decision of the court will not affect the validity or enforceability of the remaining portions of this bylaw.

Read a first, second, and third time this _____ day of _____, _____.

Adopted this _____ day of _____, _____.

Mike Hurley, Chair

Dorothy Shermer, Corporate Officer



metrovancouver
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

To: Finance Committee

From: Laurel Cowan, Division Manager, Regional Land Use Planning, Regional Planning and Housing Services

Date: March 21, 2025 Meeting Date: April 17, 2025

Subject: **Proposed Criteria for Water Development Cost Charge Reduction and Parks Development Cost Charge Waiver Bylaws for Agricultural Development Designed to Result in a Low Environmental Impact**

RECOMMENDATION

That the GVWD/MVRD Board direct staff to develop Development Cost Charge Reduction/Waiver Bylaws for Agricultural Development Designed to Result in a Low Environmental Impact as described in the report dated March 21, 2025, titled “Proposed Criteria for Water Development Cost Charge Reduction and Parks Development Cost Charge Waiver Bylaws for Agricultural Development Designed to Result in a Low Environmental Impact.”

EXECUTIVE SUMMARY

In February 2025, the Finance Committee and GVWD/GVS&DD/MVRD Board directed staff to advance work to propose a Development Cost Charge (DCC) Reduction Bylaw for agriculture developments designed to result in a low environmental impact (Attachment 1). This work was identified as a priority to resolve unintended consequences of Metro Vancouver’s new water and regional parks DCCs on the agricultural sector. Metro Vancouver is committed to resolving these issues over the short- and long-term. This will be addressed in the interim through Water DCC Reduction and Parks DCC Waiver Bylaws for agriculture developments designed to result in low environmental impact, and over the long-term through the 2027 DCC Bylaw update that will create sub-categories for non-residential, including a specific category for agricultural development based on further data analysis.

This report provides an overview of considerations and proposes a definition, criteria, and reduced rates for a Water DCC Reduction Bylaw and Parks DCC Waiver Bylaw. Should an agricultural development applicant meet the definition and eligibility criteria to demonstrate the proposed development is designed to result in a low environmental impact, a 98% reduction from current Water DCC rate of \$5.30/sf and a complete waiver of the Parks DCC \$0.24/sf is recommended. The total number of agricultural developments is quite low; over the past 5 years, the number of building permits related to agricultural development ranged from 0 – 24 per year across the region, and based on feedback from the agriculture sector, under current DCC rates without a reduction, no applications would move forward as they would not be financially viable. If supported by the Finance Committee and Boards, staff will return with the relevant DCC Reduction and Waiver Bylaws for endorsement in Spring 2025.

**Proposed Criteria for Development Cost Charge Reduction/Waiver Bylaws for Agricultural Development
Designed to Result in a Low Environmental Impact**

Finance Committee Regular Meeting Date: April 17, 2025

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PURPOSE

To seek Finance Committee and GVWD/MVRD Board direction to develop a Water DCC Reduction Bylaw and Regional Parks DCC Waiver Bylaw for agricultural developments that are designed to result in a low environmental impact, based on the content proposed in this report, and bring back for Committee and Board endorsement.

BACKGROUND

In November 2024, Metro Vancouver met with agriculture sector representatives including the Greenhouse Growers Association and Metro Vancouver's Agriculture Advisory Committee over concerns regarding the impacts of Metro Vancouver's DCC costs on agriculture developments. Before regional water and regional parks DCCs were introduced, DCCs generally did not apply to agricultural development as most agricultural lands are outside of the regional sewerage areas. Metro Vancouver staff committed to addressing any unforeseen implications of the DCC program as soon as possible and brought a report to the Finance Committee and GVWD/MVRD in February 2025 outlining proposed short- and long-term solutions.

In February 2025, the Finance Committee and GVWD/MVRD Board approved the proposed approach and directed staff to advance work to propose relevant content to create a Development Cost Charge (DCC) Reduction Bylaw for agriculture developments that are designed to have a low environmental impact and bring back for Committee and Board consideration (Attachment 1).

OVERVIEW OF APPLICABLE LEGISLATION: DCC EXEMPTIONS VS. WAIVERS & REDUCTIONS

There is an important distinction in the *Local Government Act* (LGA) about what may be exempted from DCCs versus what may qualify for a waiver/reduction:

- **Exemptions** may be granted on a case by case basis where the applicant is able to prove that the proposed development will not result in any additional capital burden on the regional infrastructure that is the subject of the DCC.
- **Waivers or reductions**, pursuant to a waiver/reduction bylaw, are permitted for developments that are in the category of not-for-profit rental housing, for-profit affordable rental housing, or developments that are designed to result in a low environmental impact. For a waiver/reduction to be applied, a local government, as per *LGA* section 563, must establish:
 - A definition of what constitutes an eligible development or class of eligible developments for the purposes of one or more of those categories;
 - the requirements or criteria to be met; and
 - the reduced rate (e.g., amount or percentage of DCCs to be waived).

In the case of agricultural developments in Metro Vancouver, DCCs must be exempted where a proposed development does not impose new capital cost burdens on the regional infrastructure for which DCCs are being charged. Otherwise, any building permit or subdivision approval within the area of the GVWD (or MVRD, or GVS&DD) triggers a requirement to pay DCCs as set out in the respective DCC bylaws. Staff are proposing a significant reduction to regional water DCCs and a full waiver of regional park DCCs for agricultural developments that are designed to result in a low

**Proposed Criteria for Development Cost Charge Reduction/Waiver Bylaws for Agricultural Development
Designed to Result in a Low Environmental Impact**
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environmental impact. Liquid Waste DCCs are generally not relevant for agriculture as most agricultural lands are outside of the regional sewerage area.

CONSIDERATIONS FOR CRITERIA, ELIGIBILITY AND REDUCED RATES

Approach & Considerations

To determine the best approach for the proposed DCC Reduction/Waiver Bylaws for agriculture, staff undertook the following:

- Review of approaches to agriculture in DCC Bylaws for municipalities in and outside the region, and other adjacent regional districts;
- Consideration for limiting DCC reductions to different crop types in response to questions and comments from the Finance Committee February 2025 meeting – for example, if reductions could only be applied to food production versus cannabis cultivation (Attachment 2);
- Assessment of water consumption by the agriculture sector, based on available data;
- Consideration of the relevant benefits provided to the region by the agricultural sector; and
- Engagement with key representatives from the agricultural sector to better understand challenges and concerns, and obtain feedback on proposed interim measures (Attachment 3).

Given the significant impact the current DCC rates will have on the agricultural sector, there is a need to create an interim solution and adopt a DCC Reduction Bylaw as soon as possible to ensure that any active applications in the region are not negatively impacted before a longer-term solution can be implemented through the 2027 DCC Bylaw review and update. Additional analysis and ongoing engagement with the agriculture sector will be undertaken as part of the longer-term solution.

Summary of Municipal and Regional Approaches

An initial review of DCC programs across the province revealed that approaches vary, but the majority of municipalities and regional districts surveyed do not charge DCCs on agricultural development approvals. Much of this is related to the local context, for example, whether the jurisdiction has agricultural lands and whether it is possible for those agricultural properties to connect to potable water.

The following provides some high-level findings:

- **Agriculture DCC rates vary but are quite low compared to other non-residential land uses:** municipalities and regional districts with agricultural lands vary in terms of whether they explicitly define agriculture in their DCC bylaws and if so, whether they charge DCCs for agricultural development approvals. Within the region, only two municipalities charge for water DCCs: Delta at \$1.67m² per gross floor area and Pitt Meadows at \$1.82m² per development area.
- **Applicable DCCs include water but not parks:** For jurisdictions that do charge DCCs on agricultural development approvals, categories generally include water, sometimes roads and drainage, but not sewer or parks.

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- **Agriculture definitions include non-farm commercial:** For jurisdictions with a category of DCCs applicable to agricultural development approvals, definitions focus on buildings on agricultural lands that require a water connection, including non-farm commercial businesses related to agricultural operations as permitted by the *Agricultural Land Commission Act* (e.g., small retail spaces or breweries).
- **Do not include complex requirements:** some municipalities, such as Abbotsford, used to request detailed information about water storage capacity for greenhouses, but noted this became too challenging to manage and eventually moved away from this approach, stressing the importance of keeping requirements or criteria as simple as possible.

Agricultural Water Use and Access

When considering appropriate rates and reductions for agricultural water DCCs, it is important to explore the relative demand for water use for various agricultural operations and structures (such as greenhouses). However, this is a complex matter given a lack of data availability as well as inconsistency in terms of access to potable and non-potable water sources in member jurisdictions. The following summarizes some of the key factors:

- The estimated use of potable water by the agriculture sector in Metro Vancouver is approximately 1.4% of total water use annually (2021 data self-reported by member jurisdictions). This includes all metered water use on agricultural lands and not solely agricultural production in structures or buildings. The potable water used by agricultural developments like greenhouses makes up a portion of this amount.
- Limited data is currently available to understand the specific water use of the agricultural sector, and its impact on regional water infrastructure. Implementing universal water metering could help provide data to best determine water use by various sectors. Most member jurisdictions currently require meters for Industrial, Commercial and Agricultural Users. While Metro Vancouver can require water metering for agricultural developments to be eligible for the DCC Reduction/waiver Bylaw, it cannot require universal metering, which includes the residential sector. Implementing universal water metering, to compare water use of different land uses, would need to be done at the member jurisdiction level across the region. Several members throughout the region currently require water metering and others are actively exploring.
- As the use of potable water is expensive for the agricultural sector, most producers actively use non-potable alternatives wherever possible, such as rainwater or river/stream water, and supplement with water storage and re-use systems. Representatives from the greenhouse sector noted their priority would be for non-potable freshwater sources such as Fraser, Serpentine, Nickomekl, and Pitt Rivers, and from ground water and rainwater, access to which is not consistent nor guaranteed depending on the time of the year and location-specific climate-related challenges, creating inequity throughout the region. Wherever possible, agricultural developments such as greenhouses will find ways to source non-potable water and utilize water re-use systems.
- The demand for potable water use in greenhouses is hard to predict and fluctuates depending on the season, crops grown and rounds of production applied on a yearly basis. Access to fresh water is also becoming less predictable, largely due to climate change

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challenges such as changes in rainfall, increased infiltration of the salt wedge into local rivers, the reduction in water flow in streams, creeks and rivers, and the dropping water table in groundwater aquifers typically used for irrigation. This could result in an increased demand for the potable water system.

Given the limited data availability, estimated small proportion of regional water used by agriculture, and general trends for the agricultural sector to seek to limit potable water use and apply water re-use systems, it is recommended that a significant reduction be applied to the current non-residential rate for agricultural development where regional DCCs would apply. Further details are provided in the recommendations section.

It is also recommended that further analysis be undertaken over time, using water metering to better understand specific water use by the agricultural sector and impacts to regional water infrastructure, and use evidence-based data to adjust rates as appropriate in the future.

Engagement with the Agriculture Sector

Staff led an engagement process to hear from the agricultural sector and gather feedback on the proposed interim measures. A more significant engagement process is planned for the larger DCC Bylaw update process (2025-2027), and ongoing engagement with the agricultural sector will be undertaken.

Members of Metro Vancouver's Agricultural Advisory Committee and representatives from key sectors were involved including: Greenhouse Growers Association, BC Landscape & Nursery Association, United Flower Growers Co-op, Delta Farmer's Institute, and the BC Agriculture Council. Regular touch points were also made with staff from the Ministry of Food and Agriculture and Agricultural Land Commission.

Key themes heard throughout the engagement included:

- DCC rates that are too high will impact viability of agricultural development and expansion
- It's very hard to predict how much potable water a greenhouse might use at the Building Permit stage so request that criteria be as simple as possible
- Non-potable water sources are the preferred option for agriculture as potable water is expensive; wherever possible, agricultural operators will seek to use non-potable water, capture rainwater, and re-use water for efficiency
- Water supply sources vary by municipality so access is not consistent across the region
- Climate change is impacting the availability of non-potable water sources and increasing the need for the agricultural sector to use potable water
- Need to acknowledge the ecosystem benefits of agriculture to the region (clean air and water, flood management, invasive species management, ecosystem services) as well as the contribution to local economy and food security, and public recreation/events
- Regional Parks DCCs should not apply to agriculture
- Do not like the term 'intensive agriculture' – prefer just using the term 'agriculture' for DCCs
- All municipalities and land uses should require water metering to promote conservation, effectively measure use and price accordingly, and identify and address leaks in the system

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Further details on the engagement process and feedback are provided in Attachment 3.

RECOMMENDATIONS

The following provides a summary of the proposed definition, approach, and criteria for a Water DCC Reduction and a Regional Parks DCC Waiver for agricultural developments that have been designed to have a low environmental impact.

Proposed Definition & Criteria of Agricultural Development Designed to Result in a Low Environmental Impact

The following proposed definition and eligibility criteria would be applicable to both the proposed Water DCC Reduction Bylaw and Regional Parks DCC Waiver Bylaw:

“agricultural development” — means any non-residential building or structure used for agricultural production and/or located on agricultural land that will connect to and use potable water. This includes, but is not limited to, greenhouses, retail nurseries, manufacturing and processing facilities for agriculture-related products, intensive indoor livestock operations, and non-farm commercial businesses related to agriculture as permitted by the *Agricultural Land Commission Act*.

Criteria for eligibility are:

- The proposed development meets the definition for “agricultural development”;
- The design plans submitted demonstrate that potable water consumption will be metered, and billed according to the metering by the member jurisdiction delivering the water; and
- The applicant provides a water management plan outlining how the proposed development will minimize potable water consumption and maximize conservation, particularly during peak demand season (May to September).

A DCC is not payable if the development is authorized by a Building Permit and the value of the work does not exceed \$50,000. A person may also apply to be exempted where the person is able to demonstrate that a proposed development will not impose new capital cost burdens on regional water infrastructure.

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Proposed Water DCC Reduction

The proposed Water DCC Reduction Bylaw would provide a 98% reduction for eligible agricultural developments as follows. This is, on average, commensurate with the rates of member jurisdictions in the region where agricultural water connections are relevant.

Year	Assist Factor	Current Water DCC Rates		Proposed – 98% Reduction	
		Per Square Foot (floor area)	Per Square Meter (floor area)	Per Square Foot (floor area)	Per Square Meter (floor area)
2025	45%	\$5.30	\$57.05	\$0.11	\$1.14
2026	15%	\$8.19	\$88.16	\$0.16	\$1.76
2027	1%	\$9.54	\$102.69	\$0.19	\$2.05

Proposed Regional Parks DCC Waiver

The proposed Regional Parks DCC Waiver Bylaw would provide a 100% waiver for eligible agricultural developments as follows. This aligns with the approach taken by other regional districts and municipalities surveyed who do not charge Parks DCCs for agricultural development.

Year	Current		Proposed – 100% Waiver	
	Per Square Foot (floor area)	Per Square Meter (floor area)	Per Square Foot (floor area)	Per Square Meter (floor area)
2025	\$ 0.24	\$ 2.58	\$ 0.00	\$ 0.00
2026	\$ 0.48	\$ 5.17	\$ 0.00	\$ 0.00
2027	\$ 0.94	\$ 10.12	\$ 0.00	\$ 0.00

ALTERNATIVES

1. That the GVWD/MVRD Board direct staff to develop Development Cost Charge Reduction/Waiver Bylaws for Agricultural Development Designed to Result in a Low Environmental Impact as described in the report dated March 21, 2025, titled “Proposed Criteria for Development Cost Charge Reduction/Waiver Bylaws for Agricultural Development Designed to Result in a Low Environmental Impact.”
2. That the MVRD Board receive for information the report dated March 21, 2025, titled “Proposed Criteria for Development Cost Charge Reduction/Waiver Bylaws for Agricultural Development Designed to Result in a Low Environmental Impact.”

FINANCIAL IMPLICATIONS

DCC rates are established to recover the cost of growth infrastructure from the development industry and reduce the impact on existing rate payers. The non-residential category was calculated following the provincial best practices guide and largely focused on industrial and commercial growth impacts.

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Should an agricultural development applicant meet the criteria to be eligible, the current Water DCC rate of \$5.30/sf will be reduced by 98% and Parks DCC rate of \$0.24/sf will be waived. Over the past 5 years, the number of building permits under this category ranged from 0 – 24 per year across the region with development sizes ranging from 150m² to up to 100,000m². This indicates significant variability in agricultural developments, and staff will continue to monitor the development applications and collection of DCCs and report back to the Finance Committee.

Should the Board choose alternative one, staff will proceed with creating a DCC Reduction Bylaw for Water at 98% of current rates and a DCC Waiver Bylaw for Regional Parks to waive 100% of charges. Further analysis will be undertaken through the full DCC Bylaw update process for 2027 to identify a long-term rate for agricultural development that is appropriate.

CONCLUSION

Metro Vancouver is proposing Development Cost Charge (DCC) Reduction/Waiver Bylaws for agriculture developments that are designed to result in a low environmental impact. This work was identified as a priority to resolve unintended consequences of Metro Vancouver's new water and regional parks DCCs on the agricultural sector. This report summarizes analysis undertaken, feedback from engagement, and proposes draft content to create a DCC Reduction Bylaw for Water (98% reduction) and DCC Waiver Bylaw for Regional Parks (100% waiver). Staff recommend alternative 1, to proceed with creating the bylaws. If supported by the Finance Committee and Boards, staff will return with the relevant DCC Reduction and Waiver Bylaws for endorsement in Spring 2025.

ATTACHMENTS

1. "Consideration of a Development Cost Charge Reduction for Intensive Agriculture", dated, February 5, 2025.
2. Consideration of Agriculture Categories: Food-production vs. Non-food Production.
3. What We Heard – Summary of Engagement.

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SERVICES AND SOLUTIONS FOR A LIVABLE REGION

To: Finance Committee

From: Heather McNell, Deputy Chief Administrative Officer, Policy and Planning

Date: February 5, 2025 Meeting Date: February 13, 2025

Subject: **Consideration of a Development Cost Charge Reduction for Intensive Agriculture**

RECOMMENDATION

That the GVWD/GVS&DD/MVRD Board direct staff to advance work to analyze and propose a Development Cost Charge reduction for Intensive Agricultural developments that have a low environmental impact for Board consideration.

EXECUTIVE SUMMARY

This report outlines a proposed approach to address concerns raised by the agriculture industry about the impacts of Metro Vancouver Development Cost Charges (DCCs) on Intensive Agriculture. Metro Vancouver's DCC framework currently only has one non-residential rate, which may not be suitable for Intensive Agriculture developments given the small demand on infrastructure relative to their size of buildable area. There are four member jurisdictions that have an Intensive Agriculture rate for municipal DCCs, and these are relatively lower in comparison to the other non-residential categories.

In January 2025, a DCC work plan was endorsed by the Finance Committee that includes an update to residential and non-residential definitions, including consideration of Intensive Agriculture developments, for the next regional DCC bylaw update in 2027. As an interim measure, this report is seeking direction to develop a reduced DCC rate for Intensive Agriculture developments that meet criteria for low environmental impact. This could be achieved through a DCC reduction bylaw, which is permitted through the *Local Government Act*. If approved, staff will provide further analysis and draft a DCC reduction bylaw for Committee and Board discussion for approval Spring 2025.

PURPOSE

To seek Finance Committee and GVWD/GVS&DD/MVRD Board direction to undertake further analysis to develop a DCC reduction for Intensive Agricultural developments that have a low environmental impact and bring this back for Committee and Board consideration.

BACKGROUND

In November 2024, Metro Vancouver met with agriculture industry representatives including Metro Vancouver's Agricultural Advisory Committee and the Greenhouse Growers Association over their concerns regarding the impacts of Metro Vancouver's DCC costs on Intensive Agriculture developments. Intensive Agriculture refers to development such as greenhouses, retail nurseries, manufacturing and processing plants for agriculture related products, facilities used for intensive livestock purposes, and commercial businesses located within agricultural zones. Representatives

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expressed gratitude for the meetings, but were disappointed to have not been consulted during the development of the DCC rate update last year, noting the new DCC rates are significantly impacting the viability of agricultural development in the region. Metro Vancouver staff committed to addressing any unforeseen implications of the DCC program as soon as possible. This report provides an overview of the proposed short- and long-term solutions to address Intensive Agriculture through Metro Vancouver's DCC waiver/reduction bylaw and DCC program update.

ADDITIONAL CONTEXT

Metro Vancouver DCC Program Update

In January 2025, the Finance Committee endorsed a workplan to review and update Metro Vancouver's DCC program. This includes work in 2025 to review DCC rate categories, analyze differences in infrastructure demand and use, and propose updates to DCC rates based on new categories as well as new population projections and capital program costs. This work would inform the 2026 budget process to implement changes to the DCC program in 2027, with new rates taking effect in 2028. This work will provide a long-term solution to develop fair DCC rates for Intensive Agriculture development in the region that adequately captures the costs of infrastructure demand for this type of development. As an interim measure, Metro Vancouver staff propose an update to the DCC Waiver/Reduction Bylaw to provide a reduction for Intensive Agriculture development that has a low environmental impact. This will help to address the immediate needs of the agricultural sector for Intensive Agriculture developments that are not already exempt from regional DCCs (e.g., developments that have some impact on water or sewer infrastructure).

DCC Considerations for Intensive Agriculture

In conversations with Metro Vancouver, the agricultural industry has raised concerns around how Metro Vancouver's non-residential DCC rate is broadly applied to all commercial activity while the impact on growth infrastructure from agricultural uses can vary greatly. This variation is amplified based on the particulars of agricultural structures, such as greenhouses or nurseries that cover a large area of land and primarily use rainwater collection for operations, which do not use a commensurate amount of water as would other non-agricultural developments of a similar size. The regional DCC rate per square foot is currently based on an average of all non-residential groups which does not appropriately capture Intensive Agriculture's impact on infrastructure. This is resulting in a significant financial impact on new/expanded greenhouses to the point that this DCC rate could prevent intensive agricultural development within the region. As one of the key strategies in *Metro 2050* is to protect and strengthen agricultural viability, it is important to address this unintended consequence of the regional DCC program in the immediate term (through expanding the waiver/reduction bylaw), and to find an appropriate long-term solution and appropriate rate through the review and update of the DCC program.

In addition, the employment projections used for developing the Metro Vancouver non-residential rate did not include agriculture, and Metro Vancouver Water Services estimates that agriculture comprises a small percentage of projected growth for non-residential uses. More data is needed to quantify the impact of Intensive Agriculture on growth infrastructure, and this work will be completed as part of the DCC Program update, in addition to further refining non-residential categories and definitions. Given that any update to the regional DCC bylaw will require review by

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the Provincial Inspector, this is a lengthy process and is best addressed through the comprehensive update in 2027.

In the meantime, an interim solution is needed to address Intensive Agriculture developments that occur before the new DCC rates are implemented in 2028.

Interim Solution: Expand the DCC Waiver/Reduction Bylaw to Include Intensive Agriculture with Low Environmental Impact

The *Local Government Act* outlines two situations where DCCs may not apply or fully apply: exemptions and waivers/reductions. DCC exemptions can apply in specific circumstances. For example, when a development does not impact or add an additional burden on infrastructure, or a building permit value is below \$50,000. Metro Vancouver was able to work with one Intensive Agriculture applicant who was able to prove, with a Qualified Professional report, that the proposed greenhouse development would not place an additional burden on infrastructure as all water used was from collected rainwater and was therefore exempt from regional DCCs. However, for future applications that may have some impact on infrastructure, it is important for Metro Vancouver to have a solution to ensure that the viability of agricultural development is not impacted before the DCC Bylaw is updated in 2027. This could be done in the interim through a partial waiver/reduction.

Waivers/reductions are permitted, pursuant to a waiver/reduction bylaw, only for developments that are not-for-profit rental housing, for-profit affordable rental housing, or designed with a low environmental impact. The only applicable category for Intensive Agriculture would be for developments designed with a low environmental impact. To create a reduced DCC for Intensive Agriculture developments that have a low environmental impact, staff would need to establish the following as per the *Local Government Act* section 563:

- a definition of what constitutes an eligible Intensive Agriculture development or class of eligible developments;
- the requirements or criteria to be met (such as lower water use measures); and
- the reduced rate (e.g., amount or percentage of DCC fees to be waived).

Staff propose to work with member jurisdictions with Intensive Agriculture developments, and to analyze potential impacts to regional infrastructure, to develop these criteria and bring back a proposed DCC waiver/reduction bylaw for Committee and Board consideration in Q2 of 2025.

ALTERNATIVES

1. That the GVWD/GVS&DD/MVRD Board direct staff to develop a Development Cost Charge reduction for Intensive Agricultural developments that have a low environmental impact for Board consideration.
2. That the Finance Committee receive for information the report dated February 5, 2025, titled "Consideration of a Development Cost Charge Reduction for Intensive Agriculture."

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FINANCIAL IMPLICATIONS

In the Metro Vancouver region there are four municipalities that have a specific Intensive Agriculture DCC rate; Richmond, Surrey, Delta and Pitt Meadows, and rates range from \$0 to \$9.24 per square metre based on 2025 rates. Metro Vancouver's non-residential rate for water and parks combined is \$59.63 per square metre based on 2025 rates, which would encompass Intensive Agriculture developments. Further, over the past 5 years, the number of building permits under this category can range from zero to over 4 per year with a development size range of just over 150 square meters of buildable area to over 101,000 square meters of gross floor area. This indicates significant variability in Intensive Agriculture developments, which creates difficulty in assessing future foregone DCC revenues and financial implications.

Should the Board choose alternative one, further analysis is required to determine the criteria and the applicable DCC rate for Intensive Agriculture development that would be eligible for a DCC reduction. Further analysis of financial implications will be provided should the Board direct staff to pursue the development of DCC partial waiver/reduction for Intensive Agriculture development.

CONCLUSION

Metro Vancouver has met with agricultural industry representatives over their concerns regarding the impacts of Metro Vancouver's DCC costs on Intensive Agricultural developments (such as greenhouses) who noted the current rates are threatening the viability of agricultural development in the region. While Metro Vancouver is undertaking a work plan to update its DCC program, the changes will not take effect until 2028. In the meantime, an interim solution is proposed for Board consideration. Staff propose undertaking further analysis to develop criteria for a DCC partial waiver/reduction for Intensive Agriculture developments that can be shown to have a low environmental impact, that is, a low impact in terms of water use. Staff recommend Alternative 1 to direct staff to undertake the work to develop a DCC reduction for Intensive Agriculture for Board consideration.

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Attachment 2 - Consideration of Agriculture Categories: Food-production vs. Non-food production

A question was raised at the Finance Committee February 2025 meeting as to whether DCC reductions could be applied to food production development, but not to cannabis cultivation development. Staff explored applicable legislation and engaged with the agricultural sector, Ministry of Food and Agriculture, and staff from the Agricultural Land Commission.

It was generally advised not to base a DCC reduction on what is proposed to be grown within an agriculture structure for the following reasons:

- **Logistical:**
 - What is grown in a greenhouse can change over time. The cannabis sector is changing and is challenged with remaining as viable as it was previously during the early days of legalization. As noted in the City of Delta's Agricultural Plan, "Since the legalization of cannabis in 2018, there have been expansions and contractions within that industry locally. Some existing greenhouses have converted to cannabis production and new greenhouses have been constructed for cannabis production, while conversely more recently some cannabis greenhouses have reverted back to growing fruit and vegetables. This fluctuation points to the fluidity of these commodities and the ability of Delta operators to shift production with market demand."
 - Cannabis is essentially a horticulture product and also used in a variety of food and medicinal products. This would make it challenging to value certain food products or horticultural products over others and may unintentionally impact other agricultural sectors in the region.
 - Given that DCCs are collected at the Building Permit stage, it would be challenging to demonstrate what crops would be grown over time. While it may be possible to receive referrals of federal licenses to produce cannabis, this may not be available at the Building Permit stage. Additionally, any review of referrals and monitoring and maintaining information on crop production would need to be conducted at the municipal level, requiring time and resources.
 -
- **Impact on Agricultural Producers:**
 - Given the fluidity of market demand and the challenges of maintaining viable agricultural operations, the agricultural sector has consistently stressed the need for all agricultural crops to be treated equally. The Ministry of Agriculture and Food has supported this approach and reflected this in Provincial legislation.
 - Restricting DCC reductions solely to agricultural operations that are currently dedicated to food production would negatively impact other key regional agricultural producers, such as landscaping nurseries, flower growers, and medicinal plant growers.

Given the complex nature of this topic, it is advisable to keep requirements simple, acknowledging that agricultural products benefit our region, whether fresh food, food additives, medicinal products, landscaping material, or other industrial/specialty crops. As a reduction in current DCC rates is critical to support the viability of any agricultural business in the region, it is recommended that it apply to all eligible agricultural applications, regardless of what is produced, as long as they are designed to result in a low environmental impact.

Attachment 3: What We Heard – Summary of Engagement

Audience	Input and Feedback
Metro Vancouver Agricultural Advisory Committee (AAC)	November 2024 Presentation and Discussion
Discussion and Comments:	<ul style="list-style-type: none"> Members voiced disappointment at not being consulted during the last DCC update consultation period. Metro Vancouver acknowledges the introduction of the Water and Regional Parks DCCs have impacts on the agricultural sector. Identified this as a time sensitive matter as producers are currently preparing building permits for expansion applications and greenhouses can only be built at certain times of the year. Metro Vancouver recognizes the urgency and implications of the issue and commits to addressing the issue as soon as possible, however, this will require guidance and confirmation from the MVRD Board. Provincial legislation determines what can be exempted in a DCC bylaw – agriculture is not eligible. Metro Vancouver Next Steps: <ul style="list-style-type: none"> gather data on how agriculture was included in growth assumptions for the capital program; and work with municipalities to understand how they are considering agriculture in their respective DCC program.
Metro Vancouver Agricultural Advisory Committee (AAC)	February 2025 Update Presentation and Discussion
Discussion and Comments:	<ul style="list-style-type: none"> Committee members generally felt the definition of Intensive Agriculture was problematic as all agriculture is intensive, and felt it was more appropriate to refer to water as potable water given how it is used for many different types of applications Concern that climate change is impacting water access and driving the need for utility upgrades. Noted that using universal water metering would support all users to pay their fair share. Concerned about local ability to compete with California, Mexico and overseas with rising costs and with increasing climate change challenges and how that affects access to non-potable water Participants felt all agricultural products should be treated the same particularly with the application of any DCC reductions Reiterated that farmland provides ecosystem services for the region that are not factored into contributions made to supplement regional and local infrastructure

General Public / Agricultural Sector	March 6 – 20, 2025 Metro Vancouver Public Survey
	<p>Total responses: 20 Total responses from individuals: 13 Total responses on behalf of an organization: 7 Respondent farm locations: Maple Ridge, Delta, Richmond, Burnaby, Township of Langley, Surrey</p>
<p>General responses to Question 1: What are your thoughts on the draft definition of intensive agriculture?</p>	<ul style="list-style-type: none"> • Overall respondents found the definition acceptable but felt the use of the word “intensive” should be removed.
<p>General responses to Question 2: What are your thoughts on Metro Vancouver draft criteria?</p>	<ul style="list-style-type: none"> • There was a split between respondents who found the criteria acceptable and those that felt it needed to be simplified so as not to overly burden farmers. Respondents identified that water is needed for many types of farming activities, but highlighted that rainwater collection is a current practice that reduces the need for potable water for most of the year. • Comments also identified that federal regulations on food and safety require a certain level of treated water for washing vegetables and dairy milking equipment and farmers are audited to make sure these standards are being applied and met. • Respondents supported water meters for all water users.
<p>General responses to Question 3: What feedback do you have on this proposed approach?</p>	<ul style="list-style-type: none"> • Some respondents felt the interim measure should be extended to provide more time to research and understand implications. • One respondent felt that soil-based agriculture should be located on farmland and non-soil-based production onto rooftops of industrial buildings and residential and commercial development to boost food security; indicated there is enough land for agriculture, the challenge is there is no irrigation to bring the land into production. • Several respondents were in favour of a significant reduction or full waiver of DCCs for agricultural production questioning the degree to which agriculture impacts regional water infrastructure. • Other respondents expressed concern about the viability of local farming and felt support was necessary for farms to conduct business and provide food for the local population. • Concerned that a water DCC would create additional financial burden or limitations on farmers needing to build, for example, a produce grading room that requires some water.

	<ul style="list-style-type: none"> Concern that farmers in the Metro Vancouver region are facing additional tax burdens and costs compared to other areas/regions and the effect this has on food security and farm business livelihood. Concern about increased costs to farmers in general, particularly small farms, and the overall challenge to produce food in this region including with the current geopolitical economic challenges facing Canadians.
Agricultural Sector	March 13, 2025 Metro Vancouver Agriculture DCC Webinar
Discussion and Comments:	<ul style="list-style-type: none"> Webinar participants generally felt the term “Intensive Agriculture” was problematic as all agriculture is intensive and felt it was more appropriate to refer to “water” as “potable water” given how it is used for many different types of applications It was noted that agricultural production needs to hit a certain level of intensity in order to keep the business operating Concern that climate change is impacting water access and driving the need for utility upgrades. Noted that using universal water metering would support all users to pay their fair share. Concerned about local ability to manage rising costs associated with increasing climate change challenges and how that affects access to non-potable water Participants felt all agricultural products should be treated the same particularly with the application of any DCC reductions (e.g., should not distinguish between food production vs. cannabis or other horticultural products). Reiterated that farmers look after a lot of land in Metro Vancouver (approx. 22%) including removing invasive species and supporting other ecosystem services such as clean air, water. Webinar participants confirmed the presence of a municipal water line on an agricultural property doesn’t mean there’s a lot of water being used; the agricultural sector avoids using potable water as much as possible given it is fairly costly; seeking equity in use of water meters across the region so they can be charged for what they use rather than simply being charged for a water connection
City of Abbotsford	March 2025 Telephone Correspondence
General Discussion with Planning staff	<ul style="list-style-type: none"> Abbotsford does charge DCCs to the agriculture sector but only for water supply; distribution DCCs are not charged to the agricultural sector Abbotsford has a comprehensive potable water system, including extensive infrastructure, to provide potable water to the agricultural sector; it is widely prescribed To prevent overflow to local creeks and streams, stormwater ponds are required on site which double for rainwater retention; rainwater and other non-potable sources of water are a priority use for agriculture due to the cost of potable water use

	<ul style="list-style-type: none"> In the past, Abbotsford has used various types of restrictions and reporting requirements to confirm low potable water use; however, these have been cumbersome to administer and have been removed
Fraser Valley Regional District	March 2025 Telephone and Email Correspondence
General Discussion with Planning Staff	<ul style="list-style-type: none"> Confirmed their “non-residential” DCC category does not include agriculture
Township of Langley	February and March 2025 Telephone and Email Correspondence
General Discussion with Planning Staff	<ul style="list-style-type: none"> Confirmed most greenhouses would never connect to potable water because the infrastructure doesn’t go far enough to allow for connections Langley Waterworks Bylaw defines Intensive Agriculture Confirmed their DCC bylaw does not include agriculture Residential uses on agricultural land are high water users (e.g., lawn watering)
Capital Regional District (CRD)	February 2025 Email Correspondence
General Discussion with Planning Staff	<ul style="list-style-type: none"> Confirmed that the CRD does not charge DCC for agricultural uses

Reference Items:

The following items were referenced to support engagement outreach:

1. City of Pitt Meadows [Development Cost Charges Bylaw, No. 2995, 2024](#)
2. City of Richmond [Development Cost Charges Bylaw, No. 9499, 2017](#)
3. City of Surrey [Development Cost Charges Bylaw, No., 21174, 2024](#)
4. City of Maple [Ridge Development Cost Charges Bylaw, No. 7863, 2022](#)
5. Township of Langley [Development Cost Charges Bylaw, 5897, 2024](#)
6. City of Abbotsford [Development Cost Charges Bylaw, 3174, 2021](#)
7. City of Chilliwack [Development Cost Charges Bylaw, 2689, 2024](#)
8. Fraser Valley Regional District [Development Cost Charges Bylaw, 1096, 2011](#)
9. Squamish Regional District [Development Cost Charges Background Study, February 2025](#)
10. Capital Regional District [Proposed Regional Water Supply Development Cost Charges Program](#)

To: MVRD Board

From: Dorothy Shermer, Corporate Officer, Board and Information Services

Date: April 28, 2025

Meeting Date: May 23, 2025

Subject: **Sasamat Fire Service Conversion Bylaw No. 1402, 2024**

RECOMMENDATION

That the MVRD Board adopt *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024*, as recommended in the report dated April 28, 2025, titled “Sasamat Fire Service Conversion Bylaw No. 1402, 2024”.

EXECUTIVE SUMMARY

At its February 28, 2025 meeting, the Metro Vancouver Regional District Board (“the MVRD Board”) rescinded third reading of *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024* (“MVRD Bylaw No. 1402, 2024”), gave third reading to *MVRD Bylaw No. 1402, 2024*, as amended, and directed staff to forward *MVRD Bylaw No. 1402, 2024* to the Inspector of Municipalities for approval. *MVRD Bylaw No. 1402, 2024* received approval from the Inspector of Municipalities on April 25, 2025 and is now presented to the MVRD Board for consideration of adoption.

PURPOSE

To present *MVRD Bylaw No. 1402, 2024* for consideration of adoption.

BACKGROUND

At the MVRD Board meeting held on February 28, 2025, the MVRD Board considered a report dated February 18, 2025, titled “Sasamat Volunteer Fire Department Service Conversion Bylaw No. 1402, 2024 – Administrative Change” (Attachment 1) and passed the following resolution:

That the MVRD Board:

- a) rescind third reading of Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024; and*
- b) give third reading to Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024, as amended and presented in Attachment 1 in the report dated February 18, 2025, and forward it to the Inspector of Municipalities for approval.*

The Inspector of Municipalities approved *MVRD Bylaw No. 1402, 2024* on April 25, 2025 (Attachment 2). *MVRD Bylaw No. 1402, 2024* (Attachment 3) may now be adopted.

ALTERNATIVES

1. That the MVRD Board adopt *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024*, as recommended in the report dated April 28, 2025, titled “Sasamat Fire Service Conversion Bylaw No. 1402, 2024”.
2. That the MVRD Board receive the report dated April 28, 2025, titled “Sasamat Fire Service Conversion Bylaw No. 1402, 2024” for information.

FINANCIAL IMPLICATIONS

There are no financial implications associated with the adoption of *MVRD Bylaw No. 1402, 2024*.

CONCLUSION

MVRD Bylaw No. 1402, 2024 has received three readings from the MVRD Board and approval from the Inspector of Municipalities, and may now be adopted.

ATTACHMENTS

1. “Sasamat Volunteer Fire Department Service Conversion Bylaw No. 1402, 2024 – Administrative Change”, dated February 18, 2025.
2. Approval of *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024*, from the Inspector of Municipalities.
3. *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024*.

74709008



To: MVRD Board

From: Dorothy Shermer, Corporate Officer, Board and Information Services

Date: February 18, 2025 Meeting Date: February 28, 2025

Subject: **Sasamat Volunteer Fire Department Service Conversion Bylaw No. 1402, 2024 – Administrative Change**

RECOMMENDATION

That the MVRD Board:

- a) rescind third reading of *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024*; and
 - b) give third reading to *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024*, as amended and presented in Attachment 1 in the report dated February 18, 2025, and forward it to the Inspector of Municipalities for approval.
-

EXECUTIVE SUMMARY

At its November 29, 2024 meeting, the Metro Vancouver Regional District Board (“the MVRD Board”) gave three readings to *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024* (“the Bylaw”) and directed staff to seek participating area approval from the Village of Anmore and the Village of Belcarra. After the Bylaw was sent to the Village of Anmore and the Village of Belcarra, it was noted that there were two incorrect section references in the Bylaw. The Village of Anmore and the Village of Belcarra were officially notified of the errors on December 13, 2024 and were asked to acknowledge the required correction as part of their participating area approval. The Village of Anmore and the Village of Belcarra have both provided participating area approval for the adoption of the Bylaw with the section references corrected. This report presents the corrected *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024* (Attachment 1) for third reading and referral to the Inspector of Municipalities for approval.

PURPOSE

To present the corrected *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024* for third reading and referral to the Inspector of Municipalities for approval.

BACKGROUND

On November 29, 2024, the MVRD Board passed the following resolution:

That the MVRD Board:

- a) *give first, second, and third readings to Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024;*
- b) *direct staff to seek participating area approval from the Village of Anmore and the Village of Belcarra for Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024 per section 342(2)(c) of the Local Government Act; and*

Sasamat Volunteer Fire Department Service Conversion Bylaw No. 1402, 2024 – Administrative Change

MVRD Board Regular Meeting Date: February 28, 2025

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- c) *direct staff to, once participating area approval has been obtained, submit Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024 to the Inspector of Municipalities for approval.*

On December 9, 2024, correspondence was sent to the Village of Anmore and the Village of Belcarra to seek participating area approval for *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024*. Subsequently, two incorrect section references were identified in the Bylaw. The errors are as follows:

- In section 6, references to subsection 4(d) and (e) should be replaced with references to subsections 5(d) and (e); and
- In section 10, the reference to section 3 should be replaced with a reference to section 4.

On December 13, 2024, the Corporate Officer sent correspondence to the Village of Anmore and the Village of Belcarra notifying them of the incorrect section references (Attachment 2). The Village of Anmore and the Village of Belcarra were asked to include an acknowledgement of the error in their resolution to provide consent for the adoption of the Bylaw, so that third reading of the Bylaw can be rescinded, and the Bylaw can be corrected and read a third time as amended.

On January 21, 2025, the Village of Anmore provided consent to the adoption of *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024* on behalf of the electors, with corrections noted by Metro Vancouver's Corporate Officer in their letter dated December 13, 2024 (Attachment 3).

On January 27, 2025, the Village of Belcarra provided consent to the adoption of *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024* on behalf of the electors, with corrections noted by Metro Vancouver's Corporate Officer in their letter dated December 13, 2024 (Attachment 4).

In order to correct the two incorrect section references in the bylaw, third reading of the bylaw must be rescinded and third reading given to the corrected bylaw.

This report contains the corrected *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024 (Attachment 1)* for third reading and referral to the Inspector of Municipalities for approval. Following approval from the Inspector of Municipalities, the Bylaw will be presented to the MVRD Board for adoption in a separate Board report.

ALTERNATIVES

1. That the MVRD Board:
 - a) rescind third reading of *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024*; and
 - b) give third reading to *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024*, as amended and presented in Attachment 1 in the report dated February 18, 2025, and forward it to the Inspector of Municipalities for approval.

Sasamat Volunteer Fire Department Service Conversion Bylaw No. 1402, 2024 – Administrative Change

MVRD Board Regular Meeting Date: February 28, 2025

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-
2. That the Board receives the report dated February 18, 2025 titled “Sasamat Volunteer Fire Department Service Conversion Bylaw No. 1402, 2024 – Administrative Change” for information.

FINANCIAL IMPLICATIONS

There are no financial implications associated with correcting section references in *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024*.

CONCLUSION

Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024 has received participating area approval for adoption, with the correction of two section references. To correct the errors contained within the Bylaw, staff recommend that the MVRD Board rescind third reading, give third reading to the corrected Bylaw, and forward it to the Inspector of Municipalities for approval. Following approval from the Inspector of Municipalities, the Bylaw will be presented to the MVRD Board for adoption in a separate Board report.

ATTACHMENTS

1. *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024*.
2. Correspondence titled “Sasamat Volunteer Fire Department Service Conversion Bylaw No. 1402, 2024”, dated December 13, 2024, from Metro Vancouver’s Corporate Officer.
3. Correspondence titled “Sasamat Volunteer Fire Department Service Conversion Bylaw No. 1402, 2024”, dated January 23, 2025, from the Village of Anmore.
4. Correspondence titled “Sasamat Volunteer Fire Department Service Conversion Bylaw No. 1402, 2024”, dated January 28, 2025, from the Village of Belcarra.
5. Report titled “Sasamat Volunteer Fire Department Service Conversion Bylaw No. 1402, 2024,” dated November 15, 2024.

73476872

METRO VANCOUVER REGIONAL DISTRICT
BYLAW NO. 1402
A bylaw to convert the continued Sasamat Fire Service

WHEREAS:

- A. By Division X Supplementary Letters Patent approved and ordered August 2, 1979 (the “**1979 SLP**”), the Metro Vancouver Regional District (formerly the Greater Vancouver Regional District, the “**MVRD**”) was authorized to undertake the function of Fire Regulation with Electoral Areas B and C as participating member municipalities;
- B. Pursuant to Letters Patent approved and ordered August 22, 1979, the municipality of “Village of Belcarra”, formerly part of Electoral Area B of the MVRD, was incorporated;
- C. By Division XI Supplementary Letters Patent approved and ordered January 10, 1980 (the “**1980 SLP**”):
 - (1) the MVRD was authorized to undertake the function of Fire Protection within the Village of Belcarra and that portion of Electoral Area B defined in the 1980 SLP as participating member municipalities; and
 - (2) the 1979 SLP was amended to exclude from the Division X – Fire Protection function of the MVRD those parts of Electoral Areas B and C participating in the Division XI – Fire Protection function of the MVRD;
- D. Pursuant to Letters Patent approved and ordered November 19, 1987, the municipality of “Village of Anmore”, formerly part of Electoral Area B of the MVRD, was incorporated;
- E. By Supplementary Letters Patent approved and ordered March 10, 1989:
 - (1) the 1979 SLP was amended to exclude the Village of Anmore from the Division X – Fire Protection function of the MVRD; and
 - (2) the function of Division XI Fire Protection granted by the 1980 SLP was renamed Division XX Fire Protection (the “**Service**”) and revised to, among other things, include only the member municipalities of the Village of Anmore and the Village of Belcarra as participants;
- F. The Service is a continued service and may, by bylaw adopted by the MVRD Board, be converted to a service exercised under the authority of an establishing bylaw pursuant to section 341 of the *Local Government Act*;
- G. The Village of Belcarra and the Village of Anmore, being the only two participating members of the Service, have requested that the Service be converted to one exercised under the authority of an establishing bylaw, as contemplated by this Bylaw; and
- H. Participating area approval of this Bylaw has been obtained in accordance with section 342(2)(c) of the *Local Government Act*.

NOW THEREFORE the Board of the Metro Vancouver Regionals District enacts as follows:

Citation

1. This Bylaw may be cited as the “Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024”.

Conversion of Service

2. The Service is hereby converted to and established as a fire suppression, fire prevention and emergency response service exercised under the authority of an establishing bylaw as the “**Sasamat Fire Service**”.

Participating Areas

3. The participating areas for the Sasamat Fire Service are the Village of Anmore and the Village of Belcarra (the “**Participating Areas**”).

Service Area

4. The service area for the Sasamat Fire Service is all land within the municipal boundaries of the Participating Areas.

Cost Recovery

5. The annual costs for the Sasamat Fire Service may be recovered by one or more of the following:
 - (a) property value taxes imposed in accordance with Part 11, Division 3 [*Requisition and Tax Collection*] of the *Local Government Act*;
 - (b) parcel taxes imposed in accordance with Part 11, Division 3 [*Requisition and Tax Collection*] of the *Local Government Act*;
 - (c) fees and charges imposed by bylaw under section 397 [*imposition of fees and charges*] of the *Local Government Act*;
 - (d) revenues raised by other means authorized under the *Local Government Act* or another Act; and
 - (e) revenues received by way of agreement, enterprise, gift, grant or otherwise.

Cost Apportionment

6. The costs of the Sasamat Fire Service after deducting the revenues (if any) received under subsections 5(d) and (e) above and except as set out in section 7 below, shall be apportioned between the Participating Areas by the method established by section 380(2)(a) of the *Local Government Act*.
7. The annual cost of contributions to any capital reserve fund pertaining to the Sasamat Fire Service and the servicing of outstanding debt shall be shared equally (50:50) by the Participating Areas.

Maximum Requisition

8. Pursuant to section 339(1)(e) of the *Local Government Act*, the maximum amount that may be requisitioned for the Sasamat Fire Service is the amount yielded by applying the rate of \$1.25 per each \$1,000 of the net taxable value of land and improvements in the service area.

Board of Trustees

9. The Board of the MVRD has by *Greater Vancouver Regional District Sasamat Volunteer Fire Department Administration and Regulation Bylaw No. 1204, 2014* established, and shall continue by bylaw provide for, a board of trustees for the administration and operation of the Sasamat Fire Service and associated appointments and voting rules.

Services outside Service Area Permitted by Agreement

10. Notwithstanding section 4 of this Bylaw, the Sasamat Fire Service may provide fire suppression, fire prevention and / or emergency response services outside of the service area where the MVRD has entered into an agreement for such purpose, consistent with section 332 of the *Local Government Act*.

Read a first, second, and third time this _____ day of _____, _____.

Third reading rescinded this _____ day of _____, _____.

Read a third time this _____ day of _____, _____.

Approved by the Inspector of Municipalities this _____ day of _____, _____.

Adopted this _____ day of _____, _____.

Mike Hurley, Chair

Dorothy Shermer, Corporate Officer

**metrovancover**
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

Board and Information Services
Tel. 604-451-6530 or via Email
BIS-Secretariat@metrovancover.org

December 13, 2024

File: CR-12-01
Ref: RD 2024 11 29

Rhonda Schell, Corporate Officer
Village of Anmore
2697 Sunnyside Road
Anmore, BC V3H 5G9
VIA EMAIL: rhonda.schell@anmore.com

Dear Rhonda Schell:

Sasamat Volunteer Fire Department Service Conversion Bylaw No. 1402, 2024

I am writing further to my letter of the same subject dated December 9, 2024. It has come to my attention that there are two incorrect section references contained within *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024*. The errors are as follows:

- In section 6, references to subsection 4(d) and (e) should be replaced with references to subsections 5(d) and (e); and
- In section 10, the reference to section 3 should be replaced with a reference to section 4.

In the event that both the Village of Anmore and the Village of Belcarra give participating area approval to Bylaw No. 1402 with the corrections noted above, third reading of the Bylaw will be rescinded to allow for the corrections prior to adoption.

A revised sample resolution is set out below for your convenience:

“THAT the Council of the Village of Anmore:

- a) consent to the adoption of *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024* on behalf of the electors, with corrections noted by Metro Vancouver’s Corporate Officer in their letter dated December 13, 2024; and
- b) direct staff to notify the Metro Vancouver Regional District Board of its consent.”

72827379

If you have any questions with respect to the proposed bylaw, please contact me by email at Dorothy.Shermer@metrovancover.org or by phone at 604-451-6530.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'D. Shermer', with a long horizontal flourish extending to the right.

Dorothy Shermer
Corporate Officer



metrovancouver
SERVICES AND SOLUTIONS FOR A LIVABLE REGION

Board and Information Services
Tel. 604-451-6530 or via Email
BIS-Secretariat@metrovancouver.org

December 13, 2024

File: CR-12-01
Ref: RD 2024 11 29

Paula Richardson, Chief Administrative Officer
Village of Belcarra
4084 Bedwell Road
Belcarra, BC V3H 4P8
VIA EMAIL: prichardson@belcarra.ca

Dear Paula Richardson:

Sasamat Volunteer Fire Department Service Conversion Bylaw No. 1402, 2024

I am writing further to my letter of the same subject dated December 9, 2024. It has come to my attention that there are two incorrect section references contained within *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024*. The errors are as follows:

- In section 6, references to subsection 4(d) and (e) should be replaced with references to subsections 5(d) and (e); and
- In section 10, the reference to section 3 should be replaced with a reference to section 4.

In the event that both the Village of Anmore and the Village of Belcarra give participating area approval to Bylaw No. 1402 with the corrections noted above, third reading of the Bylaw will be rescinded to allow for the corrections prior to adoption.

A revised sample resolution is set out below for your convenience:

“THAT the Council of the Village of Belcarra:

- a) consent to the adoption of *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024* on behalf of the electors, with corrections noted by Metro Vancouver’s Corporate Officer in their letter dated December 13, 2024; and
- b) direct staff to notify the Metro Vancouver Regional District Board of its consent.”

72827852

If you have any questions with respect to the proposed bylaw, please contact me by email at Dorothy.Shermer@metrovancover.org or by phone at 604-451-6530.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'D. Shermer', with a long horizontal flourish extending to the right.

Dorothy Shermer
Corporate Officer



0550-20-25

CERTIFIED RESOLUTION

RE: Sasamat Volunteer Fire Department Service Conversion Bylaw No.
1402,2024

I, Karen Elrick, Corporate Officer, hereby certify that at the January 21, 2025 Regular Meeting of Council, Village of Anmore municipal council passed the following resolution:

"R006/25: THAT Council consent to the adoption of Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024 on behalf of the electors, with corrections noted by Metro Vancouver's Corporate Officer in their letter dated December 13, 2024; and,

THAT Council direct staff to notify the Metro Vancouver Regional District Board of its consent."

Dated this 23rd day of January, 2025

A handwritten signature in black ink, appearing to read "K. Elrick", is written over a light blue rectangular background.

Karen Elrick, CAO
Corporate Officer



VILLAGE OF BELCARRA

"Between Forest and Sea"

4084 BEDWELL BAY ROAD, BELCARRA, B.C. V3H 4P8

TELEPHONE 604-937-4100 FAX 604-939-5034

belcarra@belcarra.ca • www.belcarra.ca



January 28, 2025

Dorothy Shermer, Corporate Officer
Metro Vancouver
4515 Central Boulevard
Burnaby, BC V5H 0C6

VIA EMAIL: Dorothy.Shermer@metrovancover.org

Dear Dorothy:

Re: Sasamat Volunteer Fire Department Service Conversion Bylaw No. 1402, 2024

As per section 346 of the *Local Government Act*, the Village of Belcarra has given participating area approval by consenting on behalf of the electors to adoption of Sasamat Volunteer Fire Department Service Conversion Bylaw No. 1402, 2024.

The Council of the Village of Belcarra passed the following motion at the January 27, 2025 Regular Council Meeting:

"That the Council of the Village of Belcarra:

- a) consent to the adoption of *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024* on behalf of the electors, with corrections noted by Metro Vancouver's Corporate Officer in their letter dated December 13, 2024; and**
- b) direct staff to notify the Metro Vancouver Regional District Board of its consent."**

If you require anything further, please don't hesitate to connect with me.

Sincerely,

Paula Richardson,
Chief Administrative Officer

To: MVRD Board

From: Ravi Chhina, Deputy Chief Administrative Officer, Operations, Human Resources, and Corporate Services

Date: November 15, 2024 Meeting Date: November 29, 2024

Subject: **Sasamat Volunteer Fire Department Service Conversion Bylaw No. 1402, 2024**

RECOMMENDATION

That the MVRD Board:

- a) give first, second, and third readings to *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024*;
 - b) direct staff to seek participating area approval from the Village of Anmore and the Village of Belcarra for *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024* per section 342(2)(c) of the *Local Government Act*; and
 - c) direct staff to, once participating area approval has been obtained, submit *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024* to the Inspector of Municipalities for approval.
-

EXECUTIVE SUMMARY

On June 19, 2024, the Village of Belcarra initiated a Service Review of the Sasamat Volunteer Fire Department (SVFD) Service under the *Local Government Act* (the *Act*), with the goal of updating the capital cost apportionment and recovery structures of the SVFD Service. The Sasamat Volunteer Fire Department Service is operating as a continued service authorized by Supplementary Letters Patent (SLPs). Before any changes can be made to a continued service, a service conversion bylaw must be adopted. At the preliminary meeting for the Service Review held on September 27, 2024, all participants of the Service Review agreed that a service conversion bylaw should be drafted as soon as possible based on the existing terms set out in the SLPs. The draft bylaw is now being presented for consideration of three readings, referral to participating areas for approval, and subsequent referral to the Inspector of Municipalities for approval.

PURPOSE

To present *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024* for consideration of three readings and referral for participating areas approval and the Inspector of Municipalities for approval.

BACKGROUND

On June 19, 2024, the Village of Belcarra initiated a Service Review of the Sasamat Volunteer Fire Department (SVFD) Service under section 357 of the *Act*, with the goal of updating the capital cost apportionment and recovery structures of the SVFD Service.

Sasamat Volunteer Fire Department Service Conversion Bylaw No. 1402, 2024

MVRD Board Regular Meeting Date: November 29, 2024

Page 2 of 3

The authority for the MVRD to operate the SVFD comes from a series of Supplementary Letters Patent (SLP) granted between 1980 and 1989. In 2000, all SLP service authorities were extinguished by legislation; however, continued services were specifically authorized by section 341(2) of the *Act*. The SVFD is such a continued service. In order to make changes to a continued service, a board must first adopt a service conversion bylaw.

A preliminary meeting was held on September 27, 2024 to discuss the scope of the Sasamat Volunteer Fire Department Service Review. The MVRD was represented by Board Chair Mike Hurley; the Village of Anmore was presented by Mayor John McEwen; and the Village of Belcarra was represented by Mayor Jamie Ross. All parties agreed that a service conversion bylaw should be drafted based on the existing terms set out in the SLP, and presented to the Board for consideration of adoption as soon as possible. *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024* is presented in Attachment 1 for consideration.

Service Conversion Bylaw

Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024

transposes the existing terms of the Supplementary Letters Patent to a service establishment bylaw format. Legislative references were updated and anachronisms removed. No significant alterations were made with the exception of the addition of a clause regarding maximum requisition, which is required content for establishing bylaws per section 339(1)(e) of the *Act*.

The proposed maximum requisition is \$1.25 per \$1,000. This proposed maximum requisition amount is based on accommodating the highest expected capital cost for the replacement of the fire halls, and increased operating and other capital or financing costs, over the next 20 years. As the SVFD budget and the associated requisition must be annually approved by Anmore and Belcarra representatives on the Board, the participating areas retain control of annual requisition amounts, which must fall below the maximum requisition set out in the bylaw.

Next Steps

Before *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024* can be adopted, it must receive approval from two-thirds of participating areas and from the Inspector of Municipalities. As the only two participating areas, the Village of Anmore and the Village of Belcarra must both provide approval. The council of each municipality may provide consent on behalf of the electors. Once both councils have notified the MVRD of their consent, the bylaw can be forwarded to the Inspector of Municipalities for approval. Once the Inspector of Municipalities approves the bylaw, it can be adopted by the Board.

Sasamat Volunteer Fire Department Service Conversion Bylaw No. 1402, 2024

MVRD Board Regular Meeting Date: November 29, 2024

Page 3 of 3

ALTERNATIVES

1. That the MVRD Board:
 - a) give first, second, and third readings to *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024*;
 - b) direct staff to seek participating area approval from the Village of Anmore and the Village of Belcarra for *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024* per section 342(2)(c) of the Local Government Act; and
 - c) direct staff to, once participating area approval has been obtained, submit *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024* to the Inspector of Municipalities for approval.
2. That the Board received the report dated November 15, 2024 titled “Sasamat Volunteer Fire Department Service Conversion Bylaw No. 1402, 2024” for information.

FINANCIAL IMPLICATIONS

There is no financial implication associated with the adoption of the *Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024*.

CONCLUSION

The Sasamat Volunteer Fire Department (SVFD) Service is operating as a continued service authorized by Supplementary Letters Patent (SLPs). The SVFD Service is currently undergoing a Service Review with the goal of considering updating the capital cost apportionment and recovery structures of the SVFD Service. Before any changes can be made to a continued service, a service conversion bylaw must be adopted. A service conversion bylaw has now been drafted, and is being presented for consideration of three readings, referral to participating areas for approval, and subsequent referral to the Inspector of Municipalities for approval. Alternative 1 is recommended.

ATTACHMENTS

1. Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024.

71801112

METRO VANCOUVER REGIONAL DISTRICT
BYLAW NO. 1402
A bylaw to convert the continued Sasamat Fire Service

WHEREAS:

- A. By Division X Supplementary Letters Patent approved and ordered August 2, 1979 (the “**1979 SLP**”), the Metro Vancouver Regional District (formerly the Greater Vancouver Regional District, the “**MVRD**”) was authorized to undertake the function of Fire Regulation with Electoral Areas B and C as participating member municipalities;
- B. Pursuant to Letters Patent approved and ordered August 22, 1979, the municipality of “Village of Belcarra”, formerly part of Electoral Area B of the MVRD, was incorporated;
- C. By Division XI Supplementary Letters Patent approved and ordered January 10, 1980 (the “**1980 SLP**”):
 - (1) the MVRD was authorized to undertake the function of Fire Protection within the Village of Belcarra and that portion of Electoral Area B defined in the 1980 SLP as participating member municipalities; and
 - (2) the 1979 SLP was amended to exclude from the Division X – Fire Protection function of the MVRD those parts of Electoral Areas B and C participating in the Division XI – Fire Protection function of the MVRD;
- D. Pursuant to Letters Patent approved and ordered November 19, 1987, the municipality of “Village of Anmore”, formerly part of Electoral Area B of the MVRD, was incorporated;
- E. By Supplementary Letters Patent approved and ordered March 10, 1989:
 - (1) the 1979 SLP was amended to exclude the Village of Anmore from the Division X – Fire Protection function of the MVRD; and
 - (2) the function of Division XI Fire Protection granted by the 1980 SLP was renamed Division XX Fire Protection (the “**Service**”) and revised to, among other things, include only the member municipalities of the Village of Anmore and the Village of Belcarra as participants;
- F. The Service is a continued service and may, by bylaw adopted by the MVRD Board, be converted to a service exercised under the authority of an establishing bylaw pursuant to section 341 of the *Local Government Act*;
- G. The Village of Belcarra and the Village of Anmore, being the only two participating members of the Service, have requested that the Service be converted to one exercised under the authority of an establishing bylaw, as contemplated by this Bylaw; and
- H. Participating area approval of this Bylaw has been obtained in accordance with section 342(2)(c) of the *Local Government Act*.

NOW THEREFORE the Board of the Metro Vancouver Regionals District enacts as follows:

Citation

1. This Bylaw may be cited as the “Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024”.

Conversion of Service

2. The Service is hereby converted to and established as a fire suppression, fire prevention and emergency response service exercised under the authority of an establishing bylaw as the “**Sasamat Fire Service**”.

Participating Areas

3. The participating areas for the Sasamat Fire Service are the Village of Anmore and the Village of Belcarra (the “**Participating Areas**”).

Service Area

4. The service area for the Sasamat Fire Service is all land within the municipal boundaries of the Participating Areas.

Cost Recovery

5. The annual costs for the Sasamat Fire Service may be recovered by one or more of the following:
 - (a) property value taxes imposed in accordance with Part 11, Division 3 [*Requisition and Tax Collection*] of the *Local Government Act*;
 - (b) parcel taxes imposed in accordance with Part 11, Division 3 [*Requisition and Tax Collection*] of the *Local Government Act*;
 - (c) fees and charges imposed by bylaw under section 397 [*imposition of fees and charges*] of the *Local Government Act*;
 - (d) revenues raised by other means authorized under the *Local Government Act* or another Act; and
 - (e) revenues received by way of agreement, enterprise, gift, grant or otherwise.

Cost Apportionment

6. The costs of the Sasamat Fire Service after deducting the revenues (if any) received under subsections 4(d) and (e) above and except as set out in section 7 below, shall be apportioned between the Participating Areas by the method established by section 380(2)(a) of the *Local Government Act*.
7. The annual cost of contributions to any capital reserve fund pertaining to the Sasamat Fire Service and the servicing of outstanding debt shall be shared equally (50:50) by the Participating Areas.

Maximum Requisition

8. Pursuant to section 339(1)(e) of the *Local Government Act*, the maximum amount that may be requisitioned for the Sasamat Fire Service is the amount yielded by applying the rate of \$1.25 per each \$1,000 of the net taxable value of land and improvements in the service area.

Board of Trustees

9. The Board of the MVRD has by *Greater Vancouver Regional District Sasamat Volunteer Fire Department Administration and Regulation Bylaw No. 1204, 2014* established, and shall continue by bylaw provide for, a board of trustees for the administration and operation of the Sasamat Fire Service and associated appointments and voting rules.

Services outside Service Area Permitted by Agreement

10. Notwithstanding section 3 of this Bylaw, the Sasamat Fire Service may provide fire suppression, fire prevention and / or emergency response services outside of the service area where the MVRD has entered into an agreement for such purpose, consistent with section 332 of the *Local Government Act*.

Read a first, second, and third time this _____ day of _____, _____.

Approved by the Inspector of Municipalities this _____ day of _____, _____.

Adopted this _____ day of _____, _____.

Mike Hurley, Chair

Dorothy Shermer, Corporate Officer



Statutory Approval

Under the provisions of section _____ **349**

of the _____ **Local Government Act**

I hereby approve Bylaw No. _____ **1402**

of the _____ **Metro Vancouver Regional District**,

a copy of which is attached hereto.

Dated this **Twenty-fifth** ***day***

of **April** ***, 2025***

A handwritten signature in blue ink that reads "M. Dana".

Deputy Inspector of Municipalities

METRO VANCOUVER REGIONAL DISTRICT
BYLAW NO. 1402
A bylaw to convert the continued Sasamat Fire Service

WHEREAS:

- A. By Division X Supplementary Letters Patent approved and ordered August 2, 1979 (the “**1979 SLP**”), the Metro Vancouver Regional District (formerly the Greater Vancouver Regional District, the “**MVRD**”) was authorized to undertake the function of Fire Regulation with Electoral Areas B and C as participating member municipalities;
- B. Pursuant to Letters Patent approved and ordered August 22, 1979, the municipality of “Village of Belcarra”, formerly part of Electoral Area B of the MVRD, was incorporated;
- C. By Division XI Supplementary Letters Patent approved and ordered January 10, 1980 (the “**1980 SLP**”):
 - (1) the MVRD was authorized to undertake the function of Fire Protection within the Village of Belcarra and that portion of Electoral Area B defined in the 1980 SLP as participating member municipalities; and
 - (2) the 1979 SLP was amended to exclude from the Division X – Fire Protection function of the MVRD those parts of Electoral Areas B and C participating in the Division XI – Fire Protection function of the MVRD;
- D. Pursuant to Letters Patent approved and ordered November 19, 1987, the municipality of “Village of Anmore”, formerly part of Electoral Area B of the MVRD, was incorporated;
- E. By Supplementary Letters Patent approved and ordered March 10, 1989:
 - (1) the 1979 SLP was amended to exclude the Village of Anmore from the Division X – Fire Protection function of the MVRD; and
 - (2) the function of Division XI Fire Protection granted by the 1980 SLP was renamed Division XX Fire Protection (the “**Service**”) and revised to, among other things, include only the member municipalities of the Village of Anmore and the Village of Belcarra as participants;
- F. The Service is a continued service and may, by bylaw adopted by the MVRD Board, be converted to a service exercised under the authority of an establishing bylaw pursuant to section 341 of the *Local Government Act*;
- G. The Village of Belcarra and the Village of Anmore, being the only two participating members of the Service, have requested that the Service be converted to one exercised under the authority of an establishing bylaw, as contemplated by this Bylaw; and
- H. Participating area approval of this Bylaw has been obtained in accordance with section 342(2)(c) of the *Local Government Act*.

NOW THEREFORE the Board of the Metro Vancouver Regionals District enacts as follows:

Citation

1. This Bylaw may be cited as the “Metro Vancouver Regional District Sasamat Fire Service Conversion Bylaw No. 1402, 2024”.

Conversion of Service

2. The Service is hereby converted to and established as a fire suppression, fire prevention and emergency response service exercised under the authority of an establishing bylaw as the “**Sasamat Fire Service**”.

Participating Areas

3. The participating areas for the Sasamat Fire Service are the Village of Anmore and the Village of Belcarra (the “**Participating Areas**”).

Service Area

4. The service area for the Sasamat Fire Service is all land within the municipal boundaries of the Participating Areas.

Cost Recovery

5. The annual costs for the Sasamat Fire Service may be recovered by one or more of the following:
 - (a) property value taxes imposed in accordance with Part 11, Division 3 [*Requisition and Tax Collection*] of the *Local Government Act*;
 - (b) parcel taxes imposed in accordance with Part 11, Division 3 [*Requisition and Tax Collection*] of the *Local Government Act*;
 - (c) fees and charges imposed by bylaw under section 397 [*imposition of fees and charges*] of the *Local Government Act*;
 - (d) revenues raised by other means authorized under the *Local Government Act* or another Act; and
 - (e) revenues received by way of agreement, enterprise, gift, grant or otherwise.

Cost Apportionment

6. The costs of the Sasamat Fire Service after deducting the revenues (if any) received under subsections 5(d) and (e) above and except as set out in section 7 below, shall be apportioned between the Participating Areas by the method established by section 380(2)(a) of the *Local Government Act*.
7. The annual cost of contributions to any capital reserve fund pertaining to the Sasamat Fire Service and the servicing of outstanding debt shall be shared equally (50:50) by the Participating Areas.

Maximum Requisition

8. Pursuant to section 339(1)(e) of the *Local Government Act*, the maximum amount that may be requisitioned for the Sasamat Fire Service is the amount yielded by applying the rate of \$1.25 per each \$1,000 of the net taxable value of land and improvements in the service area.

Board of Trustees

9. The Board of the MVRD has by *Greater Vancouver Regional District Sasamat Volunteer Fire Department Administration and Regulation Bylaw No. 1204, 2014* established, and shall continue by bylaw provide for, a board of trustees for the administration and operation of the Sasamat Fire Service and associated appointments and voting rules.

Services outside Service Area Permitted by Agreement

10. Notwithstanding section 4 of this Bylaw, the Sasamat Fire Service may provide fire suppression, fire prevention and / or emergency response services outside of the service area where the MVRD has entered into an agreement for such purpose, consistent with section 332 of the *Local Government Act*.

Read a first, second, and third time this 29 day of November, 2024.

Third reading rescinded this 28 day of February, 2025.

Read a third time as amended this 28 day of February, 2025.

Approved by the Inspector of Municipalities this 25 day of April, 2025.

Adopted this ____ day of _____, ____.

Mike Hurley, Chair

Dorothy Shermer, Corporate Officer

COMMITTEE INFORMATION ITEMS AND DELEGATION SUMMARIES

Metro Vancouver Regional District

Board Meeting Date – Friday, May 23, 2025

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

Regional Parks Committee – May 7, 2025

Delegations:

No delegations presented

Information Items:

E2 Regional Parks 2024 Annual Report

Air Quality and Climate Committee – May 9, 2025

Delegation Summaries:

C1 Mariah Mund, Resilience Lead, Emergency Planning Secretariat and Deborah Carlson,
Staff Lawyer, West Coast Environmental Law
Subject: Lower Fraser Floodplains Coalition
No Executive Summary Provided

Information Items:

E7 Update on Work to Amend the GVRD Boilers and Process Heaters Emission Regulation
Bylaw No. 1087, 2008
E8 Exploring Approaches to Manage Health-Related Air Contaminants from Commercial
Food Production

Finance Committee – May 15, 2025

Delegation Summaries:

No delegation presented

Information Items:

E1 Metro Vancouver Financial Policies