

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

REGULAR BOARD MEETING

Friday, February 26, 2021

9:00 A.M.

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

[Membership and Votes](#)

A G E N D A¹

A. ADOPTION OF THE AGENDA

1. February 26, 2021 Regular Meeting Agenda

That the MVRD Board adopt the agenda for its regular meeting scheduled for February 26, 2021 as circulated.

B. ADOPTION OF THE MINUTES

1. January 29, 2021 Regular Meeting Minutes

That the MVRD Board adopt the minutes for its regular meeting held January 29, 2021 as circulated.

C. DELEGATIONS

D. INVITED PRESENTATIONS

E. CONSENT AGENDA

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

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

1. ELECTORAL AREA COMMITTEE REPORTS

1.1 Barnston Island Flood Construction Level Study

That the MVRD Board:

- a) support staff engagement with Barnston Island residents, including the Katzie First Nation, and relevant government agencies based on the consultant report attached to the report titled “Barnston Island Flood Construction Level Study”, dated January 11, 2021; and
- b) direct staff to subsequently bring forward recommendations on implementing a flood construction level for the Electoral Area Committee and MVRD Board’s consideration.

2. INDIGENOUS RELATIONS COMMITTEE REPORTS

2.1 Metro Vancouver’s Commitment to Reconciliation with Indigenous Peoples

That the MVRD Board receive for information the report dated January 22, 2021, titled “Metro Vancouver’s Commitment to Reconciliation with Indigenous Peoples.”

3. REGIONAL PLANNING COMMITTEE REPORTS

3.1 Metro 2040 Implementation Section Policy Review Recommendations

That the MVRD Board endorse the *Metro 2040* Implementation Section Policy Review recommendation #1, outlined in the report dated January 21, 2021, titled “*Metro 2040* Implementation Section Policy Review Recommendations”, as follows:

Eliminate the requirement for a regional public hearing for Type 2 amendments, and replace with other means of meaningful, and regionally based public engagement.

That the MVRD Board endorse the *Metro 2040* Implementation Section Policy Review recommendation #2, outlined in the report dated January 21, 2021, titled “*Metro 2040* Implementation Section Policy Review Recommendations”, as follows:

Change the type of amendment for applications converting Industrial land from a Type 3 to a Type 2 amendment.

4. REGIONAL PARKS COMMITTEE REPORTS

4.1 Regional Parks State of the Assets Report

That the MVRD Board:

- a) receive for information the report dated January 20, 2021, titled “Regional Parks State of the Assets Report”; and
- b) direct staff to incorporate the findings of the *Regional Parks State of the Assets Report* in the Regional Parks Asset Management Plan.

5. FINANCE AND INTERGOVERNMENT COMMITTEE REPORTS

5.1 Major Project Delivery Governance Update

That the MVRD Board receive for information the report dated February 1, 2021, titled "Major Project Delivery Governance Update".

5.2 Metro Vancouver's 2020 Zero Waste Conference

That the MVRD Board receive for information the report dated January 26, 2021, titled "Metro Vancouver's 2020 Zero Waste Conference".

6. CLIMATE ACTION COMMITTEE REPORTS

6.1 Assessment of the Fossil Fuel Non-Proliferation Treaty Initiative

That the MVRD Board:

- a) endorse the call for a Fossil Fuel Non-Proliferation Treaty as presented in the report dated January 20, 2021, titled "Assessment of the Fossil Fuel Non-Proliferation Treaty Initiative"; and
- b) send letters urging the Canadian and BC governments to support the global initiative for a Fossil Fuel Non-Proliferation Treaty.

6.2 2021 Regional District Sustainability Innovation Fund Applications

That the MVRD Board approve the allocation from the Regional District Sustainability Innovation Fund for the following projects:

- a) Assessment of Carbon Capture Technology in the Metro Vancouver Region: \$200,000 over two years starting in 2021;
- b) Lights, Camera, Climate Action: \$200,000 over two years starting in 2021;
- c) Sharing Data for Zero Emission Buildings (SDZEB): \$200,000 over two years starting in 2021;
- d) Responding to the Climate Emergency: Enhanced Stakeholder Engagement: \$200,000 over two years starting in 2021;
- e) Social and Community Data Land Use Model: \$60,000 in 2021;
- f) Regional Land Use Assessment: \$200,000 over two years starting in 2021;
- g) Housing Retrofit Evolution – Pembina Institute Reframed Initiative: \$200,000 over two years starting in 2021;
- h) Managing Capacity and Reducing Emissions: Real-time Parking Availability in Regional Parks: \$300,000 over three years starting in 2021;
- i) Natural Asset Management in Regional Parks: \$160,000 over two years starting in 2021; and,
- j) Promoting Peatland Recovery in Areas Affected by Wildfire in Burns Bog Ecological Conservancy Area: \$199,000 over two years starting in 2021.

6.3 Endorsement of Host Society for the Howe Sound Ocean Watch Action Committee

That the MVRD Board endorse the Howe Sound Biosphere Region Initiative Society as the host society for the Ocean Watch Action Committee.

7. CHIEF ADMINISTRATIVE OFFICER REPORTS

7.1 External Agency Appointment Process

That the MVRD Board receive for information the report dated February 17, 2021, titled "External Agency Appointment Process".

8. REGIONAL ECONOMIC PROSPERITY MANAGEMENT BOARD REPORTS

8.1 Regional Economic Prosperity Service Update

That the MVRD Board receive for information the report dated, February 17, 2021, titled "Regional Economic Prosperity Service Update".

F. ITEMS REMOVED FROM THE CONSENT AGENDA

G. REPORTS NOT INCLUDED IN CONSENT AGENDA

1. CHIEF ADMINISTRATIVE OFFICER REPORTS

1.1 Regional Growth Strategy Amendment Bylaw No. 1310 - Re-designating Regional Park Lands to Conservation and Recreation

*[Recommendation a), b), c) and d): simple weighted majority vote.] and
[Recommendation e): 2/3 weighted majority vote.]*

That the MVRD Board:

- a) receive for information the comments from the affected local governments and agencies as presented in the report dated February 4, 2021, titled "Regional Growth Strategy Amendment Bylaw No. 1310 - Re-designating Regional Park Lands to Conservation and Recreation";
- b) rescind third reading of *Metro Vancouver Regional District Regional Growth Strategy Amendment Bylaw No. 1310, 2020*;
- c) amend *Metro Vancouver Regional District Regional Growth Strategy Amendment Bylaw No. 1310, 2020* as outlined in the report dated February 4, 2021, titled "Regional Growth Strategy Amendment Bylaw No. 1310 - Re-designating Regional Park Lands to Conservation and Recreation";
- d) give third reading of *Metro Vancouver Regional District Regional Growth Strategy Amendment Bylaw No. 1310, 2020*, as amended; and
- e) pass, and adopt *Metro Vancouver Regional District Regional Growth Strategy Amendment Bylaw No. 1310, 2020 Bylaw No. 1310, 2020*.

H. MOTIONS FOR WHICH NOTICE HAS BEEN GIVEN

I. OTHER BUSINESS

1. MVRD Board Committee Information Items and Delegation Summaries

J. BUSINESS ARISING FROM DELEGATIONS

K. RESOLUTION TO CLOSE MEETING

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

That the MVRD Board close its regular meeting scheduled for February 26, 2021 pursuant to the *Community Charter* provisions, Section 90 (1) (a), (c), (g) and (i) as follows:

“90 (1) A part of a board meeting may be closed to the public if the subject matter being considered relates to or is one or more of the following:

- (a) personal information about an identifiable individual who holds or is being considered for a position as an officer, employee or agent of the regional district or another position appointed by the regional district;
- (c) labour relations or other employee relations;
- (g) litigation or potential litigation affecting the regional district; and
- (i) the receipt of advice that is subject to solicitor-client privilege, including communications necessary for that purpose.”

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

M. ADJOURNMENT/CONCLUSION

That the MVRD Board adjourn/conclude its regular meeting of February 26, 2021.

**METRO VANCOUVER REGIONAL DISTRICT
BOARD OF DIRECTORS**

Minutes of the Regular Meeting of the Metro Vancouver Regional District (MVRD) Board of Directors held at 9:02 a.m. on Friday, January 29, 2021 in the 28th Floor Boardroom, 4730 Kingsway, Burnaby, British Columbia.

MEMBERS PRESENT:

Burnaby, Chair, Director Sav Dhaliwal	Port Coquitlam, Director Brad West*
North Vancouver City, Vice Chair Director Linda Buchanan*	Port Moody, Director Rob Vagramov*
Anmore, Director John McEwen*	Richmond, Director Malcolm Brodie*
Belcarra, Director Carolina Clark*	Richmond, Director Harold Steves*
Bowen Island, Director David Hocking*	Surrey, Director Linda Annis*
Burnaby, Director Pietro Calendino*	Surrey, Director Doug Elford*
Burnaby, Director Mike Hurley*	Surrey, Director Laurie Guerra*
Coquitlam, Director Craig Hodge*	Surrey, Director Doug McCallum*
Coquitlam, Director Richard Stewart*	Surrey, Director Mandeep Nagra*
Delta, Director George Harvie*	Surrey, Director Allison Patton*
Delta, Alternate Director Bruce McDonald* for Dylan Kruger	Tsawwassen, Director Ken Baird*
Electoral Area A, Director Jen McCutcheon*	Vancouver, Director Christine Boyle*
Langley City, Director Gayle Martin*	Vancouver, Director Adriane Carr*
Langley Township, Director Jack Froese*	Vancouver, Director Melissa De Genova*
Langley Township, Director Kim Richter*	Vancouver, Director Lisa Dominato*
Lions Bay, Director Ron McLaughlin*	Vancouver, Director Colleen Hardwick*
Maple Ridge, Director Mike Morden*	Vancouver, Alternate Director Pete Fry* for Kennedy Stewart
New Westminster, Director Jonathan Coté*	Vancouver, Director Michael Wiebe*
North Vancouver District, Director Lisa Muri*	West Vancouver, Director Mary-Ann Booth*
Pitt Meadows, Director Bill Dingwall*	White Rock, Director Darryl Walker*

MEMBERS ABSENT:

None

STAFF PRESENT:

Jerry W. Dobrovolny, Chief Administrative Officer
Lauren Cichon, Legislative Services Coordinator, Board and Information Services
Chris Plagnol, Corporate Officer

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

A. ADOPTION OF THE AGENDA

1. January 29, 2021 Regular Meeting Agenda

It was MOVED and SECONDED

That the MVRD Board adopt the agenda for its regular meeting scheduled for January 29, 2021, as circulated.

Members considered amending the agenda to add three delegations.

Amendment to the Agenda

It was MOVED and SECONDED

That the MVRD Board amend the agenda, by adding: C.1 Nathan Davidowicz, C.2 Joe Kunzler, and C.3 Connie Hubbs.

CARRIED

Question on the Agenda as Amended

Question was then called on the agenda as amended and it was

CARRIED

B. ADOPTION OF THE MINUTES

1. November 27, 2020 Regular Meeting Minutes

It was MOVED and SECONDED

That the MVRD Board adopt the minutes for its regular meeting held November 27, 2020 as circulated.

CARRIED

C. DELEGATIONS

1. Nathan Davidowicz

Nathan Davidowicz spoke to the Board in relation to the TransLink Application for Federal Gas Tax Funding for 2021-2023, and expressed support for transit projects #5, #6, #7, and #8 in the staff recommendation, and spoke in opposition to transit projects #1, #2, #3, and #4 in the staff recommendation requesting they be sent back to staff to report back with an alternative to gasoline vehicles.

2. Joe Kunzler

Joe Kunzler spoke to the Board in relation to TransLink Application for Federal Gas Tax Funding for 2021-2023, expressing support for zero emission battery-electric buses.

3. Connie Hubbs

Connie Hubbs spoke to the Board in relation to TransLink Application for Federal Gas Tax Funding for 2021-2023, requesting the Board increase its number of replacement electric vehicles to 100%.

D. INVITED PRESENTATIONS

No items presented.

E. CONSENT AGENDA

At the request of Directors, the following item was removed from the Consent Agenda, for consideration under Section F. Items Removed from the Consent Agenda:

- 2.1 TransLink Application for Federal Gas Tax Funding for 2021-2023 Fleet Replacement, Elevating Devices and Charging Infrastructure

It was MOVED and SECONDED

That the MVRD Board adopt the recommendations presented in the following items as presented in the November 27, 2020 MVRD Board Consent Agenda:

- 1.1 Metro 2040 Climate Change and Natural Hazards Policy Review – Recommendations
1.2 Metro Vancouver Regional Industrial Lands Strategy – Endorsements

CARRIED

The items and recommendations are referred to above are as follows:

1.1 Metro 2040 Climate Change and Natural Hazards Policy Review – Recommendations

Report dated January 6, 2021 from Edward Nichol, Regional Planner, Regional Planning and Housing Services, seeking MVRD Board endorsement of the *Metro 2040* Climate Change and Natural Hazards Policy Review recommendations as the basis for updating the climate change and natural hazards-related policies in the regional growth strategy.

Recommendation:

That the MVRD Board endorse the *Metro 2040* Climate Change and Natural Hazards Policy Review recommendations as presented in the report dated January 6, 2021 titled “*Metro 2040* Climate Change and Natural Hazards Policy Review - Recommendations” as the basis for updating the climate change and natural hazards-related policies in the regional growth strategy.

Adopted on Consent

1.2 Metro Vancouver Regional Industrial Lands Strategy – Endorsements

Report dated January 5, 2021, from Eric Aderneck, Senior Planner, Regional Planning and Housing Services, providing the MVRD Board with a status report on the endorsements of the Metro Vancouver Regional Industrial Lands Strategy by member jurisdictions and agencies.

Recommendation:

That the MVRD Board receive for information the report dated January 5, 2021, titled "Metro Vancouver Regional Industrial Lands Strategy - Endorsements".

Adopted on Consent

F. ITEMS REMOVED FROM THE CONSENT AGENDA

2.1 TransLink Application for Federal Gas Tax Funding for 2021-2023 Fleet Replacement, Elevating Devices and Charging Infrastructure

Report dated January 8, 2021, from Mark Seinen, Senior Planner, Regional Planning and Housing Services, presenting for the MVRD Board's consideration TransLink's 2021 application for funding from the Greater Vancouver Regional Fund (GVRF) in accordance with Metro Vancouver's Federal Gas Tax Fund Expenditures Policy.

It was MOVED and SECONDED

That the MVRD Board approve \$154.13 million in funding from the Greater Vancouver Regional Fund for the following transit projects proposed by TransLink in its 2021 Application for Federal Gas Tax Funding as attached to the report dated January 8, 2021, titled "TransLink Application for Federal Gas Tax Funding for 2021 - 2023 Fleet Replacement, Elevating Devices and Charging Infrastructure":

1. 2022 HandyDART Vehicle Purchase – Replacement
2. 2022 Community Shuttle Purchase – Replacement
3. 2021 CMBC Service Support Vehicles – Replacement
4. 2021 BCRTC Service Support Vehicles – Replacement
5. BCRTC Elevating Devices – Elevators
6. BCRTC Elevating Devices – Escalators
7. 2023 Conventional Bus – Replacement
8. Port Coquitlam Transit Centre Facility Improvements for Phase 2 Expansion.

CARRIED

G. REPORTS NOT INCLUDED IN CONSENT AGENDA

1.1 MFA Spring 2021 Borrowing for Maple Ridge – MVRD Security Issuing Bylaw No. 1317, 2021

Report dated January 4, 2021, from Joe Sass, Deputy Chief Financial Officer/Director, Financial Planning and Operations, seeking the adoption of a *Security Issuing Bylaw* to authorize a borrowing request from the City of Maple Ridge in the amount of \$29,000,000 for the Spring 2021 MFA long term debt issue.

It was MOVED and SECONDED

That the MVRD Board:

- a) give consent to the request for financing from the City of Maple Ridge in the amount of \$29,000,000 pursuant to Sections 182(1)(b) and 182(2)(a) of the *Community Charter*.

- b) give first, second and third reading to Metro Vancouver Regional District Security Issuing Bylaw No. 1317, 2021 being a bylaw to authorize the entering into an Agreement respecting financing between the Metro Vancouver Regional District and the Municipal Finance Authority of British Columbia.

CARRIED

It was MOVED and SECONDED

That the MVRD Board pass and finally adopt *Metro Vancouver Regional District Security Issuing Bylaw No. 1317, 2021*; and forward it to the Inspector of Municipalities for Certificate of Approval.

CARRIED

H. MOTIONS FOR WHICH NOTICE HAS BEEN GIVEN

No items presented.

I. OTHER BUSINESS

1. MVRD Board Committee Information Items and Delegation Summaries

It was MOVED and SECONDED

That the MVRD Board receive for information the MVRD Board Committee Information Items and Delegation Summaries, dated January 29, 2021.

CARRIED

J. BUSINESS ARISING FROM DELEGATIONS

No items presented.

K. RESOLUTION TO CLOSE MEETING

It was MOVED and SECONDED

That the MVRD Board close its regular meeting scheduled for January 29, 2021 pursuant to the *Community Charter* provisions, Section 90 (1) (a), (c), (e) and 90 (2) (b) as follows:

- “90 (1) A part of a board meeting may be closed to the public if the subject matter being considered relates to or is one or more of the following:
- (a) personal information about an identifiable individual who holds or is being considered for a position as an officer, employee or agent of the regional district or another position appointed by the regional district;
 - (c) labour relations or other employee relations;
 - (e) the acquisition, disposition or expropriation of land or improvements, if the board or committee considers that disclosure could reasonably be expected to harm the interests of the regional district; and
- 90 (2) A part of a meeting must be closed to the public if the subject matter being considered relates to one or more of the following:
- (b) the consideration of information received and held in confidence relating to negotiations between the regional district and a provincial government or the federal government or both, or between a

provincial government or the federal government or both and a third party.”

CARRIED

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

No items presented.

M. ADJOURNMENT/CONCLUSION

It was MOVED and SECONDED

That the MVRD Board adjourn its regular meeting of January 29, 2021.

CARRIED

(Time: 9:28 a.m.)

CERTIFIED CORRECT

Chris Plagnol, Corporate Officer

Sav Dhaliwal, Chair

43450111 FINAL

To: Electoral Area Committee

From: Marcin Pachcinski, Division Manager Electoral Area and Environment, and
Tom Pearce, Regional Planner, Regional Planning and Housing Services

Date: January 11, 2021 Meeting Date: February 3, 2021

Subject: **Barnston Island Flood Construction Level Study**

RECOMMENDATION

That the MVRD Board:

- a) support staff engagement with Barnston Island residents, including the Katzie First Nation, and relevant government agencies based on the consultant report attached to the report titled “Barnston Island Flood Construction Level Study”, dated January 11, 2021; and
 - b) direct staff to subsequently bring forward recommendations on implementing a flood construction level for the Electoral Area Committee and MVRD Board’s consideration
-

EXECUTIVE SUMMARY

The Barnston Island Flood Construction Level Study was commissioned to determine the appropriate flood construction level for new construction on Barnston Island. The objective of the study is to provide a consistent flood construction level across the Island, balancing the interests of residents with the costs of new construction, and potential liability to Metro Vancouver associated with issuing building permits. The study was recently completed and includes a number of recommendations, including that new house construction be built to a minimum 7.2 m above median sea level at its highest point, an increase in the current base elevation of 3 to 6 m, and exemptions for certain types of construction. Before moving forward with implementing the recommendations, staff suggest further engagement on the results of the study with Barnston Island residents, including the Katzie First Nation, and relevant government agencies.

PURPOSE

To provide the Electoral Area Committee and MVRD Board with the Barnston Island Flood Construction Level Study and communicate next steps regarding engagement with residents, the Katzie First Nation, and relevant government agencies to inform next steps.

BACKGROUND

The Barnston Island Flood Construction Level Study is an action item in the Electoral Area A Official Community Plan, adopted by the MVRD Board in 2018. The study was approved as part of the 2020 Electoral Area Services budget and has been recently completed (Attachment).

BARNSTON ISLAND

Barnston Island is located in the Fraser River between Surrey and Pitt Meadows, within Metro Vancouver Electoral Area A, and is home to Katzie First Nation Reserve No. 3. The Island is accessed through the Barnston Island Ferry, which connects the island from Surrey across Parsons Channel and is an approximately five-minute crossing. Metro Vancouver owns Barnston Island Regional Park with park amenities at Robert Point Rest Area on the western tip of the island, and undeveloped Mann Point on the eastern end. The area is primarily an agricultural community. In 2016, the Census population of Barnston Island was 176, of which 49 people are located on the Katzie First Nation reserve.

The Ministry of Transportation and Infrastructure has jurisdiction for the ferry service, as well as the public roads on the Island (unlike municipalities). Metro Vancouver is responsible for local land use planning, building inspections, and emergency management (except on the Katzie First Nation reserve).

Barnston Island Dike

Barnston Island has an aging diking system that encircles the entire island to mitigate against floodwaters. There is a 10 km paved road that sits on top of the dike and another road that stretches across the island, which is paved in most sections. Residents of Barnston Island must leave the island for basic goods and services as there are no commercial or health services on the island.

The dike is maintained by the Barnston Island Diking District Commission, composed of island resident volunteers, under the direct oversight of the Province. In 2013, the Province proposed to transfer the dike to Metro Vancouver. In response, the MVRD Board passed a resolution opposing the transfer until the Province has fully addressed all the physical and legal issues associated with the diking facility (see [this report](#) for background). The transfer was originally set to occur as part of the repeal of the *Drainage Ditch and Dike Act* at the end of 2015, but the repeal has been extended a number of times, most recently until December 31, 2025.

STUDY RECOMMENDATIONS

The Barnston Island Flood Construction Level Study recommends that new house construction level be built to a minimum 7.2 m at its highest point, an increase of between 3 to 6 meters depending on the location on the Island.

The flood construction level should be applicable to any buildings within areas used for habitation, business, assembly, or the storage of goods damageable by floodwaters such that the underside of the floor system is no less than the flood construction level.

The study does not recommend allowing an exception for farm dwellings provided in the provincial Flood Hazard Area Land Use Management Guidelines (2018) due to the high flood exposure at Barnston Island and vulnerability due to the non-standard dikes.

The following exemptions are recommended in the study:

- flood proofing by elevation should be left to the discretion of the owner for agricultural buildings other than houses or livestock buildings;

- open-sided livestock buildings should not require flood proofing by elevation; and
- closed-sided livestock housing behind non-standard dikes shall be located with the underside of the wooden floor system or the top of the pad no lower than 1.0 metre above the natural ground elevation taken at any point on the perimeter of the building.

Consideration can be given to the following exemptions:

- a renovation of an existing building or structure that does not involve an addition;
- the portion of a building or structure being modified is to be used as a carport, garage, or entryway;
- minor buildings such as storage buildings, porches, and domestic greenhouses; and
- non-conforming structures undergoing additions of up to 25% of floor area provided the degree of non-conformity is not increased.

The study notes that the Ministry of Forests, Lands, Natural Resource Operations and Rural Development is currently in the process of updating the Fraser River flood profile, and that the finalized designated flood profile should be considered prior to the final implementation of a new flood construction level (staff will do so prior to reporting back to the Committee).

Next Steps

Staff suggest engagement on the results of the study with Barnston Island residents, including the Katzie First Nation, and relevant government agencies, such as the Agricultural Land Commission and the Ministry of Transportation and Infrastructure to inform next steps. Engagement will help to better understand the time and cost implications for residents and potential builders on Barnston Island, as well as provincial agency perspectives on the recommendations. A report with a summary of engagement feedback and a recommended approach to implementation, for both existing and new structures will be brought forward at to the Electoral Area Committee later this year.

ALTERNATIVES

1. That the MVRD Board:
 - a) support staff engagement with Barnston Island residents, including the Katzie First Nation, and relevant government agencies based on the consultant report attached to the report titled “Barnston Island Flood Construction Level Study”, dated January 11, 2021; and
 - b) direct staff to subsequently bring forward recommendations on implementing a flood construction level for the Electoral Area Committee and MVRD Board’s consideration

2. That the Electoral Area Committee receive for information the report dated January 11, 2021, titled “Barnston Island Flood Construction Level Study”, and provide alternate direction to staff.

FINANCIAL IMPLICATIONS

The MVRD Board approved 2020 budget for Electoral Area Services included \$15,000 for this study. Some minor costs are expected for engaging with residents and others on the study, such as consultant time to provide technical expertise at community meetings. The 2021 Electoral Area Services budget can accommodate these costs.

CONCLUSION

The Barnston Island Flood Construction Level Study advances Metro Vancouver’s flood mitigation understanding and provides recommendations for consideration for Barnston Island. The study provides guidance for the establishment of a flood construction level and makes recommendations related to exemptions for some forms of construction. Engagement with Barnston Island residents, including the Katzie First Nation, and relevant government agencies is planned to inform implementation. Staff recommend Alternate 1.

Attachment

“Study to Determine the Appropriate Flood Construction Level at Barnston Island”, dated, January 2021 *(43259591)*

43235364



Associated
Engineering

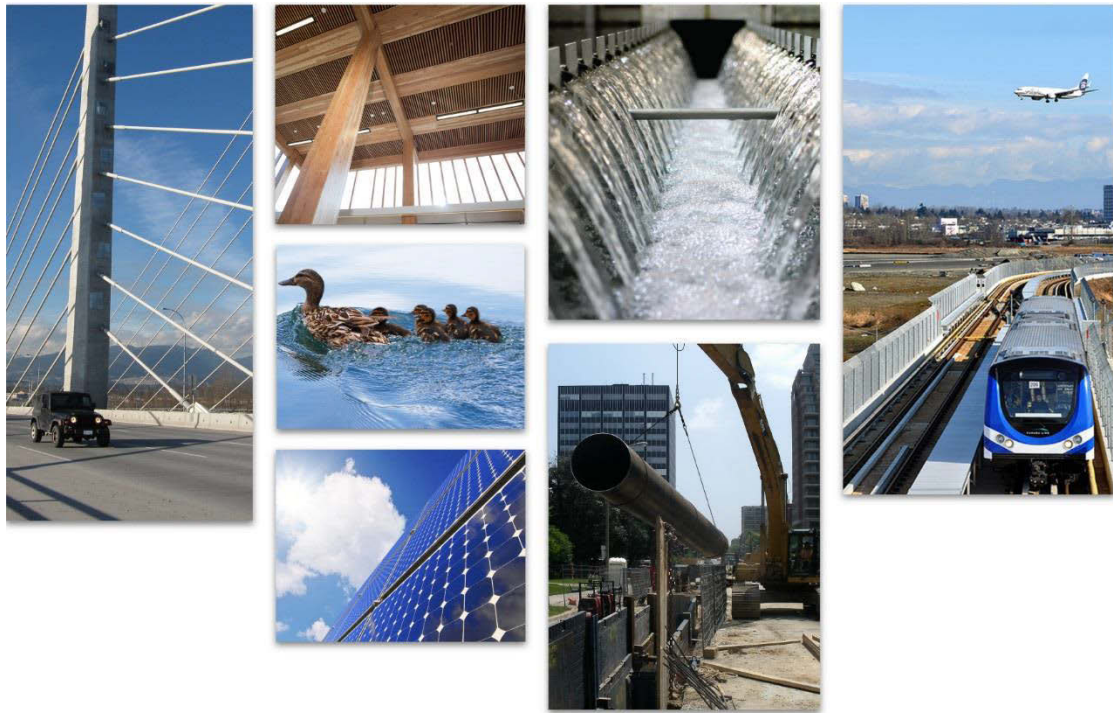
GLOBAL PERSPECTIVE.
LOCAL FOCUS.

ATTACHMENT

REPORT

Metro Vancouver Regional Planning and Housing Services

Study to Determine the Appropriate Flood Construction Level at Barnston Island



JANUARY 2021

A Carbon
Neutral
Company



Platinum
member



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GLOSSARY

Annual Exceedance Probability (AEP): The probability of a flood event being exceeded in any given year.

Designated Flood: A flood which may occur in any given year which is used to establish a Designated Flood Level. In B.C. this flood is typically equal to a flood having a 200-year recurrence interval (200-year flood, 0.5% annual exceedance probability). For the Fraser River the designated flood has typically been the 1894 Flood of Record which is estimated to have a 500-year recurrence interval (0.2% AEP).

Designated Flood Level: The observed or calculated elevation for the Designated Flood which is used in the calculation of the Flood Construction Level.

Flood Construction Level: The Designated Flood Level plus the allowance for freeboard which is used to establish minimum building elevations.

Flood of Record: The largest flood on record for the Fraser River which occurred in 1894.

Flood Profile: The elevations of floodwater measured along the flooded watercourse or flooded areas.

Flood Proofing: The alteration of land or structures either physically or in use to reduce flood damage. This includes the use of building setbacks from water bodies to maintain a floodway and to allow for potential erosion. Flood proofing may be achieved by all or a combination of the following:

- Building on fill, provided such fill does not interfere with flood flows of the watercourse, and is adequately protected against floodwater erosion.
- Building raised by structural means such as foundation walls, columns, etc.
- A combination of fill and structural means.

Manufactured Home: A structure manufactured as a unit and designed as a dwelling, intended to be occupied in a location other than at its place of manufacture. This includes mobile homes and specifically excludes recreational vehicles.

Pad: A paved surface on which blocks, posts, runners, or strip footings are placed for the purpose of supporting a manufactured home or unit.

Standard Dikes: Those dikes built to a minimum crest elevation equal to the Flood Construction Level and meeting standards of design and construction approved by the Ministry of Forests, Lands, Natural Resource Operations & Rural Development and maintained by an ongoing authority such as a local government body.

1 BACKGROUND

1.1 Overview

The purpose of this study is to provide guidance on the establishment of a flood construction level (FCL) for Barnston Island, and potential additional flood mitigation recommendations. The FCL recommendations may differentiate between different types of structures; however, the final language of any flood protection bylaw will be prepared by Metro Vancouver. The recommendations will be based on a review of Provincial Guidelines and available reporting, modelling, and bylaws set out by similar municipalities. This study does not include any additional flood modelling, or the design of any flood protection works.

1.2 Study Area Overview

Barnston Island is an unincorporated community located in the Fraser River west of the Golden Ears Bridge. It has an area of 567 ha. It is accessed by a small barge ferry from the City of Surrey which stops running at approximately a 25-year R.P. water level due to inundation on the Surrey side (NHC, 2013). Barnston Island is the home of the Katzie First Nation IR No. 3. The Metro Vancouver Regional District (MVRD) is responsible for the governance of the island including building inspection and land use planning. This authority does not extend to the Katzie First Nation IR No. 3; therefore, they would not be subject to the flood construction levels (FCLs) established based on this report.

The community is primarily agricultural and is a part of the Agricultural Land Reserve. It has a population of 176 people with 49 being on the Katzie First Nation IR No. 3 based on the 2016 census. There are about 30 homes (vacant and occupied) on the island. MVRD anticipates that some homes may be rebuilt within the next 10 years. Typically, MVRD only receives 1 or 2 building permit applications per year. Recently these building permit applications have been primarily related to barns and some renovations.

1.3 Flood Protection and Drainage Infrastructure

Elevations on Barnston Island vary between approximately 1 m and 4 m. Without flood protection the island would regularly be flooded. Metro Vancouver has developed a flood emergency plan which includes provisions to evacuate the entire island in less than 4 hours (NHC, 2013).

Barnston Island is protected by non-standard dikes. The dikes had been proposed to be transferred to Metro Vancouver from the Provincial Government in 2016; however, the transfer has been delayed and the Provincial Government is currently seeking to delay the repeal of the Drainage, Ditch, and Dike act (the reason for the transfer) until December 31, 2025. The dikes are noted as “non-standard” as a 2013 report by Northwest Hydraulic Consultants (NHC, 2013) found several issues with the dikes noting that they could fail prior to overtopping due to seepage, piping, or erosion. The possibility of such a failure increases the likelihood of flooding prior to the execution of the flood emergency plan.

Due to challenges related to property ownership, setbacks, and an inadequate tax base it may not be feasible to upgrade the dikes to a 500-year R.P. or even a 100-year R.P. designated flood standard (NHC, 2013). Therefore, the recommendations provided in this report include the assumption that the dikes will remain non-standard in the future.

As of the 2013 NHC report, there were also deficiencies with the island's internal drainage system. The deficiencies included the following (NHC, 2013):

- Ditches on private land are not properly maintained.
- Several culverts are undersized or blocked.
- There are no ditches draining the Katzie First Nation IR No. 3.
- The pump station has safety deficiencies and is approaching the end of its useful life (in approximately 2018).
- The flood box gates require repair and maintenance and stop-logs should be available for backup.

Internal drainage will not govern the flood elevations and FCLs; however, deficiencies in internal drainage may increase the duration of flooding in the event of a dike breach or overtopping. Therefore, the internal drainage issues increase the consequences of flooding, thereby increasing flood risk.

1.4 Flood Mechanisms

Water levels on the Fraser River at Barnston Island are influenced by a combination of Fraser River flows, tidal influences, and atmospheric forcing (e.g. storm surge) resulting from wind and changes in barometric (air) pressure. Fraser River flows are highest during the freshet season (May, June and July) due to seasonal snowmelt (sometimes combined with rainfall). Upstream of the Port Mann Bridge, the governing factor in Fraser River flood levels is the magnitude of the flow in the river (as opposed to tidal backwatering). Notably, this only applies during the freshet as low flows during winter months are not sufficient to dampen the tidal influence and significant tidal variation can be observed in the Water Survey of Canada gauge at the Fraser River at Mission, BC.

Historically, the designated flood for the Fraser River has been a flood analogous to the 1894 flood-of-record. This is approximately a 500-year flood. The magnitude and mechanism of the future designated flood will be impacted by climate change.

1.5 Climate Change

Engineers and Geoscientists British Columbia's professional practice guidelines "*Legislated Flood Assessments in a Changing Climate in BC*" (EGBC, 2018) notes the following likely changes to BC's climate over the remainder of the century:

- Relative sea level rise (accounting for post-glacial rebound) of up to 1 m by the end of the century.
- Warmer average temperatures, including warmer winters.
- An increase in annual average precipitation of between 6% and 17% with the increase occurring primarily during winter months and in the mountains.
- An increase in surface runoff during winter months due to an increase in the proportion of precipitation falling as rain.
- An earlier rise and peak in the spring freshet.
- An increase in deforestation due to invasive species and forest fires.

The Pacific Climate Impacts Consortium (PCIC) at the University of Victoria conducted research on how these climate changes will impact Fraser River flood flows. They found generally increasing future discharge, with greater increases (by percentage) for greater return periods. The median (of an ensemble of climate runs) increases in flood flows in the Fraser River (10-year to 10000-year return periods) ranged between -3% and +24%. The maximum increase found was 74% (PCIC, 2015).

MFLNRORD reported that the impacts of sea level rise may have an effect on flood levels as far upstream as the Sumas River (MFLNRORD, May 2014). The findings presented in their report agreed with significant increases in Fraser River flood levels due to climate change. The impacts of climate change are incorporated into the modelling work currently being completed by NHC to establish new flood profiles for the Fraser River. NHC previously estimated an increase in the flood profile of 0.4 m (also considering subsidence) at Barnston Island by 2100 (NHC, 2013).

2 REGULATORY GUIDANCE

2.1 Provincial

Provincial guidelines are provided in the “Flood Hazard Area Land Use Management Guidelines” (FHALUMG) (MFLNRORD, 2018). The guidelines were originally published by the Ministry of Water, Land, and Air Protection in 2004 and updated in 2018 by the Ministry of Forests, Lands, Natural Resource Operations and Rural Development (MFLNRORD) to reflect climate change considerations related to coastal flooding and areas protected by dykes. These guidelines will form the basis of the recommendations provided in this report. The following are some notable excerpts from the guidelines which may be relevant to Barnston Island:

- Where non-standard dikes exist, setbacks should be developed in consultation with the Inspector of Dikes to provide for right-of-ways and for future improvements and dike access.
- In areas subject to extensive flooding, the FCL should be no lower than 3 m above the natural boundary of the watercourse.
- Buildings within areas used for habitation, business, or storage of goods damageable by floodwaters should be constructed at an elevation such that the underside of the floor system is no less than the FCL.
- Subdivisions should be constructed to the 2100 FCL.
- Development or redevelopment on an existing lot should be subject to FCL and setback requirements in place at the time of development or redevelopment. This should be enforced through a restrictive covenant.
- All new habitable buildings should be constructed to the 2100 FCL.
- Farm dwelling units located on 8 ha or larger parcels (there are 18 such parcels on Barnston Island) within the Agricultural Land Reserve shall be located with the underside of a wooden floor system or the top of a pad for a manufactured home no lower than 1 m above the natural surrounding ground. Smaller parcels under domestic severance may also be subject to these regulations.
- Open-sided livestock buildings and closed-sided livestock buildings protected by standard dikes (the Barnston Island dikes are non-standard dikes) do not require flood proofing by elevation. Closed-sided livestock housing behind non-standard dikes shall be located with the underside of the wooden floor system or the top of the pad (or in the case of a manufactured home the top of the pad or the ground surface on which it is located) no lower than 1.0 metre above the natural ground elevation taken at any point on the perimeter of the building.
- Flood proofing by elevation is left to the discretion of the owner for agricultural buildings other than houses or livestock buildings.

- Required flood proofing by elevation may be removed in the following instances:
 - A renovation of an existing building or structure that does not involve an addition.
 - The portion of a building or structure being modified is to be used as a carport, garage, or entryway.
 - Minor buildings such as storage buildings, porches, and domestic greenhouses.
 - Non-conforming structures can undergo additions of up to 25% of floor area provided the degree of non-conformity is not increased.

2.2 Municipal

Municipal bylaws from comparable jurisdictions can provide insight into how an FCL might be implemented on Barnston Island. We reviewed some of these bylaws and some excerpts are provided below.

The City of Pitt Meadows (2008/2012) floodplain bylaws are consistent with the provincial Flood Hazard Area Land Use Management Guidelines. Their FCLs allow for 600 mm of freeboard. The City of Abbotsford floodplain bylaws (2014) are also consistent with provincial guidelines. They provide FCLs as well as reduced flood proofing provisions for various areas. Their FCLs allow for 300 mm of freeboard.

The City of Surrey's floodproofing requirements, as set out in the Zoning Bylaw (1993) and Building Bylaw (2012) are consistent with provincial guidelines but reduce the exemption for building expansion to a maximum of 10% of the floor area. They also include buildings used for public assembly within the lists of uses which require flood protection by elevation. Finally, The City of Vancouver's (2014) guidelines add "non-residential accessory buildings" as an exempt classification. They specify a 30 m setback from the Fraser River. Furthermore, they allow the Chief Building Officer to either impose increased or relaxed flood protection measures depending on site-specific circumstances.

3 FLOOD PROFILE

3.1 Fraser River Flood Profile Updates

MFLNRORD is currently in the process of updating the Fraser River flood profile. This work, expected to be completed in the Spring of 2021, is being completed using a Mike-21 model. NHC, on behalf of the Fraser Basin Council has also completed modelling of the Fraser River using a HEC-RAS 2D model. NHC's model is a floodplain model designed for use in coarse scale flood hazard and risk assessments. FBC shared preliminary results from NHC's modelling with us. We used these results to compare future flood scenarios and to gain insight into the expected direction of change for the future flood profile. We are advised not to use the results of NHC's model to establish an FCL. We recommend that the designated flood elevations presented in this report be updated with MFLNRORD's finalized designated flood profile, once completed, prior to the final implementation of a new FCL bylaw.

3.2 NHC Modelling Results

We have included the results of three of NHC's HEC-RAS 2D modelling scenarios in Figures 1 to 3. The designated flood for the lower Fraser River has been the flood-of-record (modified 1894 flood) which is approximately a historical 500-year flood (0.2% annual exceedance probability). Figure 1 shows the results of this scenario as modelled by NHC. We also compared the following 2 future 500-year flooding scenarios:

- Coastal Storm Surge: Year 2100, 0.2% AEP, with 1 m sea level rise
- Freshet: Year 2100, 0.2% AEP, with 1 m sea level rise.

The results of these scenarios are shown in Figures 2 and 3, respectively. Based on these results, the future designated flood at Barnston Island will likely (pending MFLNRORD publishing an updated designated flood profile) be based on the year 2100 climate conditions, 0.2% AEP (500-year R.P.) flood with 1 m of sea level rise. As modelled in HEC-RAS 2D (shown in Figure 3), the flood profile, excluding freeboard, varies from approximately 7.1 m at the east end of Barnston Island to 6.6 m at the west end.

3.3 Designated Flood

The current designated flood profile is shown in the figure included in [Appendix A](#). Note that the elevations in this figure are relative to the CGVD 1928 datum whereas the updated flood profile elevations used in this report are relative to the CGVD 2013 datum. The conversion factor between the two vertical datums varies across Canada; at Barnston Island, CGVD 1928 elevations can be converted to CGVD 2013 by adding approximately +112 mm to their values. If an interim FCL is required for discussion purposes, we recommend using the existing designated flood with a 600 mm allowance for freeboard until the designated flood profile has been updated. We have added these FCL values to the figure in [Appendix A](#).

4 RECOMMENDATIONS

The recommendations in this section are to outline how the FCL should be established and to which buildings it should apply. This section is not intended to be used verbatim as the FCL bylaw and does not comprehensively address every aspect of such a bylaw. For example, we do not make recommendations regarding the establishment of restrictive covenants.

We recommend that the FCL at Barnston Island be based on the updated designated flood profile being developed by MFLNRORD. Based on the preliminary results of NHC's modelling we expect the updated designated flood profile to be based on the future freshet flood. These modelling results also indicate that the updated designated flood elevations are likely to be higher than the existing designated flood elevations. If FCL values are required in the interim, we recommend that they be based upon the existing designated flood elevations presented in [Appendix A](#).

As mentioned above, the elevations shown in Appendix A are relative to the CGVD 1928 datum; whereas, the elevations shown in Figures 1 to 3 are relative to the CGVD 2013 datum. The conversion factor between the two vertical datums varies across Canada; at Barnston Island, CGVD 1928 elevations can be converted to CGVD 2013 by adding approximately +112 mm. We anticipate that the updated designated flood profile being developed by MFLNRORD will be established relative to the CGVD 2013 datum.

The FCL should be set above the Designated Flood Level by 600 mm to provide freeboard. Legislated Flood Assessments in a Changing Climate in BC (EGBC, 2018) recommends 300 mm of freeboard above instantaneous peak flood levels and 600 mm above daily peak flood levels. For the Fraser River, the Dike Design and Construction Guidelines (BC MWLAP, 2003) recommends 600 mm of freeboard. If the governing scenario for the updated designated flood profile is significantly influenced by sea level rise at Barnston Island subsidence of the Fraser Delta should be considered. Mazzotti et al. (2006) estimated subsidence to be in the order of 1 to 3 mm/year.

The FCL should be applicable to any Buildings within areas used for habitation, business, assembly, or the storage of goods damageable by floodwaters such that the underside of the floor system is no less than the FCL. We do not recommend allowing the exception for farm dwellings provided in the Flood Hazard Area Land Use Management

Guidelines (MFLNRORD, 2018) due to the high flood exposure at Barnston Island and vulnerability due to the non-standard dikes.

Other exemptions outlined in the FHALUMG (MFLNRORD, 2018), including the following, may be applied:

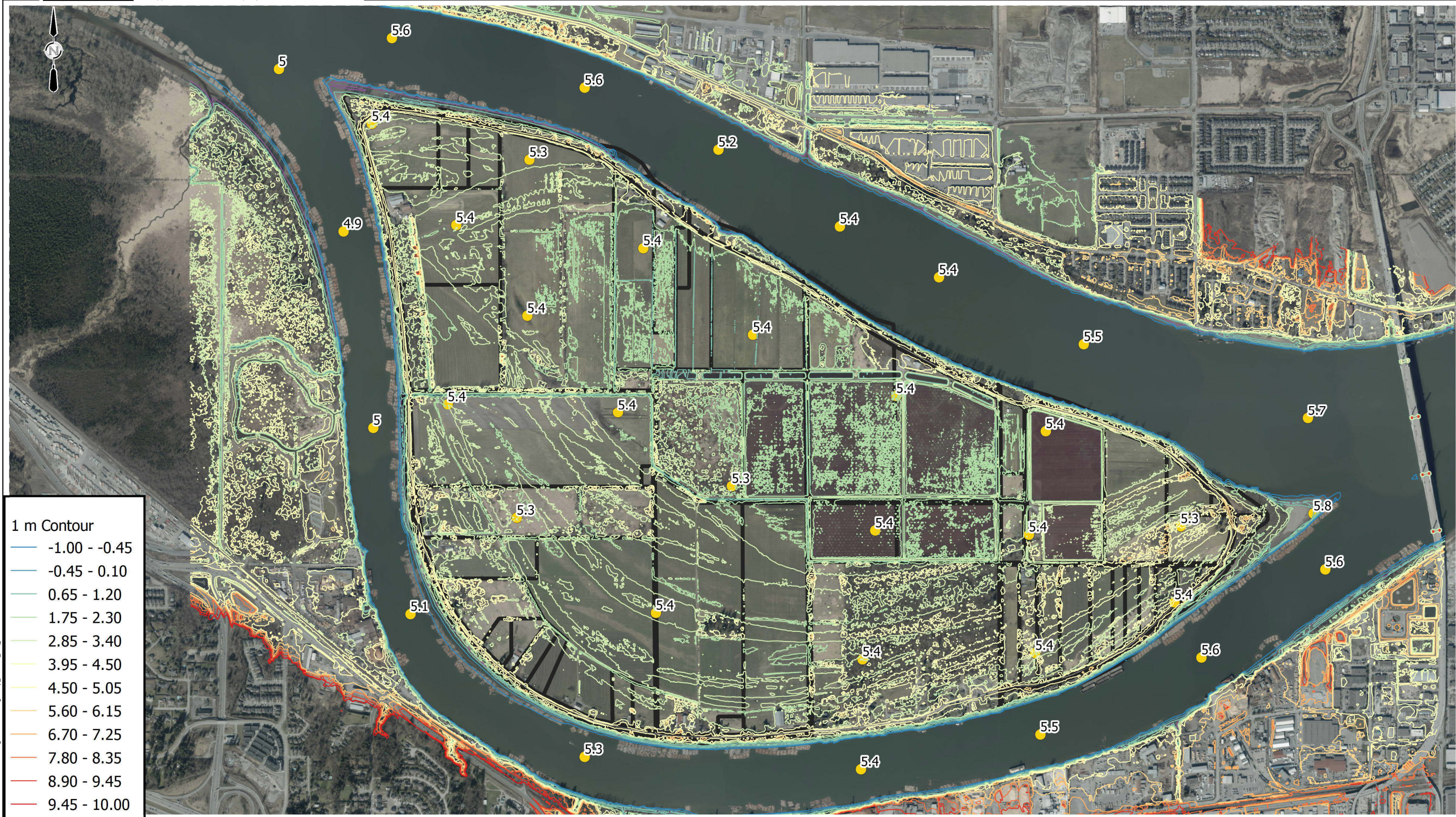
- A renovation of an existing building or structure that does not involve an addition.
- The portion of a building or structure being modified is to be used as a carport, garage, or entryway.
- Minor buildings such as storage buildings, porches, and domestic greenhouses.
- Non-conforming structures undergoing additions of up to 25% of floor area provided the degree of non-conformity is not increased.

The following exemptions for agricultural areas outlined in the FHALUMG (MFLNRORD, 2018) should apply:

- Flood proofing by elevation should be left to the discretion of the owner for agricultural buildings other than houses or livestock buildings.
- Open-sided livestock buildings should not require flood proofing by elevation.
- Closed-sided livestock housing behind non-standard dikes shall be located with the underside of the wooden floor system or the top of the pad no lower than 1.0 metre above the natural ground elevation taken at any point on the perimeter of the building.

The FCLs would typically be achieved by homeowners through importing fill onto their properties or by the use of pier supported foundation (i.e. stilts). In the case of a pier supported foundation a homeowner may use still use the space under the foundation for non-living spaces not subject to flood proofing requirements. In cases where it is not practical to achieve the FCL, Metro Vancouver may choose to allow construction under conditions set out within a restrictive covenant.

Although achieving the FCLs described above may prove burdensome to homeowners, relaxing the FCL requirements may increase Metro Vancouver's liability in the event of a damaging flood.



1 m Contour

—	-1.00 - -0.45
—	-0.45 - 0.10
—	0.65 - 1.20
—	1.75 - 2.30
—	2.85 - 3.40
—	3.95 - 4.50
—	4.50 - 5.05
—	5.60 - 6.15
—	6.70 - 7.25
—	7.80 - 8.35
—	8.90 - 9.45
—	9.45 - 10.00

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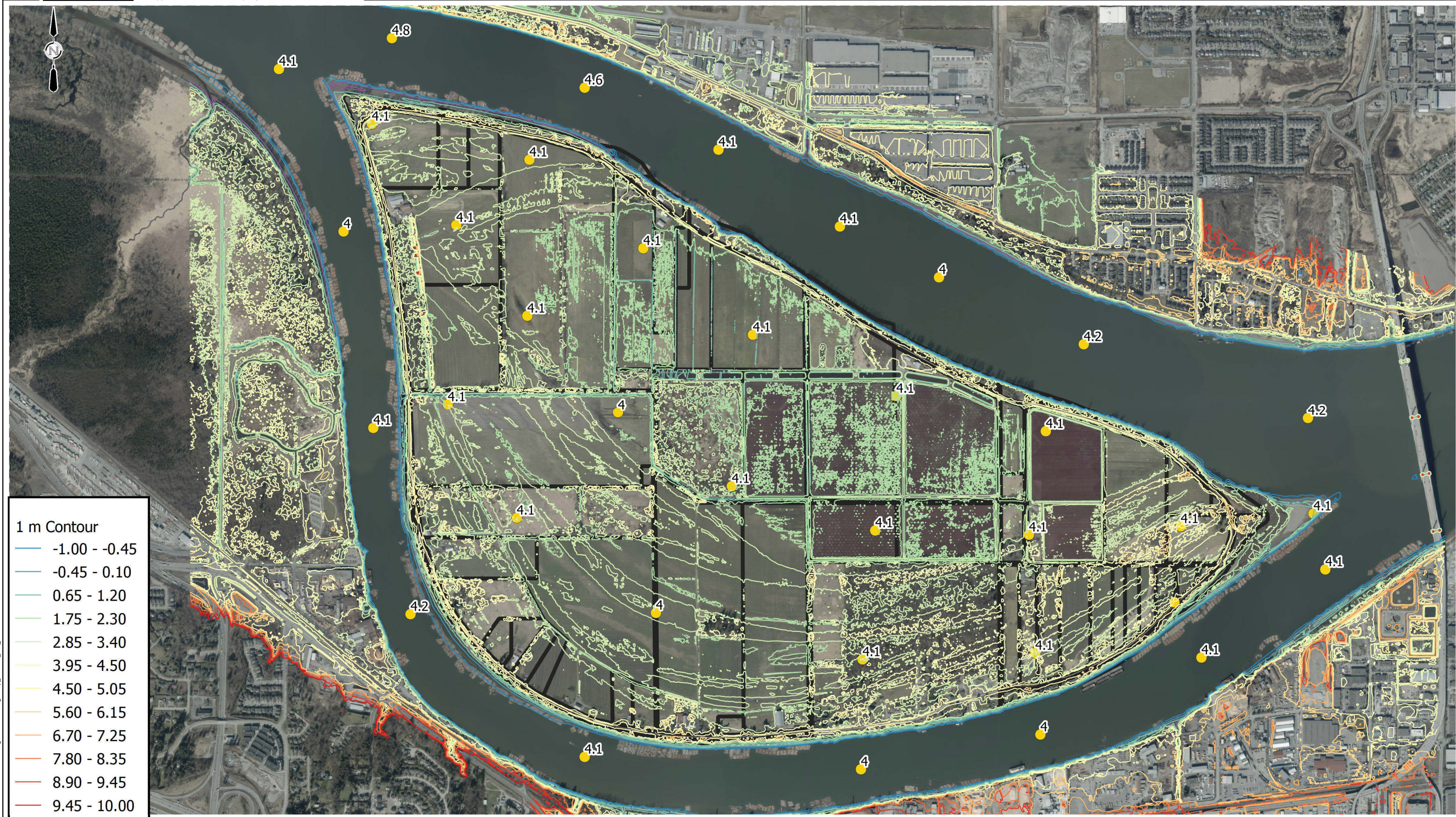
- Flood Elevations (CGVD 2013)
- Property Lines

Ortho Imagery: ESRI Satellite
 Flood elevations derived from preliminary NHC/FBC modelling results
 Contours derived from Barnston_DEM_NHC3003428_V02013
 Metro Vancouver Regional District



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FIGURE 1
 METRO VANCOUVER
 REGIONAL PLANNING & HOUSING SERVICES
 STUDY TO DETERMINE THE APPROPRIATE FCL AT
 BARNSTON ISLAND
 MODELLED FLOOD ELEVATIONS (CGVD 2013)
1894 FLOOD OF RECORD



1 m Contour

-1.00 - -0.45
-0.45 - 0.10
0.65 - 1.20
1.75 - 2.30
2.85 - 3.40
3.95 - 4.50
4.50 - 5.05
5.60 - 6.15
6.70 - 7.25
7.80 - 8.35
8.90 - 9.45
9.45 - 10.00

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- Flood Elevations (CGVD 2013)
- Property Lines

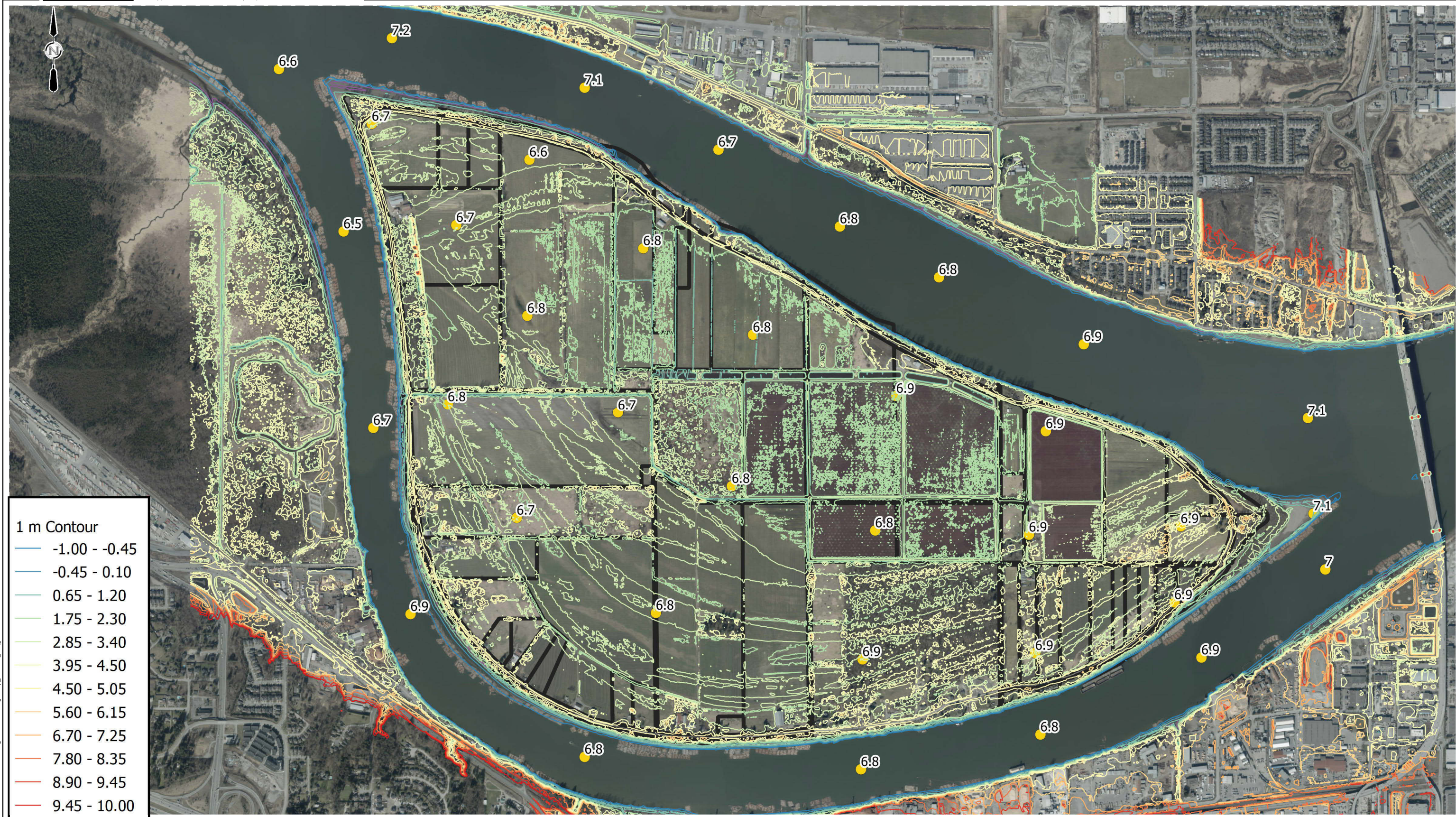
Ortho Imagery: ESRI Satellite

Flood elevations derived from preliminary NHC/FBC modelling results
Contours derived from Barnston_DEM_NHC3003428_V0210
Metro Vancouver Regional District



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FIGURE 2
METRO VANCOUVER
REGIONAL PLANNING & HOUSING SERVICES
STUDY TO DETERMINE THE APPROPRIATE FCL AT
BARNSTON ISLAND
MODELLED FLOOD ELEVATIONS (CGVD 2013)
**FUTURE COASTAL STORM SURGE - 0.2% AEP
1 m SEA LEVEL RISE**



1 m Contour

-1.00 - -0.45
-0.45 - 0.10
0.65 - 1.20
1.75 - 2.30
2.85 - 3.40
3.95 - 4.50
4.50 - 5.05
5.60 - 6.15
6.70 - 7.25
7.80 - 8.35
8.90 - 9.45
9.45 - 10.00

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- Flood Elevations (CGVD 2013)
- Property Lines
- Ortho Imagery: ESRI Satellite

Flood elevations derived from preliminary NHC/FBC modelling results
 Contours derived from Barnston_DEM_NHC3003428_20210111
 Metro Vancouver Regional District



AE PROJECT No.	2020-2981
SCALE	1:15,000
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DESCRIPTION	ISSUED FOR REPORT

FIGURE 3
 METRO VANCOUVER
 REGIONAL PLANNING & HOUSING SERVICES
 STUDY TO DETERMINE THE APPROPRIATE FCL AT
 BARNSTON ISLAND
 MODELLER FLOOD ELEVATIONS (CGVD 2013)
FUTURE FRESHET- 2100 CLIMATE CHANGE
0.2% AEP - 1 m SEA LEVEL RISE

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CLOSURE

This report was prepared for the Metro Vancouver Regional Planning and Housing Services to **provide guidance on the establishment of a Flood Construction Level at Barnston Island**. This report was based on a review of available reporting, Provincial guidance, modelling, and bylaws set out by similar municipalities. Its intent is to interpret the available information, with the understanding that the final language of any flood protection bylaw will be prepared by Metro Vancouver.

The services provided by Associated Engineering (B.C.) Ltd. in the preparation of this report were conducted in a manner consistent with the level of skill ordinarily exercised by members of the profession currently practicing under similar conditions. No other warranty expressed or implied is made.

Respectfully submitted,
Associated Engineering (B.C.) Ltd.

Prepared by:

Reviewed by:

Kyle Eckart, M.A.Sc., P.Eng.
Project Engineer



John van der Eerden, M.Eng., P.Eng.
Senior Reviewer

KE/JVE/mc

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Metro Vancouver
Regional Planning and Housing Services

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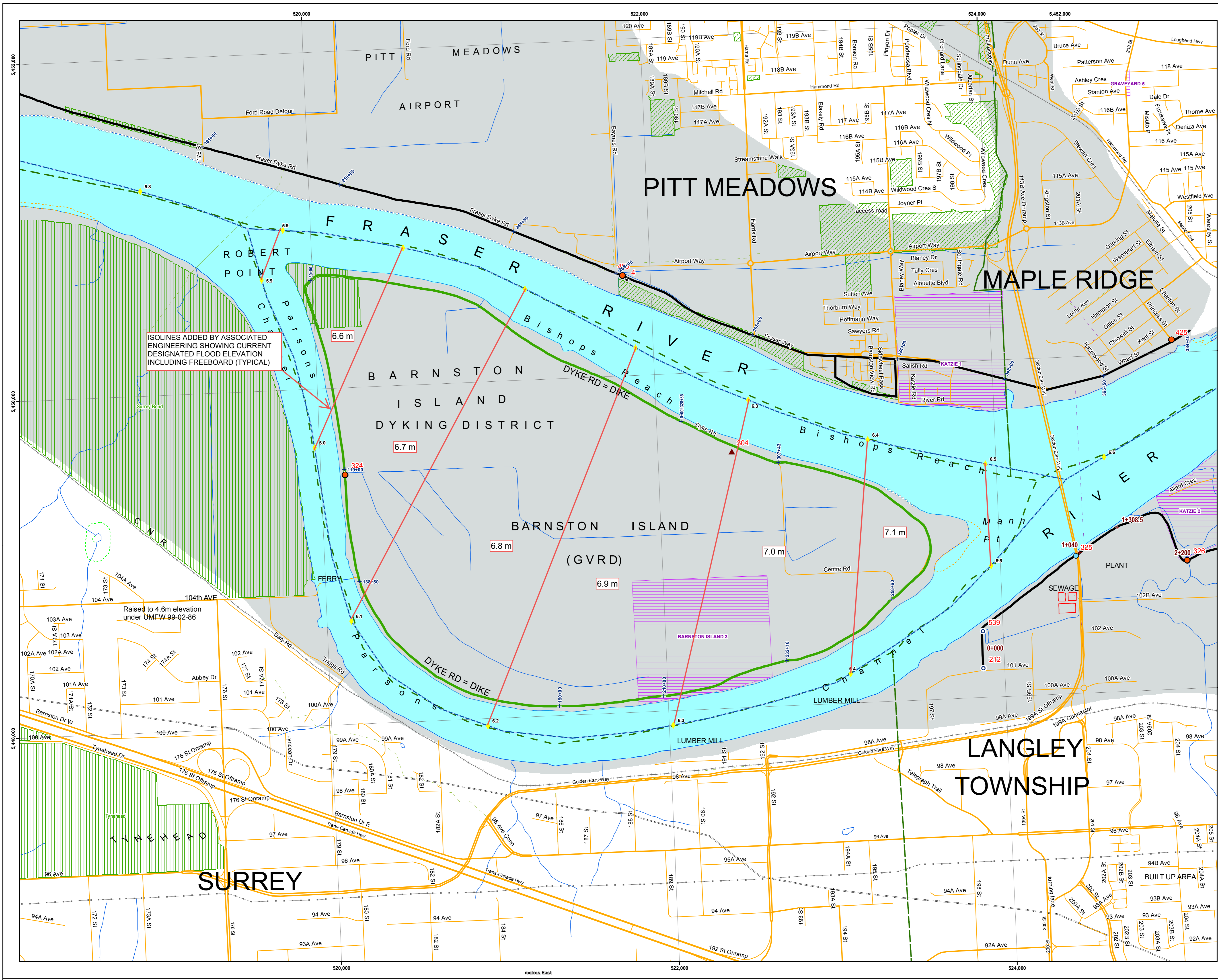
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APPENDIX A - EXISTING FLOOD PROFILE



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Barnston Island
barnston_isl_16
Local Diking Authority
Barnston Island Dyking District

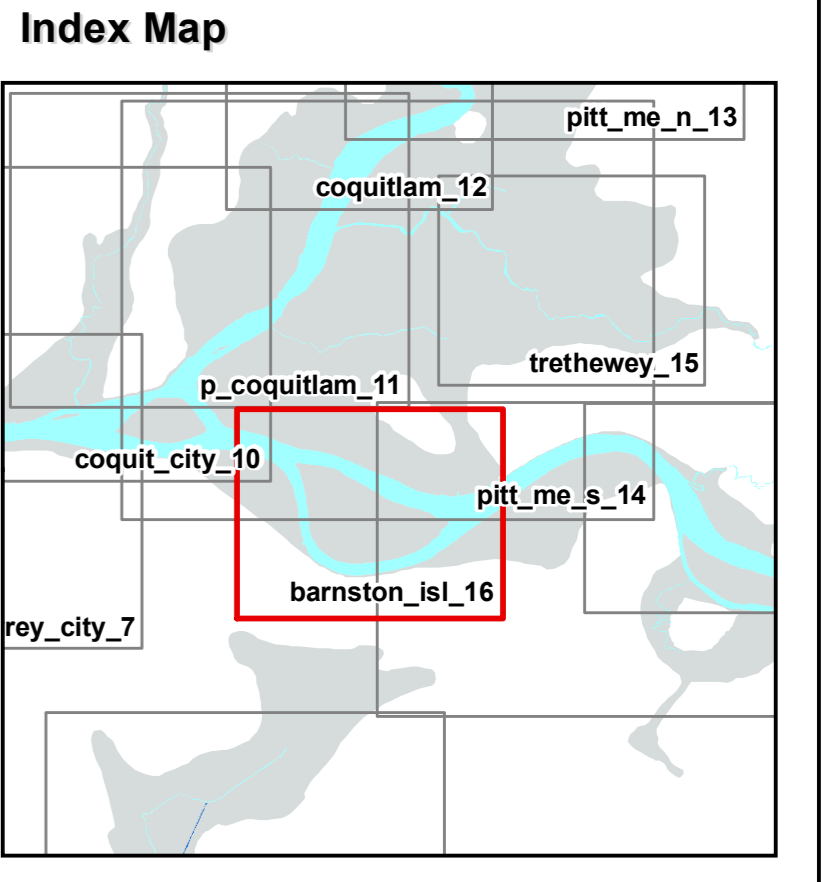
Legend

- Pumpstation / Floodbox
- Pumpstation
- Floodbox
- Open Culvert
- Staff Gauge
- Dike Crest Gauge
- Water Survey Canada (WSC) Real Time Gauge
- Relief Well
- Low Dike
- ▲ Special Concern
- + Metric Stationing 0+000
- + Imperial Stationing 0+00
- + Flood Profile Points Incl. Freeboard †
- Flood Profile Line
- RipRap
- Local Authority Standard Dike §
- Local Authority Non-Standard Dike §§
- Other Flood Control Works
- Fish and Wildlife Water Related Structure
- Dikes Outside Local Area (See Note 1)
- Floodplain
- Municipal Boundary
- Indian Reserves
- Municipal Park
- Provincial Park
- Regional District Park
- Water Pipeline
- Sewer Pipeline
- Gas Pipeline
- Energy Pipeline
- Oil
- Electrical transmission line
- Pipeline
- Rail Line

Note 1: Dikes are shown for reference purposes and are outside local diking authority area.

Notes Specific to Local Diking Authorities

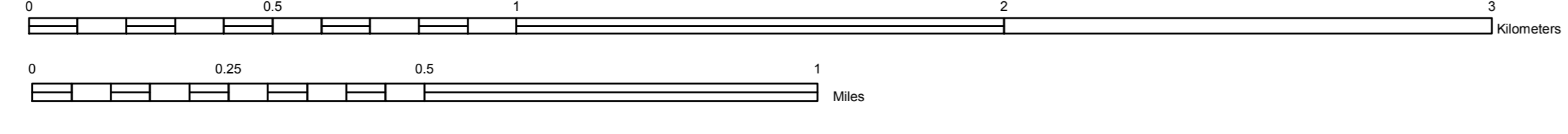
Associated Engineering has added lines and elevation labels to this figure, produced by MLFNROD, for ease of viewing. The labeled elevations represent the next upstream designated flood elevation plus 600 mm for freeboard. The elevations are relative to the CGVD 1928 vertical datum.



Maps produced for Ministry of Forests, Lands and Natural Resource Operations, South Coast Region
 Map Projection: Albers, NAD83
 Grid Projection: UTM Zone 10N, NAD 83
 Revised Date: June 1, 2011
 File: barnston_isl_16

BARNSTON ISLAND

1:10,000



IMPORTANT NOTICE AND DISCLAIMER

The floodplain boundaries and related flood protection infrastructure shown are provided to support flood emergency preparedness, planning and response; broad-based floodplain management, planning and reviews; and other related activities. It is NOT intended to replace detailed floodplain maps designated under the 1987 Canada/BC Floodplain Mapping Agreement.

FLOODING MAY OCCUR OUTSIDE OF THE FLOODPLAIN AREAS SHOWN.

The data was compiled from various sources; it is not warranted as to its accuracy or sufficiency by the Ministry of Forests, Lands and Natural Resource Operations, and is not intended for legal purposes.

§ Standard dike - a flood protection structure that meets, or has met, provincial dike standards that are regulated by the Inspector of Dikes under the Dike Maintenance Act. Due to morphological, hydrological, and other changes in or about river systems, such a dike shown on the map may not continue to meet current standards.

§ Non-standard dike - a flood protection structure that has a lower level of protection than that provided by a standard dike. Flood protection works that conform to this classification often protect rural agricultural lands and are sometimes referred to as agricultural dikes.

† The Fraser River flood profile plus freeboard is derived from the Fraser River Hydraulic Model Update Report, March 2008, by Northwest Hydraulic Consultants.

‡ "Standard dikes" have not been evaluated against this new profile and may be lower than the elevation of this new profile plus freeboard.

Details of this study may be found on the Ministry of Forests, Lands and Natural Resource Operations, Water Stewardship Division web site.

†† Flood Profile Plus Freeboard Disclaimer
 The Flood Profile Plus Freeboard denotes the standard dike crest elevations established by the Inspector of Dikes for the Fraser River dikes. Floodproofing elevations for buildings and other development in the floodplain are established by and are the responsibility of local government and other development approval officials. These floodproofing elevations may vary from the flood profile plus freeboard elevations shown.

To: Indigenous Relations Committee

From: Jessica Beverley, General Manager, Legal Services and Indigenous Relations/
Corporate Solicitor
Marino Piombini, Program Manager, Indigenous Relations

Date: January 22, 2021 Meeting Date: February 4, 2021

Subject: **Metro Vancouver’s Commitment to Reconciliation with Indigenous Peoples**

RECOMMENDATIONS

That the MVRD Board receive for information the report dated January 22, 2021, titled “Metro Vancouver’s Commitment to Reconciliation with Indigenous Peoples.”

EXECUTIVE SUMMARY

This information report responds to the Indigenous Relations Committee’s request to examine the Truth and Reconciliation Commission’s *Calls to Action*. This report also reviews the regional district’s commitment and efforts towards reconciliation with the 10 First Nations in the region since 2015. Given that it has been over five years since the Truth and Reconciliation Commission released the *Calls to Action*, this report provides information on some additional objectives that the Board may wish to discuss and consider towards reaffirming its commitment to reconciliation with Indigenous Peoples.

PURPOSE

To respond to the Indigenous Relations Committee’s request for information regarding the Truth and Reconciliation Commission’s *Calls to Action* and recommendations regarding reconciliation.

BACKGROUND

The Truth and Reconciliation Commission of Canada released its final report on December 15, 2015 after six years of hearings and testimony from nearly 7,000 witnesses. With the final 4,000-page report, *Honouring the Truth – Reconciling for the Future and Calls to Action*, the Truth and Reconciliation Commission concluded its two-fold mandate: to create awareness about, and document, the history of the Indian Residential School system in Canada, which existed from the 1870s to 1996, as well as guide a process of truth, healing and reconciliation.

The Truth and Reconciliation Commission identified “reconciliation” as being about:

“...establishing and maintaining a mutually respectful relationship between Aboriginal and non-Aboriginal peoples in this country. In order for that to happen, there has to be awareness of the past, acknowledgement of the harm that has been inflicted, atonement for the causes, and action to change behavior.”

Metro Vancouver has worked to implement the Truth and Reconciliation Commission’s findings since late 2015. At its meeting on October 30, 2015, the Metro Vancouver Board endorsed the draft *Calls*

to Action and sent letters to both the federal and provincial ministers responsible for Indigenous relations urging them to move forward quickly with report recommendations.

Metro Vancouver's commitment to reconciliation is further supported by the following strategic direction and goal in the *Board Strategic Plan, 2019-2022*:

Strategic Direction 4 – Fostering Collaboration & Engagement

Enhance relationships between Metro Vancouver and other orders of government, First Nations, adjacent regional districts, and key stakeholders.

4.2 Strengthen relationships with First Nations.

- *Explore new opportunities to build relationships, including a recurring event involving the Metro Vancouver Board and First Nations in the region.*

At its meeting on October 8, 2020, the Indigenous Relations Committee directed staff to review the *Calls to Action* and report back with information regarding Metro Vancouver's reconciliation efforts.

THE TRUTH AND RECONCILIATION COMMISSION'S CALLS TO ACTION (2015)

The Truth and Reconciliation Commission's *Calls to Action for Reconciliation* are directed towards various audiences: individuals, community institutions and all orders of government, including local government. The *Calls to Action* are linked as Reference 1 in this report.

The vast majority of the *Calls to Action* fall under the federal government's jurisdiction. There are nine calls to action identified by the Federation of Canadian Municipalities as being directed towards local government, and these are listed in Attachment 1. Of those nine listed *Calls to Action*, only three may be considered applicable to Metro Vancouver:

Call to Action #43: We call upon federal, provincial, territorial and municipal governments to fully adopt and implement the United Nations Declaration on the Rights of Indigenous Peoples as the framework for reconciliation.

Call to Action #47: We call upon federal, provincial, territorial and municipal governments to repudiate concepts used to justify European sovereignty over Indigenous peoples and lands, such as the Doctrine of Discovery and terra nullius, and to reform those laws, government policies, and litigation strategies that continue to rely on such concepts.

Call to Action #57: We call upon federal, provincial, territorial and municipal governments to provide education to public servants on the history of Aboriginal peoples, including the history and legacy of residential schools, the United Nations Declaration on the Rights of Indigenous Peoples, Treaties and Aboriginal rights, Indigenous law, and Aboriginal-Crown relations. This will require skills-based training in intercultural competency, conflict resolution, human rights and anti-racism.

THE BOARD'S RESPONSE AND METRO VANCOUVER'S RECONCILIATION EFFORTS (2015-2021)

In October 2015, the Metro Vancouver Board, realizing that many of the *Calls to Action* identified were beyond the scope of the regional district's work, such as Calls to Action #43 and #47 which are best addressed by the provincial and federal governments, recommended a framework for reconciliation based upon the following four objectives:

- a) Liaise with the Truth and Reconciliation Commission (now Reconciliation Canada)
- b) Raise Awareness about Indian Residential Schools
- c) Provide Cultural Competency Training
- d) Strengthen Relationships with First Nations

Attachment 2 provides a listing of activities undertaken by Metro Vancouver since 2015 with respect to each of the above four objectives. In addition, the following is a brief summary of how each objective has been addressed to date.

a) Liaise with the Truth and Reconciliation Commission

The Commission ceased to exist once its final report was released at the end of 2015. Metro Vancouver has, by extension, liaised with Reconciliation Canada, based out of North Vancouver, British Columbia on a number of activities. This has included Metro Vancouver staff participation in Reconciliation Canada conferences and workshops as well as the second Reconciliation Walk (2017) in downtown Vancouver. Reconciliation Canada spokespersons have also presented to the Indigenous Relations Committee at its meetings and to Metro Vancouver staff at a lunch and learn session leading up to Orange Shirt Day (2016). For Orange Shirt Day 2020, Metro Vancouver hosted a special online training session for staff, senior managers and elected officials with guest presenter, Senator Murray Sinclair, former Chief Commissioner of the Truth and Reconciliation Commission, on the topic of reconciliation. This session was attended by 250 participants.

b) Raise Awareness about Indian Residential Schools

This objective has been primarily addressed by having guest presenters at Metro Vancouver staff lunch and learn sessions over the past few years to mark occasions such as National Indigenous Peoples Day (June 21) and Orange Shirt Day (September 30). This included a session in 2018 with Phyllis Webstad from Williams Lake, BC, whose orange shirt was taken away on her first day at a residential school in 1973 and who is one of the founders of Orange Shirt Day, now recognized across Canada. More recently, in June 2020, Metro Vancouver hosted a virtual lunch and learn session on the significance of National Indigenous Peoples Day with Chief Ken Baird, Tsawwassen First Nation, and Councillor Dustin Rivers (Khelsilem), Squamish Nation. This session attracted over 150 staff participants online.

c) Provide Cultural Competency Training

This objective has led to a multitude of Indigenous half-day awareness training sessions for Metro Vancouver staff and senior managers offered by Indigenous Relations staff, as well as regular full-day training sessions at Metro Vancouver head office to cover topics such as working effectively with Indigenous Peoples, consultation and accommodation, the *United Nations Declaration on the Rights of Indigenous Peoples*, Canada's history through an Indigenous lens, and archaeology.

d) Strengthening Relationships with First Nations

This objective has primarily involved Metro Vancouver co-hosting Community to Community Forums with local First Nations. This approach began prior to the release of the Truth and Reconciliation Commission's final report in 2015 and, given its success in establishing relationships, continued after the *Calls to Action* were released. Six community to community forums have been held since 2014, each with a different First Nation co-hosting. A Regional Gathering of the Chiefs and Council members from the 10 First Nation communities in the region meeting with members of the Board of Directors and Indigenous Relations Committee, would have been co-hosted with Tsawwassen First Nation but was postponed due to COVID-19 restrictions. Other key initiatives have included:

- An historic Cultural Planning and Co-Operation Agreement for Belcarra Regional Park with Tsleil-Waututh Nation (2020);
- The development of a corporate-wide policy on engaging with First Nations to provide staff with guidelines for sharing information (2017) regarding Metro Vancouver's plans, projects and other initiatives;
- The Board update of Metro Vancouver's procurement policy (2017) which now provides more First Nation economic opportunities for archaeological and other services on Metro Vancouver's capital and infrastructure projects.

Staff report out on a quarterly basis to the Indigenous Relations Committee on reconciliation-related activities undertaken by Metro Vancouver based upon the four objectives noted above. The written reports cover the previous three months of work and identify activities to take place over the subsequent three months.

MOVING FORWARD

In order to assess the adequacy and effectiveness of Metro Vancouver's reconciliation efforts to date, the following questions need to be addressed:

- What does reconciliation mean for Metro Vancouver?
- What additional actions can Metro Vancouver take in pursuit of reconciliation?

In terms of the meaning of reconciliation, the Board has supported the Truth and Reconciliation Commission's final report and definition of "...establishing and maintaining a mutually respectful relationship between Aboriginal and non-Aboriginal peoples..." This is reflected in the Board's strategic direction in the *Board Strategic Plan 2019-2022*: "Strengthening relationships with First Nations." The four objectives established by the Board in 2015 have been intended to create and foster productive relationships with the 10 local First Nations and, from a staff perspective, this approach has been successful for Metro Vancouver thus far. As summarized in the previous section of this report, a large part of the work has centered not only on creating Indigenous awareness through training sessions, workshops, and guest presentations, but also building, maintaining and strengthening relationships with local First Nation governments through community forums and technical project meetings, as well as engagement and procurement policies and practices.

With respect to what additional actions Metro Vancouver can take in the future, this question merits further discussion by the Board. For example, the Board may, in addition to continuing with the four

current objectives that were endorsed in 2015, wish to consider some additional objectives for Metro Vancouver to pursue.

Some of the key issues that have arisen in discussions with First Nations over the past five years that are worthy of discussion as possible future objectives include:

1. *Increasing opportunities for capacity building:* This objective would respond to First Nations' requests for funding to meaningfully engage with Metro Vancouver on project referrals.
2. *Involving First Nations' in regional governance:* This objective would address some First Nations' requests to participate in governance and decision-making at Metro Vancouver, including issues or projects that may directly impact Indigenous communities.
3. *Providing more employment and training opportunities:* Increasing opportunities for Indigenous Peoples not only on Metro Vancouver projects that directly impact their First Nation communities, but also in professional and technical positions, including prospects for mentoring and job shadowing.
4. *Engaging in more government-to-government agreements:* Negotiating more protocol agreements and memoranda of understanding with individual First Nations regarding better communications, decision-making opportunities, and specific project-based impacts. (Examples of such agreements are included under the References section of this report).
5. *Expanding procurement opportunities:* Providing more opportunities for First Nations and their preferred entities to compete on any Metro Vancouver projects located anywhere in the region instead the current approach of involving First Nations in proximity to the project sites.
6. *Acknowledging, respecting and promoting local First Nations:* Ensuring that local First Nations' histories, traditions, cultures, protocols, values, beliefs, lands, territories, rights and governments are considered, acknowledged, respected and promoted, as appropriate for the occasions, in meetings and presentation material, including but not limited to formal and informal meetings as well as publications, training sessions, and videos.

From a staff perspective, Metro Vancouver's reconciliation efforts and engagement opportunities over the past five years have led to new and improved relationships with local First Nations. However, with the emergence of British Columbia's *Declaration on the Rights of Indigenous Peoples Act* (November 2019), recent introduction of a similar federal bill on the *United Nations Declaration on the Rights of Indigenous Peoples* (December 3, 2020), resulting changes to provincial and federal legislation (e.g. *BC Environmental Assessment Act* and federal *Impact Assessment Act*), and increasing demands for Indigenous sovereignty, more engagement with First Nations along with additional opportunities to involve Indigenous communities in project-based, decision-making processes are expected. The additional objectives identified in this report are intended to address these increasing expectations. In addition, each of the objectives identified, including both the existing and suggested additional ones, could be measured and with performance indicators established so that progress can be tracked and monitored over time.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

The types of reconciliation-related activities undertaken by Metro Vancouver and identified in this report are accounted for in the annual budget. Any new objectives pursued by the Board will need to be added to the Indigenous Relations Committee's Work Plan. Additional staff may be required depending on the nature of additional work requested by the Board. As such, the Indigenous Relations budget may be impacted by additional activities related to reconciliation.

CONCLUSION

At its meeting in October 2020, the Indigenous Relations Committee recommended that the MVRD Board direct staff to review the Truth and Reconciliation Commission *Calls to Action* and report back to the Committee. This information report provides an overview of the *Calls to Action* applicable to Metro Vancouver, identifies Metro Vancouver's reconciliation efforts to date since the Truth and Reconciliation Commission's release of its final report in December 2015, and identifies some additional objectives for the Board's consideration. Given that over five years have passed since the Truth and Reconciliation Commission's *Calls to Action* were endorsed and a series of objectives were developed for Metro Vancouver, the Board may now wish to consider some additional objectives for reaffirming and strengthening its commitment towards reconciliation with Indigenous Peoples in this region.

Attachments

1. Truth and Reconciliation Commission *Calls to Action* Directed at Local Governments as Identified by the Federation of Canadian Municipalities (FCM).
2. Examples of Metro Vancouver's Reconciliation Efforts.

References

1. Truth and Reconciliation Commission of Canada. [Calls to Action](#). Final report released December 15, 2015.
2. United Nations. [United Nations Declaration on the Rights of Indigenous Peoples](#). Resolution adopted by the General Assembly on 13 September 2007.
3. Government of British Columbia. [Declaration on the Rights of Indigenous Peoples Act](#). Legislation passed on November 26, 2019.
4. [Protocol Agreement for Communication and Collaboration between Squamish Nation and School District No. 44 \(North Vancouver\)](#). Signed January 17, 2019.
5. [Belcarra Regional Park Cultural Planning and Co-operation Agreement](#). Tsleil-Waututh Nation and Metro Vancouver. Signed February 18, 2020.

Truth and Reconciliation Commission Calls to Action Directed at Local Governments as Identified by the Federation of Canadian Municipalities (FCM)

Nine of the *Calls to Action* directed at local governments identified by number by the Federation of Canadian Municipalities (FCM):

- #40 *We call on all levels of government, in collaboration with Aboriginal people, to create adequately funded and accessible Aboriginal-specific victim programs and services with appropriate evaluation mechanisms.*
- #43 *We call upon federal, provincial, territorial and municipal governments to fully adopt and implement the United Nations Declaration on the Rights of Indigenous Peoples as the framework for reconciliation.*
- #47 *We call upon federal, provincial, territorial and municipal governments to repudiate concepts used to justify European sovereignty over Indigenous peoples and lands, such as the Doctrine of Discovery and terra nullius, and to reform those laws, government policies, and litigation strategies that continue to rely on such concepts.*
- #57 *We call upon federal, provincial, territorial and municipal governments to provide education to public servants on the history of Aboriginal peoples, including the history and legacy of residential schools, the United Nations Declaration on the Rights of Indigenous Peoples, Treaties and Aboriginal rights, Indigenous law, and Aboriginal-Crown relations. This will require skills-based training in intercultural competency, conflict resolution, human rights and anti-racism.*
- #64 *We call upon all levels of government that provide public funds to denominational schools to require such schools to provide an education on comparative religious studies, which must include a segment on Truth and Reconciliation Commission of Canada Aboriginal spiritual beliefs and practices developed in collaboration with Aboriginal Elders.*
- #75 *We call upon the federal government to work with provincial, territorial and municipal governments, churches, Aboriginal communities, former residential school students, and current landowners to develop and implement strategies and procedures for the ongoing identification, documentation, maintenance, commemoration and protection of residential school cemeteries or other sites at which residential school children were buried. This is to include the provision of appropriate memorial ceremonies and commemorative markers to honour the deceased children.*
- #77 *We call upon provincial, territorial, municipal and community archives to work collaboratively with the National Centre for Truth and Reconciliation to identify and collect copies of all records relevant to the history and legacy of the residential school system, and to provide these to the NCTR.*

#87 We call upon all levels of government, in collaboration with Aboriginal peoples, sports halls of fame, and other relevant organizations, to provide public education that tells the national story of Aboriginal athletes in history.

#88 We call upon all levels of government to take action to ensure long-term Aboriginal athlete development and growth, and continued support for the North American Indigenous Games, including funding to host the games and for provincial and territorial team preparation and travel.

Reference:

Federation of Canadian Municipalities. [Pathways to Reconciliation: Cities respond to the Truth and Reconciliation Commission Calls to Action, 2016](#). Page 11.

Examples of Metro Vancouver's Reconciliation Efforts

In October 2015, the MVRD Board endorsed the Truth and Reconciliation Commission's *Calls to Action* as well as the following objectives:

- a) **liaise with the Truth and Reconciliation Commission (Reconciliation Canada);**
- b) **raise awareness about Indian Residential Schools;**
- c) **provide cultural competency training; and**
- d) **strengthen relationships with First Nations.**

Examples of actions undertaken by Metro Vancouver with respect to each of the four objectives listed are summarized below.

a) Liaise with the Truth and Reconciliation Commission (Reconciliation Canada)

- Metro Vancouver staff participation in Reconciliation Canada conferences and workshops as well as the second Reconciliation Walk (2017) in downtown Vancouver.
- A Lunch and Learn session was held with Chief Ernie Crey, Cheam First Nation from the Fraser Valley, on First Nations and Sustainability Initiatives (72 participants attended on November 30, 2015).
- Chief Dr. Robert Joseph presented to the Indigenous Relations Committee on the status of Reconciliation efforts in February 2016.
- A Lunch and Learn session was held with Reconciliation Canada representatives to mark Orange Shirt Day (36 people attended on September 26, 2016).
- A Special Training Session with Senator Murray Sinclair was held for staff and elected officials on the MV Board and Indigenous Relations Committee (over 250 participants attended on October 1, 2020).

b) Raise Awareness about Indian Residential Schools:

- Orange Shirt Day (September 30) has been celebrated at Metro Vancouver in Lunch and Learn Sessions with special guest speakers, such as Phyllis Webstad (72 people attended on September 12, 2018) whose orange shirt was taken away from her when she attended Indian Residential School in 1973. Linda Gray, author of the book *First Nations 101*, also presented to staff (71 participants attended on September 30, 2019).
- Orange Shirt Day lapel buttons have been provided to elected officials, senior management and staff over the past five years.
- Articles to inform staff about Indian Residential Schools have been prepared and posted on Metro Vancouver's intranet site from time to time.
- National Indigenous Peoples Day was celebrated at Metro Vancouver with a special morning performance for staff from Squamish Nation's Eagle Song Dancers (June 21, 2019).
- Metro Vancouver staff and municipal staff who are on the Municipal Technical Advisory Committee on Indigenous Relations (MTAC) have received several training sessions including one from the Raven Institute on "Canada's History Through an Indigenous Lens."

c) Providing Cultural Competency Training:

- Indigenous awareness training sessions have been held for staff with presentations from Indigenous Relations staff. Since 2018, 6 training sessions have been held, involving over 200 staff.
- In addition, over 20 presentations have been made to department and division staff, involving approximately 300 staff, since 2018.
- Staff have also received full-day Indigenous awareness training sessions from external trainers such as Bob Joseph (Indigenous Corporate Training) and Teara Fraser (Raven Institute) as well as Archaeological training from Andrew Mason (Golder Associates). Since 2018, over 10 sessions have been held involving over 200 staff.
- The Municipal Technical Advisory Committee on Indigenous Relations (municipal staff) and Metro interested Vancouver staff received a half-day training session on the United Nations Declaration on the Rights of Indigenous Peoples (Indigenous Corporate Training) on December 9, 2020. This online session was attended by 35 participants.
- Furthermore, presentations have been requested by and provided to municipal committees, including RAAC, REAC and their technical subcommittees. Over 10 presentations or workshops have been held since 2018 involving close to 300 participants.
- In total, Metro Vancouver staff has facilitated or organized training sessions for over 1,500 participants, including Metro Vancouver staff, municipal staff, and Metro Vancouver's elected officials.

d) Strengthening Relationships with First Nations:

- Metro Vancouver has taken steps to increase its understanding of First Nation communities and Indigenous Peoples through initiatives such as the annual Community to Community Forums. Six such Forums with six First Nations have been held to date over the past 7 years including: Katzie (2014); Tsleil-Waututh (2015); Squamish (2016); Tsawwassen (2017); Kwantlen (2018); and Musqueam (2019).
- In 2020, a Regional Gathering of the Chiefs and Council members from the 10 First Nation communities in the region, meeting with members of the Board of Directors and Indigenous Relations Committee, would have been co-hosted by Tsawwassen First Nation but, due to COVID-19 restrictions, has been postponed to 2021.
- Metro Vancouver has had display booths and staff present to answer questions at the large National Indigenous Peoples' Day event at Trout Lake on June 21 (in both 2018 and 2019).
- In 2020, and with COVID-19 restrictions in place, National Indigenous Peoples Day was celebrated with a Zoom interview session with both Chief Ken Baird, Tsawwassen First Nation, and Councillor Dustin Rivers ("Khelsilem"), Squamish Nation (155 participants attended on June 15, 2020).
- Metro Vancouver also developed a corporate policy on engaging with First Nations which provides staff with guidelines for sharing information and (2017).
- The Metro Vancouver Board updated its Procurement policy (2017) to provide more First Nation Economic Opportunities for both archaeological services provided by First Nations or their preferred archaeologists as well as First Nation construction and other services for Metro Vancouver projects.
- Diverse types of meeting formats (e.g. leadership, bilateral, technical working groups, tripartite meetings, etc.) are offered to First Nations to meet, engage present, and discuss various issues, plans and projects.

- An historic Cultural Planning and Co-Operation Agreement for Belcarra Regional Park was signed and celebrated by Metro Vancouver and Tsleil-Waututh Nation (60 people attended on February 18, 2020).
- Metro Vancouver staff received a training session from Squamish Nation staff on the First Nation's new referrals portal, Squamish Connect, on November 20, 2020. The session was attended by 35 staff who are involved in various aspects of project engagement with First Nations.
- Metro Vancouver organizes and facilitates bilateral meetings with First Nations at both the leadership level as well as at the staff-to-staff level.
- Where possible, Metro Vancouver has facilitated First Nations' requests to conduct cultural activities (e.g. berry-picking, cedar bark stripping, archaeological field reconnaissance, and ceremonies conducted in the closed watersheds) with Metro Vancouver staff involvement.

To: MVRD Board of Directors

From: Regional Planning Committee

Date: February 5, 2021 Meeting Date: February 26, 2021

Subject: ***Metro 2040 Implementation Section Policy Review Recommendations***

REGIONAL PLANNING RECOMMENDATIONS

That the MVRD Board endorse the *Metro 2040* Implementation Section Policy Review recommendation #1, outlined in the report dated January 21, 2021, titled “*Metro 2040 Implementation Section Policy Review Recommendations*”, as follows:

Eliminate the requirement for a regional public hearing for Type 2 amendments, and replace with other means of meaningful, and regionally based public engagement.

That the MVRD Board endorse the *Metro 2040* Implementation Section Policy Review recommendation #2, outlined in the report dated January 21, 2021, titled “*Metro 2040 Implementation Section Policy Review Recommendations*”, as follows:

Change the type of amendment for applications converting Industrial land from a Type 3 to a Type 2 amendment.

At its February 5, 2021 meeting, the Regional Planning Committee considered the attached report titled “*Metro 2040 Implementation Section Policy Review Recommendations*”, dated January 21, 2021. The Committee considered the two proposed policy review recommendations separately, and passed the two motions, as shown above.

Although both motions passed, there were dissenting views expressed. On the first recommendation, members commented about meaningful public engagement opportunities with or without a regional public hearing; and on the second recommendation, some members expressed concern about the impact a change in the voting threshold would have on local land use planning autonomy.

This matter is now before the Board for its consideration.

Attachment

“*Metro 2040 Implementation Section Policy Review Recommendations*”, dated January 21, 2021

43741805

To: Regional Planning Committee

From: Sean Galloway, Director, Regional Planning and Electoral Area Services and
Eric Aderneck, Senior Planner, Regional Planning and Housing Services

Date: January 21, 2021 Meeting Date: February 5, 2021

Subject: ***Metro 2040* Implementation Section Policy Review Recommendations**

RECOMMENDATION

That the MVRD Board endorse the *Metro 2040* Implementation Section Policy Review recommendations as presented in the report dated January 21, 2021, titled “*Metro 2040* Implementation Section Policy Review Recommendations” as the basis for updating the implementation related policies in the regional growth strategy.

EXECUTIVE SUMMARY

To inform the update to the regional growth strategy, Metro Vancouver is undertaking a series of Policy Reviews, including for the Implementation Section (*Metro 2040* Section F), which considers the procedural issues with implementing, administering, and amending the strategy. Taking into account the experience gained from administering *Metro 2040* since its adoption in 2011, input from member jurisdictions, and feedback from Regional Planning Committee members at the January 14, 2021 meeting, staff are recommending, in addition to 'housekeeping' refinements, the following directions to guide the drafting of new and amended policy language:

1. a) eliminate the requirement for a regional public hearing associated with Type 2 amendments;
b) ensure alternative means of meaningful regional public engagement, to replace the public hearing process noted in 1 a), including leveraging new technology; and
2. change minor amendment applications for lands with an Industrial regional land use designation from a Type 3 to a Type 2 amendment.

PURPOSE

To seek endorsement by the Regional Planning Committee and MVRD Board of the *Metro 2040* Implementation Policy Review recommendations.

BACKGROUND

The *Metro 2040* Implementation Policy Review is one of a series of reviews that will provide inputs into the regional growth strategy update, being referred to as *Metro 2050*, and anticipated to be complete by mid-2022. The Policy Review scope of work report was received by the Regional Planning Advisory Committee (RPAC) on March 20, 2020, and the Regional Planning Committee on May 1, 2020 (Reference 1).

The Policy Review's 'Policy Ideas' were discussed by the Regional Planning Advisory Committee (RPAC) at its meeting on November 20, 2020; the comments received were limited, but were incorporated into the review. The Policy Review 'Ideas for Exploration' were then discussed by the Regional Planning Committee at its meeting on January 14, 2021. In response to feedback from the Committee, staff are presenting policy recommendations for the Implementation section, which if endorsed, will form the basis of associated policy in *Metro 2050*.

METRO 2040 IMPLEMENTATION SECTION

The *Metro 2040's* Implementation Section (Section F, 6.1 to 6.15) outlines the process to administer and amend the regional growth strategy, and is organized as follows:

- 6.1 - Implementation Framework
- 6.2 - Regional Context Statements (including provisions for municipal flexibility)
- 6.3 - Categories of Amendments (Types 1, 2, 3)
- 6.4 - Procedures for Amendments (including notifications)
- 6.5, 6.6, 6.7 - Coordination with First Nations, TransLink, Other Governments / Agencies
- 6.8 - Coordination with Greater Vancouver Boards
- 6.9 - Sewerage Area Extensions
- 6.10 - Special Study Areas
- 6.11 - Jurisdiction
- 6.12, 6.13 - Maps, Tables / Figures, Performance Measures
- 6.14, 6.15 - Interpretation, Guidelines

SCOPE OF THE POLICY REVIEW

The purpose of the Policy Review was to identify implementation challenges and opportunities to improve administration efficiency and effectiveness. The review considered such aspects as: administrative process, clarity about steps in the regional context statement and amendment processes and requirements, protection or flexibility for some types of regional land use designation amendments, and balance / clarity of regional and local roles.

Any changes to the minor amendment process of the regional growth strategy are considered a Type 1 Amendment by the *Local Government Act*, which requires the approval of all signatories. Should the MVRD Board support any changes to the amendment provisions, given that the current regional growth strategy update is itself a Type 1 amendment, there is an opportunity to simultaneously also amend those procedures without having to initiate a separate Type 1 amendment process. This review is also an opportunity for a number of administrative or 'housekeeping' refinements to the current strategies to support interpretation and implementation, that have been identified based on experience with implementing the regional growth strategy and other associated work associated with the policy reviews.

The shared knowledge and experience of member jurisdictions and Metro Vancouver staff gained from stewarding, implementing, and amending *Metro 2040* since its adoption in 2011 was considered, as well as research, best practices, and legislative requirements.

FINDINGS

Metro 2040 includes a three-tiered amendment process, for both policy changes and land use designation changes, to guide the administration of proposed amendments; generally, the more regionally-significant the amendment, the more rigorous the process.

Under the provisions of the *Local Government Act*, regional districts can include provisions for ‘minor’ amendments in their respective regional growth strategy, provided that they include: criteria for determining whether a proposed amendment is minor; the means for obtaining and considering the views of affected local governments; the means for providing notice to affected local governments; and procedures for adopting a minor amendment bylaw.

Since the adoption of *Metro 2040*, between 2011 and 2019 there have been 31 requested ‘minor’ amendment applications, with an average processing time of 26 weeks (excluding an outlier).

REGIONAL PLANNING COMMITTEE FEEDBACK

At the Regional Planning Committee meeting of January 14, 2021, Committee members provided comments in response to the following four areas:

1. the effectiveness of a regional public hearing as a means for public engagement for Type 2 amendments;
2. changing the type of amendment for the conversion of an Industrial to General Urban regional land use designation from a Type 3 to a Type 2;
3. increasing MVRD Board weighted voting thresholds for Types 3 and 2 amendments; and
4. reviewing the provision for municipal flexibility clause (Section 6.2.7 of *Metro 2040*).

Regional Planning Committee members provided the following comments on these items. It should be noted that there were differing opinions and no formal Committee endorsement or resolution on any of the areas.

1. *Regional Public Hearings for Type 2 amendments*: There were differing views on the effectiveness of regional public hearings as part of the Type 2 amendment process, with some expressing it can be a duplication of the local engagement process in terms of attendees, and even add to divisiveness in local communities because of the repetition, while others noted that it was working well and there was no need for change. A common theme was a reiteration of the need for broad, regionally based public engagement for significant amendments and that there are many opportunities emerging as a result of movement into online and digital formats. Some members expressed that the public hearing could be replaced, potentially serving broader audiences across the region and be more effective with online information meetings, webinars, and opportunities for written comments. For those who felt the regional public hearing could be replaced, there was a strong expression of the need to receive the results of the local public hearing and provide opportunities for written comments and other engagement tools.
2. *Making amendments to the Industrial land use designation a Type 2 amendment*: Overall, there was support for enhancing the type of amendment as a means for enhancing the protection of Industrial lands in the region, and for making conversions of Industrial land a Type 2 rather than Type 3 amendment. There was recognition that this was a priority recommendation stemming from the Board approved 2020 *Regional Industrial Lands*

Strategy. However, the feedback was not unanimous, with some members expressing concern about greater regional involvement in local land use decisions.

3. *Increasing voting thresholds for amendments*: There was no articulated interest in increasing the Board weighted voting threshold for Types 3 and 2 amendments; it was noted that the current voting thresholds of 50% plus one and two-thirds, respectively, have been working satisfactorily, with no concerns expressed, since the adoption of *Metro 2040*.
4. *Enhancing municipal flexibility provisions*: There was no articulated interest in increasing the municipal flexibility provisions of Section 6.2.7, again noting that the current provisions have been working satisfactorily.

IMPLEMENTATION POLICY REVIEW RECOMMENDATIONS

To more effectively implement the regional growth strategy, the following objectives were used:

- an efficient and consistent implementation process;
- clear requirements and process for future amendments;
- clear and consistent definitions of terms throughout;
- a meaningful regional public engagement process when considering amendments;
- ease of reporting and tracking changes over time;
- voting thresholds for, and types of, amendments;
- municipal flexibility provisions;
- Sewerage Area extension provisions;
- effectiveness of Special Study Areas;
- enhanced coordination with First Nations and regional stakeholders; and
- administrative refinements.

Table 1 sets out the proposed changes, existing policies, and associated considerations / implications. These should be considered in the context of recommendations from other *Metro 2040* Policy Reviews.

Table 1 – Recommended Implementation Section Changes / Associated Considerations / Implications

Proposed Change	Existing Policy	Considerations / Implications
1) Eliminate the requirement for a regional public hearing for Type 2 amendments, and replace with other means of meaningful, and regionally based public engagement	Note: Type 2 amendments are considered more regionally significant than Type 3 amendments and include changes to the Urban Containment Boundary and conversion of Agricultural, Rural or Conservation and Recreation lands to other uses. Type 2 amendments require a bylaw passed by a two-thirds weighted	<ul style="list-style-type: none"> • As a replacement to a regional public hearing, other means of public engagement such as: enhancing notifications on the Metro Vancouver website, providing opportunities for written comments, ensuring the Board receives comments from the local public hearing, including online engagement opportunities, encouraging delegation presentations to the Regional Planning Committee, better coordinating regional and municipal engagement processes,

	<p>vote at the MVRD Board and a regional public hearing.</p> <p>In contrast, Type 3 amendments require an amendment bylaw passed by a 50% + 1 vote at the MVRD Board and no regional public hearing.</p>	<p>etc., will be explored. Options will be included in the draft of <i>Metro 2050</i> that is circulated for comment in the latter half of 2021.</p>
<p>2) Change the type of amendment for applications converting Industrial land from a Type 3 to a Type 2 amendment</p>	<p>Note: Through the development of <i>Metro 2040</i> (adopted in 2011), the regional federation determined that the conversion of Agricultural land, and the movement of the Urban Containment Boundary were significant regional issues that warranted a higher voting threshold at the regional level than other types of amendments, such as the conversion of Industrial lands.</p> <p>This recommendation would elevate the conversion of Industrial land to the same status as the conversion of Agricultural land in the strategy.</p>	<ul style="list-style-type: none"> • A higher voting threshold for changes to Industrial land use designations would provide greater protection for the limited amount of industrial land in the region. • Strengthening the regional growth strategy to protect industrial land was a priority action in the Board adopted Regional Industrial Lands Strategy.

ENGAGEMENT AND NEXT STEPS

The primary stakeholders for this Policy Review are: member jurisdiction staff and elected officials, Metro Vancouver Regional Planning, Utilities and Legal Services staff, and TransLink staff. Informed by input from multiple sources regarding possible changes to the Implementation section of *Metro 2040*, staff are advancing this report to the Regional Planning Committee and MVRD Board, setting out recommended policy ideas for consideration.

If the Policy Review recommendations are endorsed by the Regional Planning Committee and MVRD Board, staff will use the recommended directions to draft specific new or amended policy language for Section F of *Metro 2050* in consultation with the Intergovernmental Advisory Committee. Staff in Metro Vancouver’s Legal Services and Indigenous Relations Department will also provide support in the review and development of any new or amended policies for *Metro 2050*, in order to ensure compliance and consistency with the *Local Government Act*.

ALTERNATIVES

1. That the MVRD Board endorse the *Metro 2040* Implementation Section Policy Review recommendations as presented in the report dated January 21, 2021, titled "*Metro 2040* Implementation Section Policy Review Recommendations".
2. That the Regional Planning Committee receive for information the report dated January 21, 2021, titled "*Metro 2040* Implantation Policy Review Recommendations" as the basis for updating the implementation related policies in the regional growth strategy.

FINANCIAL IMPLICATIONS

There are no financial implications to the *Metro 2040* Implementation Policy Review. The *Metro 2040* Policy Reviews are all being undertaken as part of the regular work plan in the Board approved Regional Planning budget.

CONCLUSION

Effective administration of the regional growth strategy is a key to its successful, efficient, and consistent implementation. The purpose of the *Metro 2040* Implementation Policy Review is to explore and identify the challenges and opportunities to improve administration, taking into account the knowledge and experience gained from stewarding, implementing, and amending *Metro 2040* since its adoption in 2011, as well as policy research, best practices, and input from member jurisdictions.

Direction received from the Regional Planning Committee and MVRD Board will be used to inform the drafting of new and amended language of Section F of the regional growth strategy. The Regional Planning Advisory Committee, *Metro 2050* Intergovernmental Advisory Committee, Regional Planning Committee and MVRD Board will also have opportunities to consider and provide comments to inform the content of the Implementation section. The identified enhancements will be brought forward for consideration in *Metro 2050* over 2021. Staff recommend Alternative 1.

References

1. [Regional Planning Committee Report Dated April 9, 2020, Titled "Metro 2040 Implementation Policy Review Scope of Work"](#)
2. [Resource Webpage – Implementation Guidelines](#)
3. [Regional Planning Committee Report Dated April 9, 2020, Titled "Metro 2040 - 2019 Procedural Report"](#)
4. [Regional Planning Committee Report Dated January 5, 2021, Titled "Metro 2040 Implementation Section Policy Review: Ideas for Exploration"](#)

43311218

To: Regional Parks Committee

From: Jeffrey Fitzpatrick, Division Manager, Design and Development, Regional Parks

Date: January 20, 2021 Meeting Date: February 10, 2021

Subject: **Regional Parks State of the Assets Report**

RECOMMENDATION

That the MVRD Board:

- a) receive for information the report dated January 20, 2021, titled “Regional Parks State of the Assets Report”; and
 - b) direct staff to incorporate the findings of the *Regional Parks State of the Assets Report* in the Regional Parks Asset Management Plan.
-

EXECUTIVE SUMMARY

The Regional Parks system is comprised of natural and built assets. Natural assets are the ecosystems protected within the regional parks system. Built assets are the trails, buildings and other amenities that provide public access and support land management.

The *Regional Parks State of the Assets Report* (Attachment 1) provides an inventory, condition and value assessment of built assets, and an overview and preliminary condition assessment of natural assets.

The total replacement value of built assets is estimated at \$292 million. The ten categories of Regional Parks built assets are in fair or good condition. Development of methodologies to assess condition and value of the services provided by natural assets is underway and will be included in future reports.

The *Regional Parks State of the Assets Report* is a milestone in the development of the Regional Parks Asset Management Plan which will be brought to the MVRD Board for consideration in 2021.

PURPOSE

To seek MVRD Board endorsement of the *Regional Parks State of the Assets Report*, and support for incorporating the findings of the report in the Regional Parks Asset Management Plan.

BACKGROUND

At its April 26, 2019 meeting, the MVRD Board approved the *Asset Management for Regional Parks Policy* (Attachment 2). The policy established asset management principles and a framework to balance asset performance, risk and cost to support the long-term provision of the Regional Parks service.

At the July 15, 2020 meeting, the Regional Parks Committee received for information the report dated June 12, 2020, titled “Regional Parks – State of the Assets Report for Buildings”. The buildings report

was prioritized to proceed the full *Regional Parks State of the Assets Report* due to the number and value of buildings in the regional parks system.

Completion of the *Regional Parks State of the Assets Report* is included in the 2021 Regional Parks Committee work plan. The report is a key step in the development of the Regional Parks Asset Management Plan, which will also be brought forward for MVRD Board consideration in 2021.

STATE OF THE ASSETS

The Regional Parks system is comprised of natural and built assets that provide critical services to regional residents – physical and mental health, recreation, clean air and water, habitat, biodiversity and climate resilience. In 2020, the regional parks system received 16.6 million visitors.

Metro Vancouver maintains natural assets through resource management. Built assets are maintained with regular maintenance and lifecycle replacement. New natural and built assets are added to the system through capital development and stewardship projects.

Supporting the ecological health of natural assets, and the safety and maintenance of built assets, ensures a regional parks system that supports a livable region and is resilient to climate change and growing park visitation over the long term.

Natural Assets

The Regional Parks system protects a range of natural assets including bogs, floodplains, salt marshes and old growth forest. Metro Vancouver is working to develop methodologies to assess condition and value of the services provided by natural assets. This information will be used to plan maintenance and restoration initiatives and will be included in future reports.

Built Assets

Metro Vancouver manages ten categories of built assets. These assets are inventoried and inspected regularly. Maintenance and replacement is planned based on condition assessments, expected service life and other considerations.

The table below summarizes built asset inventory, condition and replacement value:

Regional Parks Built Asset Summary			
Category	Inventory	Condition	Replacement Value
Barriers	65 km fencing, 1,597 bollards and gates	Good	\$7m
Bridges and Boardwalks	623	Good	\$33m
Buildings	340	Fair	\$112m
Land Protection	4 km dikes, 6 dams, 1.8 km retaining walls, 1386 culverts, 8 drainage structures, 3 km drainage lines	Good	\$32m
Park Fixtures	1514	Good	\$4m
Recreational Facilities	1 beach, 2 playgrounds, 2 nature play areas, 3 group camps, 1 campground, 2 pools, 1 tennis court, 1 baseball field	Good	\$4m
Roads and Parking Lots	43km roads, 3783 parking stalls, 42,900 m2 hardened surface	Fair	\$46m
Signs	65 entrance signs, 77 kiosks	Good	\$4m
Structures	99	Good	\$4m
Trails	290 km	Good	\$26m
Utilities	93 km utility lines, 2430 point features	Fair	\$20m
TOTAL			\$292m

The *Asset Management for Regional Parks Policy* established condition assessment metrics and targets. For all built assets, excluding buildings, a 1 to 5 (very good to critical) condition scoring system is used. The performance target is a condition score of 3 (fair) or better. All built asset categories have condition scores of 3 (fair) or good (2).

Asset replacement value is the estimated cost for a complete replacement of an asset, not including land acquisition. The total asset replacement value of all built assets in the regional park system is estimated at \$292 million.

Projected Renewal Expenditure Requirements

Over the next 30-years, the projected renewal expenditure required to maintain Regional Park built assets is estimated to average \$8.7 million annually. The annual renewal expenditure budgeted over that timeframe, based on the 2021-2025 Financial Plan, is projected to average \$8.0 million annually.

Projected renewal expenditure requirements, in the *Regional Parks State of the Assets Report*, are determined based on asset inspections, current pricing for capital projects, market testing and research, industry best practice from other jurisdictions and historic values. A 2.3% CPI annual increase was applied for years beyond 2021.

Projected renewal expenditure requirements are subject to change based on external market factors, the addition or removal of assets, levels of service and maintenance standards that will be confirmed in the Regional Parks Asset Management Plan.

Renewal expenditure budget projections, in the *Regional Parks State of the Assets Report*, reflect the capital budget included in the 2021-2025 Financial Plan. For subsequent years beyond 2025, an annual 2.3% CPI increase was applied.

Next Steps

A Regional Parks Buildings Strategy is underway which will establish levels of service and a decision-making framework in order to set priorities for building maintenance, replacements and new construction. The Regional Parks Building Strategy will identify any buildings not needed to meet levels of service and the Regional Parks' mandate. The strategy will include budget implications and will be brought forward to the Regional Parks Committee and MVRD Board for consideration in 2021.

Staff will use the *Regional Parks State of the Assets Report* and the forthcoming Regional Parks Building Strategy to develop the Regional Parks Asset Management Plan. The Asset Management Plan will confirm levels of service, outline operating and maintenance strategies and confirm renewal expenditure requirements.

ALTERNATIVES

1. That the MVRD Board:

- a) receive for information the report dated January 20, 2021, titled "Regional Parks State of the Assets Report"; and
- b) direct staff to incorporate the findings of the *Regional Parks State of the Assets Report* in the Regional Parks Asset Management Plan.

2. That the MVRD Board receive for information the report dated January 20, 2021, titled "Regional Parks State of the Assets Report" and provide staff with alternate direction.

FINANCIAL IMPLICATIONS

There are no financial implications presented.

Over the next thirty years, the projected average annual renewal expenditure required to maintain regional park asset is \$8.7 million. Annual renewal expenditures budgeted over that timeframe, based on the 2021-2025 Financial Plan, is projected to average \$8.0 million annually.

Staff will incorporate the findings from the *Regional Parks State of the Assets Report*, and forthcoming Regional Parks Building Strategy, to develop a Regional Parks Asset Management Plan in 2021, which will refine budget projections based on confirmed levels of service and standards, for consideration in future annual budgeting process.

CONCLUSION

The *Regional Parks State of the Assets Report* summarizes inventory, condition and value assessment of built assets, and provides an overview and preliminary condition assessment of natural assets.

The total replacement value of Regional Parks built assets is \$292 million. The ten categories of built assets are all in fair or good condition. Development of methodologies to assess condition and value

of the services provided by natural assets is underway and will be included in future Regional Parks State of the Assets Reports.

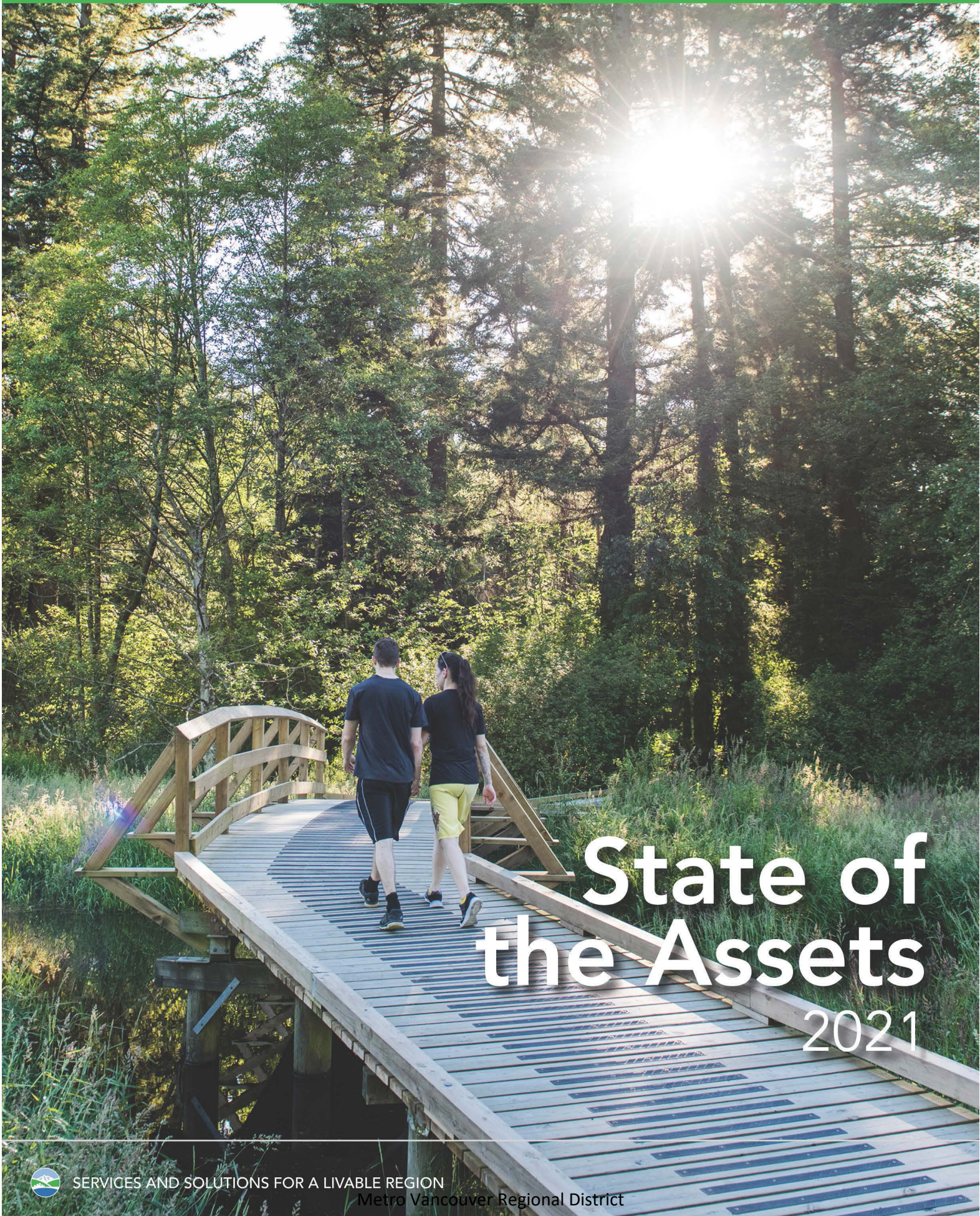
The Regional Parks Asset Management Plan will confirm asset renewal expenditure requirements based on levels of service, maintenance and operational standards, for MVRD Board consideration.

Staff are seeking MVRD Board endorsement of the *Regional Parks State of the Assets Report* and direction to incorporate the findings of the report in the Regional Parks Asset Management Plan.

Attachments

1. *Regional Parks State of the Assets Report*
2. "Asset Management for Regional Parks Policy", dated, April 26, 2019

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State of the Assets 2021



EXECUTIVE SUMMARY

The Regional Park system is comprised of natural and built assets. Natural assets are the ecosystems protected within the regional park system. Built assets are the trails, buildings and other amenities that provide public access and support land management.

Natural assets provide critical services to regional residents – recreation, clean air and water, habitat, biodiversity and climate resilience. In 2020, built assets supported park visitation of over 16 million. The total replacement value of regional park built assets is \$292 million.

The Regional Parks State of the Assets report provides an inventory, condition and value assessment of built assets; and an overview and preliminary condition assessment of natural assets.

Supporting the ecological health of natural assets, and the safety and maintenance of built assets, ensures a resilient regional park system over the long term.

4730 Kingsway, Burnaby, BC, V5H 0C6
www.metrovancouver.org

February 2021

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Colony Farm Regional Park

INTRODUCTION

The Regional Park system is comprised of natural and built assets. Natural assets are the ecosystems protected within the regional park system. Built assets are the trails, buildings and other amenities developed to support public access and land management.

Metro Vancouver maintains natural assets through resource management. Built assets are maintained with regular maintenance and lifecycle replacement. New natural and built assets are added to the system through capital development and stewardship projects.

This report provides a summary inventory, condition, replacement and maintenance costs of built assets over a 30-year period in a condition that meets targeted levels of service. This information included in this report informs asset management planning budgeting and continuous improvement.

An overview and preliminary condition assessment of natural assets is included in this report. A complete condition assessment, replacement and projected maintenance costs for natural assets is under development and will be provided in future State of the Assets reports.

SUMMARY OF NATURAL ASSETS

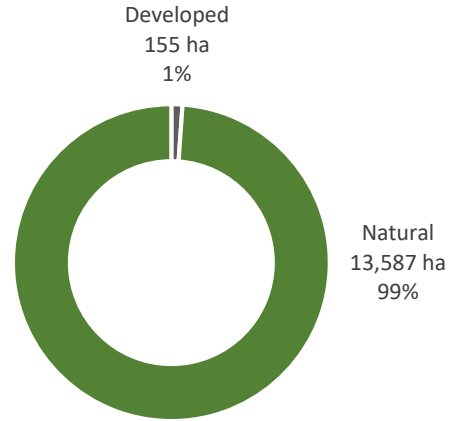


Natural Assets

Quantity: **13,587 hectares**

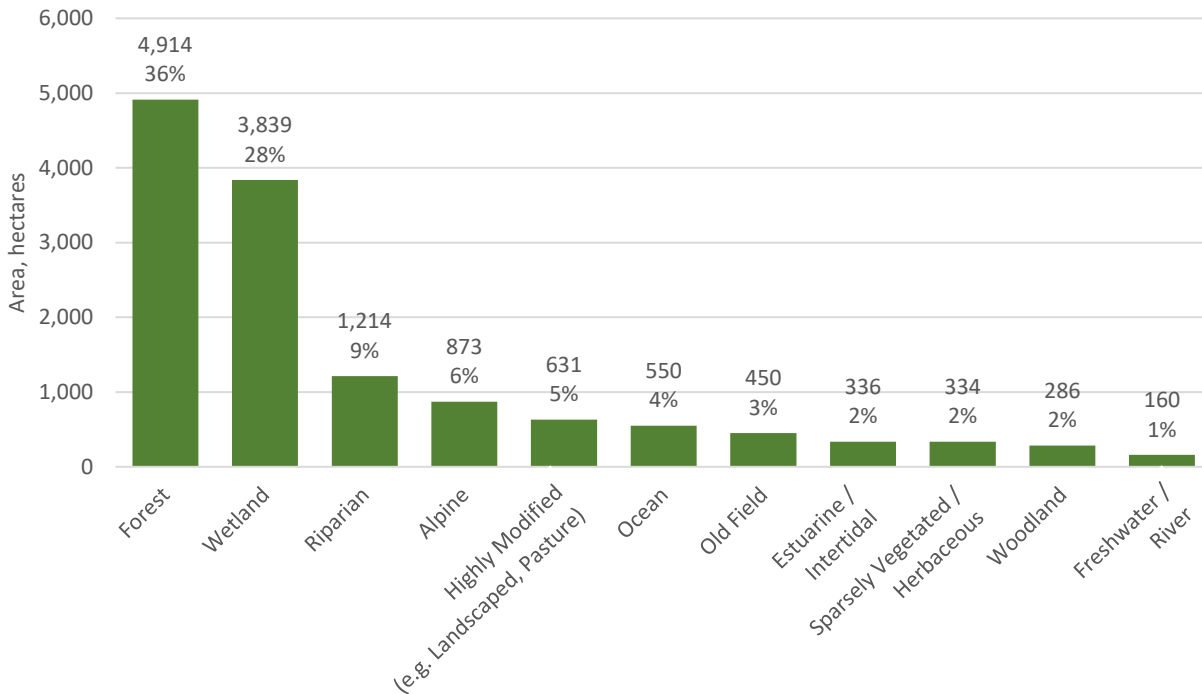
Average Condition: **Unknown**

Proportion of Natural and Developed Areas in Regional Parks (in hectares)

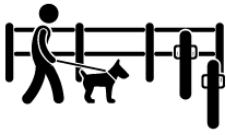


Metro Vancouver is working to develop methodologies to assess condition and value the services provided by natural assets. This information will be used to plan maintenance and restoration of natural assets over the long term. Updates on this work will be provided in subsequent reports.

99% of regional parks consists of natural assets



SUMMARY OF BUILT ASSETS



Barriers

Quantity: **65 km** fencing
1597 gates + bollards
Average Condition: **GOOD**



Bridges & Boardwalks

Quantity: **623**
Average Condition: **GOOD**



Buildings

Quantity: **340**
Average Condition: **FAIR**



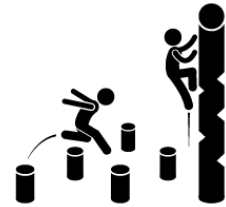
Land Protection

Quantity: **64 km** linear assets
1,415 features
Average Condition: **GOOD**



Park Fixtures

Quantity: **1514**
Average Condition: **GOOD**



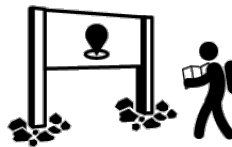
Recreational Facilities

Quantity: **13**
Average Condition: **FAIR**



Roads & Parking Lots

Quantity: **43 km** roads
3783 parking stalls
Average Condition: **FAIR**



Signs

Quantity: **65** entry signs
77 information kiosks
Average Condition: **GOOD**



Structures

Quantity: **99**
Average Condition: **GOOD**



Trails

Quantity: **290 km**
Average Condition: **GOOD**

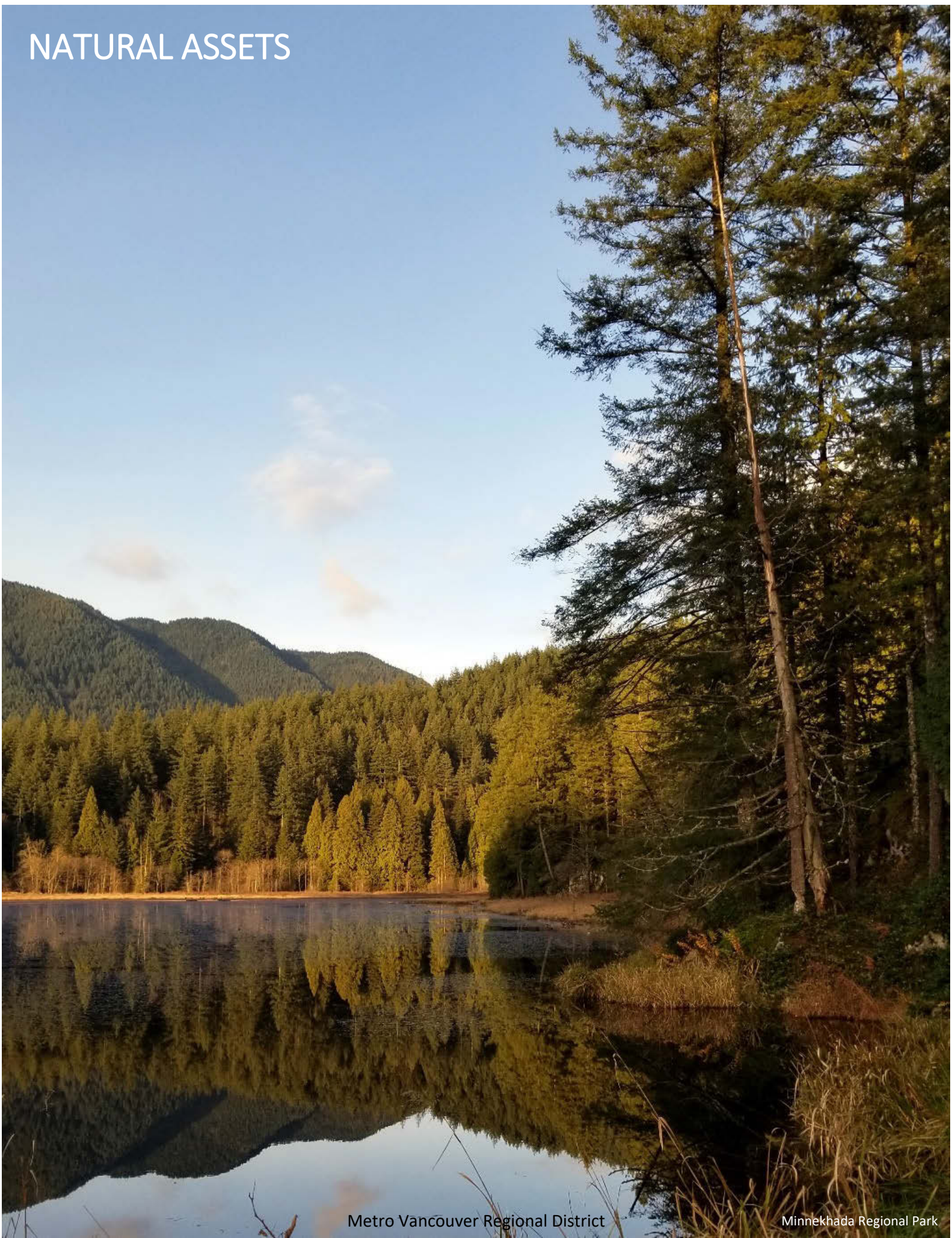


Utilities

Quantity: **93 km** utility lines
2430 utility point features
Average Condition: **FAIR**

Total **built** asset
replacement
value of **\$292**
million

NATURAL ASSETS



CONDITION DEFINITIONS

Traditionally, asset management has focused solely on built assets. The incorporation of natural assets is an emerging and innovative area of practice. Metro Vancouver's *Asset Management for Regional Parks Policy* included a commitment to integrate natural assets into the asset management system.

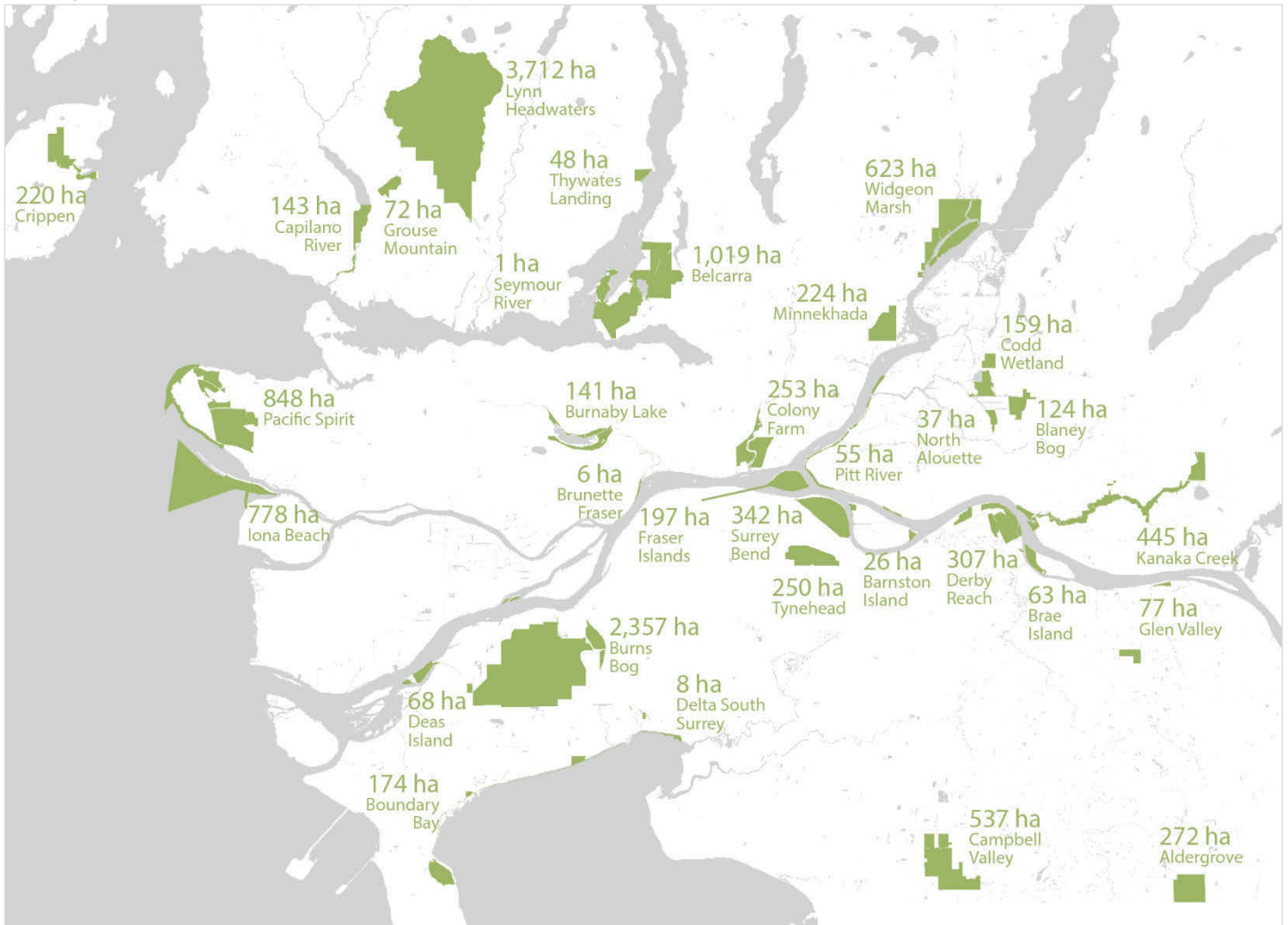
The Natural Assets section of this report documents the work completed so far to build a natural assets inventory and assess aspects of condition. Future reports will contain a more fulsome condition assessment, considering the value of services provided by natural assets, along with levels of service.

The preliminary condition assessment included in this report is based on existing regional park ecological data including:

- Sensitive ecosystem 'quality'
- Age of forested natural assets
- Proportion of natural and developed area, by park



NATURAL ASSETS (Overview)



Natural assets are the stock of natural resources and ecosystems that yield a flow of benefits to people. Regional parks protect a range of natural assets including bogs, floodplains, salt marshes and old growth forest. Natural assets provide important services including recreation, clean air and water, habitat and biodiversity.

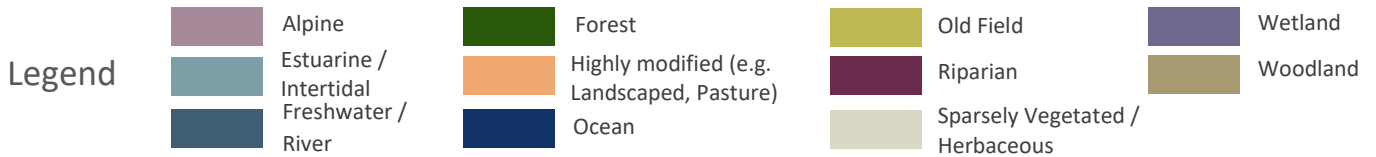
INVENTORY

Natural Asset Category Definitions

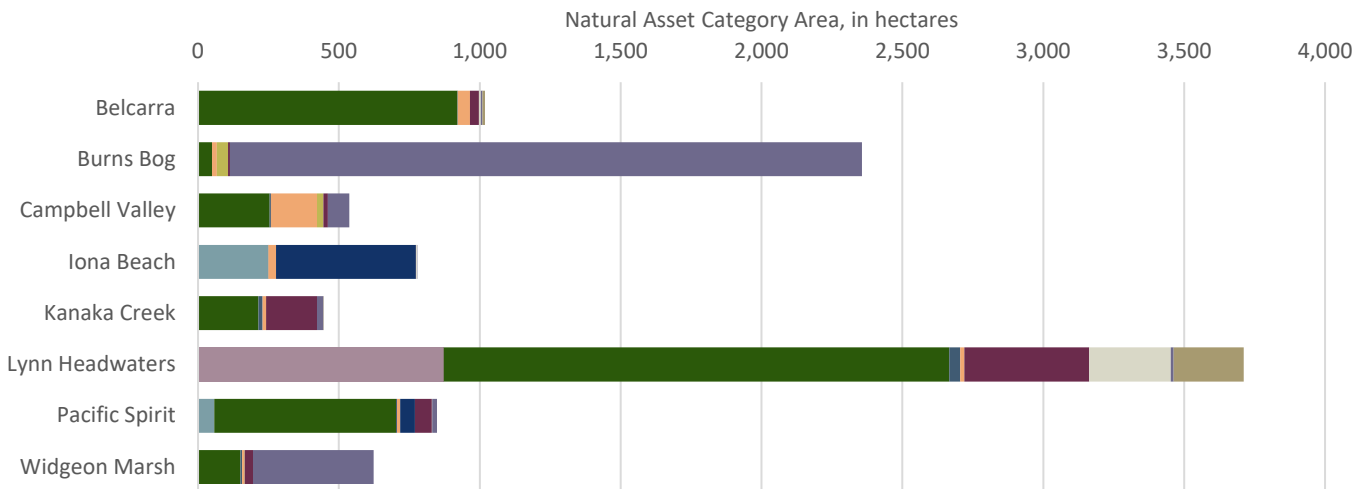
Alpine	Ecosystems above or near tree-line.
Estuarine	Ecosystems at the confluence of rivers with the sea.
Forest	Forest ecosystems of all ages. Coniferous, broadleaf or mixed.
Freshwater	Bodies of water. Lakes, ponds, and reservoirs.
Herbaceous	Non-forested, usually with shallow soils and often subject to natural disturbances.
Highly Modified	Vegetated areas too young or disturbed for other Natural Asset categories. Includes landscaped areas, cultivated fields and pasture, invasive-dominated areas.
Intertidal	Ecosystems linking marine and terrestrial environments. Little freshwater input.
Ocean	Marine environment (not mapped in detail).
Old Field	Grass-dominated ecosystems. Maintained at a low frequency to support productive wildlife habitat.
Riparian	Vegetation associated with, and influenced by, freshwater. E.g. alongside streams and lakes.
River	Rivers and associated gravel bars and tidal mudflats.
Sparsely Vegetated	Generally low vegetation cover, may have high cover of mosses, liverworts and lichens.
Wetland	Ecosystems where soils are saturated by water for enough time to influence the vegetation.
Woodland	Open canopy forests on dry, south facing slopes. Coniferous or mixed.

Boundary Bay Regional Park

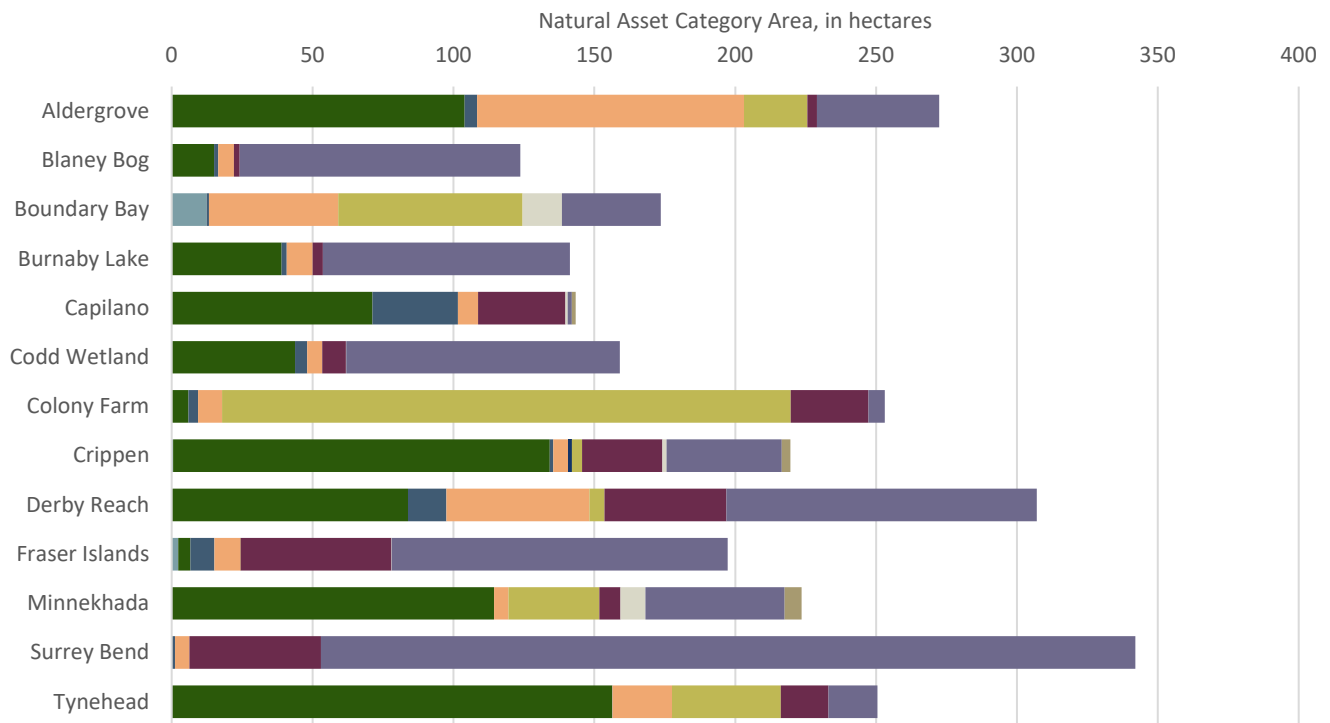
NATURAL ASSETS BY PARK



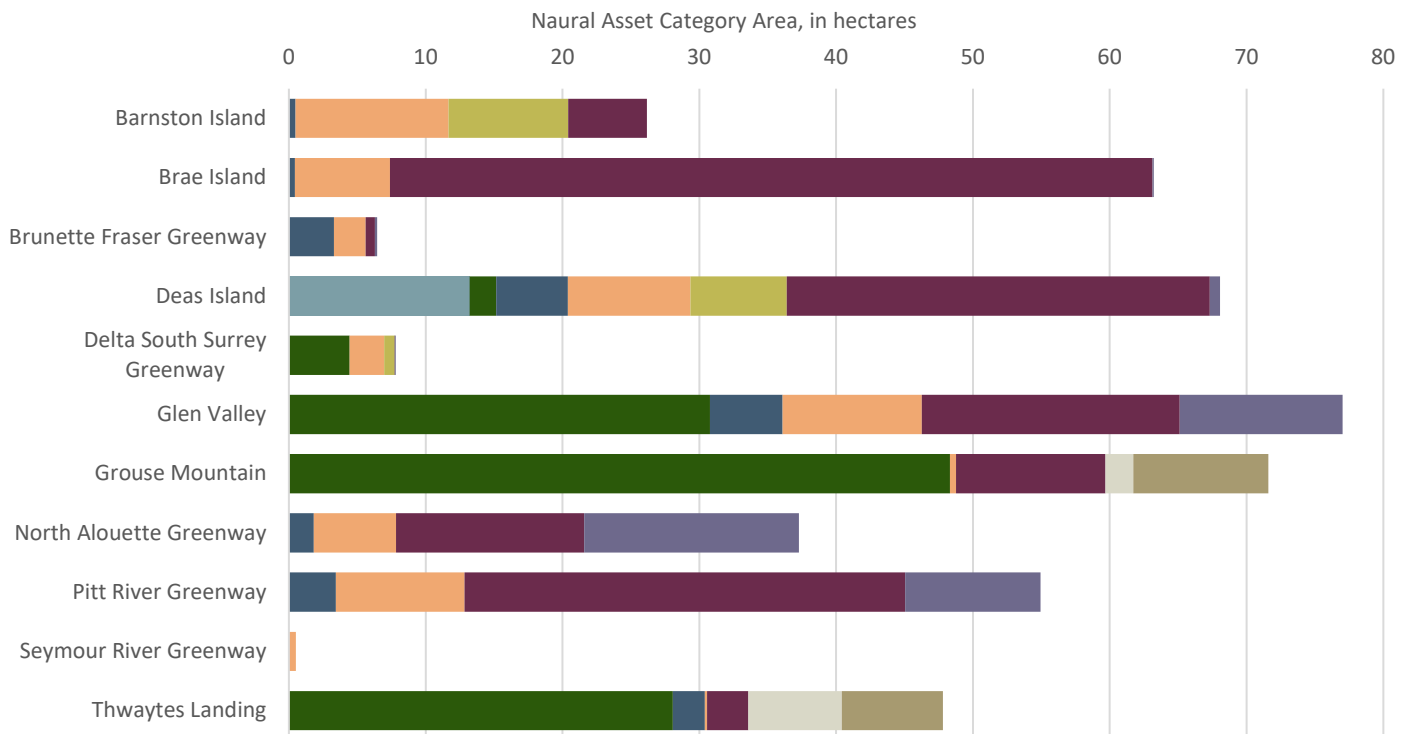
Larger Regional Parks (between 450 and 3,750 hectares)



Medium-sized Regional Parks (between 80 and 450 hectares)



Smaller Regional Parks and Greenways (less than 80 hectares)

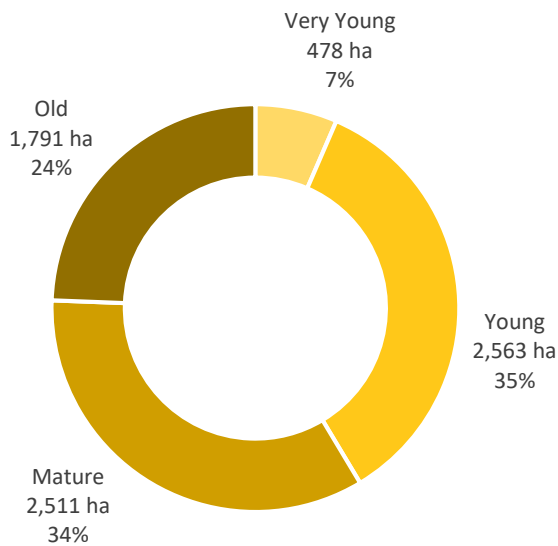


Ecosystem Quality

The Metro Vancouver Sensitive Ecosystem Inventory (SEI) maps important ecological areas in the region, and a large proportion of park ecosystems (85%) are included in the inventory. The SEI includes an assessment of 'quality' for mapped ecosystems. Ecosystems rated as 'higher quality' were observed to have fewer visible disturbances, tend to be larger in size, and are adjacent to other vegetation, rather than roads and urban areas.

80% of SEI ecosystems in regional parks were rated 'higher quality'

Age of Forested Natural Assets



58% of forested natural assets are mature or old

Age of forested natural assets is an estimate based on the appearance and characteristics of each stand of trees.

Forest stands of different ages provide different ecological functions. Generally, older forests have experienced less disturbance, support higher biodiversity, and are of higher condition than younger forests.



Forest Age Definitions

- Old** Complex structure, i.e. old trees but also a mix of other tree ages and understory vegetation. Canopy trees are mostly 250 years old or more.
- Mature** Some complexity in structure. 80 to 250 years old.
- Young** Complexity beginning to develop. 30 to 80 years old.
- Very Young** No complexity. 15 to 30 years old.

Proportion of Natural and Developed Areas

Park or Greenway Name	% of Developed Area	Park area (hectares)
Aldergrove	3%	280
Barnston Island	2%	27
Belcarra	1%	1,034
Blaney Bog	0%	124
Boundary Bay	11%	193
Brae Island	6%	67
Brunette Fraser Greenway	55%	10
Burnaby Lake	3%	145
Burns Bog	0%	2,361
Campbell Valley	2%	548
Capilano	5%	151
Codd Wetland	0%	159
Colony Farm	2%	258
Crippen	1%	223
Deas Island	7%	73
Delta South Surrey Greenway	7%	8
Derby Reach	2%	315
Fraser Islands	0%	198
Glen Valley	0%	77
Grouse Mountain	3%	74
Iona Beach	1%	786
Kanaka Creek	1%	451
Lynn Headwaters	0%	3,718
Minnekhada	2%	227
North Alouette Greenway	1%	38
Pacific Spirit	1%	860
Pitt River Greenway	6%	58
Seymour River Greenway	58%	1
Surrey Bend	2%	347
Thwaytes Landing	0%	48
Tynehead	2%	255
Widgeon Marsh	1%	627

Widgeon Marsh Regional Park

By area, **1%** of parks and **8%** of greenways are developed

The amount of developed area in regional parks is a measure of condition for natural assets. Developed areas in parks are primarily parking lots, buildings, roads and trails. Higher levels of development would indicate more disturbance and fragmentation of natural assets.

BUILT ASSETS



CONDITION DEFINITIONS

Assets are managed in accordance with the *Asset Management for Regional Parks Policy*. This includes clearly defined condition assessment metrics and targets. Regional Parks asset performance categories, key performance indicators, and targets are provided in the table below.

Performance Category	Performance Category Definition	Key Performance Indicator (KPI)	Performance Target
Condition	Condition of assets	Condition Score (see table below)	condition score of 3 or better.
Condition (buildings)	Condition of building assets	Facility Condition Index (FCI)	FCI condition score of 4 or better.

For all built asset classes, excluding buildings, Regional Parks will use a 1 to 5 condition scoring system. When condition information is not available, an age based remaining service life will be used as a proxy for asset condition.

Condition Score	Description
1	Very good is new, OR has no apparent wear and no apparent defect(s).
2	Good has wear and/or only minor defect(s) that do not detract from functionality. Repair not required.
3	Fair is operational but has defect(s) more significant than minor, that do not detract from functionality. Long-term repair may be scheduled.
4	Poor is operational but has defect(s) that affect functionality, OR has defect(s) that may result in loss of function and/or operation. Should be scheduled for major repair or replacement.
5	Critical is not operational, OR is non-functional, OR is past the point of economic repair. Must be repaired, replaced, decommissioned, or removed.

For buildings, Regional Parks will use a scoring system in accordance with the general table below where:

$$\text{Facility Condition Index} = \frac{\text{Total cost of existing deficiencies}}{\text{Replacement cost}}$$

Facility Condition Index Rating Scale

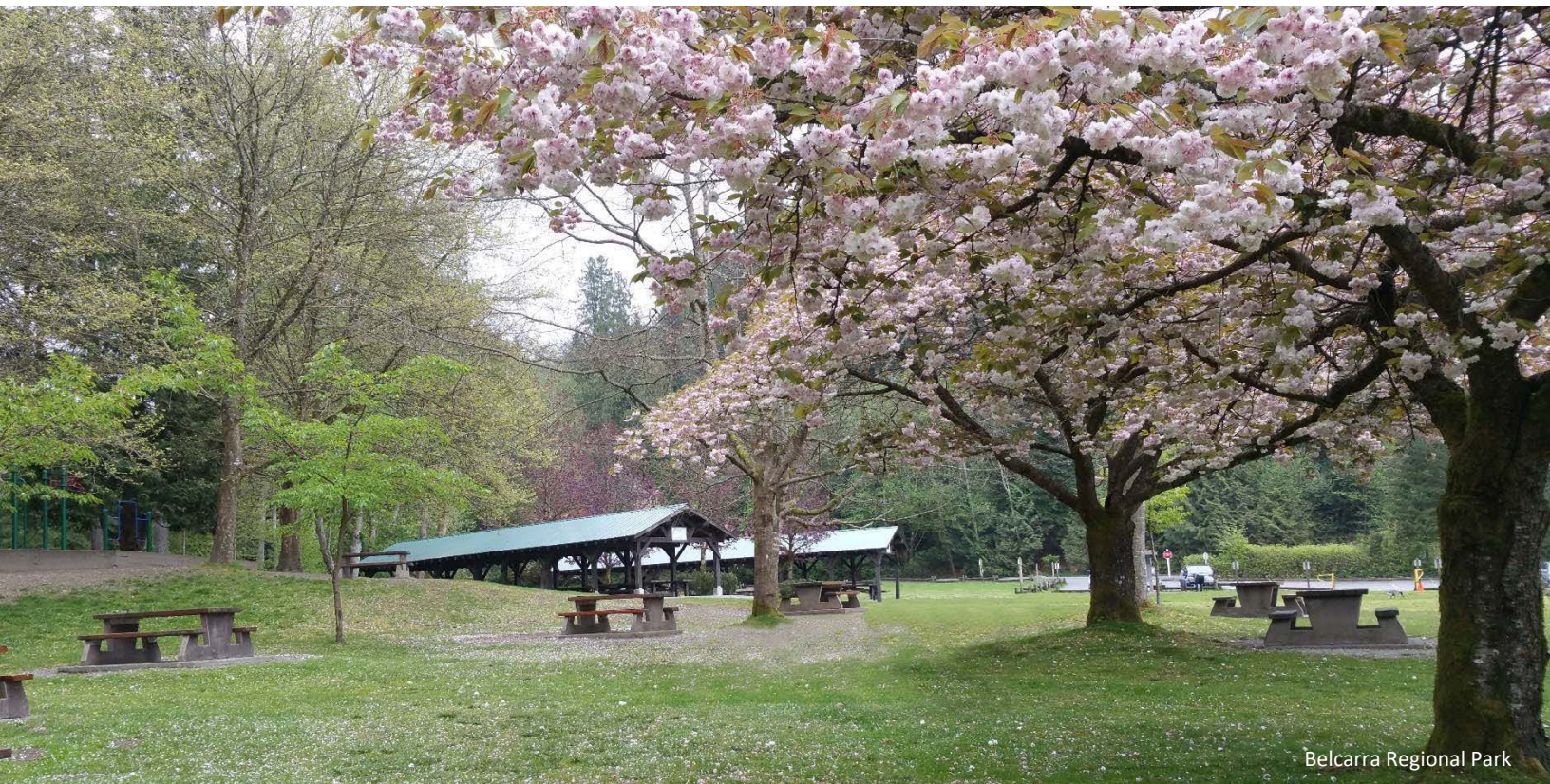
Very good 0-1% Good 1-5% Fair 5-10% Poor 10-30% Critical >30%



DATA CONFIDENCE RATING

Data confidence ratings are included for all asset categories to inform decision making, identify information gaps and prioritize future asset management work/collection.

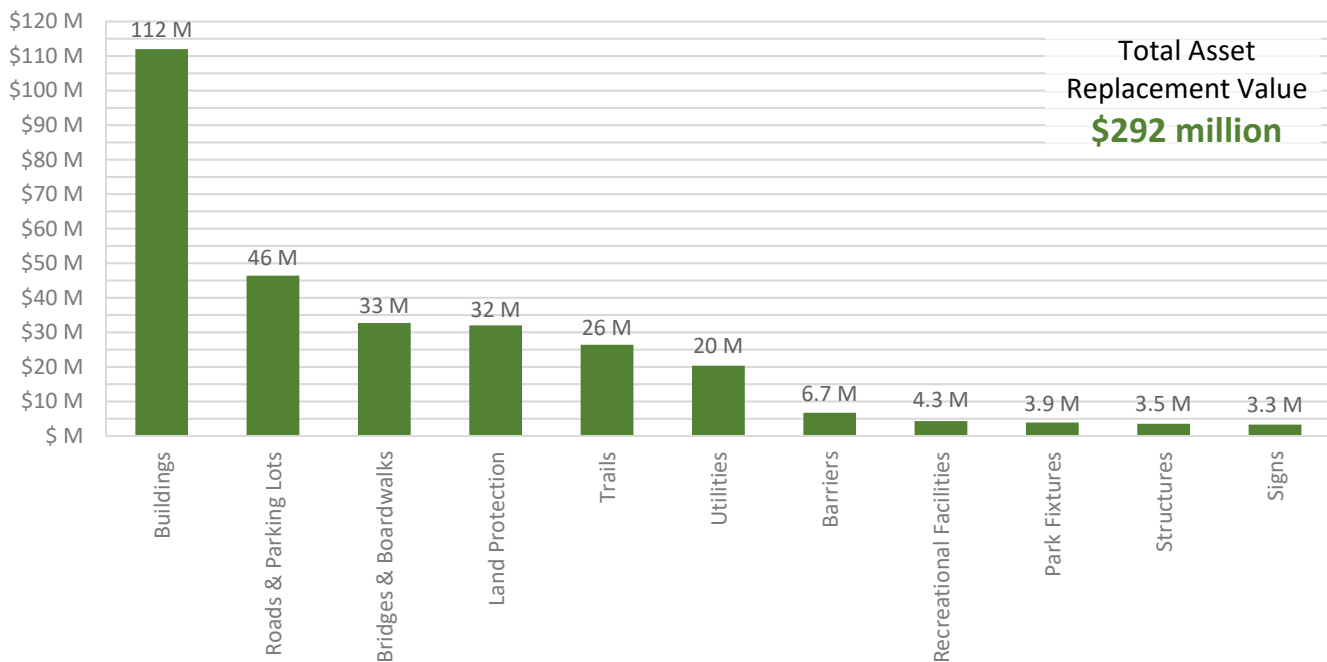
Rating	Description
High	Highly reliable and complete data, collected through best practices (investigated, documented, measured, etc.). Estimated accuracy \geq 85%
Medium	Moderately reliable and complete data, with portions of data coming from older inventories or non-documented collection processes. Small percentage of data may be incomplete. Estimated accuracy 60% to 84%
Low	Unknown, uncertain, or incomplete data, with the majority of data coming from older inventories, or non-documented collection processes (i.e. best educated guesses, extrapolation, etc.) Estimated accuracy $<$ 59%



Belcarra Regional Park

ASSET REPLACEMENT VALUE

The cost for a complete replacement of an asset including design, permitting, archeology, site preparation, servicing and construction. Land acquisition is not included in this cost.



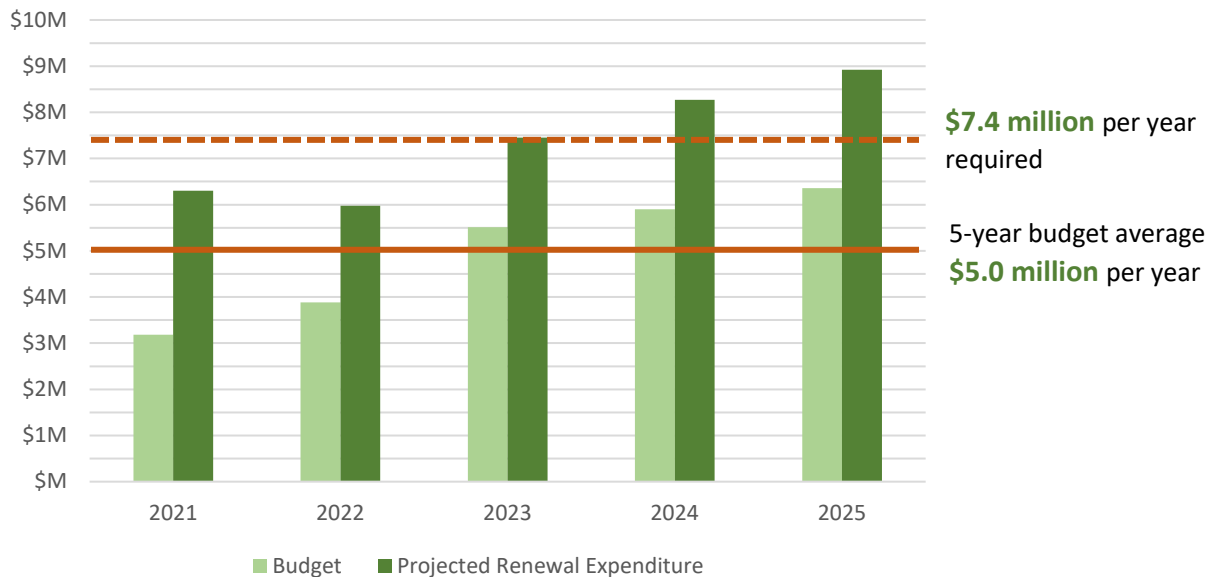
Asset replacement values are determined based on current pricing for regional park projects, market testing with local contractors, industry best practice from other jurisdictions, market research, and historic values. Appendix A outlines the source and values for each asset category.

PROJECTED RENEWAL EXPENDITURE

The estimated cost of ongoing maintenance, up to and including replacement, required to maintain an asset in a specified condition over its service life.

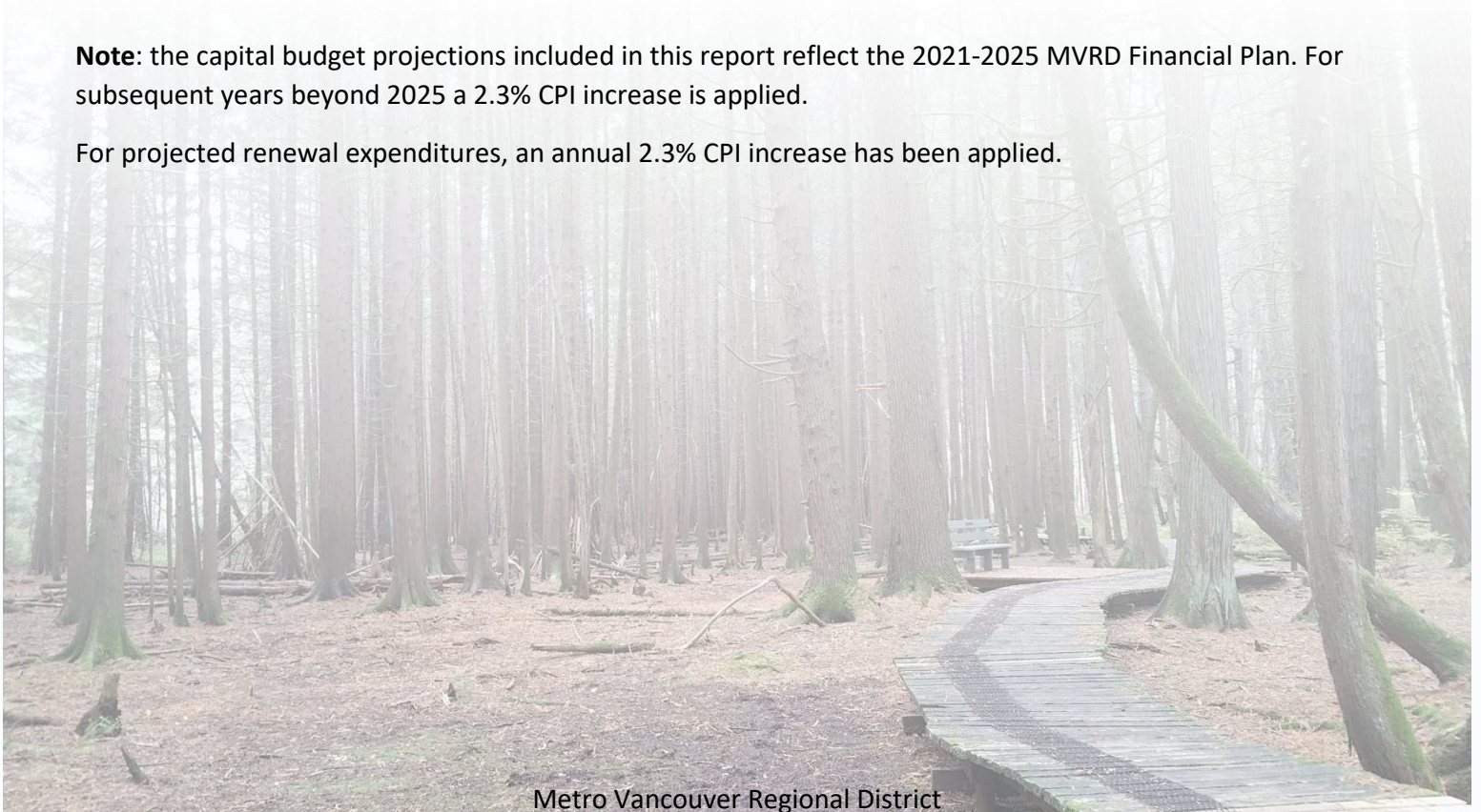
5-YEAR ESTIMATED BUDGET REQUIREMENT

Projected renewal expenditure required to maintain Regional Parks assets to fair or better condition from 2021-2025.



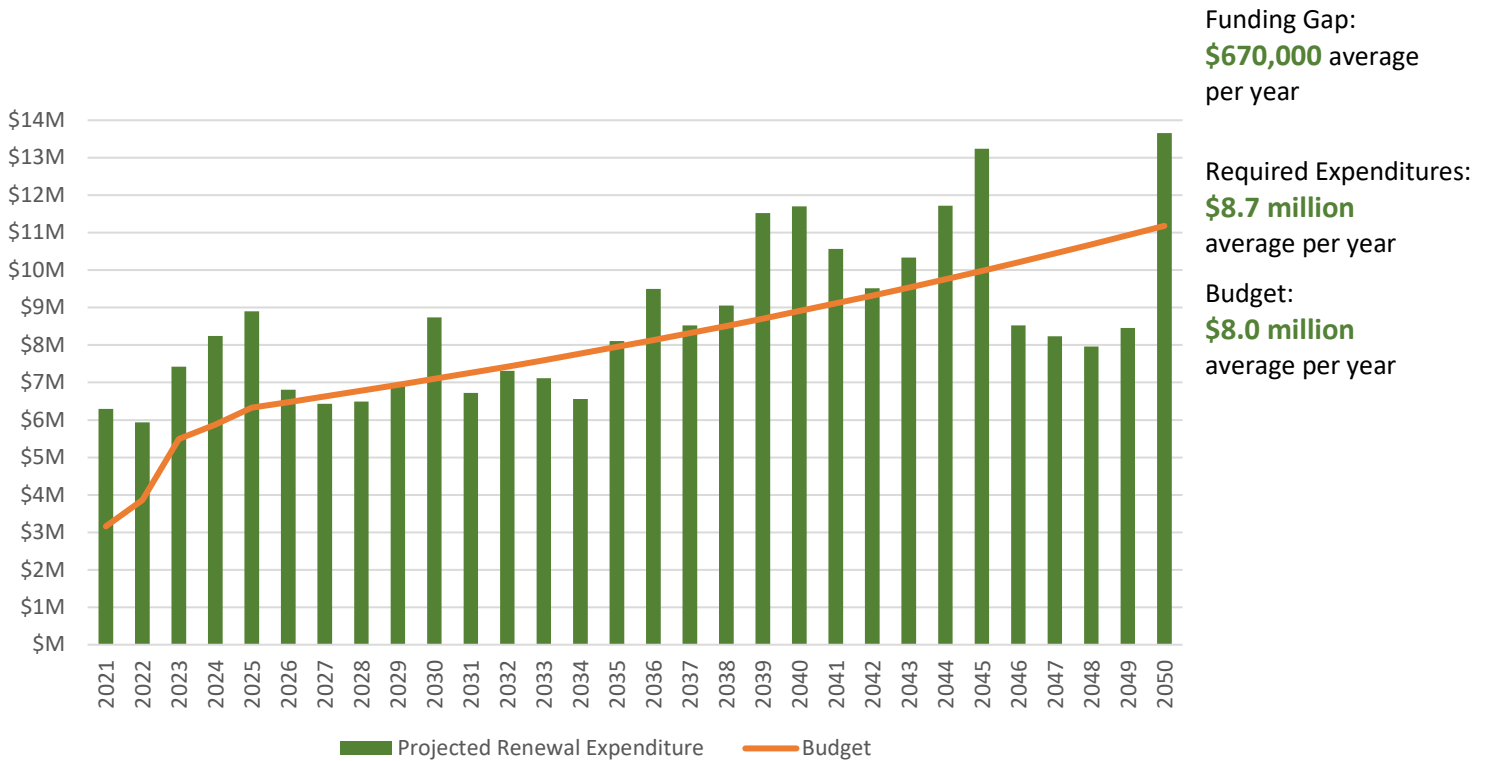
Note: the capital budget projections included in this report reflect the 2021-2025 MVRD Financial Plan. For subsequent years beyond 2025 a 2.3% CPI increase is applied.

For projected renewal expenditures, an annual 2.3% CPI increase has been applied.



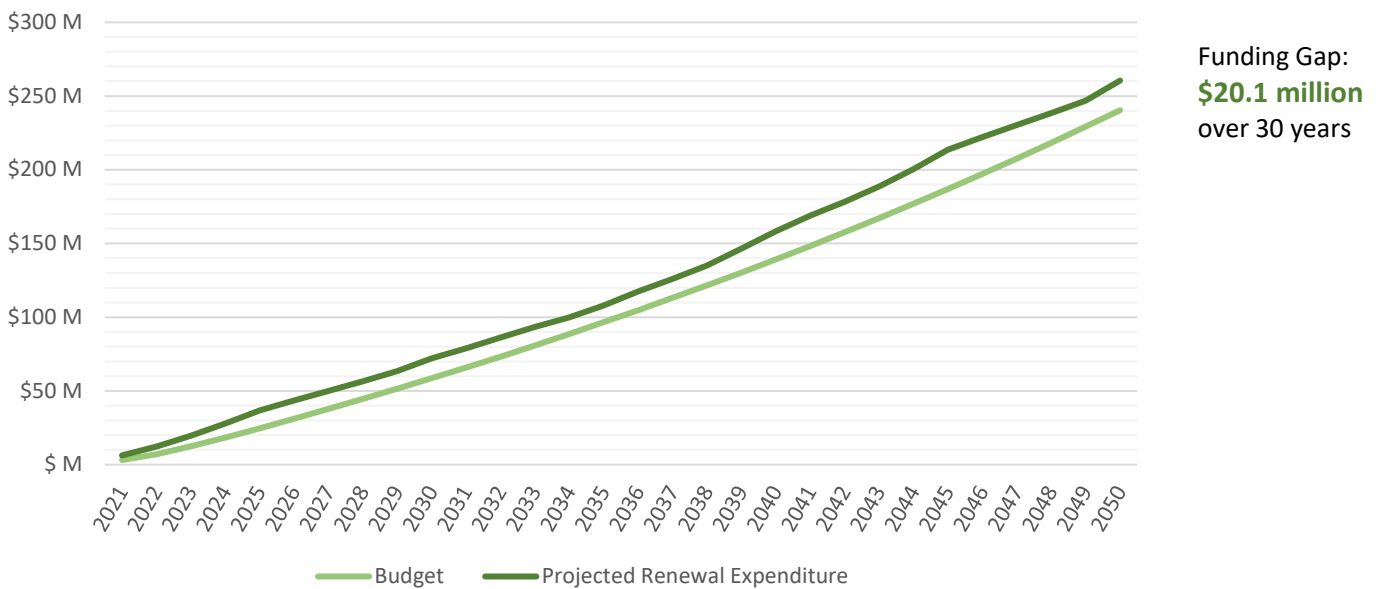
30-YEAR ESTIMATED BUDGET REQUIREMENTS

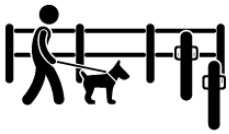
Projected renewal expenditure required to maintain assets in fair or better condition over a 30-year term.



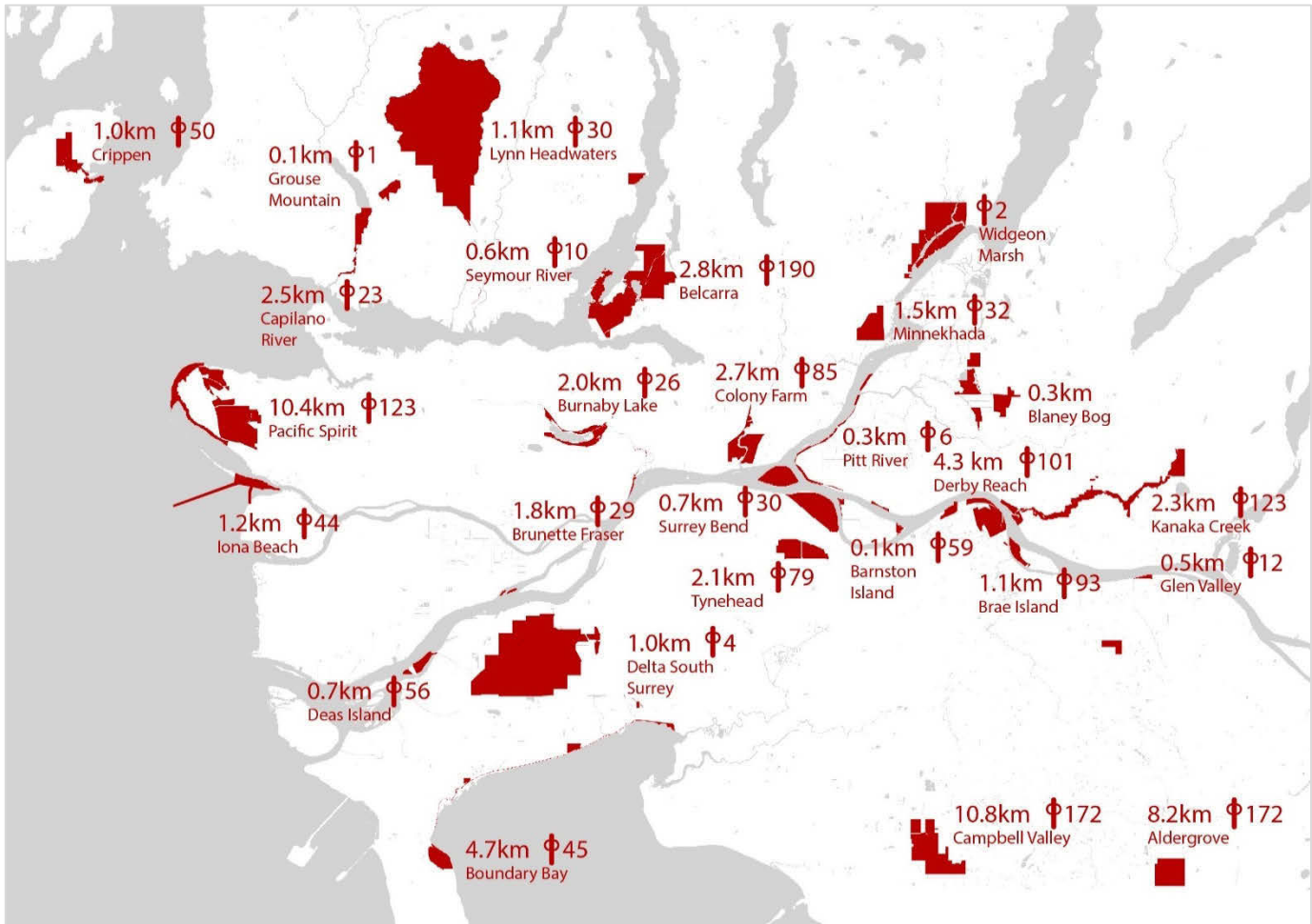
ACCUMULATED 30-YEAR PROJECTION

The cumulative projected renewal requirements of an asset category over a 30-year term, compared to the projected budget allocations over this time. Projected renewal requirements are based on estimated service life and asset condition assessments where available. These graphs display the long-term funding trends.





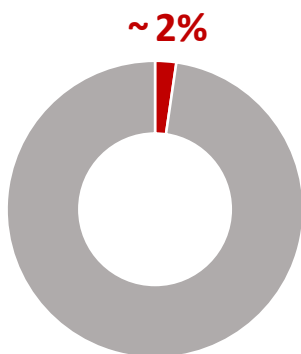
BARRIERS



φ = non-linear barrier

INVENTORY + ASSET REPLACEMENT VALUE

Regional Parks maintains **65 km** linear barriers and **1,597** non-linear barriers; asset replacement value **\$6.7 million**



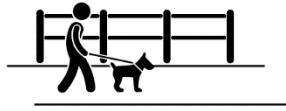
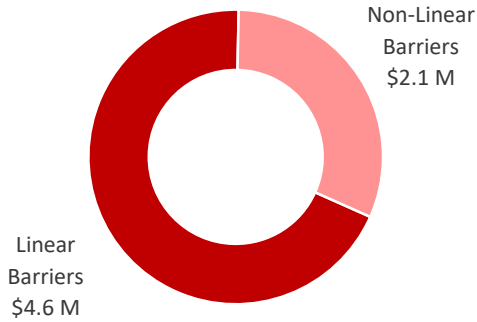
Barriers comprise 2% of the total value of regional park built assets



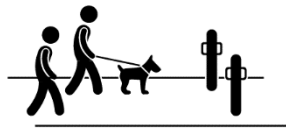
Fencing, Colony Farm Regional Park

BARRIER BY TYPE

Barrier
Asset Replacement Value



Linear Barriers are linear upright structures preventing people, vehicles, or animals from entering an area. They include post & rail, stacked split rail, chain-link, roadside barriers, farm fencing, rows of concrete lock blocks or boulders, etc.



Non-Linear Barriers are barriers on a trail or road to block vehicular access. These include gates, bollards, boulders, etc.

Barrier Type	Number of Assets	Asset Replacement Value
Linear Barriers	65 km	\$4.6 M
Non-Linear Barriers	1,597	\$2.1 M
		\$6.7 M

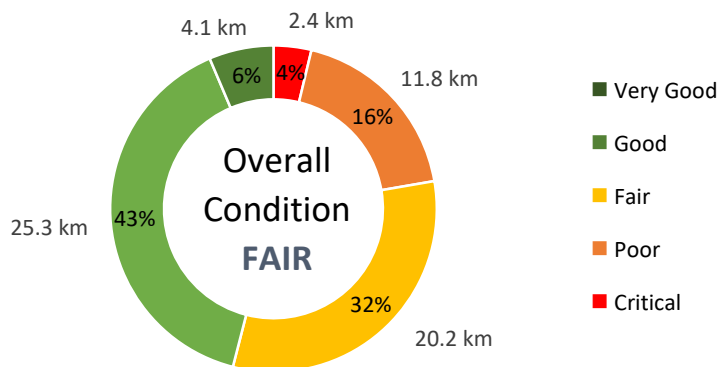
*Data Confidence: HIGH

ASSET CONDITION

Overall Condition **Good**

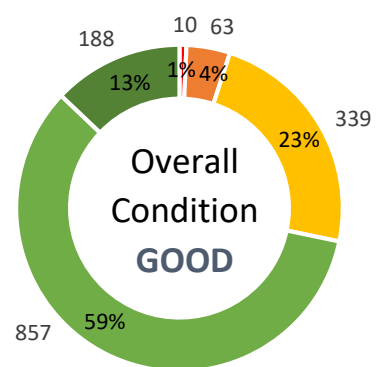
LINEAR BARRIERS

Condition (2020)



NON-LINEAR BARRIERS

Condition (2020)



*Data Confidence: HIGH

PROJECTED RENEWAL EXPENDITURE

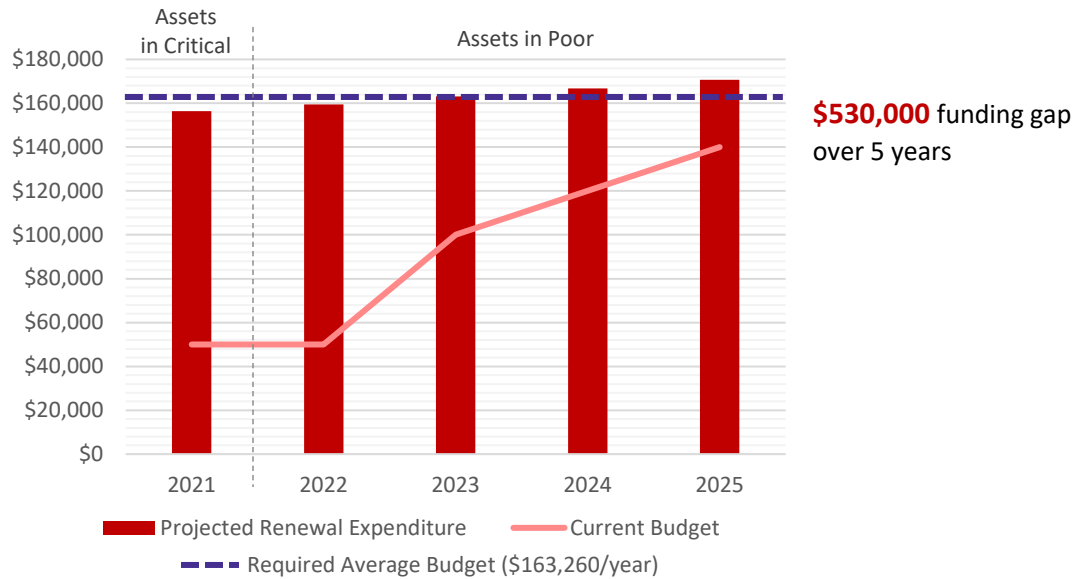
Based on inspections and estimated service life, an average annual budget of \$160,000 is required to maintain barriers from 2021-2025. Based on the capital budget included with the 2021-2025 MVRD Financial Plan, a cumulative \$530,000 funding shortfall is projected by 2025.

5-year budget for Barriers (2021-2025 Financial Plan)

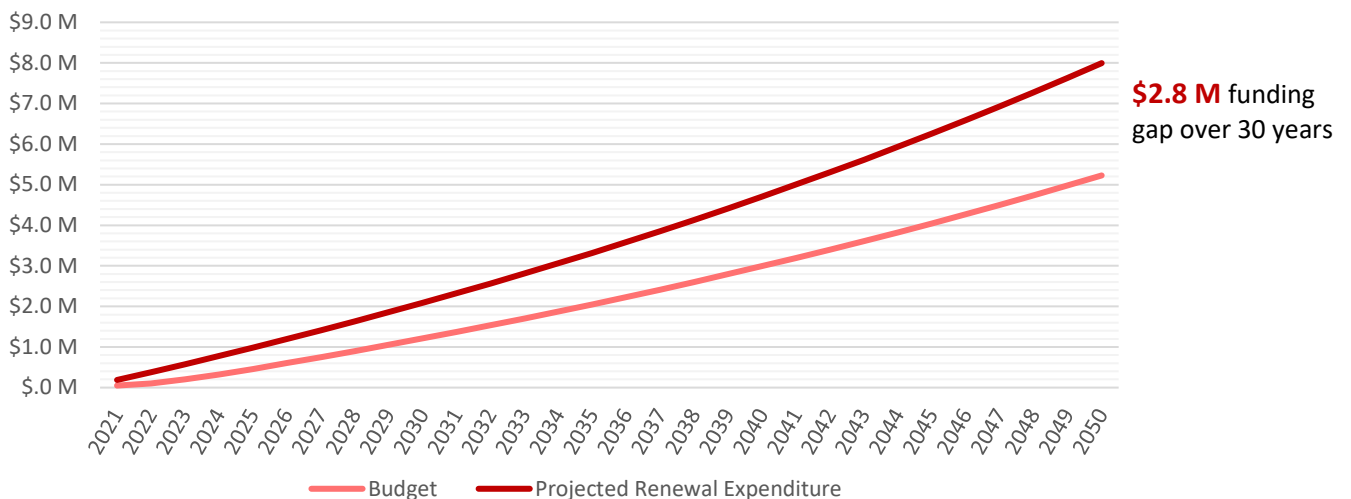
Over the 30-year term, an average annual budget of \$270,000 is required (based on estimated service life). A cumulative funding shortfall of \$2.8 million is projected by 2050.

- 2021 **\$50,000**
- 2022 **\$50,000**
- 2023 **\$100,000**
- 2024 **\$120,000**
- 2025 **\$140,000**

5-Year Estimated Budget Requirements
(replacements based on critical and poor condition ratings of assets)



Accumulated 30-Year Projection
(based on estimated service life of assets)



- Current 5-year budget (2021-2025 MVRD Financial Plan) used in accumulated 30-year projection. 2026 to 2050 budget based on 2025 budget with a 2.3% increase per year.
- 2022 to 2050 required expenditures includes an increase of 2.3% per year.

BARRIERS (MAINTAINED BY OTHERS)

There are **387 m** of linear barriers and **2** non-linear barriers in the regional park system that are maintained by external agencies.

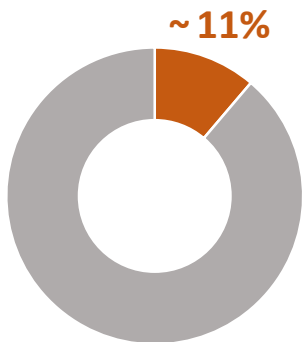


BRIDGES & BOARDWALKS



INVENTORY + ASSET REPLACEMENT VALUE

Regional Parks maintains **623** bridges and boardwalks; asset replacement value **\$33 million**

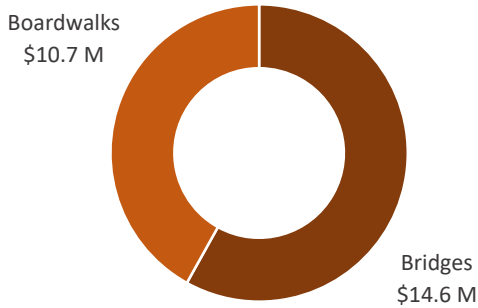


Bridges and boardwalks comprise 11% of the total value of regional park built assets

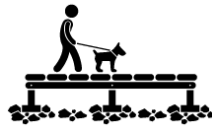


BRIDGES & BOARDWALKS BY TYPE

Bridge + Boardwalk Asset Replacement Value



Bridges are trail or road structures, erected over a depression or waterway, to allow pedestrian and/or vehicles to cross from one side to the other.



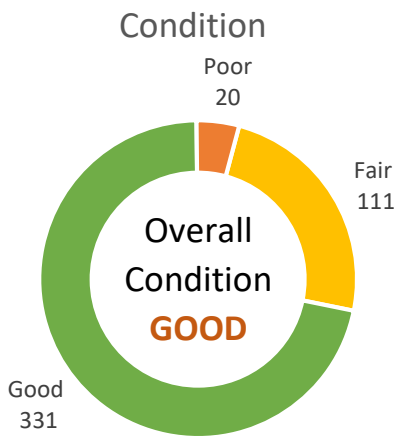
Boardwalks are elevated footpaths enabling park users to cross wet, unstable, uneven, or ecologically sensitive areas.

	Number of Assets	Length (m)	Asset Replacement Value
Bridges	200	2,006	\$14.6 M
Boardwalks	423	6,452	\$18.1 M
<i>*Data Confidence: HIGH</i>	623	8,458	\$32.7 M

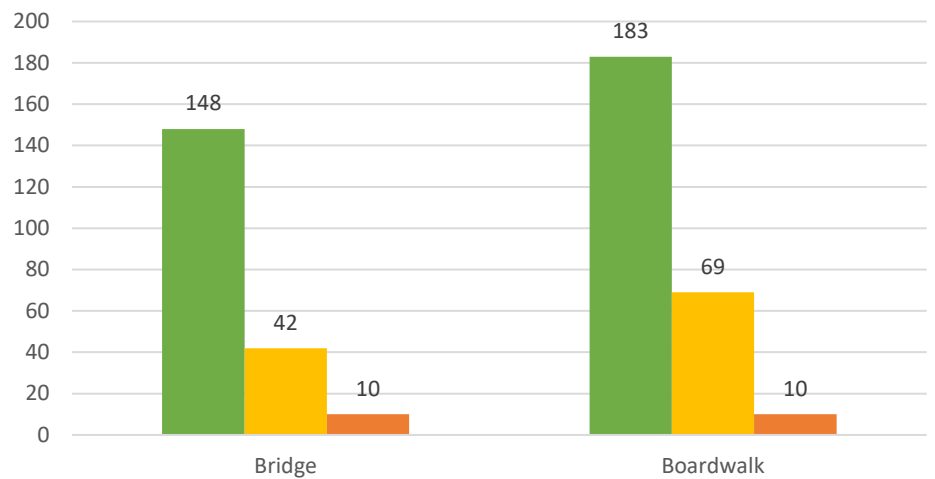
ASSET CONDITION

Overall Condition **Good**

Bridges and Boardwalks



Condition by Type



Legend: Very Good (Dark Green), Good (Light Green), Fair (Yellow), Poor (Orange), Critical (Red)

*Data Confidence: HIGH

PROJECTED RENEWAL EXPENDITURE

Based on inspections and estimated service life, an average annual budget of \$1,360,000 is required to maintain bridges + boardwalks from 2021-2025. Based on the capital budget included with the 2021-2025 MVRD Financial Plan, a cumulative \$4.0 million funding shortfall is projected by 2025.

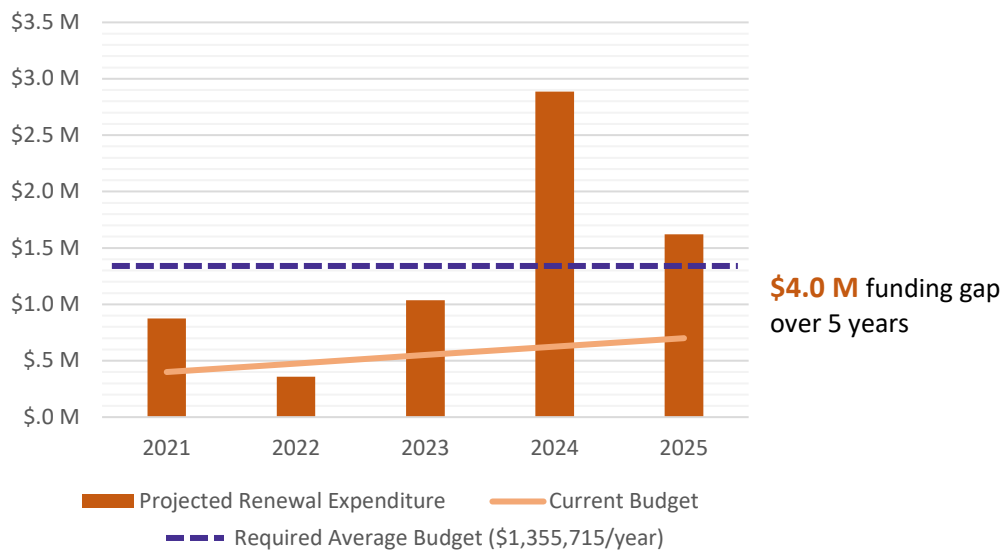
5-year budget for Bridges & Boardwalks (2021-2025 Financial Plan)

Over the 30-year term, an average annual budget of \$1,830,000 is required (based on estimated service life). A cumulative funding shortfall of \$28.2 million is projected by 2050.

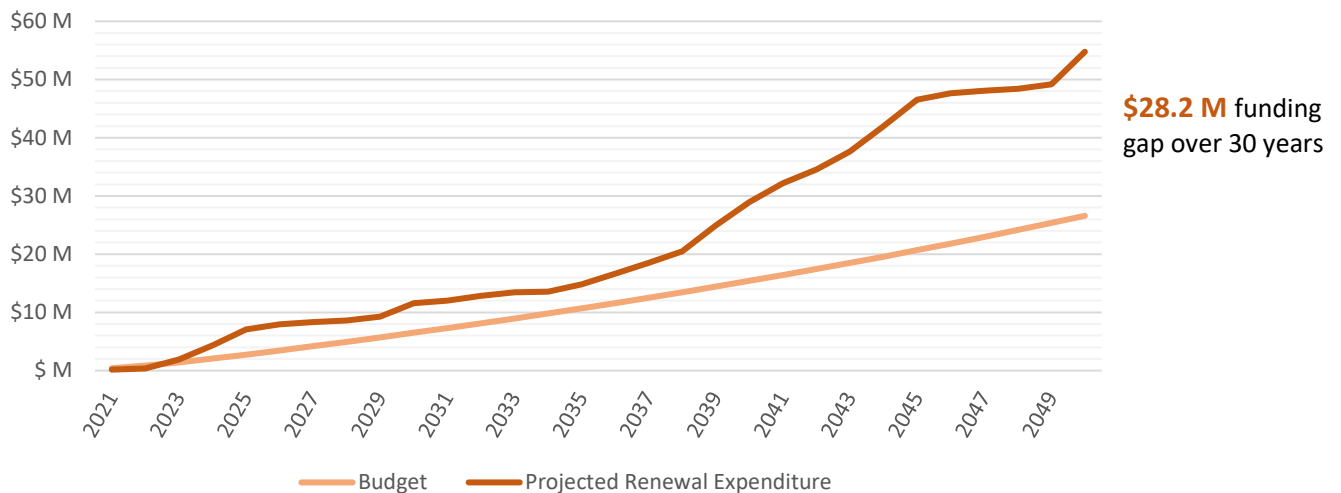
- 2021 **\$400,000**
- 2022 **\$475,000**
- 2023 **\$550,000**
- 2024 **\$625,000**
- 2025 **\$700,000**

Renewal expenditures are based on estimated service life. Bridges and Boardwalks past their expected service life, but still in fair or good condition, will remain in service and be monitored. Assets that remain in service beyond expected service life reduce funding requirements over time.

5 Year Budget Requirements
(based on estimated service life + condition of assets)



Accumulated 30-Year Projection
(based on estimated service life + condition of assets)



- Current 5-year budget (2021-2025 MVRD Financial Plan) used in accumulated 30-year projection. 2026 to 2050 budget based on 2025 budget with a 2.3% increase per year.
 - 2022 to 2050 required expenditures includes an increase of 2.3% per year.

BRIDGES & BOARDWALKS (MAINTAINED BY OTHERS)

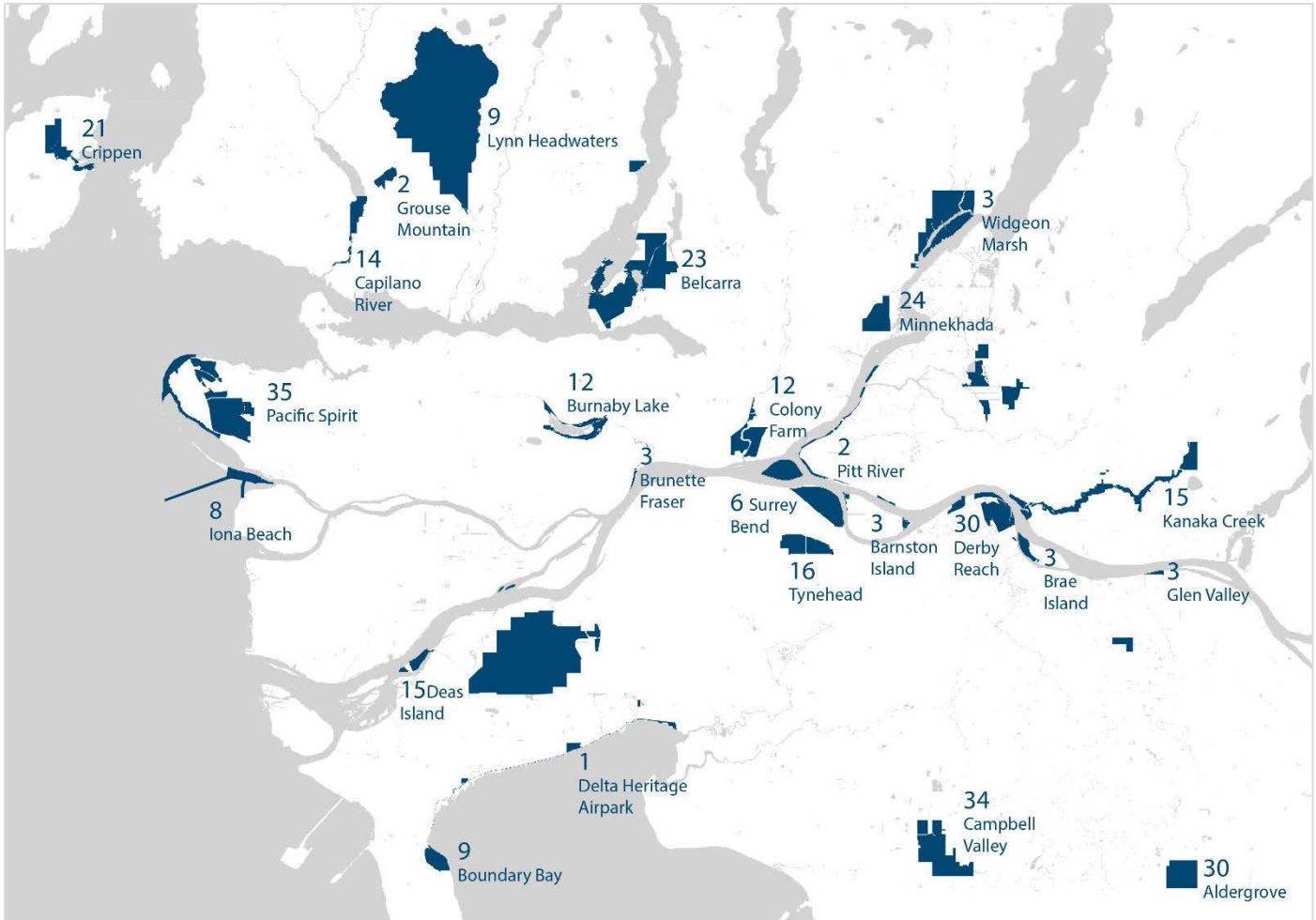


Bridge, Brunette Fraser Regional Greenway

There are **4** bridges located in regional parks and maintained by utility agencies for service vehicle access to infrastructure.

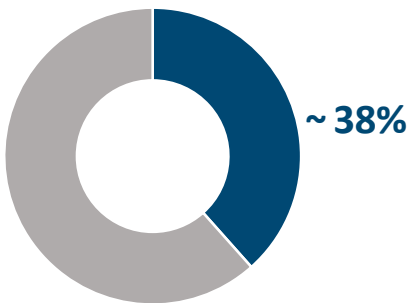


BUILDINGS



INVENTORY + ASSET REPLACEMENT VALUE

Regional Parks maintains **340** Buildings;
asset replacement value **\$112 million**



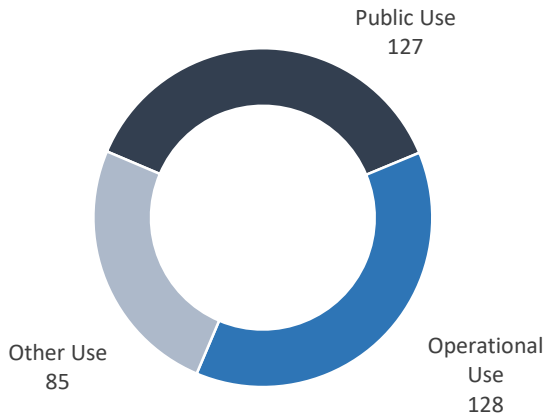
Buildings comprise 38% of the total value of regional park built assets



Delta Agricultural Hall & Burvilla House, Deas Island Regional Park

BUILDINGS BY GENERAL USE

Number of Buildings



Public Use are buildings accessible by the public, ranging from washrooms and picnic shelters, to nature houses and concessions.

Operational Use are buildings that support planning, maintenance, security and utilities for regional parks, ranging from offices and workshops, to utility buildings and caretaker dwellings.

Other Use buildings include those used by licensees, rental houses and outbuildings, and vacant buildings.

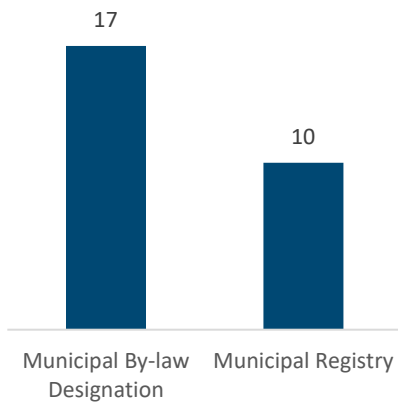
	Area (m ²)	Asset Replacement Value
Public Use	6,566	\$37 M
Operational Use	8,106	\$25 M
Other Use	11,038	\$50 M
	25,710	\$112 M



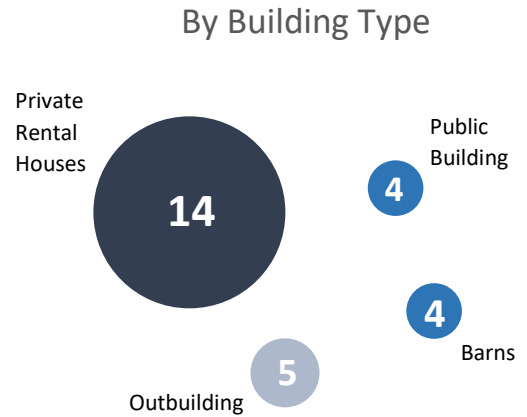
BUILDINGS BY DETAILED USE

	Asset Replacement Value	Number of Assets	
Washroom	\$8.1 M	85	Public Use
Bookable Shelter	\$2.1 M	17	
Bookable Building	\$8.8 M	6	
General Public Use	\$0.3 M	6	
Vacant Display	\$0.4 M	4	
Concession/Washroom	\$9 M	3	
Bookable Building/Caretaker	\$6.3 M	2	
Nature House	\$0.9 M	2	
Nature House/Washroom	\$0.5 M	1	
Office/Washroom	\$0.1 M	1	
Operations	\$11.4 M	99	Operational Use
Office/Operations	\$5.5 M	11	
Office	\$3.4 M	7	
Caretaker	\$2.9 M	5	
Utility	\$0.5 M	5	
Caretaker/Operations	\$1.5 M	1	Other Use
Rental House	\$17.7 M	27	
Rental Outbuilding	\$7.6 M	26	
Vacant	\$16.8 M	20	
License to External Agency	\$8 M	12	

HERITAGE BUILDING STATUS



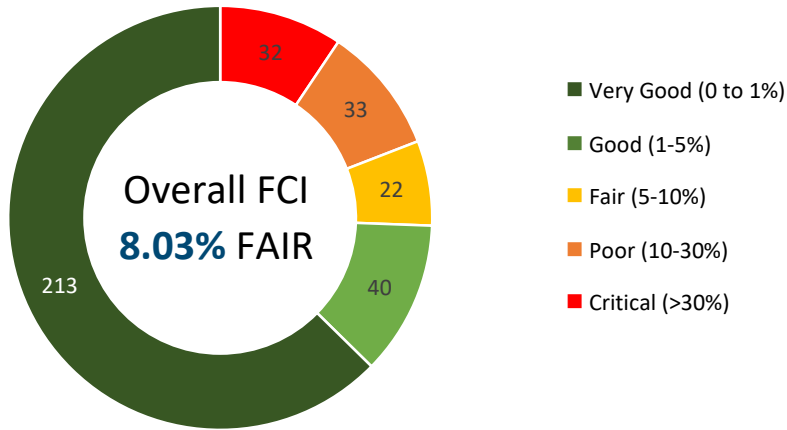
27 buildings are identified as heritage



Detailed Use Definitions

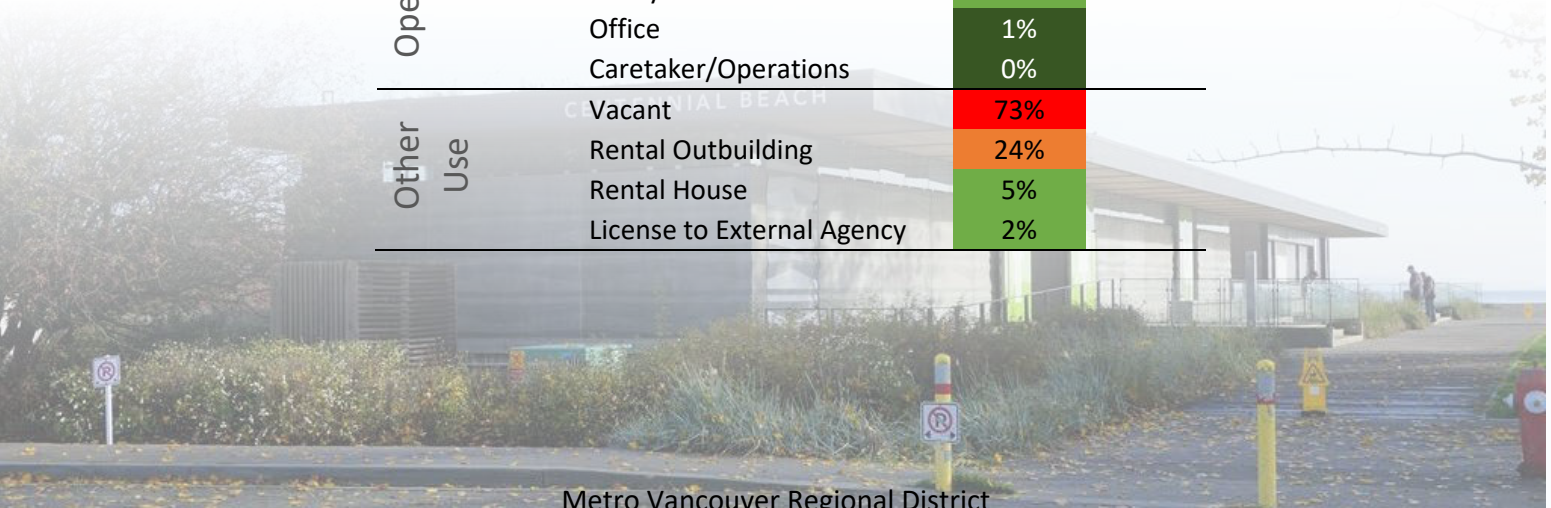
Bookable Building	Short term building rental (e.g. Cammidge House).
Bookable Shelter	Rentable shelter (e.g. picnic shelter, group camp).
Caretaker	Residential facility for a caretaker, including adjacent outbuildings.
Concession	Food service building.
General Public Use	Building or structure used by park visitors excluding other category types (e.g. non-bookable picnic shelters).
License to External Agency	Building used by a person, group, or groups through a license or lease agreement; long-term rentals that are not residential tenancies.
Nature House	Building or structure used to display educational materials and host educational events. Can include limited office space, but not as the predominant use.
Office	Building used by staff for meetings and office work tasks.
Operations	Building used by staff as a workshop and storage of equipment and materials.
Rental House	A house rented out as a residential tenancy.
Rental Outbuilding	An outbuilding rented out as part of a residential tenancy (e.g. barn, garage, etc.).
Utility	Building in which a utility system is operated (e.g. pump houses, electrical shed, chlorination sheds).
Vacant	Building or structure that is empty and not used for display purposes.
Vacant Display	Building or structure that is empty but valued for its role as display in the landscape. Often has heritage value.
Washroom	Washroom facility (e.g. pit toilets, flush toilets, etc.). Can include showers and/or change rooms.

Current Building Condition



AVERAGE CONDITION BY DETAILED USE

		Average FCI
Public Use	Vacant Display	175%
	General Public Use	32%
	Office/Washroom	5%
	Bookable Building	4%
	Bookable Shelter	3%
	Bookable Building/Caretaker	2%
	Nature House	2%
	Washroom	1%
	Concession/Washroom	0%
	Nature House/Washroom	0%
Operational Use	Operations	17%
	Office/Operations	9%
	Caretaker	2%
	Utility	1%
	Office	1%
	Caretaker/Operations	0%
Other Use	Vacant	73%
	Rental Outbuilding	24%
	Rental House	5%
	License to External Agency	2%



PROJECTED RENEWAL EXPENDITURE

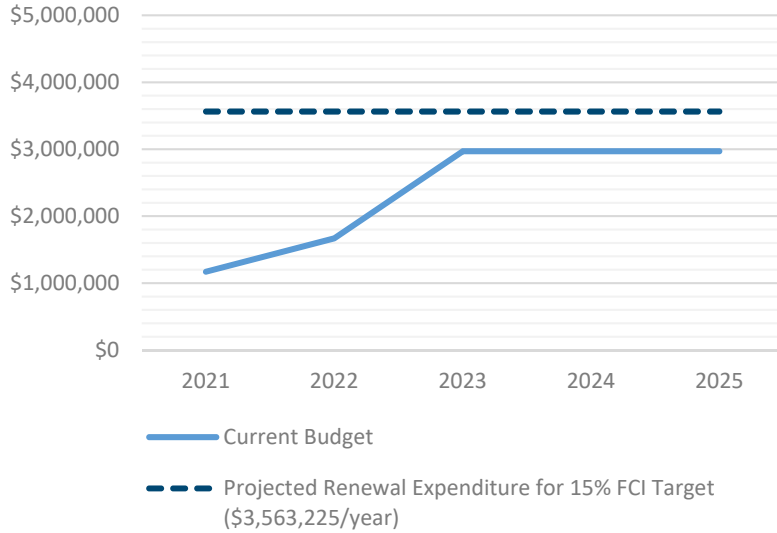
Based on inspections and estimated service life, an average annual budget of \$3,560,000 is required to maintain buildings, to an FCI target of 15%, from 2021-2025. Based on the capital budget included with the 2021-2025 MVRD Financial Plan, a cumulative \$6.1 million funding shortfall is projected by 2025.

Over the 30-year term, an average annual budget of \$3,350,000 is required (based on inspections and estimated service life). A cumulative funding surplus of \$12.5 million is projected by 2050.

5-year budget for Buildings (2021-2025 Financial Plan)

- 2021 **\$1,170,000**
- 2022 **\$1,670,000**
- 2023 **\$2,970,000**
- 2024 **\$2,970,000**
- 2025 **\$2,970,000**

5-Year Estimated Budget Requirements

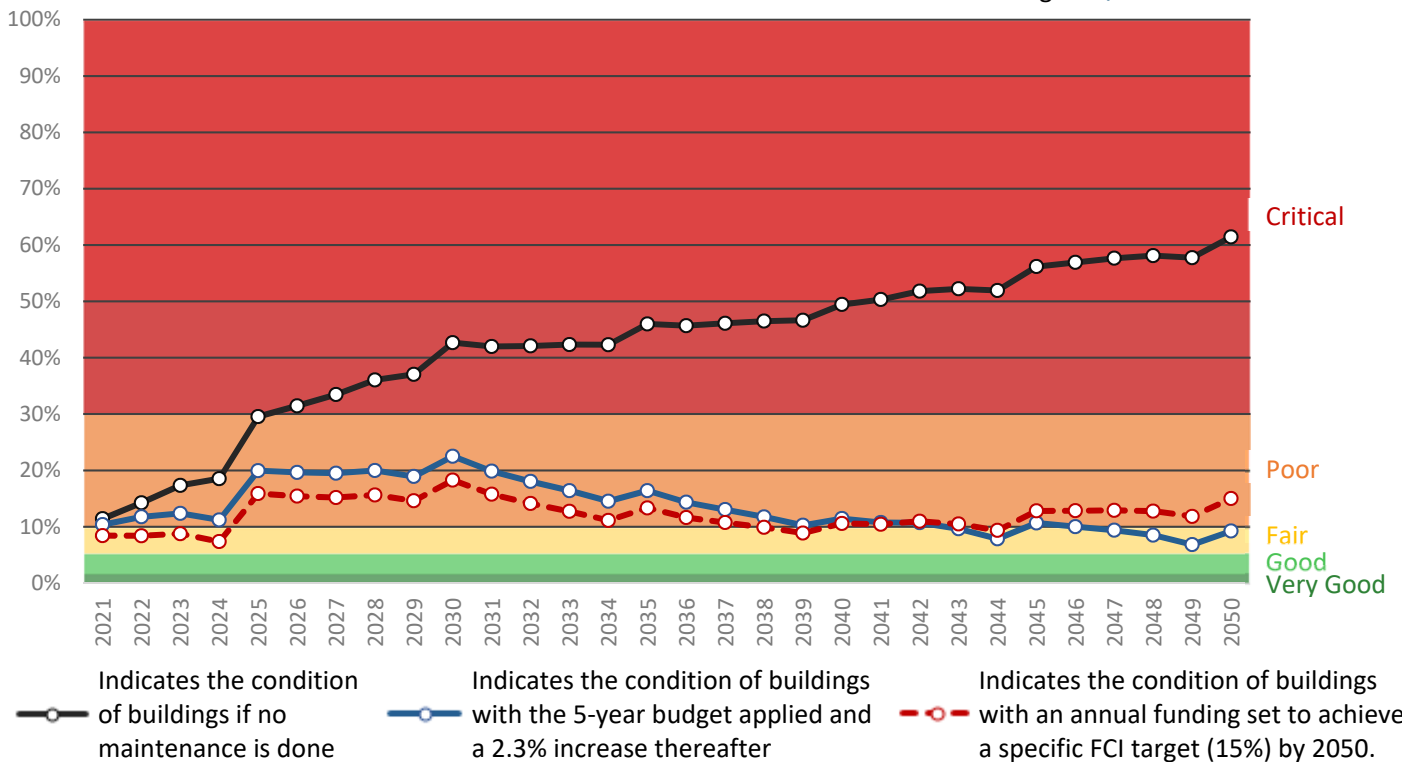


\$6.1 M funding gap over 5 years

Projected renewal expenditures include **+30%** for design work, permits, feasibility studies, archaeology, contingency, etc.

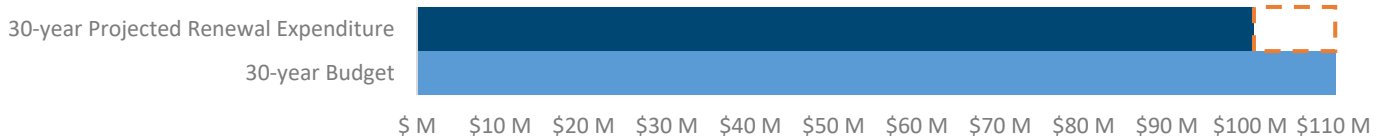
30-YEAR FACILITY CONDITION INDEX MODEL

Calculated average funding to maintain assets at a 15% FCI Target = **\$3.3 million**



Accumulated 30-Year Projection (based on inspections and estimated service life of assets)

\$12.5 M
Surplus



BUILDINGS (MAINTAINED BY OTHERS)

These buildings are located on regional park land but are maintained by external groups through an agreement.



Building Maintained by Others

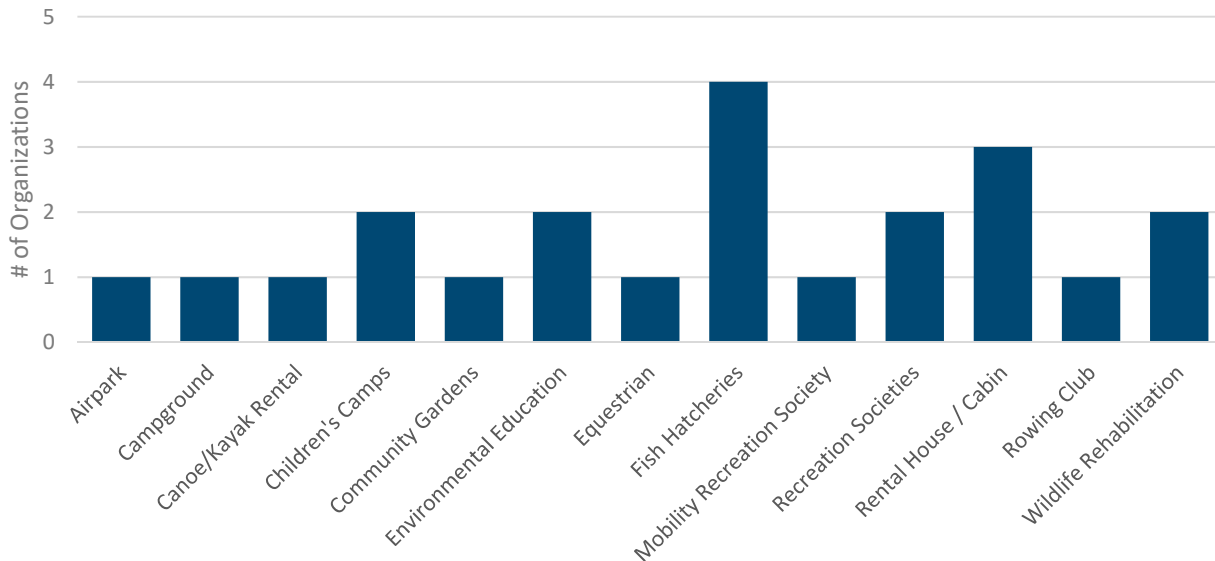
Uses are often complementary to Regional Parks' mandate to protect natural areas and connect people to them, e.g. camps, fish hatcheries, wildlife rehabilitation, etc.

40

Non-MV Maintained Buildings
within Regional Parks

*small ancillary buildings not included

TYPES OF BUILDINGS MAINTAINED BY OTHERS



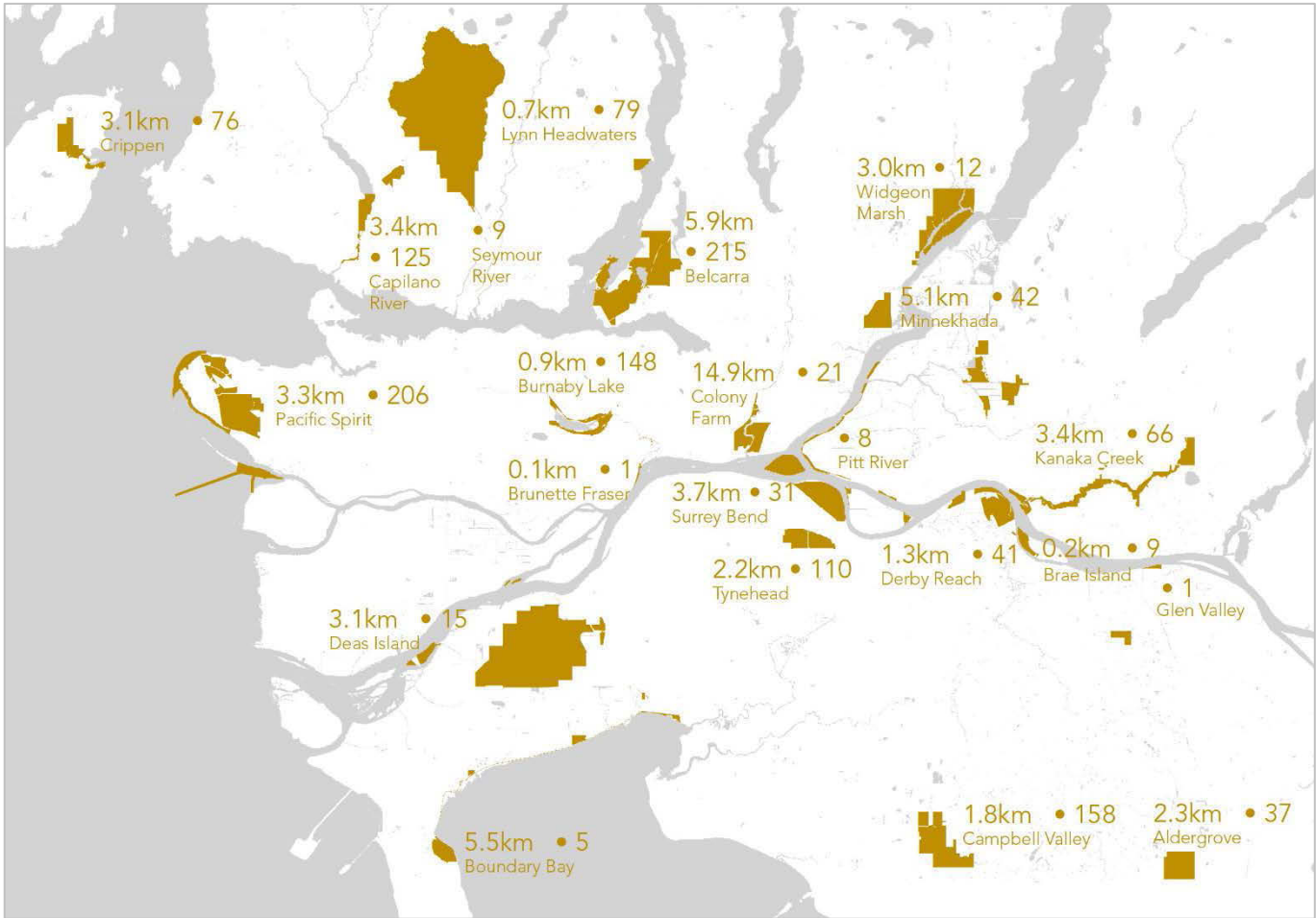
HERITAGE BUILDING STATUS

6

Buildings with Municipal
By-law Designation Status



LAND PROTECTION

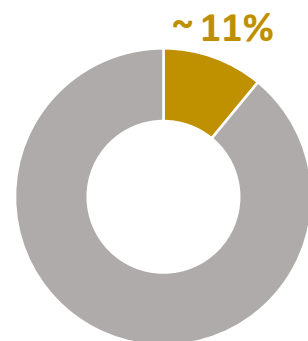


INVENTORY + ASSET REPLACEMENT VALUE

Regional Parks maintains **4 km** dikes, **6** dams, **1.8 km** of retaining walls, **1386** culverts, **8** drainage structures, and **58 km** of drainage lines; asset replacement value **\$32 million**



Retaining Wall, Belcarra Regional Park



Land Protection comprise 11% of the total value of regional park built assets

LAND PROTECTION BY TYPE

Dikes are embankments installed to prevent flooding.

Dams are structures that are used to retain and manage water in streams, rivers, or lakes.

Retaining walls are walls built to hold back soil to change topography, often to create a flat surface. In Regional Parks, these are made of stone, concrete, wood, sand bags, or willow.

Culverts are pipes that allow water to flow under a trail, road, or other hardened surface. They are used to manage water flows across infrastructure and to reduce erosion.

Erosion Protection are the armouring of slopes to prevent soil erosion

Drainage Structures are structures installed to move water or control the flow of water, e.g. flood gate, pump stations, etc.

Drainage Lines are ditches, swales, drain pipes, etc. installed to move water over or through a landscape.



Dike, Colony Farm Regional Park

	Number of Assets	Length (km)	Asset Replacement Value
Dikes	-	4	\$11,498,000
Dams	6	-	\$2,871,000
Retaining Walls	77	1.8	\$2,074,000
Culverts	1386	6.4	\$1,066,000
Erosion Protection	-	-	\$4,308,000
Drainage Structures	8	-	\$2,847,000
Drainage Lines	-	57.9	\$7,320,000

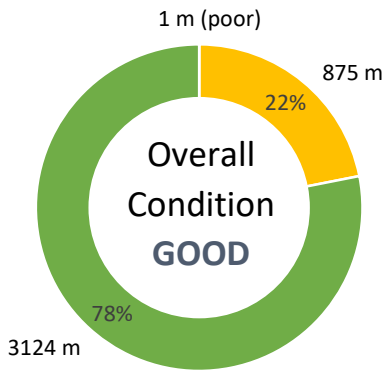
*Data Confidence: HIGH (dikes, dams, retaining walls, culverts)

*Data Confidence: LOW (erosion protection, drainage structures, drainage lines)

\$32 M

DIKES

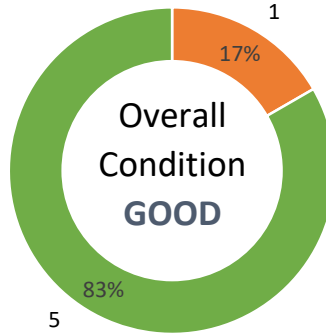
Condition (2020)



*Data Confidence: HIGH

DAMS

Condition (2020)

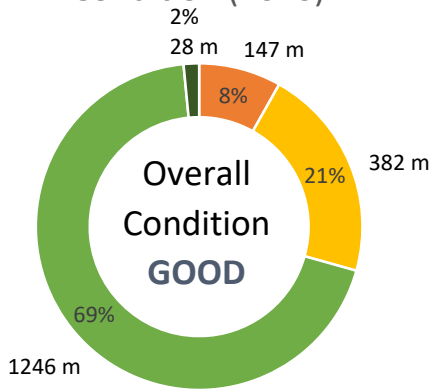


*Data Confidence: HIGH

- Very Good
- Good
- Fair
- Poor
- Critical

RETAINING WALLS

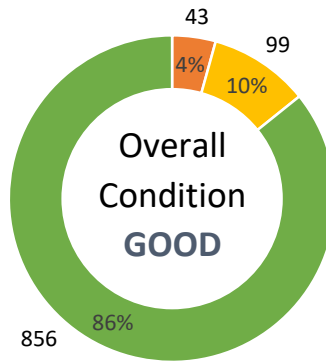
Condition (2020)



*Data Confidence: HIGH

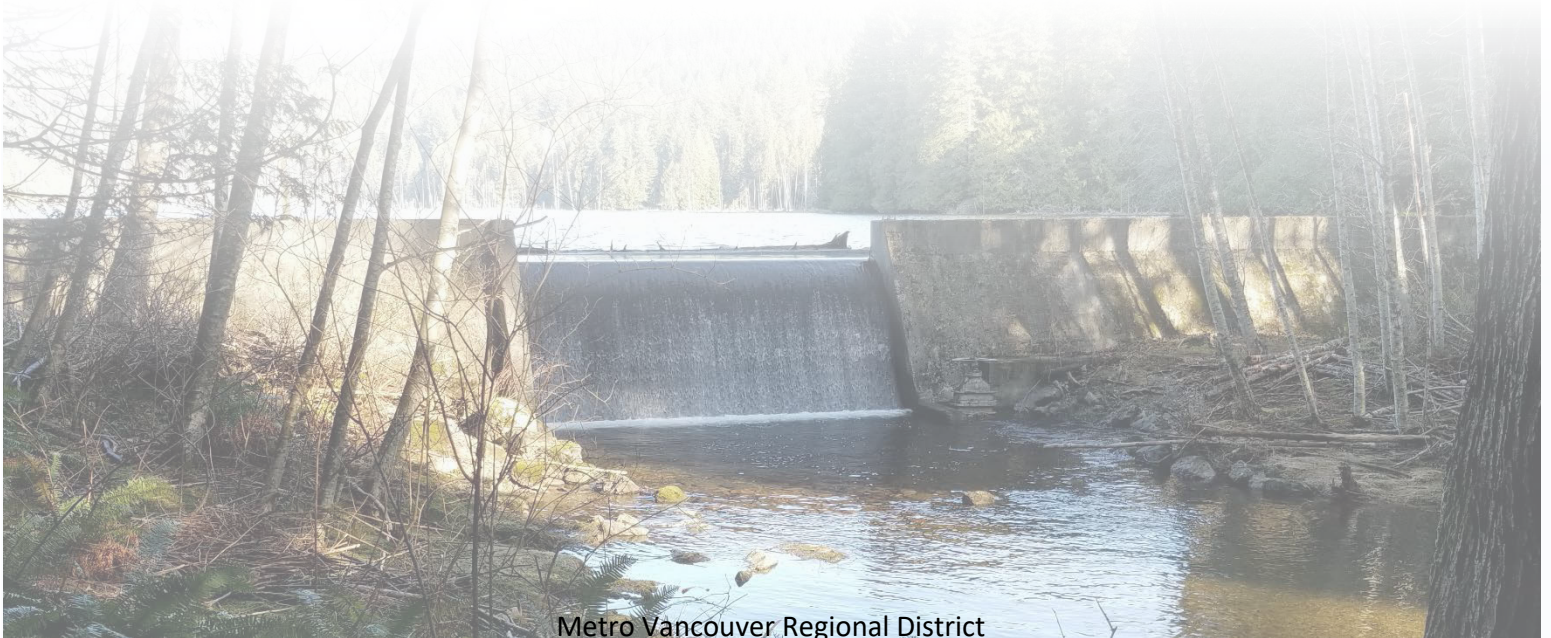
CULVERTS

Condition (2020)



*Data Confidence: HIGH

Note:
No condition data for erosion protection, drainage structures, or drainage lines



PROJECTED RENEWAL EXPENDITURE

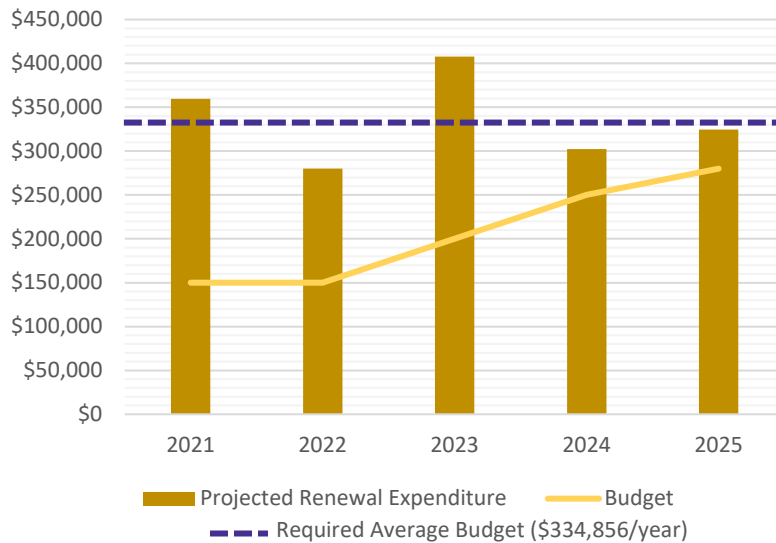
Based on inspections and estimated service life, an average annual budget of \$330,000 is required to maintain land protection assets from 2021-2025. Based on the capital budget included with the 2021-2025 MVRD Financial Plan, a cumulative \$640,000 funding shortfall is projected by 2025.

5-year budget for Land Protection (2021-2025 Financial Plan)

Over the 30-year term, an average annual budget of \$490,000 is required (based on estimated service life). A cumulative funding shortfall of \$4.2 million is projected by 2050.

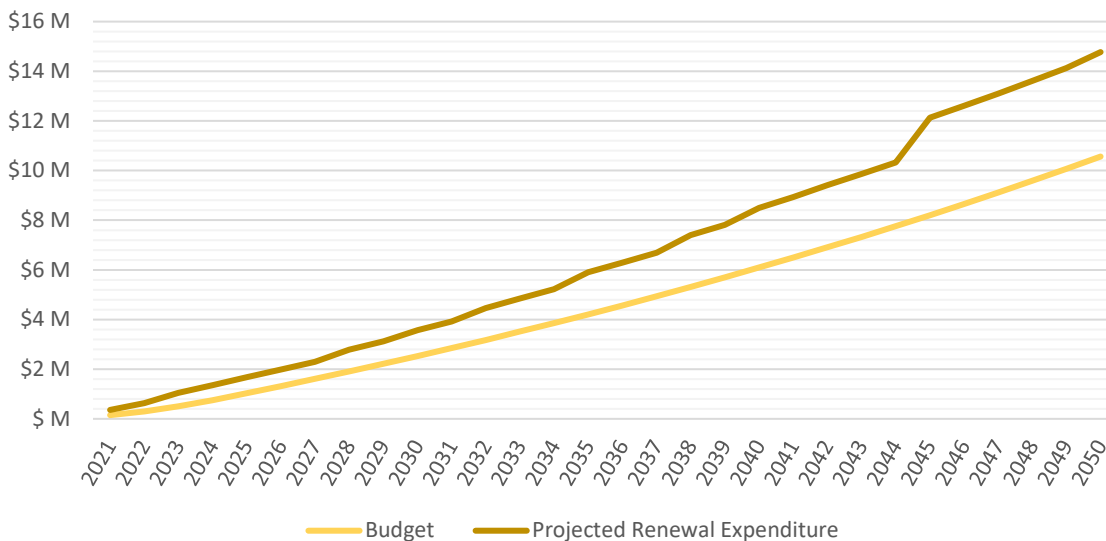
- 2021 **\$150,000**
- 2022 **\$150,000**
- 2023 **\$200,000**
- 2024 **\$250,000**
- 2025 **\$280,000**

5-Year Estimated Budget Requirements
(replacements based on critical and poor condition ratings of assets)



\$644,000 funding gap over 5 years

Accumulated 30-Year Projection
(based on estimated service life of assets)

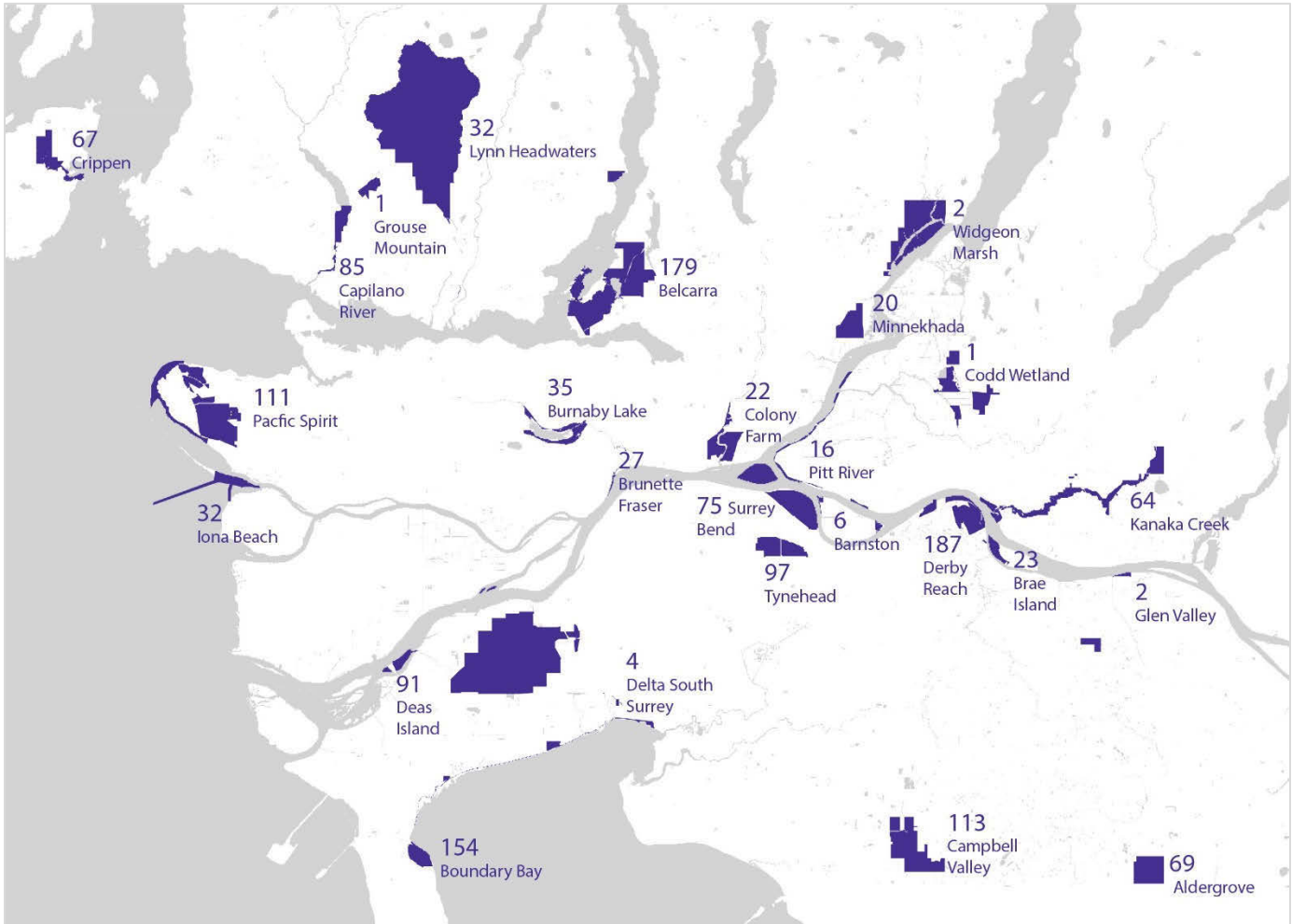


\$4.2 M funding gap over 30 years

- Current 5-year budget (2021-2025 MVRD Financial Plan) used in accumulated 30-year projection. 2026 to 2050 budget based on 2025 budget with a 2.3% increase per year.
- 2022 to 2050 required expenditures includes an increase of 2.3% per year.

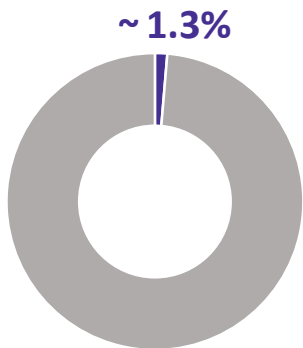


PARK FIXTURES



INVENTORY + ASSET REPLACEMENT VALUE

Regional Parks maintains **1514** park fixtures; asset replacement value **\$3.9 million**



Park Fixtures comprise 1.3% of the total value of regional park built assets



Bench, Tynehead Regional Park

PARK FIXTURES BY TYPE

Park fixtures are furnishings that support the park visitor experience, e.g. picnic tables, bike racks, etc.



Park Fixture Types	Asset Replacement Value	Number of Assets
Picnic Tables	\$2,106,000	541
Benches	\$645,000	349
Bike Racks	\$69,000	66
Solid Waste Containers	\$946,000	462
Fire Pits	\$29,000	53
BBQ Stands	\$61,000	16
Hitching Rails	\$9,000	27

*Data Confidence: HIGH

\$3.9 M

1514

ASSET CONDITION

Overall Condition

Good

Park Fixture Types	Average Condition										
<table border="1"> <tr> <td>14%</td> <td>51%</td> <td>28%</td> <td>8%</td> <td>0%</td> </tr> <tr> <td>70</td> <td>261</td> <td>141</td> <td>39</td> <td>1</td> </tr> </table>	14%	51%	28%	8%	0%	70	261	141	39	1	GOOD
14%	51%	28%	8%	0%							
70	261	141	39	1							
<table border="1"> <tr> <td>4%</td> <td>41%</td> <td>40%</td> <td>15%</td> <td>1%</td> </tr> <tr> <td>14</td> <td>142</td> <td>139</td> <td>51</td> <td>3</td> </tr> </table>	4%	41%	40%	15%	1%	14	142	139	51	3	FAIR
4%	41%	40%	15%	1%							
14	142	139	51	3							
<table border="1"> <tr> <td>27%</td> <td>58%</td> <td>15%</td> </tr> <tr> <td>18</td> <td>38</td> <td>10</td> </tr> </table>	27%	58%	15%	18	38	10	GOOD				
27%	58%	15%									
18	38	10									
<table border="1"> <tr> <td>15%</td> <td>74%</td> <td>10%</td> <td>1%</td> </tr> <tr> <td>60</td> <td>306</td> <td>42</td> <td>4</td> </tr> </table>	15%	74%	10%	1%	60	306	42	4	GOOD		
15%	74%	10%	1%								
60	306	42	4								
<table border="1"> <tr> <td>2%</td> <td>95%</td> <td>2%</td> </tr> <tr> <td>1</td> <td>41</td> <td>1</td> </tr> </table>	2%	95%	2%	1	41	1	FAIR				
2%	95%	2%									
1	41	1									
<table border="1"> <tr> <td>7%</td> <td>53%</td> <td>40%</td> </tr> <tr> <td>1</td> <td>8</td> <td>6</td> </tr> </table>	7%	53%	40%	1	8	6	GOOD				
7%	53%	40%									
1	8	6									
<table border="1"> <tr> <td>67%</td> <td>33%</td> </tr> <tr> <td>18</td> <td>9</td> </tr> </table>	67%	33%	18	9	GOOD						
67%	33%										
18	9										

*Data Confidence: HIGH

Very Good Good Fair Poor Critical

PROJECTED RENEWAL EXPENDITURE

Based on inspections and estimated service life, an average annual budget of \$30,000 is required to maintain park fixtures from 2021-2025. Based on the capital budget included with the 2021-2025 MVRD Financial Plan, a cumulative \$160,000 funding surplus is projected by 2025.

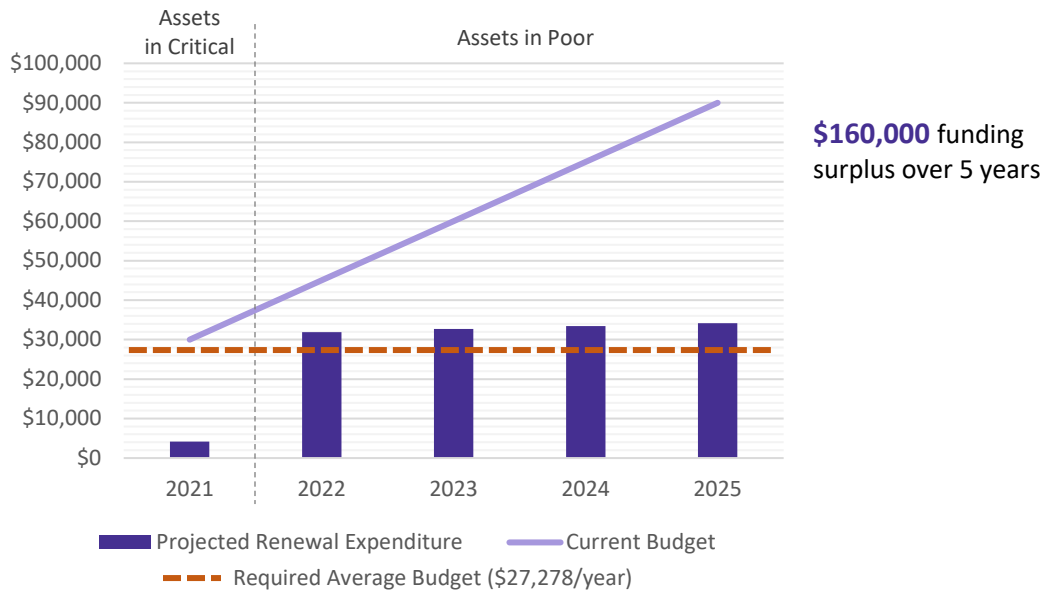
For the 30-year term, an average annual budget of \$90,000 is required (based on estimated service life). A cumulative funding surplus of \$760,000 is projected by 2050.

Many park fixtures have been replaced or added in the last 10 years, resulting in a smaller required annual budget for the 5-year term vs the 30-year term.

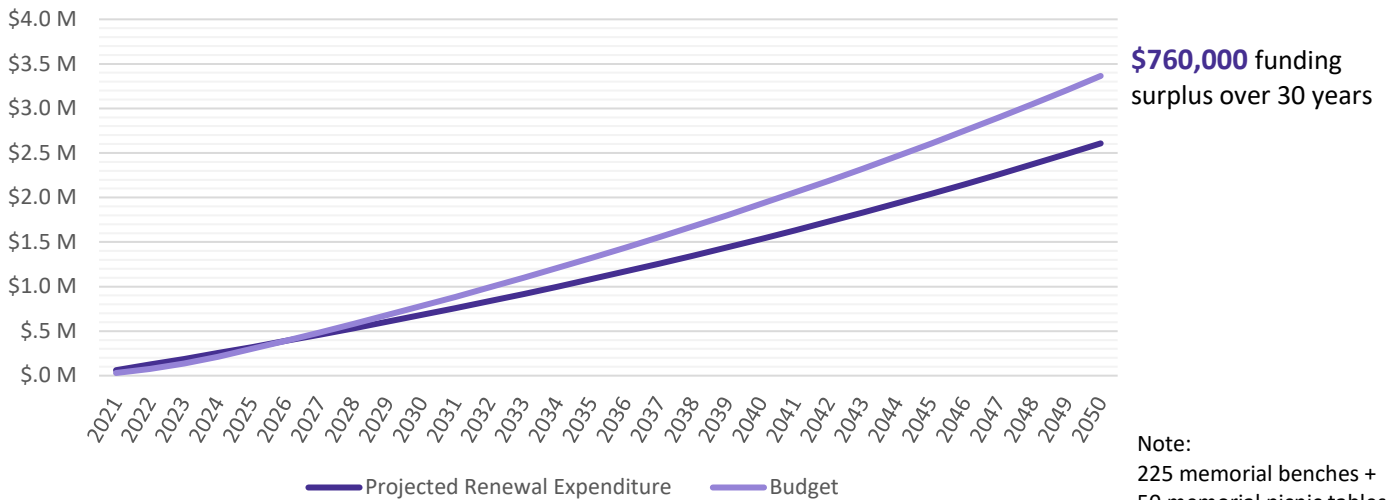
5-year budget for Park Fixtures (2021-2025 Financial Plan)

- 2021 **\$30,000**
- 2022 **\$45,000**
- 2023 **\$60,000**
- 2024 **\$75,000**
- 2025 **\$90,000**

5-Year Estimated Budget Requirements
(replacements based on critical and poor condition ratings of assets)



Accumulated 30-Year Projection
(based on estimated service life of assets)

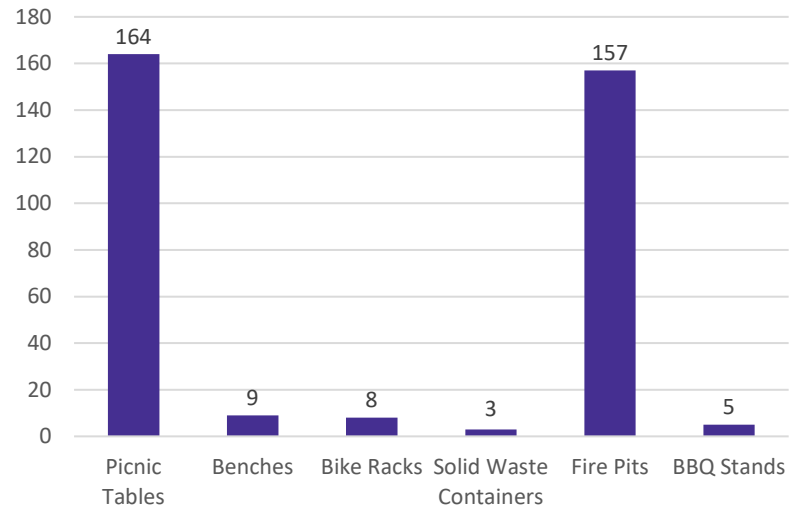


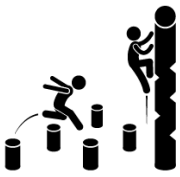
- Current 5-year budget (2021-2025 MVRD Financial Plan) used in accumulated 30-year projection. 2026 to 2050 budget based on 2025 budget with a 2.3% increase per year.
- 2022 to 2050 required expenditures includes an increase of 2.3% per year.

Note:
225 memorial benches + 50 memorial picnic tables paid through Donor Commemoration Program. Not included in projected renewal expenditures.

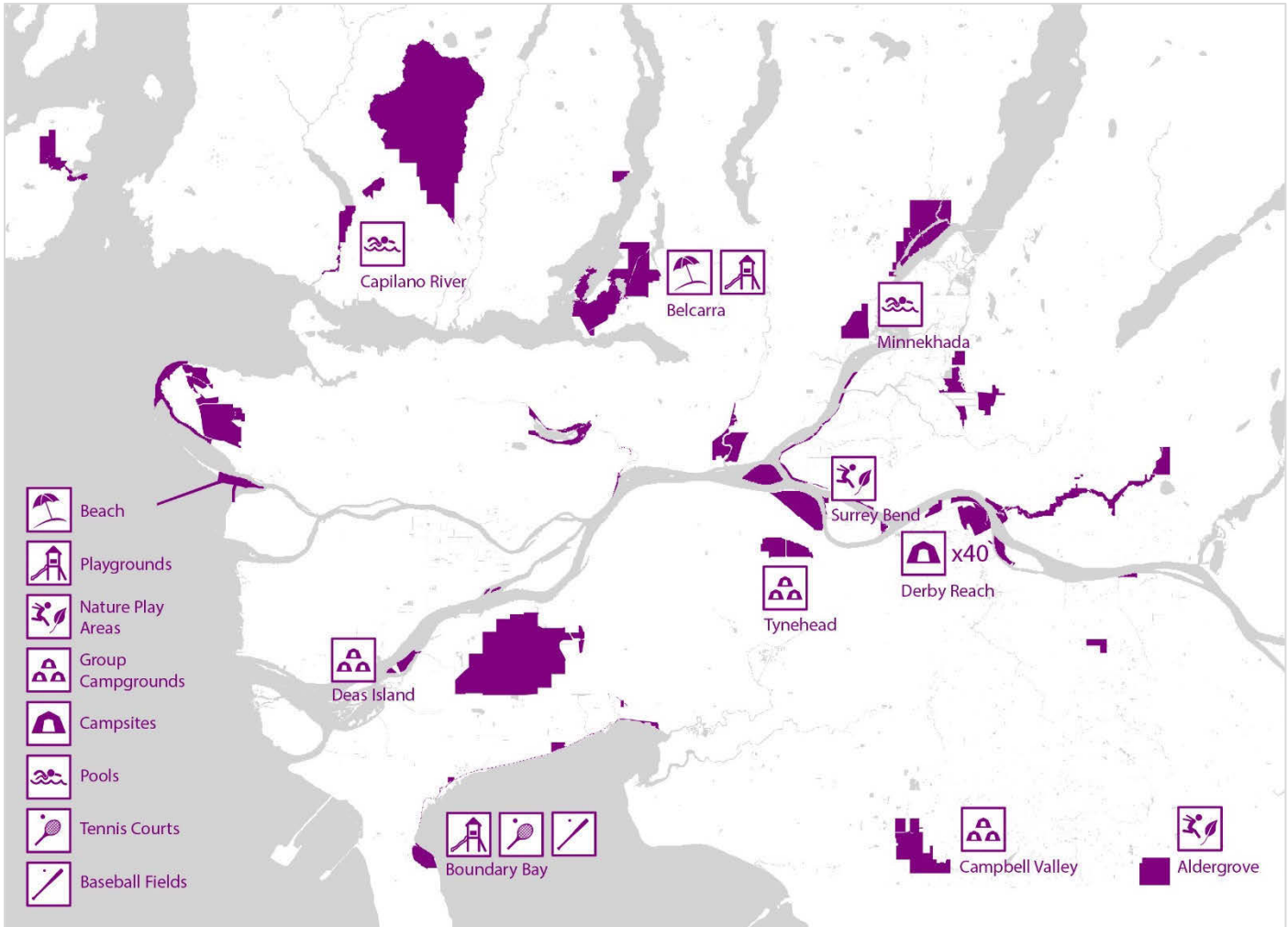
PARK FIXTURES (MAINTAINED BY OTHERS)

These park fixtures are located on regional park land but are maintained by external organizations through an agreement. The majority of these assets reside in the Brae Island Regional Park campground.



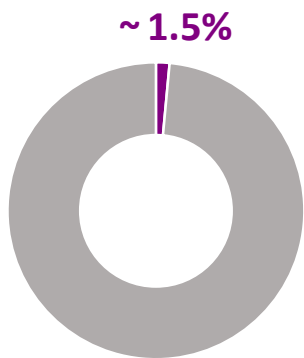


RECREATIONAL FACILITIES

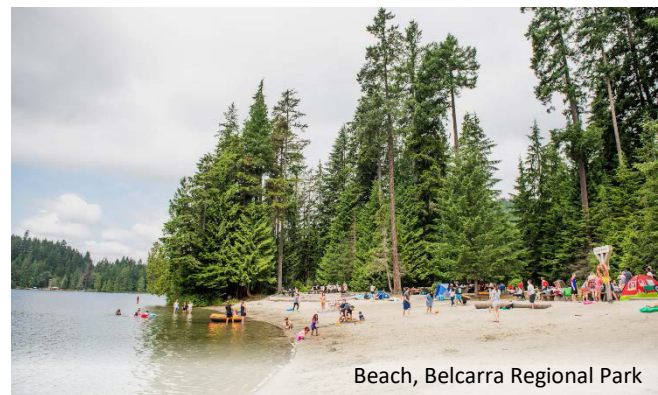


INVENTORY + ASSET REPLACEMENT VALUE

Regional Parks maintains: **1** beach **2** playgrounds
2 nature play areas **3** group camps
1 campground (40 campsites) **2** pools **1** tennis court
1 baseball field asset replacement value **\$4.3 M**



Recreational facilities comprise 1.5% of the total value of regional park built assets



Beach, Belcarra Regional Park

RECREATIONAL FACILITIES BY TYPE

Beaches for water access. Beaches included in this section are constructed beaches only, and not naturally occurring beach.

Playgrounds - recreational playground equipment. This does not include nature play areas that include primarily natural features.

Pools - swimming pools.

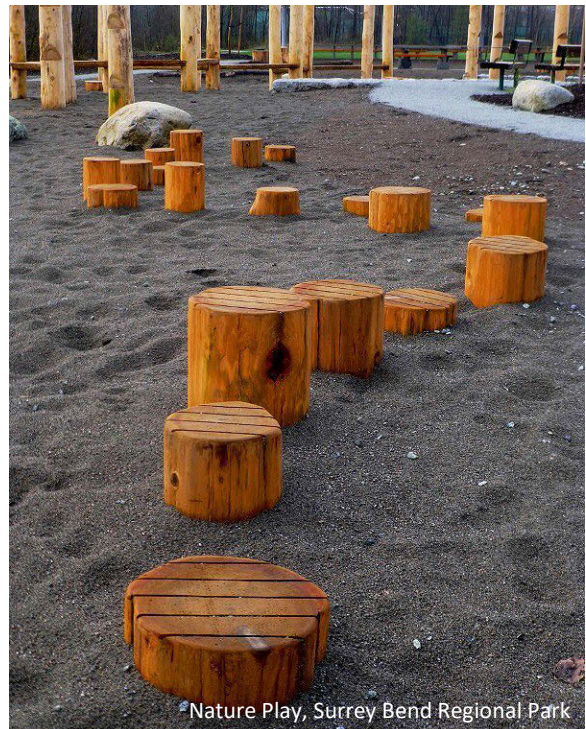
Campgrounds are cleared and maintained areas available for tent/trailer camping.

Nature Play Areas are areas in the park designed for park visitors to engage in unstructured play with natural elements, such as logs, rocks, sticks, etc.

Tennis Courts – tennis courts. There are two in regional park system, one is maintained by Metro Vancouver Regional Parks.

Baseball Fields - baseball fields. There are two in regional park system, one is maintained by Metro Vancouver Regional Parks.

Group Camps reservable areas for groups camping.



	Number of Assets	Area (m ²)	Cost per m ²	Asset Replacement Value
Beach	1	7,600	\$368	\$2,800,000
Playgrounds	2	-	-	\$581,000
Pools	2	175	\$1,626	\$284,500
Campgrounds	1 (40 campsites)	5,731	\$45	\$258,000
Nature Play Areas	2	-	-	\$115,000
Tennis Courts	1	1,300	\$77	\$100,000
Baseball Fields	1	3,200	\$31	\$98,000
Group Camps	3	945	\$45	\$42,500
*Data Confidence: HIGH				\$4.3 M



Nature Play, Surrey Bend Regional Park

Recreational Facility Types		Average Condition
Playgrounds	1 Fair, 1 Poor	FAIR / POOR
Pools	1 Good, 1 Fair	FAIR
Tennis Courts	1 Fair	FAIR
Baseball Fields	1 Fair	FAIR

■ Very Good
 ■ Good
 ■ Fair
 ■ Poor
 ■ Critical
 *Data Confidence: HIGH

Note:
Group camps and campground condition not available - TBD

PROJECTED RENEWAL EXPENDITURE

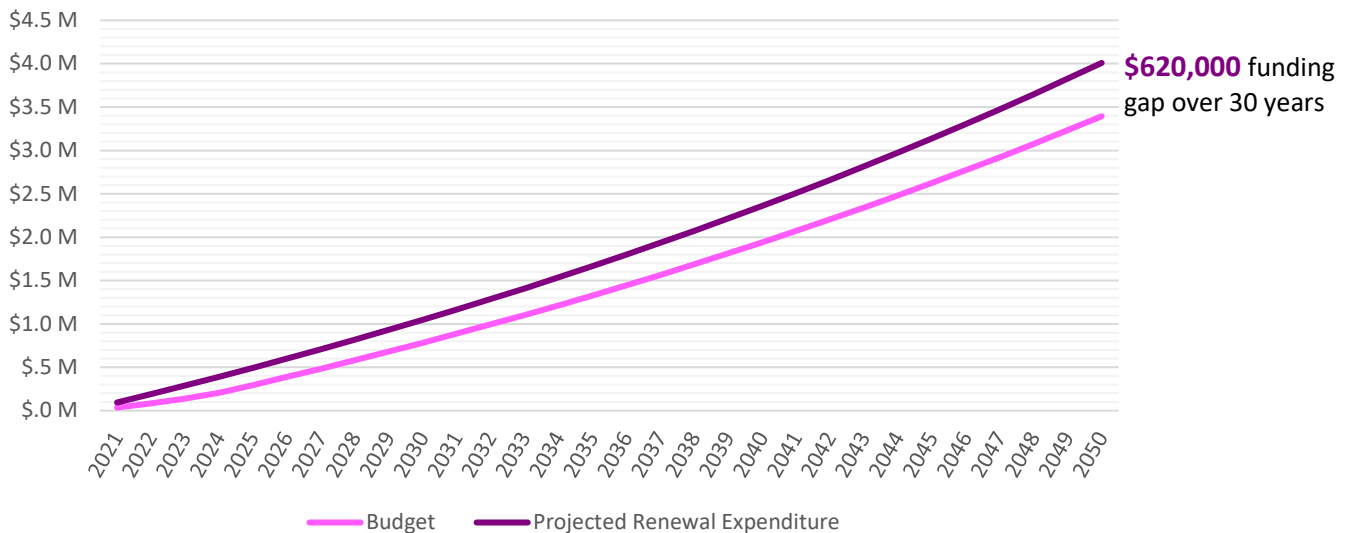
Based on the estimated service life, an average annual budget of \$100,000 is required to maintain recreational facilities from 2021-2025. Based on the capital budget included with the 2021-2025 MVRD Financial Plan, a cumulative \$200,000 funding shortfall is projected by 2025.

5-year budget for Recreational Facilities (2021-2025 Financial Plan)

Over the 30-year term, an average annual budget of \$130,000 is required (based on estimated service life). A cumulative funding shortfall of \$620,000 is projected by 2050.

- 2021 **\$36,000**
- 2022 **\$46,000**
- 2023 **\$56,000**
- 2024 **\$66,000**
- 2025 **\$91,000**

Accumulated 30-Year Projection
(based on estimated service life of assets)



- Current 5-year budget (2021-2025 MVRD Financial Plan) used in accumulated 30-year projection. 2026 to 2050 budget based on 2025 budget with a 2.3% increase per year.
 - 2022 to 2050 required expenditures includes an increase of 2.3% per year.

RECREATIONAL FACILITIES (MAINTAINED BY OTHERS)

These recreational facilities are located on regional park land but are maintained by external groups through an agreement.



- 1** Baseball Field, Crippen
- 1** Campground (150 campsites), Brae Island
- 1** Checkerboard playground element, Crippen
- 2** Playgrounds, Aldergrove + Brae Island
- 1** Tennis Court, Belcarra

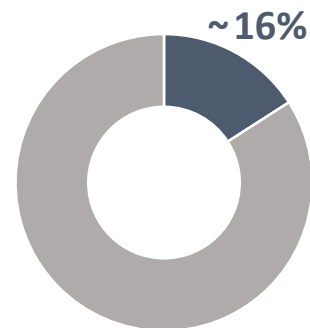


ROADS & PARKING LOTS



INVENTORY + ASSET REPLACEMENT VALUE

Regional Parks maintains **43 km** of roads, **3,783** parking stalls, and **42,900 m²** of other hardened surfaces; asset replacement value **\$46 million**



Road & Parking Lots comprise 16% of the total value of regional park built assets

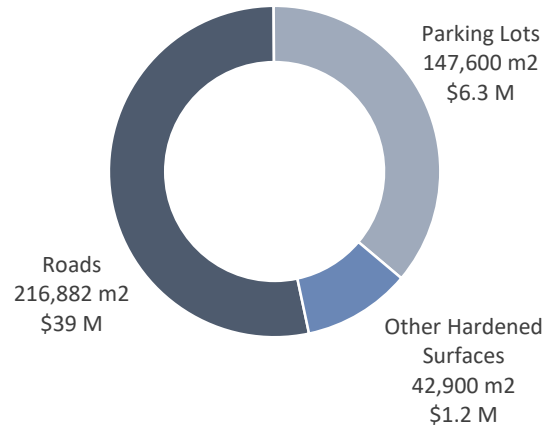
INVENTORY

Roads are surfaces, which vehicles can use to move through the park. Service roads, used as trails, are included in the Trail asset category.

Parking Lots are paved or graveled areas, intended for parking vehicles. Fields used for event parking are not included.

Other Hardened Surfaces other than roads, parking lots, and trails, are used as park amenities and/or assist in the maintenance of the park, i.e. staging areas, service yards, pull-outs, etc.

Area + Asset Replacement Value



ROADS

	Km	Area (m ²)	Cost per m ²	Asset Replacement Value
Paved Surfaces	22,533	135,906	\$250	\$34.0 M
Gravel Surfaces	18,834	75,206	\$65	\$4.9 M
Natural Surfaces	1,910	5,770	\$7	\$40,000
*Data Confidence: HIGH	43,277	216,882		\$39 M

PARKING LOTS

91 parking lots total

Public Parking Stalls are stalls open to all visitors who wish to visit the park.

	m ²	No. of Stalls
Public Parking Stalls	142,858	3672

Operations Parking Stalls are reserved for operations staff to facilitate maintenance of the park.

Operations Parking Stalls	1,891	47
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Facility Parking Stalls are reserved for visitors using specific facilities within the park, e.g. reservable buildings, group camps, etc.

Facility Parking Stalls	2,860	64
-------------------------	-------	----

	Area (m ²)	Cost per m ²	Asset Replacement Value
Paved Surfaces	65,100	\$60	\$3,906,000
Gravel Surfaces	80,700	\$30	\$2,421,000
Natural Surfaces	1,800	\$7	\$12,600
*Data Confidence: HIGH	147,600		\$6.3 M

Notes:

- Parking lots or roadside parking outside Metro Vancouver's tenure and maintained by other agencies not included.
- Operations stalls, within service yards, not included. Asset replacement value accounted for in Other Hardened Surfaces.

OTHER HARDENED SURFACES



Service Yard, Iona Beach Regional Park

Service Yards are areas designated to support operations and maintenance; may include roads, parking, service buildings, material storage, and equipment/vehicle storage.

Primary service yard (16 total) – the main service yard for a park

Secondary service yards (3 total) – additional smaller spaces required to support maintenance

Misc. Hardened Surfaces are gravel or paved surfaces not covered under any other asset class. This includes small access trails to assets, trail/road pull-outs, dog off-leash areas, public staging areas, etc.

	Area (m ²)	Cost per m ²	Asset Replacement Value
Service Yards			
Paved Surfaces	3,600	\$60	\$215,000
Gravel Surfaces	20,900	\$30	\$627,200
Natural Surfaces	12,700	\$7	\$88,800
Sub-total	37,200		\$931,000
Misc. Hardened Surfaces			
Paved Surfaces	2,300	\$60	\$138,000
Gravel Surfaces	3,400	\$30	\$102,000
Sub-total	5,700		\$240,000
	42,900		\$1.2 M

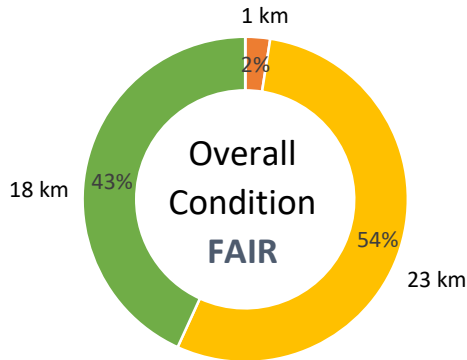
*Data Confidence: HIGH (service yards)

*Data Confidence: LOW (misc. hardened surfaces – partially inventoried)

Note:
 -Service yards include only surface material. Buildings, fencing, etc. are captured in other asset categories.
 - Operations parking in service yards is included in the material calculation

ROADS

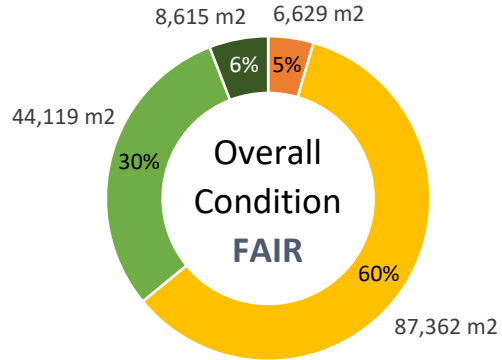
Condition (2020)



*Data Confidence: MEDIUM

PARKING LOTS

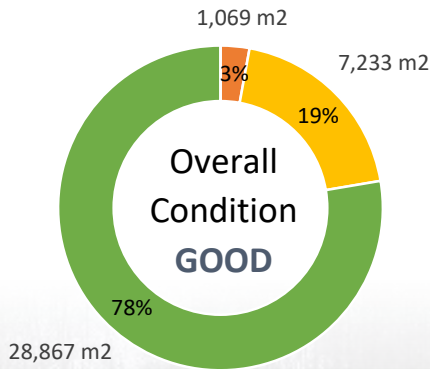
Condition (2020)



*Data Confidence: MEDIUM

OTHER HARDENED SURFACES

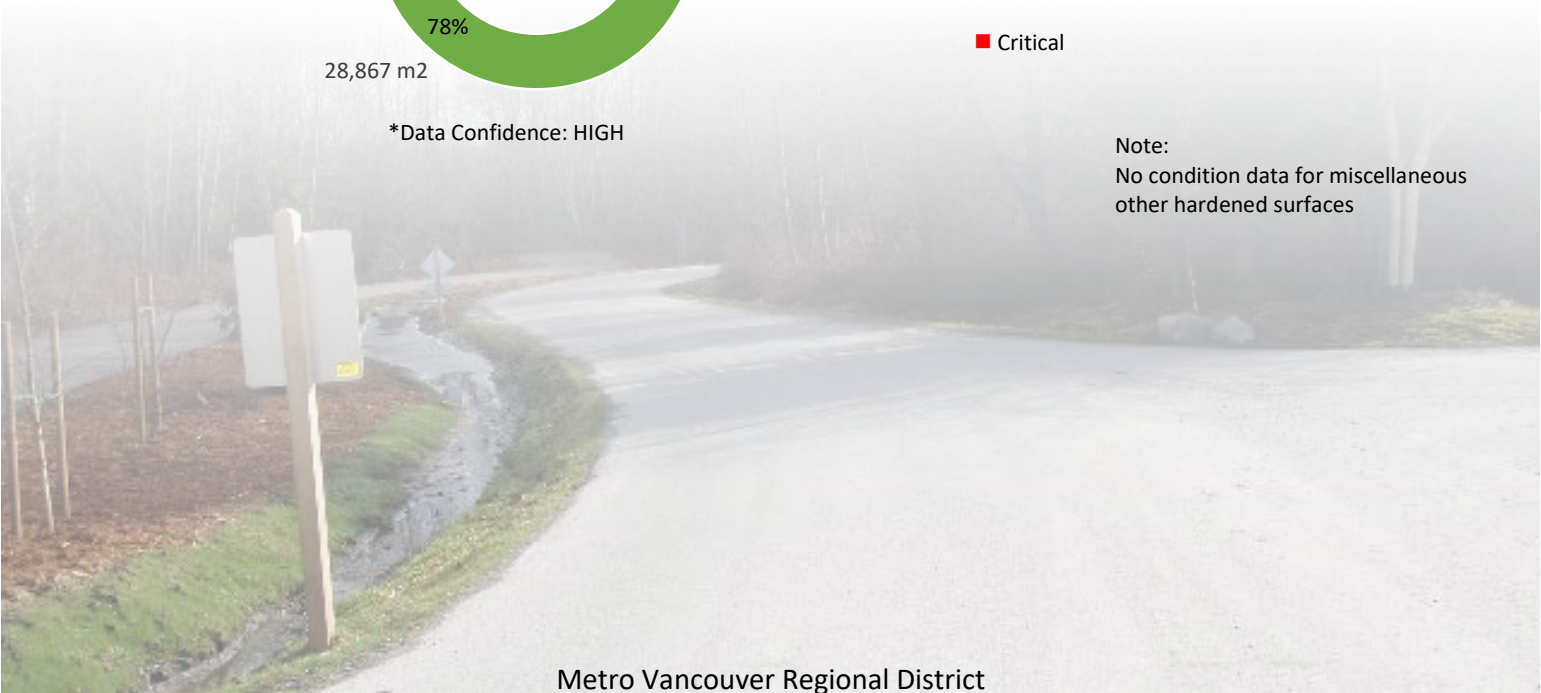
Service Yard
Condition (2020)



*Data Confidence: HIGH

- Very Good
- Good
- Fair
- Poor
- Critical

Note:
No condition data for miscellaneous other hardened surfaces



PROJECTED RENEWAL EXPENDITURE

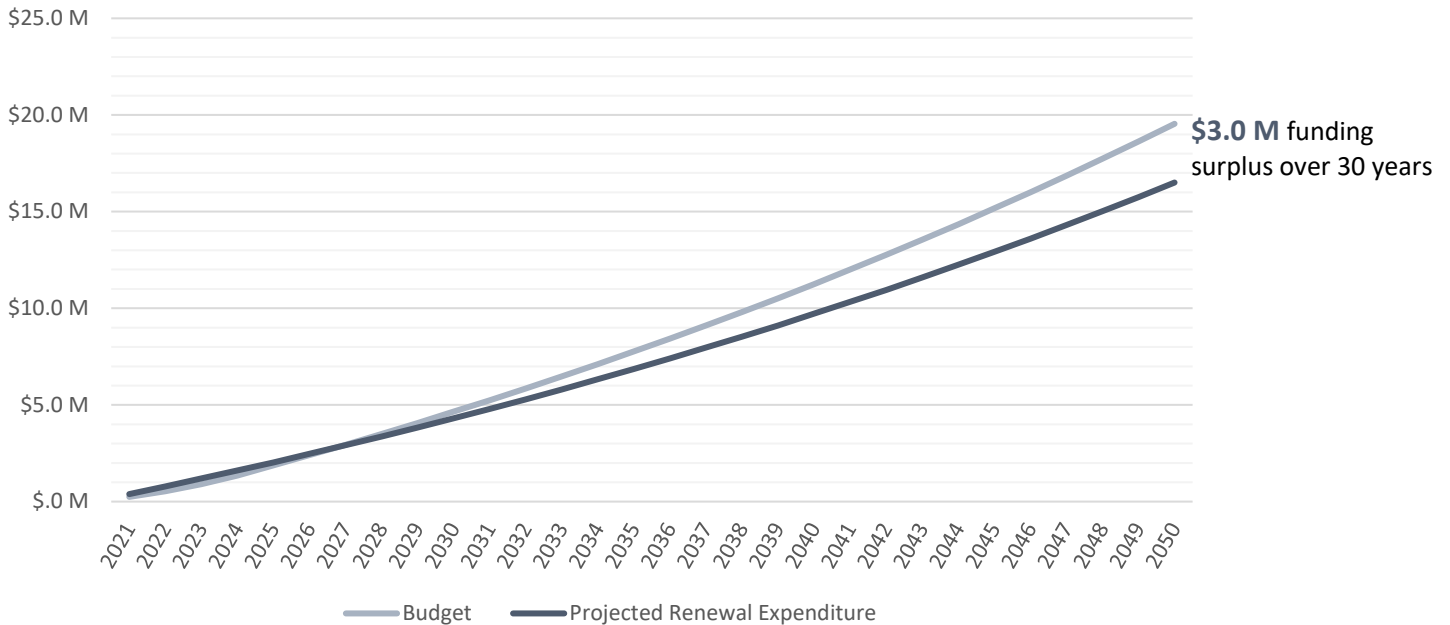
Based on inspections and estimated service life, an average annual budget of \$410,000 is required to maintain roads + parking lots from 2021-2025. Based on the capital budget included with the 2021-2025 MVRD Financial Plan, a cumulative \$160,000 funding shortfall is projected by 2025.

5-year budget for Roads + Parking Lots (2021-2025 Financial Plan)

Over the 30-year term, an average annual budget of \$390,000 is required (based on estimated service life). A cumulative funding surplus of \$3.0 million is projected by 2050.

2021	\$244,000
2022	\$294,000
2023	\$369,000
2024	\$444,000
2025	\$519,000

Accumulated 30-Year Projection
(based on estimated service life of assets)



- Current 5-year budget (2021-2025 MVRD Financial Plan) used in accumulated 30-year projection. 2026 to 2050 budget based on 2025 budget with a 2.3% increase per year.
 - 2022 to 2050 required expenditures includes an increase of 2.3% per year.

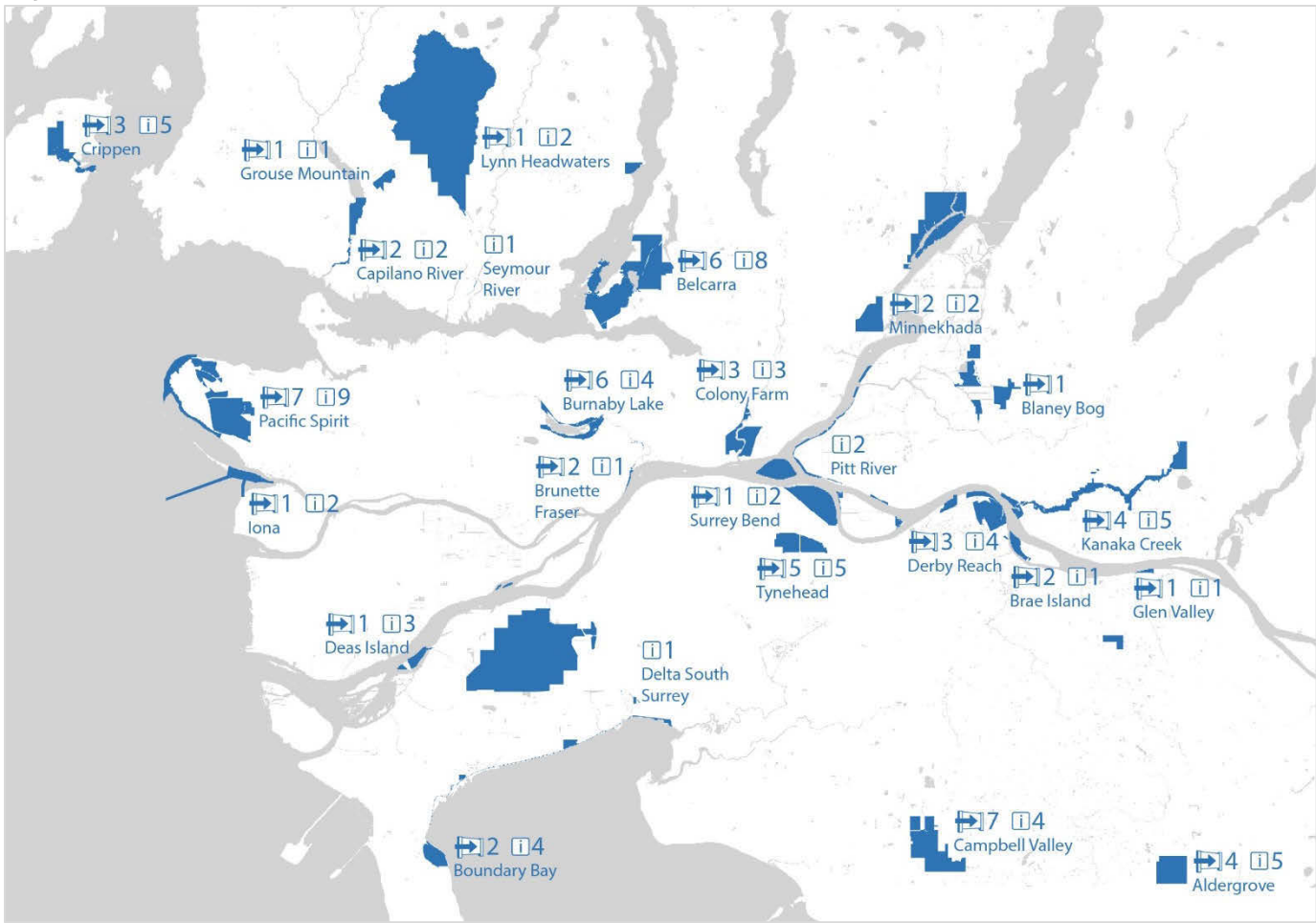
ROADS & PARKING LOTS (MAINTAINED BY OTHERS)

Roads **11km**
 Parking Lots **330 stalls**

These roads, parking lots, and other hardened surfaces are located on regional park land but are maintained by external groups through an agreement.



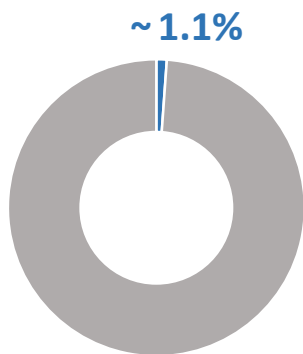
SIGNS



= entry sign = information kiosk

INVENTORY + ASSET REPLACEMENT VALUE

Regional Parks maintains **65** entrance signs and **77** information kiosks; asset replacement value **\$3.3 million**



Signs comprise 1.1% of the total value of regional park built assets



SIGNS BY TYPE



In-Park Signs wayfinding, regulatory, instruction, safety, and entry signs in parks.

Information Kiosks located at staging areas to provide information about the park (map, amenities, trails, events, rules & regulations, etc.)

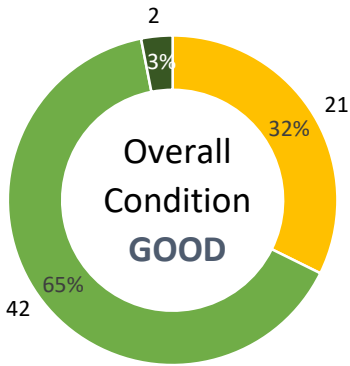
Roadside Approach Signs are directional signage located on highways and roads leading to regional parks.

Interpretive signs, exhibits and elements Park interpretation media, mostly in the form of outdoor signs and exhibits, are intended to raise visitor awareness, appreciation and understanding of the park features.

Signage Type	Asset Value	Number of Assets
In-Park Signs		
All (except entry signs)	\$266,000	-
Entry Signs	\$490,000	65
Information Kiosks	\$475,000	77
Roadside Approach Signs	\$400,000	-
Interpretive Signs, Exhibits and Elements	\$1,650,000	-
*Data Confidence: HIGH	\$3,281,000	142

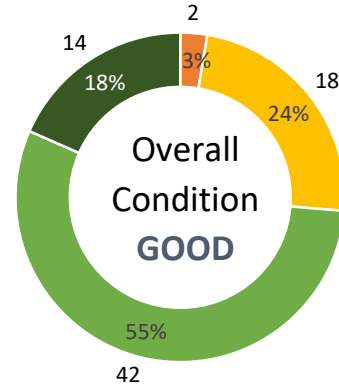
ENTRY SIGNS

Current Condition
(2020)



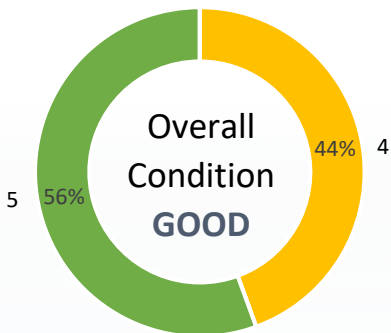
INFORMATION KIOSKS

Current Condition
(2020)



INTERPRETIVE DISPLAYS

Current Condition
(2020)



- Very Good
- Good
- Fair
- Poor
- Critical

*Data Confidence: HIGH

Note:
 - Interpretive features condition data only includes nature play areas/elements (no condition data for other interpretive features)
 - No condition data for wayfinding & cautionary signage, and interpretive signage

PROJECTED RENEWAL EXPENDITURE

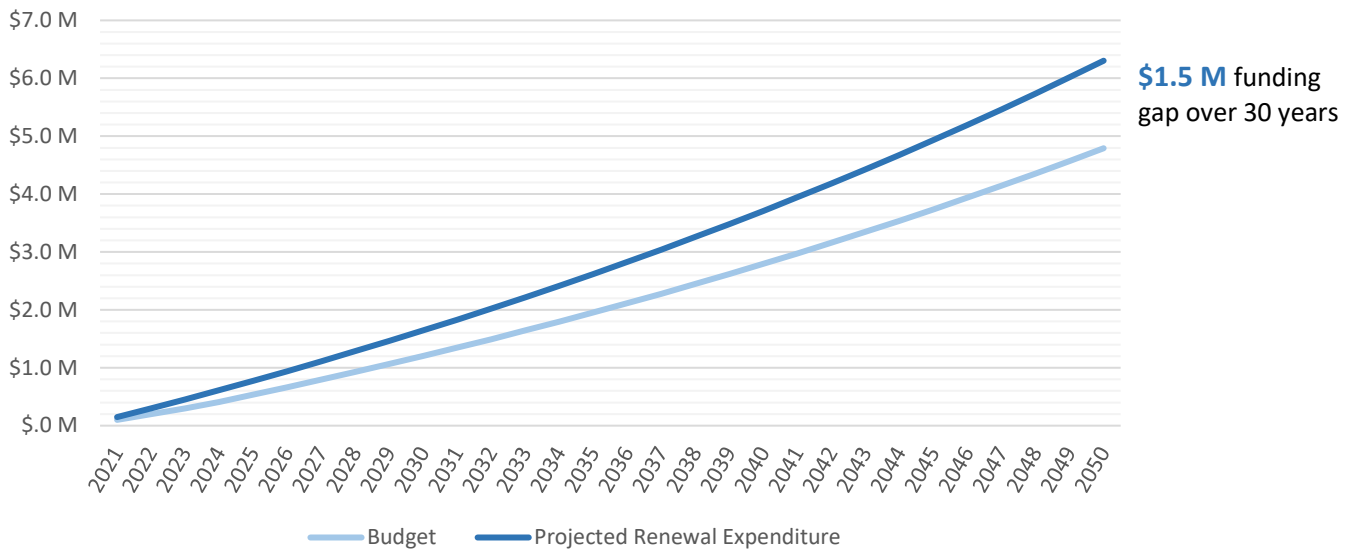
Based on inspections and estimated service life, an average annual budget of \$160,000 is required to maintain signs from 2021-2025. Based on the capital budget included with the 2021-2025 MVRD Financial Plan, a cumulative \$240,000 funding shortfall is projected by 2025.

Over the 30-year term, an average annual budget of \$210,000 is required (based on estimated service life and previous expenditures). A cumulative funding shortfall of \$1.5 million is projected by 2050.

5-year budget for Barriers (2021-2025 Financial Plan)

2021	\$100,000
2022	\$100,000
2023	\$100,000
2024	\$110,000
2025	\$125,000

Accumulated 30-Year Projection
(based on estimated service life of assets)



- Current 5-year budget (2021-2025 MVRD Financial Plan) used in accumulated 30-year projection. 2026 to 2050 budget based on 2025 budget with a 2.3% increase per year.
- 2022 to 2050 required expenditures includes an increase of 2.3% per year.



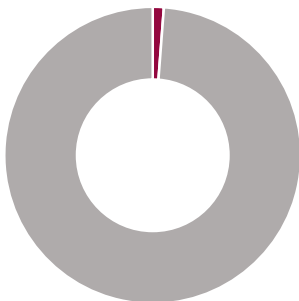
STRUCTURES



INVENTORY + ASSET REPLACEMENT VALUE

Regional Parks maintains **99** structures; asset replacement value **\$3.5 million**

~ 1.2%



Structures comprise 1.2% of the total value of regional park built assets



Wharf and Dock, Belcarra Regional Park

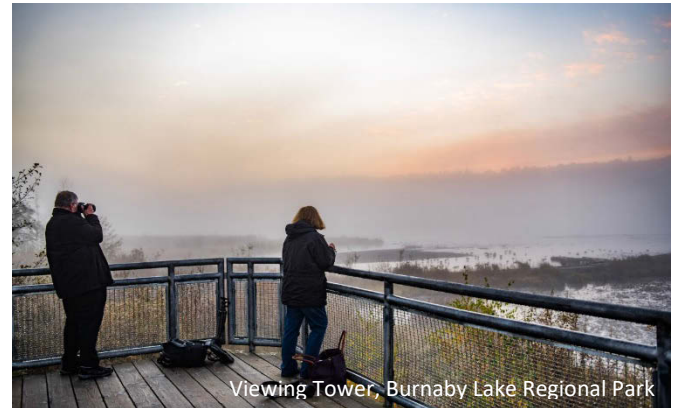
STRUCTURES BY TYPE

Operational Structures are used to support visitor safety, and to provide access and storage in more remote locations (e.g. tool and supply caches, helipads).

Stair Structures are outdoor staircases provided as part of a trail. Stairs connected to buildings are accounted for in the building asset class.

Viewing Structures are lookout platforms, either single or multilevel that orient park visitors towards a view.

Water Access Structures are platforms and floats that provide access directly to the water, such as piers, docks and ramps.



Viewing Tower, Burnaby Lake Regional Park

Structures	Asset Replacement Value	Number of Assets
Operational Structure	\$104,203	12
Stair Structure	\$378,038	37
Viewing Structure	\$1,339,053	25
Water Access Structure	\$1,655,069	25
	\$3,476,362	

*Data Confidence: HIGH

ASSET CONDITION

Overall Condition **Good**

Structures	Average Condition			
Operational Structure	67% 8	25% 3	8% 1	GOOD
Stair Structure	86% 32	8% 3	5% 2	GOOD
Viewing Structure	72% 18	20% 5	8% 2	GOOD
Water Access Structure	52% 13	44% 11	4% 1	GOOD

*Data Confidence: HIGH

■ Very Good
 ■ Good
 ■ Fair
 ■ Poor
 ■ Critical

PROJECTED RENEWAL EXPENDITURE

Based on inspections and estimated service life, an average annual budget of \$130,000 is required to maintain structures from 2021-2025. Based on the capital budget included with the 2021-2025 MVRD Financial Plan, a cumulative \$10,000 funding shortfall is projected by 2025.

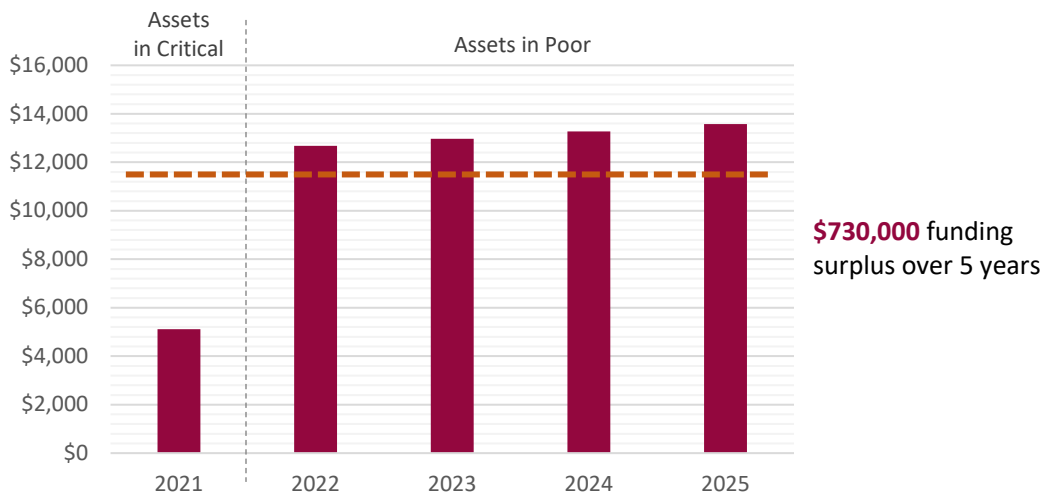
Over the 30-year term, an average annual budget of \$180,000 is required (based on estimated service life). A cumulative funding surplus of \$110,000 is projected by 2050.

A number of larger facilities will require significant maintenance and replacement in the next 10 to 20 years, resulting in a larger budget need over the long-term.

5-year budget for Structures (2021-2025 Financial Plan)

2021	\$130,000
2022	\$132,990
2023	\$136,049
2024	\$139,178
2025	\$142,379

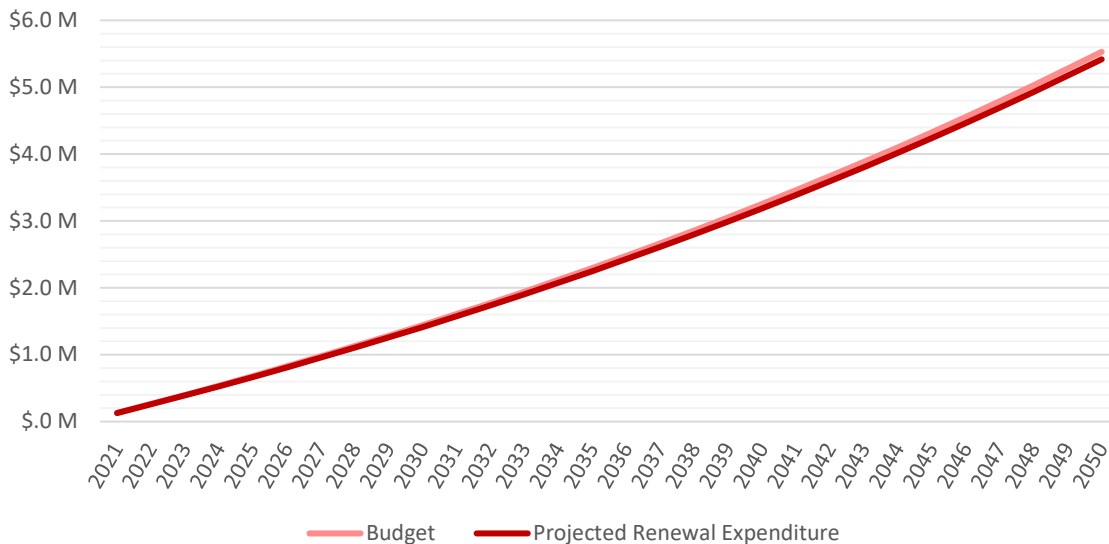
5-Year Estimated Budget Requirements
(replacements based on critical and poor condition ratings of assets)



\$730,000 funding surplus over 5 years

(not shown) Current Budget ■ Projected Renewal Expenditure - - - Required Average Budget (\$11,524/year)

Accumulated 30-Year Projection
(based on estimated service life of assets)

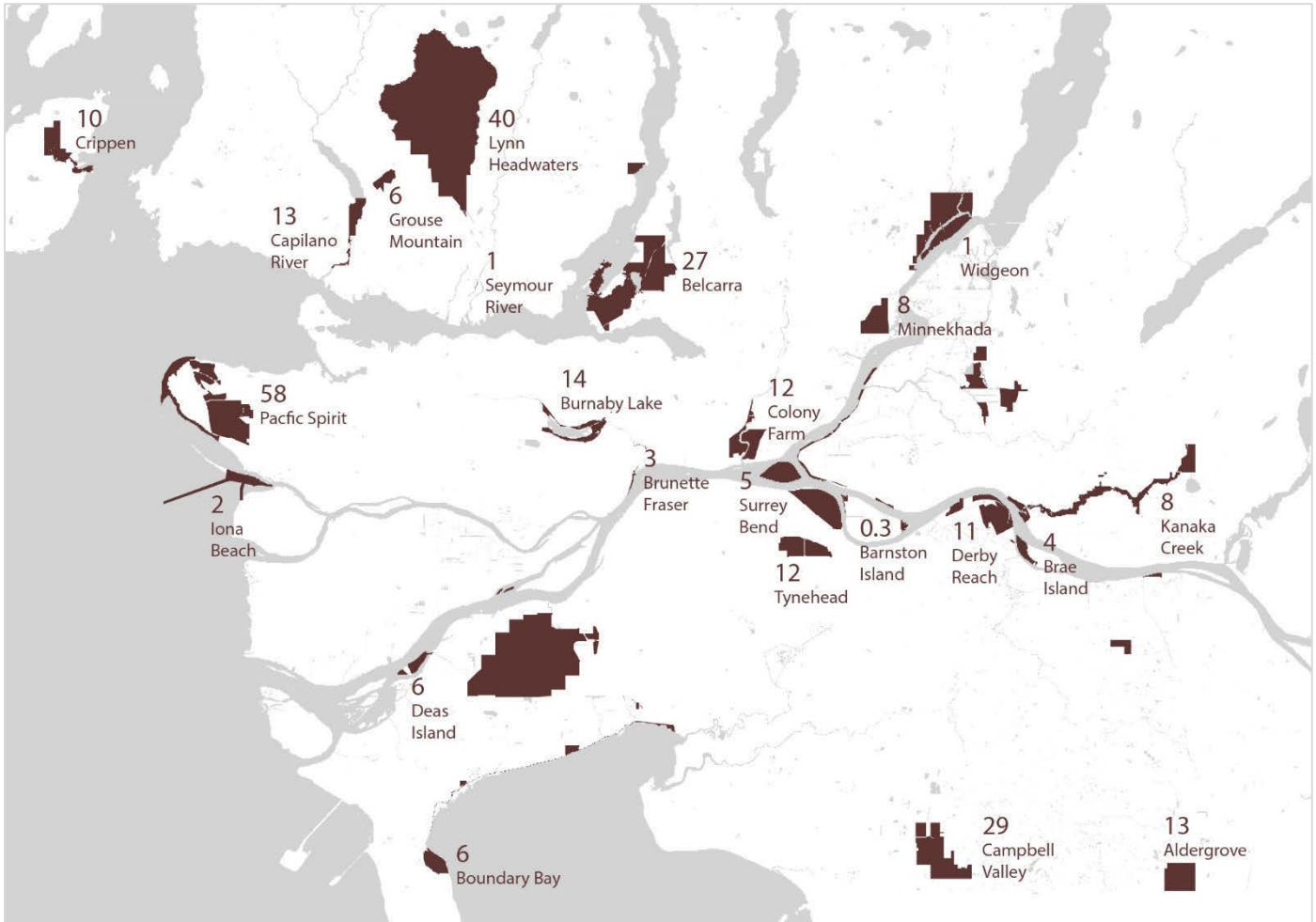


\$110,000 funding surplus over 30 years

- Budget based on \$130,000/year, with a 2.3% increase each following year.
- 2022 to 2050 required expenditures includes an increase of 2.3% per year.

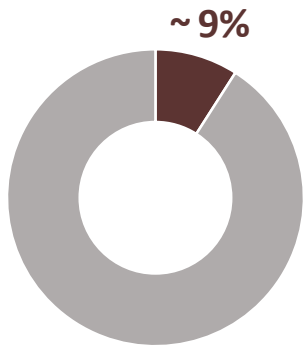


TRAILS



INVENTORY + ASSET REPLACEMENT VALUE

Regional Parks maintains **290 km** trails; asset replacement value **\$26 million**



Trails comprise 9% of the total value of regional park built assets

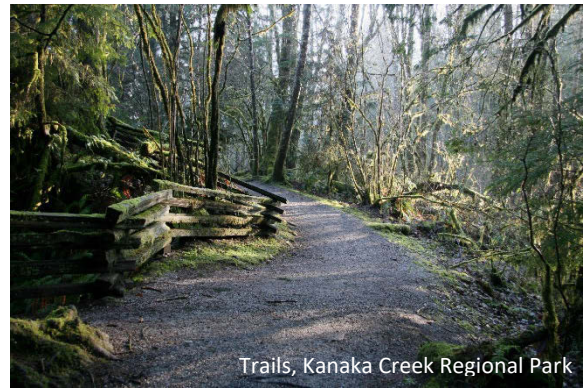


Trails, Aldergrove Regional Park

TRAILS BY SURFACE MATERIAL

Trails enable park users to connect with nature, park features, and park amenities. Trail types include hiking, cycling, and equestrian trails. Trails range from fully accessible multi-use paths to natural back country trails.

Steps are timber steps built into the trail allowing park users to traverse up or down steep slopes. Stand-alone stair structures are captured under structures.



	Length (km)	Area (m ²)	Cost per m2	Asset Replacement Value
Paved Surfaces	15	45,877	115	\$5.3 M
Gravel Surfaces (road/trail)	3	11,219	65	\$0.7 M
Gravel Surfaces (trail)	187	414,193	45	\$18.6 M
Natural Surfaces	85	132,455	7	\$0.9 M
Beach Accessibility Path	0.1	178	117	\$20,826
	290	603,922		\$25.6 M

	Number of Steps	Cost per Step	Asset Replacement Value
Steps	3426	\$225	\$0.8 M

*Data Confidence: HIGH

Total Trails + Steps

\$26.4 M

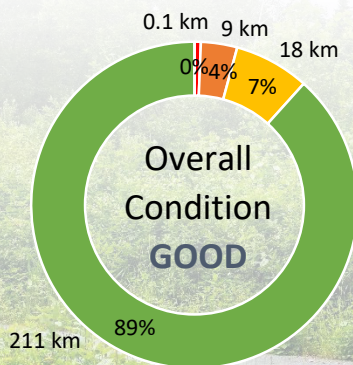
ASSET CONDITION

Overall Condition

Good

GRAVEL SURFACES

Current Condition
(2020)



*Data Confidence: MEDIUM

Notes:

- No condition data on paved surfaces or natural surfaces
- Trail inspections completed on some trails not maintained by Metro Vancouver Parks

- Very Good
- Good
- Fair
- Poor
- Critical

PROJECTED RENEWAL EXPENDITURE

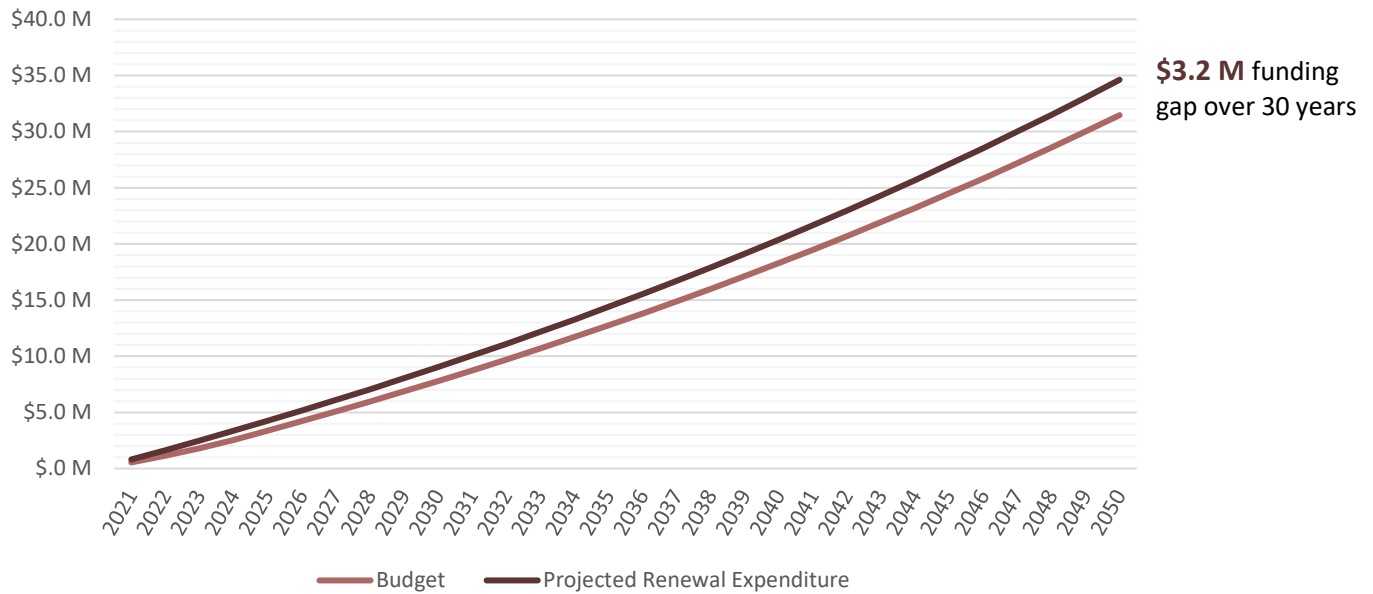
Based on inspections and estimated service life, an average annual budget of \$850,000 is required to maintain trails from 2021-2025. Based on the capital budget included with the 2021-2025 MVRD Financial Plan, a cumulative \$890,000 funding shortfall is projected by 2025.

Over the 30-year term, an average annual budget of \$1,150,000 is required (based on estimated service life). A cumulative funding shortfall of \$3.2 million is projected by 2050.

5-year budget for Barriers (2021-2025 Financial Plan)

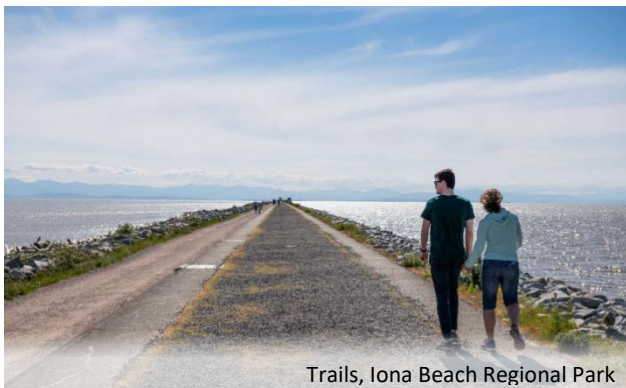
- 2021 **\$550,000**
- 2022 **\$600,000**
- 2023 **\$650,000**
- 2024 **\$750,000**
- 2025 **\$825,000**

Accumulated 30-Year Projection
(based on estimated service life of assets)



- Current 5-year budget (2021-2025 MVRD Financial Plan) used in accumulated 30-year projection. 2026 to 2050 budget based on 2025 budget with a 2.3% increase per year.
- 2022 to 2050 required expenditures includes an increase of 2.3% per year.

TRAILS (MAINTAINED BY OTHERS)



Trails, Iona Beach Regional Park

41 km of trail
are maintained
by others

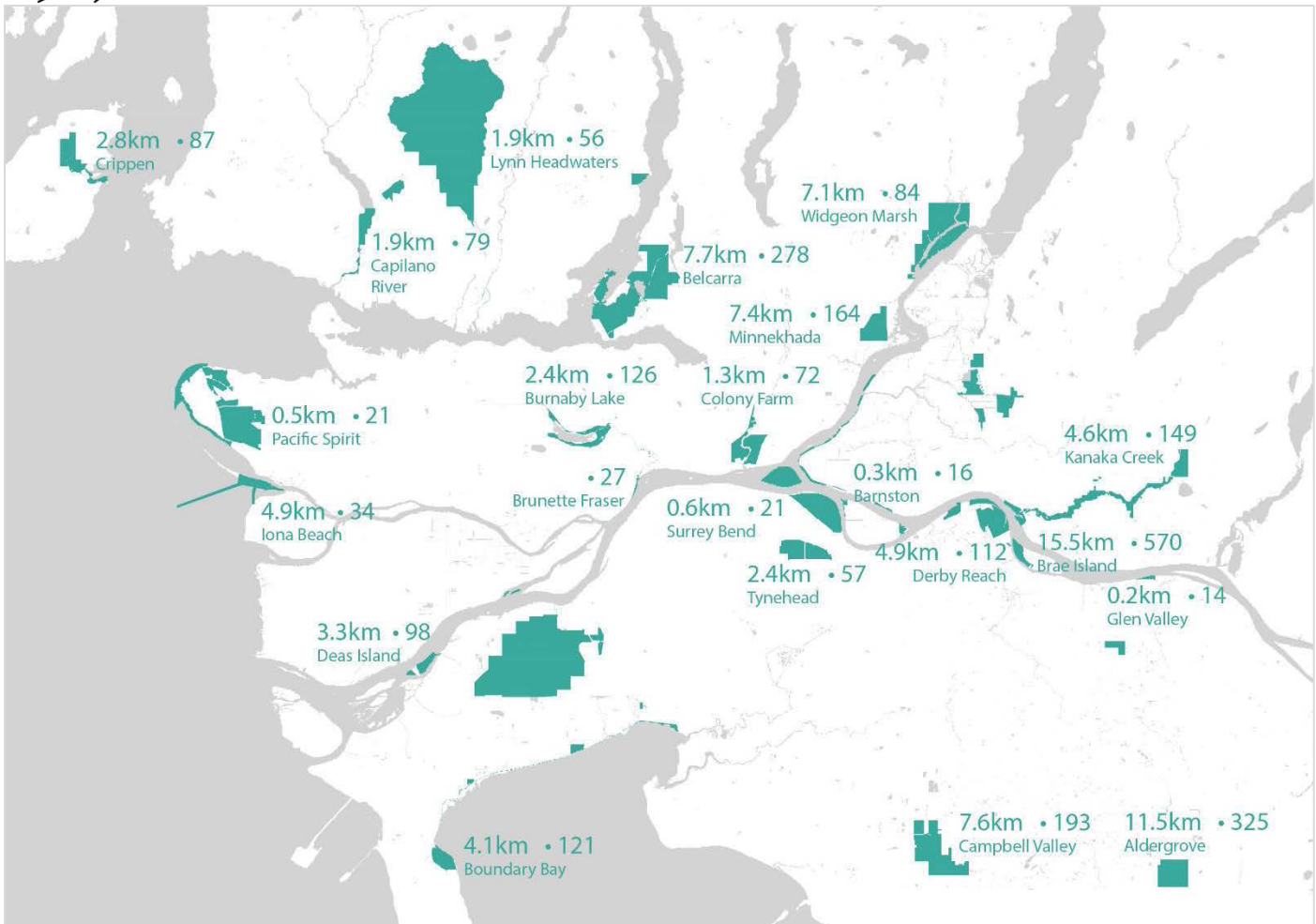
Trails Maintained by Others

These trails are located on regional park lands but are maintained by another Metro Vancouver department or external group through an agreement; or are trails on lands owned by other agencies, where Metro Vancouver Regional Parks has an agreement to operate, but major maintenance work is the responsibility of the other agency.

Examples of trails maintained by others include licensee run campgrounds, equestrian trails maintained by equestrian groups through an agreement, greenways/dikes maintained by other agencies, etc.



UTILITIES



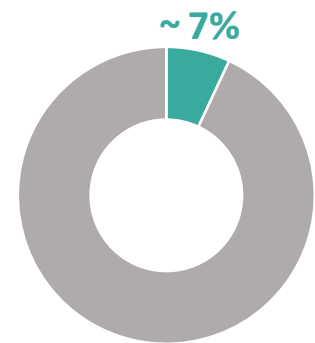
INVENTORY + ASSET REPLACEMENT VALUE



Regional Parks maintains

93 km of utility lines
and
2430 utility point features
(e.g. valves, power poles, tanks,
meters, etc.)

Asset Replacement Value
\$20.3 Million



Utilities comprise 7% of the total
value of regional park built assets

UTILITIES BY TYPE

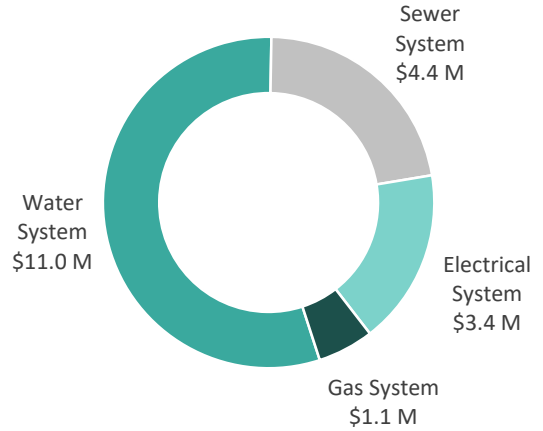
Water Systems include pipes and point features such as tap-stands, fountains, hydrants, meters, valves, reservoirs, pumps, wells and treatment systems.

Sewerage Systems include pipes and point features including tanks, pumps and septic fields.

Electrical Systems include lines and point features such as poles, transformers, solar panels, generators, batteries, kiosks, outdoor plugs, meters and junction boxes.

Gas Systems are made up lines, and point features such as meters, tanks and valves.

Asset Replacement Value
By Type



WATER SYSTEMS



Water System, Belcarra Regional Park

Key Features:

- 15** long service lines
- 5** water systems
- 66** access points to water
- 16** water treatment systems

	Asset Replacement Value	Number of Assets
Pipes	\$7,729,900	30km
Valves	\$880,900	814
Reservoirs	\$865,800	19
Outlets	\$755,500	448
Wells	\$560,000	34
Other	\$215,900	110

*Data Confidence: HIGH

\$11.0 M

Other includes:
pumps, treatment systems,
strainers, and meters

ELECTRICAL SYSTEMS

	Asset Replacement Value	Number of Assets
Lines		
Electrical	\$885,000	25 km
Data	\$520,000	26 km
Sub-total	\$1.4 M	51 km
Point Features		
Power Poles	\$1,433,000	232
Electrical kiosks	\$177,000	15
Energy Generation	\$157,000	9
Other	\$491,000	760
Sub-total	\$2.3 M	1016
*Data Confidence: MEDIUM	\$3.7 M	

Other includes:
Panels/boxes, transformers, meters, lighting, inverters, switches, receptacles, and security cameras

SEWER SYSTEMS



Key Features

- 3.5km force mains
- 5.0km gravity lines
- 43 pumps in
- 27 pump stations
- 40 septic fields

	Asset Replacement Value	No. of Assets
Tanks	\$2,317,000	93
Sewer Lines	\$1,956,559	8.5 km
Distribution Boxes	\$121,000	38
Manholes	\$120,000	24
Cleanouts	\$5,500	11
*Data Confidence: HIGH	\$4.5 M	

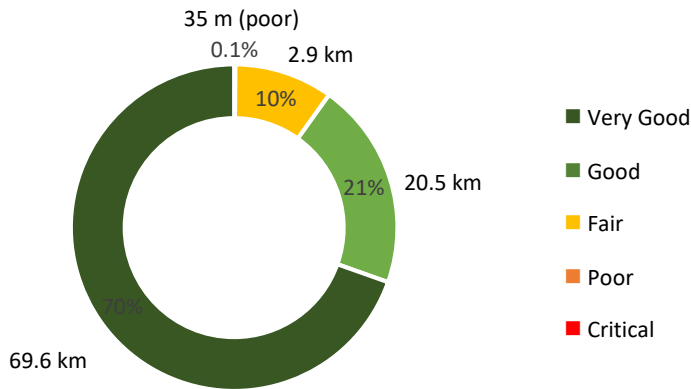
GAS SYSTEMS

	Asset Replacement Value	Number of Assets
Pipes	\$1,071,000	3,967 m
Meters	\$7,100	39
Tanks	\$6,300	10
Valves	\$5,100	51
*Data Confidence: HIGH		\$1.1 M

ASSET CONDITION

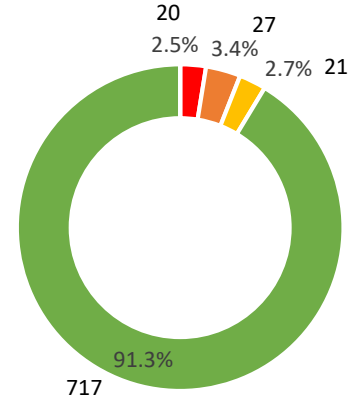
Overall Condition **Fair**

Water System Condition (2020)



Data Confidence: HIGH
- Condition based on line age

Sewer System Condition (2020)



*Data Confidence: HIGH
- Individual elements inspected and rated

Note:
No condition data for electrical and gas systems



PROJECTED RENEWAL EXPENDITURE

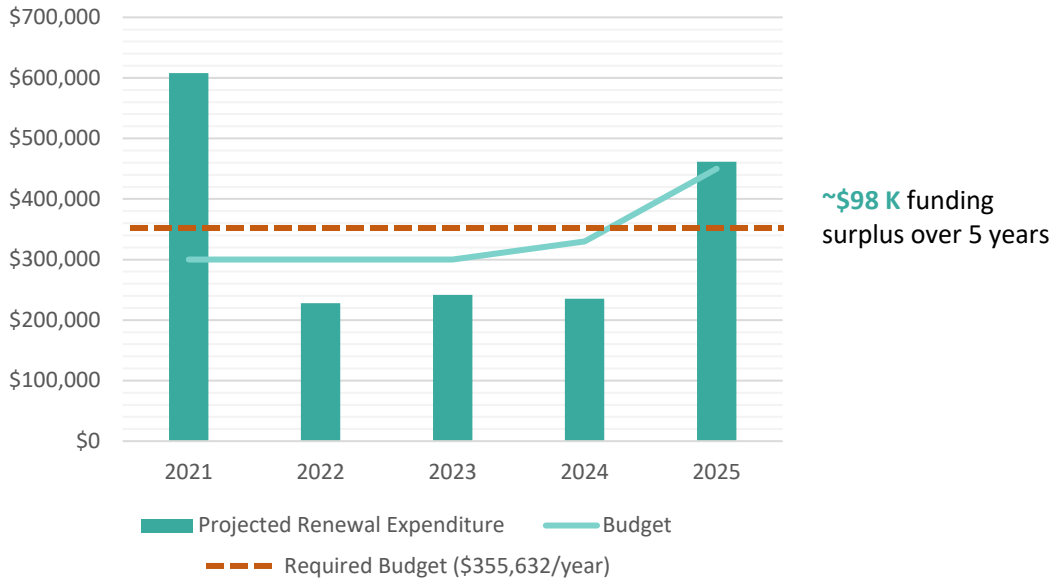
Based on estimated service life, an average annual budget of \$360,000 is required to maintain utilities from 2021-2025. Based on the capital budget included with the 2021-2025 MVRD Financial Plan, a cumulative \$98,000 funding surplus is projected by 2025.

Current 5-year budget for Utilities (2021-2025 Financial Plan)

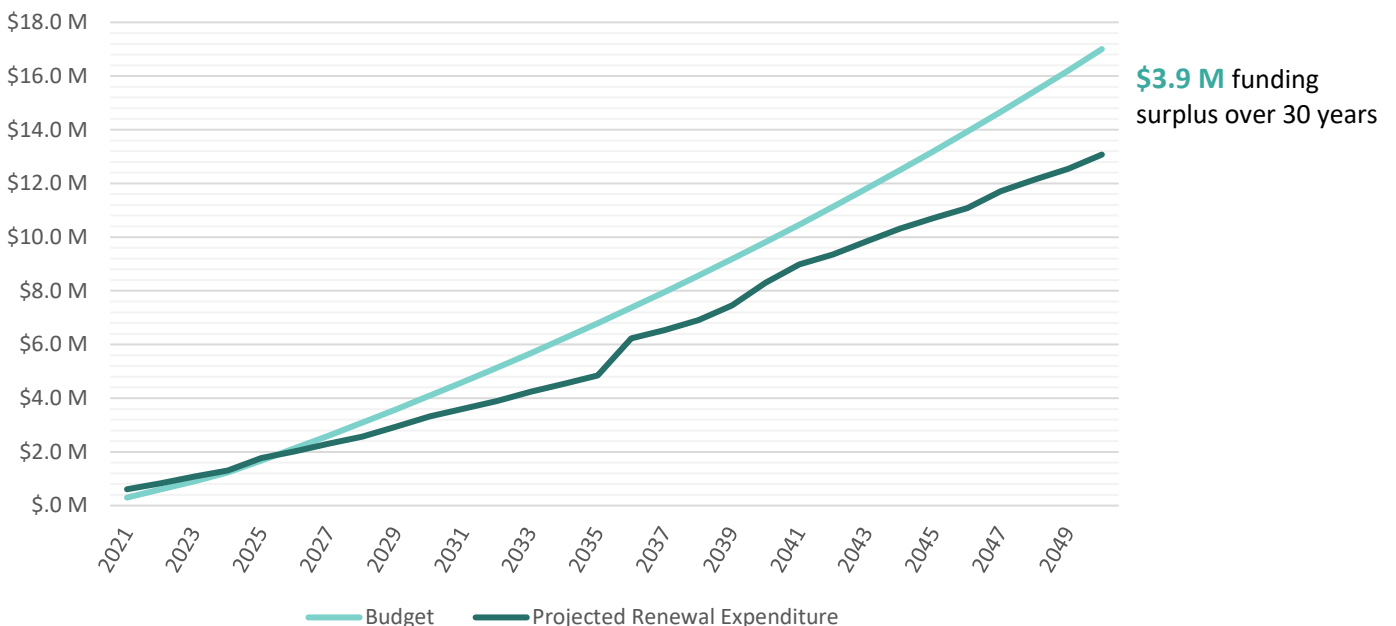
Over the 30-year term, an average annual budget of \$440,000 is required (based on estimated service life). A cumulative funding surplus of \$3.9 million is projected by 2050.

2021 **\$300,000**
 2022 **\$300,000**
 2023 **\$300,000**
 2024 **\$330,000**
 2025 **\$450,000**

5-Year Estimated Budget Requirements
 (replacements based on critical and poor condition ratings of assets)



Accumulated 30-Year Projection
 (based on estimated service life of assets)



- Current 5-year budget (2021-2025 MVRD Financial Plan) used in accumulated 30-year projection. 2026 to 2050 budget based on 2025 budget with a 2.3% increase per year.
 - 2022 to 2050 required expenditures includes an increase of 2.3% per year.

UTILITIES (MAINTAINED BY OTHERS)

A range of utilities, maintained by other agencies, are located in regional parks (e.g. water and sewer mains, power lines, cellular transmission towers, etc.). These utilities are not inventoried through the asset management program.

APPENDIX

APPENDIX A: ASSET REPLACEMENT VALUE, RENEWAL COSTS, AND ESTIMATED SERVICE LIFE OF BUILT ASSETS TABLE

APPENDIX A: ASSET REPLACEMENT VALUE, RENEWAL COSTS, AND ESTIMATED SERVICE LIFE OF BUILT ASSETS TABLE

Note: Custom assets do not have a standard cost and are not shown in this table, but are accounted for in the State of the Assets Report.

BARRIERS

Asset	Material/Type	Asset Replacement Value	Unit	Renewal	Unit	Estimated Service Life (years)	Source
Linear Barriers	Aluminum	\$155	per metre	\$155	per metre	40	Industry Research
Linear Barriers	Barrier Fence	\$215	per metre	\$215	per metre	20	Detailed Cost Estimate
Linear Barriers	Boulder	\$100	per metre	\$100	per metre	500	Current Market Pricing
Linear Barriers	Chainlink Fence	\$35	per metre	\$35	per metre	30	Current Market Pricing
Linear Barriers	Chainlink/Concrete Barrier Hybrid	\$175	per metre	\$175	per metre	40	Current Market Pricing
Linear Barriers	Concrete Jersey Barrier	\$78	per metre	\$78	per metre	50	Current Market Pricing
Linear Barriers	Concrete Lock Block	\$78	per metre	\$78	per metre	50	Current Market Pricing
Linear Barriers	Post and Chain	\$215	per metre	\$215	per metre	20	Detailed Cost Estimate
Linear Barriers	Post and Page Wire	\$16	per metre	\$16	per metre	30	Current Market Pricing
Linear Barriers	Post and Rail - Round Wood	\$55	per metre	\$55	per metre	30	Current Market Pricing
Linear Barriers	Post and Rail - Split Cedar	\$55	per metre	\$55	per metre	30	Current Market Pricing
Linear Barriers	Roadside Metal Guards	\$150	per metre	\$150	per metre	20	Detailed Cost Estimate
Linear Barriers	Simple Wood	\$55	per metre	\$55	per metre	30	Current Market Pricing
Linear Barriers	Stacked Split Rail - Cedar	\$90	per metre	\$90	per metre	30	Current Market Pricing
Linear Barriers	Steel Barrier	\$100	per metre	\$100	per metre	40	Industry Research
Non-Linear Barrier	Bollard - steel	\$500	each	\$500	each	40	Current Market Pricing
Non-Linear Barrier	Bollard - wood	\$330	each	\$330	each	15	Detailed Cost Estimate
Non-Linear Barrier	Boulder	\$200	each	\$200	each	500	Current Market Pricing
Non-Linear Barrier	Concrete Jersey Barrier	\$195	each	\$195	each	50	Current Market Pricing
Non-Linear Barrier	Concrete Lock Block	\$135	each	\$135	each	60	Current Market Pricing
Non-Linear Barrier	Man-gate - Aluminium	\$500	each	\$500	each	40	Industry Research
Non-Linear Barrier	Man-Gate - Chainlink 4'(1.2m)	\$500	each	\$500	each	30	Industry Research
Non-Linear Barrier	Man-Gate - Chainlink 6'(1.8m)	\$645	each	\$645	each	30	Industry Research
Non-Linear Barrier	Man-Gate - Chainlink 6'(1.8m) (double)	\$1,290	each	\$1,290	each	30	Industry Research
Non-Linear Barrier	Man-gate - wood basic	\$200	each	\$200	each	15	Industry Research
Non-Linear Barrier	Man-gate - wood intricate	\$500	each	\$500	each	15	Industry Research
Non-Linear Barrier	Metal Barrier	\$500	each	\$500	each	40	Industry Research
Non-Linear Barrier	Plastic Delineator Post	\$30	each	\$30	each	5	Current Market Pricing
Non-Linear Barrier	Vehicular Gate - Chainlink Cantilevered	\$15,000	each	\$15,000	each	30	Current Market Pricing
Non-Linear Barrier	Vehicular Gate - Electronic	\$10,000	each	\$10,000	each	15	Industry Research
Non-Linear Barrier	Vehicular Gate - Farm Gate (double lane)	\$2,000	each	\$2,000	each	40	Current Market Pricing
Non-Linear Barrier	Vehicular Gate - Farm Gate (single lane)	\$1,000	each	\$1,000	each	40	Current Market Pricing
Non-Linear Barrier	Vehicular Gate - Post & Chain	\$500	each	\$500	each	20	Detailed Cost Estimate
Non-Linear Barrier	Vehicular Gate - Steel (double lane)	\$12,400	each	\$12,400	each	30	Current Market Pricing
Non-Linear Barrier	Vehicular Gate - Steel (single lane)	\$6,200	each	\$6,200	each	30	Current Market Pricing
Non-Linear Barrier	Vehicular Gate - Wood (double lane)	\$1,000	each	\$1,000	each	15	Industry Research
Non-Linear Barrier	Vehicular Gate - Wood (Single Lane)	\$500	each	\$500	each	15	Industry Research
Non-Linear Barrier	Wood Barrier	\$500	each	\$500	each	20	Current Market Pricing

APPENDIX A: ASSET REPLACEMENT VALUE, RENEWAL COSTS, AND ESTIMATED SERVICE LIFE OF BUILT ASSETS TABLE (continued)

BRIDGES + BOARDWALKS

Asset	Material/Type	Asset Replacement Value	Unit	Renewal	Unit	Estimated Service Life (years)	Source
Boardwalks	Below Deck Elements (steel, concrete, or	\$1,000	per square metre	\$1,000	per square metre	40	Current Market Pricing
Boardwalks	Below Deck Elements (wood)	\$1,000	per square metre	\$1,000	per square metre	20	Current Market Pricing
Boardwalks	Decking and Railing (steel), concrete, or	\$500	per square metre	\$500	per square metre	40	Current Market Pricing
Boardwalks	Decking and Railing (wood)	\$500	per square metre	\$500	per square metre	15	Current Market Pricing
Bridges	Below Deck Elements (steel, concrete, or	\$1,500	per square metre	\$1,500	per square metre	40	Current Market Pricing
Bridges	Below Deck Elements (wood)	\$1,500	per square metre	\$1,500	per square metre	20	Current Market Pricing
Bridges	Decking and Railing (steel), concrete, or	\$500	per square metre	\$500	per square metre	40	Current Market Pricing
Bridges	Decking and Railing (wood)	\$500	per square metre	\$500	per square metre	15	Current Market Pricing
Bridges (Complex)	Below Deck Elements (steel, concrete, or	\$6,000	per square metre	\$6,000	per square metre	40	Current Market Pricing
Bridges (Complex)	Below Deck Elements (wood)	\$6,000	per square metre	\$6,000	per square metre	20	Current Market Pricing
Bridges (Complex)	Decking and Railing (steel), concrete, or	\$500	per square metre	\$500	per square metre	40	Current Market Pricing
Bridges (Complex)	Decking and Railing (wood)	\$500	per square metre	\$500	per square metre	15	Current Market Pricing

BUILDINGS

Asset	Material/Type	Asset Replacement Value	Unit	Renewal	Unit	Estimated Service Life (years)	Source
Buildings	Calculated from Individual Uniformat II Building Elements	varies	per square metre	varies	per square metre	varies	Industry Standard

PARK FIXTURES

Asset	Material/Type	Asset Replacement Value	Unit	Renewal	Unit	Estimated Service Life (years)	Source
Park Fixtures	BBQ Stands	\$350	each	\$350	each	30	Industry Research
Park Fixtures	Benches - Non-Standard	\$500	each	\$500	each	12	Current Market Pricing
Park Fixtures	Benches - Standard	\$2,200	each	\$2,080	each	25	Current Market Pricing
Park Fixtures	Bike Racks - Basic	\$100	each	\$100	each	40	Current Market Pricing
Park Fixtures	Bike Racks - Single	\$500	each	\$500	each	40	Current Market Pricing
Park Fixtures	Bike Racks - Standard	\$1,205	each	\$1,205	each	40	Current Market Pricing
Park Fixtures	Fire Pits	\$500	each	\$500	each	40	Industry Research
Park Fixtures	Hitching Rails - Single Post	\$100	each	\$100	each	25	Detailed Cost Estimate
Park Fixtures	Hitching Rails - Steel	\$550	each	\$550	each	40	Detailed Cost Estimate
Park Fixtures	Hitching Rails - Wood	\$200	each	\$200	each	25	Detailed Cost Estimate
Park Fixtures	Picnic Tables - Accessible	\$4,500	each	\$2,080	each	40	Current Market Pricing
Park Fixtures	Picnic Tables - Non-Standard	\$1,000	each	\$1,000	each	20	Current Market Pricing
Park Fixtures	Picnic Tables - Standard	\$4,000	each	\$2,080	each	40	Current Market Pricing
Park Fixtures	Solid Waste Containers - Ash Can	\$2,300	each	\$2,040	each	30	Current Market Pricing
Park Fixtures	Solid Waste Containers - Double (full)	\$2,200	each	\$1,709	each	30	Current Market Pricing
Park Fixtures	Solid Waste Containers - Double (mini)	\$2,100	each	\$1,692	each	30	Current Market Pricing
Park Fixtures	Solid Waste Containers - Single (full)	\$1,700	each	\$1,341	each	30	Current Market Pricing
Park Fixtures	Solid Waste Containers - Single (mini)	\$1,600	each	\$1,220	each	30	Current Market Pricing
Park Fixtures	Solid Waste Containers - Temporary Station	\$2,000	each	\$2,000	each	30	Current Market Pricing
Park Fixtures	Solid Waste Containers - Triple (full)	\$3,000	each	\$2,273	each	30	Current Market Pricing
Park Fixtures	Solid Waste Containers - Triple (mini)	\$2,800	each	\$2,150	each	30	Current Market Pricing

LAND PROTECTION

Asset	Material/Type	Asset Replacement Value	Unit	Renewal	Unit	Estimated Service Life (years)	Source
Land Protection	Culverts - Concrete over 0.5m diameter	\$500	each	\$500	each	40	Detailed Cost Estimate
Land Protection	Culverts - Concrete under 0.5m diameter	\$2,000	each	\$2,000	each	40	Detailed Cost Estimate
Land Protection	Culverts - HDPE/PVC over 0.61m diameter	\$1,400	each	\$1,400	each	15	Detailed Cost Estimate
Land Protection	Culverts - HDPE/PVC under 0.61m diameter	\$500	each	\$500	each	15	Detailed Cost Estimate
Land Protection	Culverts - Metal over 0.61m diameter	\$2,000	each	\$2,000	each	15	Detailed Cost Estimate
Land Protection	Dams (based on consequence rating and size)	varies	each	varies	each	varies	Consultant Assessments Completed
Land Protection	Dikes	\$2,875	per square metre	\$11,100	per year	na	Asset Value: Industry Research Renewal: Current Market Pricing
Land Protection	Drainage Lines	varies	each	\$50,000	per year	varies	Asset Value: Historic Inventory Renewal Cost: Current Market Pricing
Land Protection	Drainage Structures	varies	each	varies	each	40	Asset Value: Historic Inventory Renewal: Estimate (based on 40-year
Land Protection	Erosion Protection	varies	each	varies	each	100	Asset Value: Historic Inventory Renewal: Estimate (based on 100-year
Land Protection	Retaining Walls - Concrete (oversized retaining blocks)	\$1,124	per square metre	\$1,124	per square metre	50	Detailed Cost Estimate
Land Protection	Retaining Walls - Concrete (standard retaining blocks)	\$898	per square metre	\$898	per square metre	50	Detailed Cost Estimate
Land Protection	Retaining Walls - Sand Bags/Willow	\$702	per square metre	\$702	per square metre	20	Detailed Cost Estimate
Land Protection	Retaining Walls - Stone	\$817	per square metre	\$817	per square metre	35	Detailed Cost Estimate
Land Protection	Retaining Walls - Wood	\$565	per square metre	\$565	per square metre	25	Detailed Cost Estimate

RECREATIONAL FACILITIES

Asset	Material/Type	Asset Replacement Value	Unit	Renewal	Unit	Estimated Service Life (years)	Source
Recreational Facilities	Baseball Fields	\$98,000	each	\$805	per year	na	Asset Value: Industry Research Renewal: Detailed Cost Estimate
Recreational Facilities	Beach	\$368	per square metre	\$5,000	per year	na	Asset Value: Detailed Cost Estimate Renewal: Current Market Pricing
Recreational Facilities	Camping Pads/Group Camps - Gravel	\$45	per square metre	\$12	per square metre	10	Current Market Pricing
Recreational Facilities	Nature Play - large areas	\$35,000	each	na	na	na	Current Market Pricing
Recreational Facilities	Nature Play - large areas (gravel)	na	na	\$1,000	each	10	Current Market Pricing
Recreational Facilities	Nature Play - large areas (wood elements)	na	na	\$25,000	each	15	Current Market Pricing
Recreational Facilities	Nature Play - small areas	\$10,000	each	na	na	na	Current Market Pricing
Recreational Facilities	Nature Play - small areas (gravel)	na	na	\$500	each	10	Current Market Pricing
Recreational Facilities	Nature Play - small areas (wood elements)	na	na	\$5,000	each	15	Current Market Pricing
Recreational Facilities	Playgrounds (based on size and complexity)	varies	each	varies	per year	varies	Asset Value: Historic Costs Renewal: Park Staff Experience
Recreational Facilities	Pools	varies	each	varies	per year	20	Asset Value: Historic Costs/Industry Research Renewal: Estimate (based on 20-year
Recreational Facilities	Tennis Courts	\$100,000	each	\$10,000	per year	10	Asset Value: Historic Costs Renewal: Park Staff Experience

ROADS + PARKING LOTS

Asset	Material/Type	Asset Replacement Value	Unit	Renewal	Unit	Estimated Service Life (years)	Source
Roads	Gravel	\$65	per square metre	\$18	per square metre	18	Detailed Cost Estimate
Roads	Natural	\$7	per square metre	\$2	per square metre	40	Industry Research
Roads	Paved	\$250	per square metre	\$30	per square metre	30	Contractor Cost
Parking Lots	Gravel	\$30	per square metre	\$12	per square metre	18	Current Market Pricing
Parking Lots	Natural	\$7	per square metre	\$2	per square metre	40	Industry Research
Parking Lots	Paved	\$60	per square metre	\$30	per square metre	30	Current Market Pricing
Service Yards	Gravel	\$30	per square metre	\$18	per square metre	18	Current Market Pricing
Service Yards	Natural	\$7	per square metre	\$2	per square metre	40	Industry Research
Service Yards	Paved	\$60	per square metre	\$30	per square metre	30	Current Market Pricing
Misc. Hardened Surfaces	Gravel	\$30	per square metre	\$18	per square metre	18	Current Market Pricing
Misc. Hardened Surfaces	Paved	\$60	per square metre	\$30	per square metre	30	Current Market Pricing

SIGNAGE

Asset	Material/Type	Asset Replacement Value	Unit	Renewal	Unit	Estimated Service Life (years)	Source
Signs	Entry Signs - 1829 mm (6')	\$7,600	each	\$7,600	each	20	Current Market Pricing
Signs	Entry Signs - 2438 mm (8')	\$7,600	each	\$7,600	each	20	Current Market Pricing
Signs	Kiosks - 1219 mm (4')	\$4,900	each	\$4,900	each	20	Current Market Pricing
Signs	Kiosks - 2438 mm (8')	\$6,300	each	\$6,300	each	20	Current Market Pricing

STRUCTURES

Asset	Material/Type	Asset Replacement Value	Unit	Renewal	Unit	Estimated Service Life (years)	Source
Structures	Operational Structures, Viewing Structures, Water Access Structures	varies	per square metre	varies	per square metre	varies	Asset Value: Historic Costs/Current Market Pricing
Structures	Stair Structures	\$1,500	per metre	\$1,500	per metre	30	Current Market Pricing

TRAILS

Asset	Material/Type	Asset Replacement Value	Unit	Renewal	Unit	Estimated Service Life (years)	Source
Trails	Beach Accessibility Path	\$117	per square metre	\$117	per square metre	7	Current Market Pricing
Trails	Gravel (road/trail)	\$65	per square metre	\$12	per square metre	18	Current Market Pricing
Trails	Gravel (trail)	\$45	per square metre	\$18	per square metre	18	Current Market Pricing
Trails	Natural	\$7	per square metre	\$2	per square metre	40	Industry Research
Trails	Paved	\$115	per square metre	\$55	per square metre	30	Current Market Pricing

UTILITIES

Asset	Material/Type	Asset Replacement Value	Unit	Renewal	Unit	Estimated Service Life (years)	Source
Electrical System	Power Generation - Generators, batteries, solar panels					10 to 25	based on Engineer's estimate
Electrical System	Power system - all electrical lines, based on the fact that there are a lot of short service lines maintained by BC Hydro, and \$75 per meter for longer line	\$35	per metre	\$35	per metre	30	Current market pricing
Electrical System	Power system - lamp pole (wood)	\$2,000	each	\$2,000	each	30	Current market pricing
Electrical System	Power system - large kiosk	\$5,000	each	\$5,000	each	30	Current market pricing
Electrical System	Power system - Meter	\$181	each	\$180	each	30	Current market pricing
Electrical System	Power system - other kiosk		each		each	30	based on Engineer's estimate
Electrical System	Power system - Pole	\$6,000	each	\$6,000	each	30	Current market pricing
Electrical System	Power system - Pole with transformer	\$7,643	each	\$7,643	each		
Electrical System	Power system - pull box in ground	\$300	each	\$300	each	30	Current market pricing
Electrical System	Power system - small electrical box on post (Brae Island)	\$500	each	\$500	each	30	Current market pricing
Electrical System	Power system - small kiosk	\$3,000	each	\$3,000	each	30	Current market pricing
Electrical System	Power system - switch	\$2,600	each	\$2,600	each	30	Current market pricing
Electrical System	Power system - transformer	\$4,750	each	\$4,750	each	30	Current market pricing
Electrical System	Communication system - all lines, in ground and overhead	\$20	each	\$20	each	30	Current market pricing
Gas System	Lines	\$270	per metre	\$270	per metre	80	Current market pricing
Gas System	Meters	\$181	each	\$181	each	80	Current market pricing
Gas System	Tanks - small	\$400	each	\$400	each	80	Current market pricing
Gas System	Tanks - large	\$850	each	\$850	each	80	Current market pricing
Gas System	Valve	\$100	each	\$100	each	80	Current market pricing
Sewer System	Cleanouts	\$500	each	\$500	each	50	Industry Standard
Sewer System	Distribution Boxes	\$3,000	each	\$3,000	each	50	Industry Standard
Sewer System	Forcemains	\$300	per metre	\$300	per metre	50	Current Market Pricing
Sewer System	Gravity Pipe	\$165	per metre	\$165	per metre	50	Current Market Pricing
Sewer System	Main	\$220	per metre	\$220	per metre	50	Current Market Pricing
Sewer System	Perforated Pipe	\$200	per metre	\$200	per metre	50	Current Market Pricing
Sewer System	Manholes	\$5,000	each	\$5,000	each	50	Industry Standard
Sewer System	Tank - Standard	\$17,000	each	\$17,000	each	50	Industry Standard
Sewer System	Tank - Large	\$50,000	each	\$50,000	each	50	Industry Standard

APPENDIX A: ASSET REPLACEMENT VALUE, RENEWAL COSTS, AND ESTIMATED SERVICE LIFE OF BUILT ASSETS TABLE (continued)

UTILITIES (continued)

Water System	Meter - Meter 38mm	\$500	each	500	each	20	Double cost to purchase
Water System	Meter - Meter 25mm	400	each	400	each	20	Double cost to purchase
Water System	Outlet - Standpipe 50mm	2500	each	2500	each	15	Current market pricing
Water System	Outlet - Standpipe 25mm on tall post with	1500	each	1500	each	30	Current market pricing
Water System	Outlet - Standpipe on small post (hand tap-	200	each	200	each	30	Double cost to purchase
Water System	Outlet - Yard hydrant 25mm with sump	1500	each	1500	each	15	Past projects
Water System	Outlet - hand tap	200	each	200	each	40	Double cost to purchase
Water System	Outlet - fountain accessible with multiple	16000	each	16000	each	40	Current market pricing
Water System	Outlet - Blow off 50mm	1500	each	1500	each	20	Current market pricing
Water System	Outlet - Irrigation large sprinkler head (ALD)	1000	each	1000	each	25	Current market pricing
Water System	Outlet - Fire hydrant	1000	each	11000	each	40	Current market pricing
Water System	Pump - small recirculation or sump pump	2000	each	2000	each	15	Current market pricing
Water System	Pump - double well pump system (ALD)	15000	each	1500	each	15	Current market pricing
Water System	Pump - well pump	5000	each	5000	each	15	current market pricing
Water System	Reservoir - Mixing tank	10000	each	10000	each	30	current market pricing
Water System	Reservoir - pressure tanks	800	each	800	each	15	current market pricing
Water System	Reservoir - Belcarra reservoir Picnic Area	500000	each	500000	each	100	current market pricing
Water System	Reservoir - Belcarra reservoir White Pine	300000	each	300000	each	100	projected cost
Water System	Reservoir - Widgeon reservoir	30000	each	30000	each	100	projected cost
Water System	strainer - strainer	200	each	200	each	25	Double cost to purchase
Water System	Treatment system - filter systems, arsenic systems, uv systems					10 to 25	based on Engineer's estimate
Water System	Valve - valve 150mm in building	1200	each	1200	each	30	Current market pricing
Water System	Valve - valve 150mm in roadway	2400	each	2400	each	30	Current market pricing
Water System	Valve - valve 100mm in building	1000	each	1000	each	30	Current market pricing
Water System	Valve - valve 100mm in roadway	2000	each	2000	each	30	Current market pricing
Water System	Valve - valve 50mm in building	300	each	300	each	30	Current market pricing
Water System	Valve - valve 50mm in roadway	1000	each	1000	each	30	Current market pricing
Water System	Valve - valve 25-20-12 mm inside building	100	each	100	each	30	Current market pricing
Water System	Valve - valve 25mm in roadway	800	each	800	each	30	Current market pricing
Water System	Valve - 20mm double check in box	1000	each	400	each	30	Current market pricing
Water System	Valve - 20mm double check in building	400	each	400	each	30	Current market pricing
Water System	Valve - 50mm double check in box (boulevard)	4000	each	1200	each	30	Current market pricing
Water System	Valve - 50mm double check in box (roadway)	7000	each	1200	each	30	Current market pricing
Water System	Valve - 100mm double check in building	1200	each	1200	each	30	Current market pricing
Water System	Valve - 100mm double check in box	10000	each	2000	each	30	Current market pricing
Water System	Valve - 150mm double check in building	2400	each	2400	each	30	Current market pricing
Water System	Valve - 150mm double check in box	40000	each	2400	each	30	Current market pricing
Water System	Valve - Air in building	300	each	300	each	30	Current market pricing
Water System	Valve - Air in manhole	1000	each	300	each	30	Current market pricing
Water System	Valve - 18-25mm Pressure reducing	300	each	300	each	30	Current market pricing
Water System	Valve - 50mm Pressure reducing	800	each	300	each	30	Current market pricing
Water System	Valve - 300mm w/ in bvid	400	per metre	400	per metre	70 to 80	Current market pricing
Water System	Valve - 150mm w/ in bvid	320	per metre	320	per metre	70 to 80	Current market pricing
Water System	Valve - 150mm w/ in roadway	400	per metre	400	per metre	70 to 80	Current market pricing
Water System	Valve - 50 mm w/ in bvid	270	per metre	270	per metre	70 to 80	Current market pricing
Water System	Valve - 50mm w/ in roadway	350	per metre	350	per metre	70 to 80	Current market pricing
Water System	Valve - 18-38mm in bvid	200	per metre	200	per metre	70 to 80	Current market pricing
Water System	Well - active, including electrical and waterline in core	25000	each	25000	each	100	Current market pricing
Water System	Well - on our property but risk we may need to close, or inactive we need to close	5000	each	0	each	100	Current market pricing



To: Finance and Intergovernment Committee

From: Mike Redpath, Director, Regional Parks
Jamie Vala, Division Manager, Planning and Engineering Services, Regional Parks

Date: April 2, 2019 Meeting Date: April 10, 2019

Subject: **Regional Parks Asset Management Policy**

RECOMMENDATION

That the MVRD Board approve the *Asset Management for Regional Parks Policy* as presented in the report dated April 2, 2019, titled “Regional Parks Asset Management Policy”.

PURPOSE

To present for MVRD Board consideration and approval the *Asset Management Regional Parks Policy*, which will establish asset management principles and a framework to balance asset performance, risk and cost that supports the long-term provision of Regional Parks Service.

BACKGROUND

In 2018, asset management policies for the Metro Vancouver Housing Corporation (MVHC) and Liquid Waste Services were adopted by the MVHC and Greater Vancouver Sewerage and Drainage District (GVS&DD) Boards, as part of the work underway across the organization to develop an overall asset management program and series of asset management policies for all Metro Vancouver functions. Development of an asset management policy for Regional Parks is on the *2019 Regional Parks Committee Work Plan*.

This report brings forward the *Regional Parks Asset Management Policy* for consideration by the Finance and Intergovernment Committee and the MVRD Board. The Policy has also been reviewed for input by the Regional Parks Committee and the Performance and Audit Committee in advance of this meeting.

ASSET MANAGEMENT IN REGIONAL PARKS

Metro Vancouver Regional Parks manages a system of regional parks, regional greenways, ecological conservancy areas and regional park reserves. Building new infrastructure and maintaining existing assets in a state of good repair is critical to the success of Regional Parks. Good infrastructure stewardship enables Metro Vancouver to provide quality and affordable services to the community. Metro Vancouver Regional Parks infrastructure is a public investment distributed over 13,600 hectares of land across the region.

Asset Management is the process of monitoring and maintaining assets with the objective of providing the best possible service to users. It is a systematic process of deploying, operating, maintaining, upgrading, and disposing of assets cost-effectively.

Regional Parks in Metro Vancouver have evolved and matured significantly since their establishment as part of the Vancouver Fraser Park District in 1967. Today, fifty-two years into the future, MVRD continues to implement resource management practices throughout the Regional Parks system.

Since 2000, Regional Parks has collected asset information in a central inventory, and conducted inspections on asset categories. A project to complete the asset inventory and undertake condition assessments was initiated in 2018 and is estimated to be substantially complete by the end of 2019.

Asset management is an integrated approach involving all levels of the organization that translates the organization's objectives into asset related decisions, plans and activities using a risk based approach in order to maximize benefits, reduce risks and provide the desired performance of assets in a sustainable manner over their full life cycle, considering both current and future needs. Asset related decision-making is evidence based and supports the delivery of clearly defined performance measures.

PROPOSED ASSET MANAGEMENT POLICY

The proposed *Asset Management for Regional Parks Policy* contains the following key areas that will guide the management of assets within regional parks:

- Asset Management Principles
- Asset Classes
- Asset Data and Information
- Asset Likelihood of Failure
- Consequence of Asset Failure
- Asset Risk & Lifecycle Management Strategies
- Asset Levels of Service
- Asset Management Plan
- Continuous Improvement

The principles and evaluation criteria outlined in the proposed policy will assist staff in implementing the direction of the MVRD Board by ensuring that the appropriate asset management principles are adopted as a core business model that promotes continuous improvement. The policy provides asset management principles that balance asset performance, risk and the cost that supports the long term provision of Regional Parks service. This is a strong mandate and catalyst for business improvement activities and a basis to develop asset management related objectives that align with Metro Vancouver's overarching strategic objectives.

The Regional Parks Committee considered the *Asset Management for Regional Parks Policy* at its meeting on March 13, 2019. The committee subsequently endorsed the policy and provided no additional comments. The policy is also being reviewed by the Performance and Audit Committee on April 10, 2019.

ALTERNATIVES

1. That the MVRD Board approve the *Asset Management for Regional Parks Policy* as presented in the report dated April 2, 2019, titled "Regional Parks Asset Management Policy".

2. That the MVRD Board receive for information the report dated April 2, 2019, titled “Regional Parks Asset Management Policy” and provide alternate direction to staff.

FINANCIAL IMPLICATIONS

If the MVRD Board approves alternative one, the policy will be implemented within existing resources and without additional immediate costs to Metro Vancouver. Over the next five years, additional effort will be required to improve the coverage and accuracy of asset data and information, through condition and risk assessments as well as software improvements to manage the wealth of data, streamline current maintenance activities and use that data to guide decisions regarding long-term infrastructure investments. Over the longer term, costs for the Asset Management Program are anticipated to be offset by maximizing the lifespan of assets and avoiding costs for reactive asset repair and replacement.

Following the completion of the asset inventory project, staff will develop a long term asset management plan that will include the long term financial implications. Any implications will be reviewed through the regular budgeting process.

SUMMARY / CONCLUSION

The goal of the proposed *Asset Management for Regional Parks Policy* is to balance asset performance, risk, and cost. This policy outlines MVRD’s commitment and methodology to manage regional parks assets in a manner that minimizes asset failure risks and impacts to park users while optimizing the life cycle of assets. The policy will guide Regional Parks to meet asset performance targets within a specified budget and enable evidence based decision making with respect to infrastructure rehabilitation and replacement.

Staff recommend Alternative 1, that the MVRD Board approve the *Asset Management for Regional Parks Policy*.

Attachment (28480238)

Asset Management for Regional Parks Policy

28642776

ASSET MANAGEMENT FOR REGIONAL PARKS

Effective Date:

Approved By: MVRD Board

PURPOSE

To establish asset management principles and a framework that balances asset performance, risk, and cost in the provision of Regional Parks Service.

POLICY

Metro Vancouver Regional Parks manages a system of regional parks, regional greenways, ecological conservancy areas, and regional park reserves. Regional Parks' mandate is to protect natural areas and connect people to them; therefore, inherent to this asset management Policy is the need to systematically protect and monitor both natural and built assets.

This Policy outlines Metro Vancouver's commitment to manage Regional Parks assets in a manner that minimizes asset failure risks and impact to visitors, optimizes the life cycle value of assets to consistently meet asset performance targets, and enables integrated, evidence based decision making, to continuously provide quality regional park services and protect the natural areas.

NATURAL ASSETS

Natural assets, such as forests, wetlands, rivers and estuaries, provide ecosystem services which are the essential benefits that nature provides humans. These services support life, enhance security, and improve quality of life for humans and other organisms.

Natural assets such as wetlands, ponds, and restored forested or riparian areas can also be constructed to improve ecosystem function. Whether they are naturally occurring or they have been constructed, these assets must be operated and maintained. However, if managed appropriately, natural assets do not require replacement.

As the tools and methodologies for quantitatively assessing natural assets evolve, Regional Parks will determine how best to inventory and assess natural assets in order to ensure these assets can be managed in accordance with the principles set out in this Policy.

BUILT ASSETS

Built assets have been constructed/engineered to protect natural assets and enable people to connect to regional parks. For example, buildings, bridges, and trails help in the delivery of regional parks services, and retaining walls and barriers help protect natural assets.

ASSET MANAGEMENT PRINCIPLES

The following principles guide the methodology for managing regional parks assets:

- a) **Integrated:** a comprehensive approach that examines the combined implications of managing all aspects of the asset life cycle. This includes interdependencies of assets or asset systems.
- b) **Risk-based:** manage asset risk relative to defined performance targets and consequence of asset failure, and focus expenditures and priorities on risk and associated cost and benefit.
- c) **Sustainable:** a long-term approach to estimating asset investment and activities, which will better enable assets to meet future challenges, including changing demographics, legislative requirements and technological, financial and environmental factors.
- d) **Fiscally Responsible:** activities and decisions aim to reduce asset ownership life cycle costs and meet defined asset performance targets.
- e) **Systematic:** a formal, consistent, repeatable and methodical approach to the management of assets.
- f) **Innovative:** continuous improvement in asset management by examining new tools, technologies, practices and solutions.

ASSET CLASSES

This Policy is applicable to the management of Regional Parks assets. Built asset classes include:

- | | |
|-----------------------------|---------------------------|
| 1. Recreational Facilities | 6. Utilities |
| 2. Buildings and Structures | 7. Roads and Parking Lots |
| 3. Trails | 8. Barriers |
| 4. Land Protection | 9. Signage |
| 5. Bridges and Boardwalks | 10. Park Fixtures |

ASSET DATA AND INFORMATION

To measure performance of regional parks built assets, Regional Parks will develop and maintain an asset registry with comprehensive and accurate asset data and information. Data will be organized in a structured manner so that it can be stored, analyzed and reported at an adequate level for different business needs. Integrity of the data shall be monitored, updated and maintained to provide accurate asset information.

The Regional Parks Asset Registry will include at a minimum, the following:

- Asset class
- Asset location (e.g. park, geospatial reference)
- Asset details (e.g. material, size, install / construction date)
- Asset identification (e.g. type, number, description)
- Consequence of asset failure
- Financial information (e.g. estimated replacement cost)
- Asset condition and estimated service life

ASSET PERFORMANCE AND LIKELIHOOD OF FAILURE

Regional Parks will manage each built asset in accordance with clearly defined condition assessment metrics and targets. Condition information is used as an indicator of an assets’ likelihood of failure. Regional Parks asset performance categories, key performance indicators, and targets are provided in the table below.

Performance Category	Performance Category Definition	Key Performance Indicator (KPI)	Performance Target
Condition	Condition of assets (excluding buildings)	Condition Score (see table below)	The performance target for condition score is 3 or better.
Condition (buildings)	Condition of building assets	Facility Condition Index (FCI)	The performance target for FCI is a condition score of 4 or better.

For all built asset classes, excluding buildings, Regional Parks will use a 1 to 5 condition scoring system in accordance with the general table below, specifics will vary by asset class. When condition information is not available, an age based remaining service life will be used as a proxy for asset condition. Condition information will be stored in the asset register at a level most practical to capture and maintain the condition data. Regional Parks will develop asset specific descriptions based on the table below to enable assignment of 1 to 5 condition scores for all built assets.

Condition Score	Description
1 Very Good	New or Excellent condition, no apparent defects.
2 Good	Asset is in good state of repair, possible minor defects that do not detract from functionality.
3 Fair	Asset is operational, but non-critical defects are apparent.
4 Poor	Asset requires replacement or major repair, functionality is affected and failure is possible.
5 Critical	Asset is past the point of economic repair, is defective, or non-functional, and should be replaced, repaired, decommissioned, or removed.

For the buildings asset class, Regional Parks will use Facility Condition Index (FCI), which is an industry standard infrastructure risk metric used to track condition performance of facilities and portfolios.

ASSET CRITICALITY AND CONSEQUENCE OF FAILURE

Consequence of asset failure is considered in planning built asset replacement, rehabilitation, decommissioning, removal, operations and maintenance strategies as well as alternative risk mitigation strategies (e.g. emergency preparedness and response planning). High consequence assets (e.g. buildings, bridges, utilities) have the potential for significant impact on services if they fail. Low consequence assets (e.g. split rail fence) will have low or no impact on services if they fail. As there is

less tolerance to asset failure for high consequence assets, they will be monitored more frequently and have higher priority for asset inspection and improvement work than medium or low consequence assets. The information outlined in the table below will be considered to determine asset consequence of failure.

Consequence of Failure Criteria (Criticality)	
Health & Safety	Risk of injuries, illness, or death
Security	Protect site or people from external forces
Service Impact	Reduces Level of Service
Energy & Operational Savings	Impacts on energy use/operations and maintenance costs
Accessibility Opportunity	Appropriate time to improve access/universal design
Regulatory Requirement	Required by provincial or other legislation or regulation
Environmental Risk	Impacts to ecosystems

ASSET RISK AND LIFECYCLE MANAGEMENT STRATEGIES

Managing risks associated to the assets is essential for maintaining expected Regional Parks service levels. Risk is the combination of likelihood and consequence of a failure event occurring:

$$\text{Risk} = \text{Likelihood} \times \text{Consequence}$$

Asset risk will be monitored to ensure that asset performance is within targets. When asset data and information indicates that an asset is failing to meet performance target(s), Regional Parks staff will identify the relative consequence if the asset fails, assess the risk and identify options to address the risk. Risk mitigation options could include asset replacement, rehabilitation, decommissioning, removal, modified operations and maintenance strategies as well as modified emergency preparedness and response planning.

In evaluating different options, economic, social, and environmental benefits will be considered for each option. Total asset life cycle costs including capital investment, expenditures related to operations and maintenance of the asset as determined by Regional Parks Levels of Service and decommissioning costs will also be considered.

Where infrastructure investment is required, Regional Parks will consider opportunities to address other needs or future requirements (e.g. improved capacity, accessibility, environmental stewardship, etc.) consistent with integrated infrastructure investment planning.

LEVEL OF SERVICE

Levels of service describe the standard of service to be delivered to regional parks users based on parameters that reflect social, political, economic and environmental outcomes.

Regional Parks will define and quantify the levels of service within each asset class. These levels of service will be indicators of asset needs and be used for planning, operational resource management and investment decision making.

ASSET MANAGEMENT PLAN

Regional Parks will have an asset management plan to summarize asset performance data and information, including a summary of performance risks. The Asset Management Plan will be organized by asset class and will outline the risk mitigation strategies, including capital investments, operating and maintenance strategies and emergency response strategies. The Asset Management Plan will be updated on a regular schedule at a minimum of every 5 years.

CONTINUOUS IMPROVEMENT

Regional Parks will examine, monitor, identify, and address asset management improvement opportunities to enhance asset management tools, technologies, and business practices. Staff will be properly trained to support asset management activities, from assessing asset condition to renewing assets to improve asset performance.

To: Finance and Intergovernment Committee

From: Cheryl Nelms, General Manager, Project Delivery

Date: February 1, 2021 Meeting Date: February 10, 2021

Subject: **Major Project Delivery Governance Update**

RECOMMENDATION

That the MVRD Board receive for information the report dated February 1, 2021, titled “Major Project Delivery Governance Update”.

EXECUTIVE SUMMARY

Metro Vancouver plans for, and implements, significant capital infrastructure projects related to liquid waste and water services for the region. An external expert advisory committee is being established to provide independent advice related to the planning and implementation of major water and liquid waste capital projects. Committee members will have valuable and relevant business, governance and construction oversight experience to augment skills and experience held by Metro Vancouver staff. The input received from the committee will be advisory in nature.

PURPOSE

To provide a governance update for the delivery of Metro Vancouver’s major capital infrastructure projects and present the draft terms of reference for a new major project external expert advisory committee.

BACKGROUND

Metro Vancouver is in the process of planning for, and implementing, a number of significant capital infrastructure projects related to liquid waste and water services for the region. These projects represent a significant component of the capital expenditures for Metro Vancouver for the next several years.

To date, oversight of these projects has been undertaken by three MV Board standing committees: Liquid Waste, Water, and Finance and Intergovernment. Going forward, Finance and Intergovernment Committee will provide oversight of major capital projects on behalf of the MVRD Board to ensure integrated and coordinated oversight of these projects and related expenditures. This is reflected in Finance and Intergovernment Committee’s revised terms of reference (“Providing governance and oversight over key major projects”).

To assist management, committee and Board in implementing these projects an external expert advisory committee will be established.

External Expert Advisory Committee

Draft terms of reference for the external expert advisory committee have been prepared (Attachment 1).

The advisory committee will provide construction oversight experience to augment skills and experience that currently exist within Metro Vancouver management. On behalf of, and reporting to, the General Manager, Project Delivery, the advisory committee will provide advice related to the planning, project management, risk management, reporting, stakeholder engagement, and expenditures for Metro Vancouver's water and liquid waste capital infrastructure projects. The draft terms of reference (Attachment 1) outlines the advisory committee's functions and addresses meetings, commitment, remuneration, confidentiality and conflict of interest, and membership, including appointment process.

The advice received from the external expert advisory committee will be advisory in nature. Final decision making on major capital projects rests with the MVRD Board. The relationship of the advisory committee to Board, committee and management is provided in Attachment 2: Major Project Governance Structure.

Technical Advisory Panel

In addition to the overarching External Expert Advisory Committee, many projects will also establish a project specific Technical Advisory Panel, which typically consist of 3 to 5 broadly recognized engineering experts in their field, who provide independent expert opinions on challenging design and construction issues to the Metro Vancouver, resulting in better project outcomes. See Attachment 2.

ALTERNATIVES

No alternatives are provided. This is an information report.

FINANCIAL IMPLICATIONS

Remuneration to committee members will be allocated to major capital infrastructure projects.

CONCLUSION

An external expert advisory committee is being established to provide independent advice related to the planning, project management, risk management, reporting, stakeholder engagement, and expenditures for Metro Vancouver's major water and liquid waste capital infrastructure projects. Draft terms of reference for this advisory committee have been prepared (Attachment 1). Committee members will have valuable and relevant business, governance and construction oversight experience. The draft terms of reference outline the advisory committee's role, functions and addresses meetings, commitment, remuneration, confidentiality and conflict of interest, and membership, including appointment process.

Attachments

1. External Expert Advisory Committee Draft Terms of Reference *(Doc# 43628981)*
2. Major Project Governance Structure *(Doc# 4362374)*

Terms of Reference

Metro Vancouver Major Capital Projects External Expert Advisory Committee

Background

Metro Vancouver is in the process of planning for, and implementing, a number of significant capital infrastructure projects related to liquid waste and water services for the region. These projects will represent a significant component of the capital expenditures for Metro Vancouver for the next several years.

To date oversight of these projects has been undertaken by three different Metro Vancouver Board standing committees: Liquid Waste, Water, and Finance and Intergovernment. In order to ensure integrated and coordinated oversight of these projects and related expenditures, the Finance and Intergovernment Committee will provide oversight of major capital projects on behalf of the Board going forward.

To assist management to successfully implement these projects an External Expert Advisory Committee is being established. These Terms of Reference set out the roles, responsibilities and functions of the External Expert Advisory Committee (Advisory Committee).

Purpose

The purpose of the Advisory Committee is to provide impartial advice to assist Metro Vancouver management to successfully implement its major capital projects. The Advisory Committee will include members that have valuable relevant business insights and capital project oversight experience in key areas where there are currently gaps in that expertise within Metro Vancouver management.

Role of Advisory Committee members

Advisory Committee members will exercise their professional expertise and judgement to provide advice on the planning and implementation of projects in accordance with the vision and goals that the Board has established for its water and wastewater capital projects.

Functions

On behalf of, and reporting to, the General Manager, Project Delivery, the Advisory Committee will provide advice and guidance related to:

- planning, project management, site acquisition and expenditures for MV water and liquid waste capital infrastructure projects;
- development of a decision-making framework, business priorities and resource approval;
- performance measures and targets;
- appropriate project controls and reporting procedures;
- project scope, schedule and budget as projects proceed through planning, procurement and implementation phases, with particular attention to risk identification and risk management.
- resource requirements, including legal, financial or other advisory functions;

- resolution of material issues that may arise over the course of projects;
- reporting materials developed for the Finance and Intergovernment Committee and the Board;
- communication and engagement with project stakeholders;
- communication and engagement with local governments, including Indigenous governments.

Meetings

The Advisory Committee will meet monthly or as required, but no less frequently than once in each calendar quarter. In addition, time may be required for site visits and community consultation meetings. Advisory Committee members are expected to prepare for and attend all advisory committee meetings.

The General Manager, Project Delivery will call Advisory Committee meetings and issue agendas. Where possible, agendas and background materials will be provided to members at least 48 hours prior to the meeting.

Commitment

All Advisory Committee members should be fully committed to the success of the projects. They should be committed to the importance of sound governance within the advisory committee and be ready, willing and able to put in the required time to learn their role, get to know the projects and the stakeholders, prepare for meetings and participate fully as part of the Advisory Committee.

Diversity

The Advisory Committee should be made up of individuals who, collectively, bring diverse views and perspectives to the issues at hand.

Confidentiality and Conflict of Interest

Information that is provided to the Advisory Committee in confidence, or that is by its nature confidential, will be treated in confidence by members and not disclosed to third parties (including their own employer or any other organization with which the member has a relationship). The duty to maintain information in confidence continues after an Advisory Committee member ceases to be an Advisory Committee member.

Advisory Committee members will declare any relevant personal, academic, professional or business interests on an ongoing basis. The General Manager, Project Delivery shall be responsible for the management of any conflicts of interest. Advisory Committee members may be excluded from the Advisory Committee or from consideration of specific items in which they have an interest where this is necessary to avoid a conflict (real or perceived).

Membership

Membership of the Advisory Committee will be determined by the General Manager, Project Delivery. The CAO will be an ex-officio member of the Advisory Committee.

The Advisory Committee will have no fewer than four (4) and no more than nine (9) members who as a group demonstrate the following skills and expertise:

- Unquestioned integrity
- Strategic, broad thinker
- Commercial judgement and sound business instinct and acumen
- Construction knowledge
- Extensive hands-on leadership of successful, large-scale public infrastructure projects
- Experience in financing projects of similar size and scope
- Deep experience in negotiating with project stakeholders, including contactors
- Project management
- Previous board experience and a strong understanding of governance
- Risk management
- Contract negotiations
- Genuine interest in the successful completion of projects and metro Vancouver
- Broadly recognized expert in their field
- Technical knowledge

Appointment of Advisory Committee Members

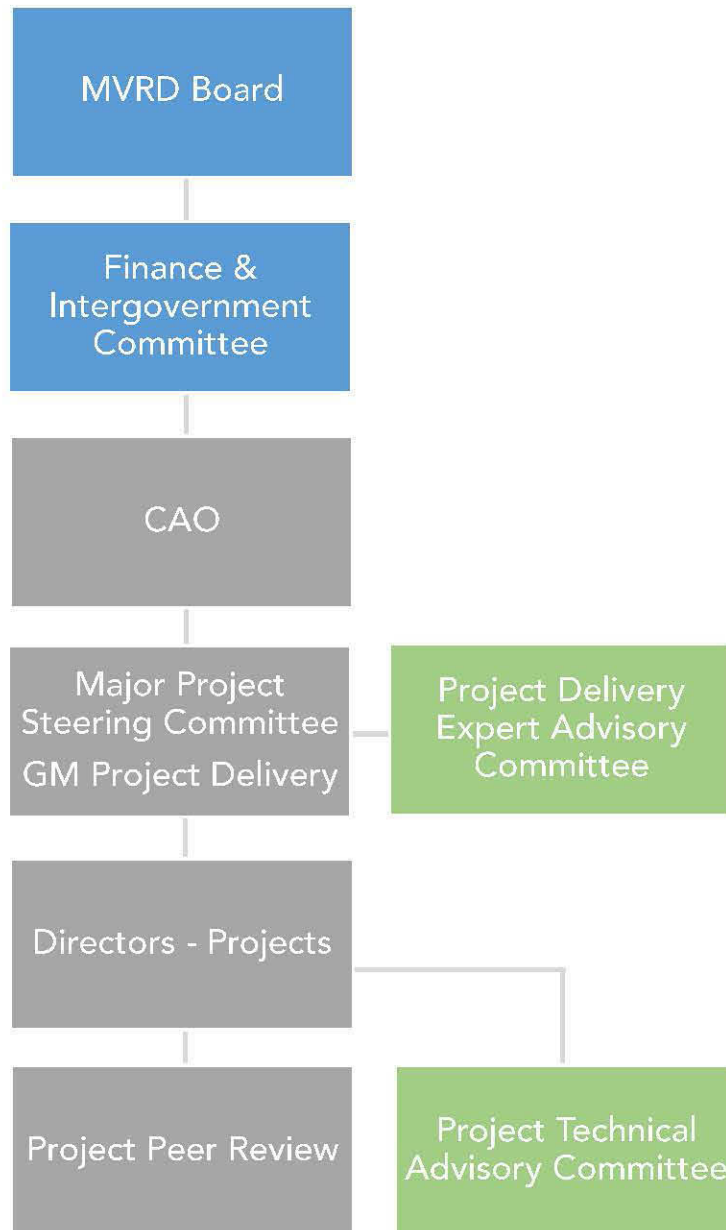
The CAO will appoint members to the Advisory Committee based on technical and subject matter expertise.

Compensation

Members of the Expert External Advisory Committee will be paid under contract based on their time spent on developing and providing advice to Metro Vancouver.

43628981

MAJOR PROJECT GOVERNANCE STRUCTURE



LEGEND

- Fiduciary (elected officials)
- Metro Vancouver staff
- Advisory (external)

To: Finance and Intergovernment Committee

From: Heather Schoemaker, General Manager, External Relations
Ann Rowan, Division Manager, Collaboration and Engagement, External Relations

Date: January 26, 2021 Meeting Date: February 10, 2021

Subject: **Metro Vancouver's 2020 Zero Waste Conference**

RECOMMENDATION

That the MVRD Board receive for information the report dated January 26, 2021, titled "Metro Vancouver's 2020 Zero Waste Conference".

EXECUTIVE SUMMARY

For the first time Metro Vancouver's annual Zero Waste Conference was a virtual event; as it will be in 2021. Celebrating its tenth anniversary, the conference delivered the same strong program it is renowned for but in a unique television studio experience. The program was anchored by four compelling and thought-provoking keynotes and a keynote discussion on solving the plastics challenge. Interspersed through the day were spotlights on innovators, entrepreneurs and practitioners in zero waste practices and policies as well as an armchair discussion on "build back better." The overwhelming response from participants was that the 2020 Zero Waste Conference was one of the best – virtual or otherwise. Total number of participants was 501, compared to 530 in 2019. Key take-away from the conference is that we stand at an important cross-roads – a return to the past or to a more circular future. The urgency for the latter comes from science as do many solutions. Within the marketplace, new collaborations will be important with governments and other key stakeholders creating the environment for innovation to thrive.

PURPOSE

To provide the Finance and Intergovernment Committee an overview of Metro Vancouver's tenth annual Zero Waste Conference: *A Future without Waste: Resiliency, Prosperity, Carbon Neutrality - the Circular Economy Solution* held virtually on Friday, November 13, 2020 at the Annacis Research Centre.

BACKGROUND

Metro Vancouver's annual Zero Waste Conference is designed to inform and inspire regional and national stakeholders who can be engaged in actions that will deliver on the waste reduction and prevention goals of the *Integrated Solid Waste and Resource Management Plan*. Effective action on waste prevention requires cross-sectoral collaboration at a geographical scale larger than the region; including changes in design and materials used in production, promoting behaviour change, and aligning policies across jurisdictions. Connections made through the National Zero Waste Council to thought leaders and change agents involved in identifying, promoting and adopting waste prevention measures and opportunities to transition to the circular economy are essential to the development of the Conference program and the conference is delivered in collaboration with the Council. The development of a strong program attracts participants from all levels of government and the private

sector, as sustainability practitioners, students and researchers within the region, and increasingly across Canada and globally. Through knowledge exchange and networking at the Conference, strong and informed advocates for advancing waste prevention and the transition to a circular economy in Metro Vancouver and across Canada is fostered.

This report summarizes key aspects of the 2020 Zero Waste Conference.

2020 ZERO WASTE CONFERENCE

Planning in early 2020 for the annual Zero Waste Conference began with the assumption that it would be a day and half event hosted at the Vancouver Convention Centre where more than 500 participants would convene for thought-provoking and inspiring keynotes and panels. As was the experience of most event planners in 2020, this was not to be. Planning for the conference transitioned from a totally in-person event to a mostly virtual event with a small studio audience to a completely virtual event held on one day and broadcast from a studio constructed in the Annacis Research Centre.

While the format changed, the quality of the programming did not change. The program was anchored by strong and inspiring keynotes interspersed with small dynamic panels showcasing entrepreneurs, innovators and pioneering practitioners in waste prevention and circular solutions. In the Annacis Research Centre, staging was created similar to that of a news broadcast creating an environment very different from the virtual conference calls and webinars that had become a very common, and similar, format by the end of 2020.

Program Highlights

Metro Vancouver's Zero Waste Conference is renowned for a curated program of thought-leaders, innovators and decision-makers committed to waste prevention and accelerating the transition to a circular economy, and this year's conference was no exception. The day-long program was anchored by four compelling and thought-provoking keynotes and a keynote discussion focused on solving the plastics challenge. Interspersed through the day were spotlights on innovators, entrepreneurs and practitioners in zero waste practices and policies as well as an armchair discussion on "build back better."

The opening keynote was Beau Lotto, a Professor of Neuroscience and Founder & CEO of the Lab of Misfits who acknowledged how disquieting change can be but urged participants to reclaim the sense of awe we had in our youth in order to see the opportunities presented by disruption. The next keynote was Suzanne Lee, a fashion designer and pioneer of 'biofabrication.' The latter is an approach to materials production that involves weaving together new understandings from science with design to reinvent the way we make everything from shirts to couches to buildings. Maintaining a focus on materials, the program moved to a discussion of the urgency of taking ambitious and concerted actions to implement circular solutions and innovation in the design of plastic products. The discussion involved Peter Schiefke, Parliamentary Secretary to the Minister of Environment and Climate Change Canada, Dr. Chelsea Rochman, a leading scientist in marine ecology, and Horacio Barbeito, President & CEO of Walmart Canada, who shared how Canada could and must rise to the challenge of tackling plastic pollution in one generation.

The afternoon began with Michael Green, an award-winning architect, who questioned traditional ways of designing and constructing buildings and presented examples of innovative approaches in creating a built environment that results in less waste and an enhanced human experience in urban spaces. The closing keynote was Katie Treggiden, a storyteller and designer, who shared numerous examples of how craftspeople are collapsing the distinction between materials and waste ideas and turning waste streams into material “pipelines.” Even though it was midnight in England when Katie came into the Conference, she effectively pulled ideas generated throughout the day into a compelling and positive argument for seizing opportunities to build a better future for our communities and the planet through a transition to a circular economy.

In terms of spotlight sessions, following the opening keynote four circular economy entrepreneurs and innovators shared their stories of following their passions and finding commercial success. In the next generation materials session, the spotlight was on two innovators who shared their experiences in developing products derived from materials in nature while conserving natural ecosystems. The speakers in the spotlight on the built environment identified new technologies, methods and materials that provide opportunities to vastly decrease the waste and greenhouse gas emissions generated in creating and maintaining urban environments. The “Build Back Better” session engaged four Canadian thought leaders in a discussion of how the COVID-19 pandemic revealed systemic problems in our economy as well as the opportunities to forge a new, more resilient and equitable future. The path to this future included seizing opportunities as they present themselves, building local economies and supply chains, facilitating the potential of an indigenous economy in Canada, supporting businesses that adopt circularity principles, and charting a recovery plan that aligns with important global initiatives on equity, environment and economic issues.

The attachment provides the full program for the 2020 Zero Waste Conference and the biographies of the keynotes, speakers and moderators.

The conference host and moderators play a critical role in the success of the conference interacting with and facilitating the keynote and spotlight sessions, finding those unique threads, sensing the audience interest, for asking speakers to elaborate on key points and providing the opportunity for audience engagement. Vanessa Timmer, Co-Founder and Executive Director, One Earth returned once again as the conference MC and was joined by moderators Kathryn Gretsinger, Associate Professor at UBC School of Journalism, Writing and Media, Chris Henderson, Chair, GLOBE Series and Executive Director, Indigenous Clean Energy and Brock Carlton, former CEO, Federation of Canadian Municipalities.

As in the past, Pigeonhole was used, a software that allows participants to post their questions using their smart phones and to vote on questions they think important. This means that the questions asked of a speaker reflects a collective rather than an individual enquiry. Reference 1 provides a link to a short video of the 2020 ZWC highlights.

Key take-away messages from the 2020 Conference were:

- While science has been providing the clarion call for urgent and effective action to reduce the negative environmental implications of resource extraction as well as the generation of waste

(including plastics) and pollution (including greenhouse gas emissions), science is also key to solutions, including the identification of new bio-based materials.

- Waste is a category, not a fact; that is, there are many opportunities to take materials that are generally considered waste or residuals from one industry that can actually be used in another.
- Innovation in terms of processes and products that create value in the marketplace continue to emerge and thrive, even during a world-wide pandemic.
- The transition to the circular economy will be built through collaboration across different industry sectors, scientists and financial institutions. Governments at all levels need to recognize the economic, social and environmental potential of these collaborations and create the regulatory and policy environments conducive for these collaborations to thrive.

Audience/Networking

The total number of participants for the 2020 Zero Waste Conference was 501; compared to last year's conference with 530 participants, with the number of participants over the course of the day staying relatively constant between 450 and 480 – a significant achievement with a virtual environment.

According to the information provided at registration, 34% of the participants were from the private sector (from start-ups to corporate brands), 28% were from government (elected officials and staff), 14% were from the non-profit/NGOs, 10% had an academic affiliation, 3% were interested members of the public and 12% did not report an affiliation. This is a very similar distribution to prior years. The number of Metro Vancouver Directors registered for the 2020 Zero Waste Conference was 20.

In moving to a virtual conference, the general registration fee was reduced from \$495 to \$150 and from \$150 to \$89 for students. This is the first year that an honour system was used for those who registered using the student fee - individuals were required to provide their student number. There was a total of 62 student registrants, a number that exceeds the number claiming to have an academic affiliation.

Marketing

The Zero Waste Conference has a modest budget for marketing. In 2020, efforts were focused on digital opportunities targeting audiences interested in waste prevention and the circular economy and because of the virtual nature of the conference, the geographic scope was expanded. Nothing allocated to print media. Given the shifting of the conference to an eventual virtual environment, the digital marketing campaign was relatively short, 10 weeks, and achieved 2.3 million impressions. Facebook ads reached over 318,000 people in Canada and the US with an average frequency of 3.8 and LinkedIn reached almost 118,000 people in Canada, the US and Europe with an average frequency of 4. The learning on marketing for 2021 is a longer marketing campaign with a tighter geographical scope; for instance, focusing on metropolitan areas as opposed to provinces.

In addition, e-vites and the conference blog – a mainstay of marketing and engaging audiences with the conference - were sent on a regular basis to existing Metro Vancouver, National Zero Waste Council and Conference databases providing updates on the program and speakers. These e-vites were also posted on association notice boards and newsletters such as the Federation of Canadian

Municipalities and redistributed to the mailing lists of the Globe Foundation, PAC Packaging Consortium and various chambers and boards of trade.

There were 366 hashtag mentions of the Conference between October 1 and November 16; with @MV gaining 184 new followers after the Conference. The Zero Waste Conference blog is used to promote the Conference but also to stimulate thinking and discussions on waste prevention and the circular economy before and after the Conference. Twenty-two blogs were published in 2020 and between August and November and the blog resulted in more than 2,400 site visits.

Social and Earned Media

While social media continues to be an important outreach and engagement platform for the Conference, conventional media interest and coverage of the Conference also plays an important role. In 2020, there were 77 on-line and print earned media stories as well as 24 broadcast stories on radio and TV. The focus of most of the stories was the keynote discussion on the urgency of addressing the plastics challenge and Government of Canada's announcement of a \$2 million investment into research made at the Conference. The highlight in 2020 was a Black Press story that was syndicated by Canadian Press/Associated Press, with over 60 publications picking it up. The story carried quotes from Peter Schiefke, Parliamentary Secretary to the Minister of Environment and Climate Change, ecological researcher Dr. Chelsea Rochman, and Walmart Canada's president and CEO, Horacio Barbeito. The Vancouver Sun and the Province ran very similar stories. Reference 2 provides a link to the Black Press story.

Ongoing Knowledge Sharing - Zero Waste Conference Website

The Zero Waste Conference website is maintained throughout the year and provides participants and other interested individuals access to videos from the keynotes, panel discussions and question and answer sessions in addition to the blog. Also included are previous year conferences resulting in a treasure trove of information as well as a marker of how the discussion of waste prevention and the transition to the circular economy is evolving in Canada. Reference 3 provides a link to these videos.

Sponsorships

While registration fees are the main source of funds to augment the Zero Waste Conference budget, the opportunity for sponsorships was introduced in 2018 - sponsorships from organizations that are aligned with the importance of waste prevention and a transition to a circular economy. Unfortunately, it was difficult to explore sponsorships until the format for the Conference was assured. Long-time sponsor, the Canadian Stewardship Alliance was our sole sponsor in 2020 for \$5,000.

NEXT STEPS

The 2021 Zero Waste Conference will take place October 28th and it has already been determined that it will once again be a virtual forum. This decision eliminates the uncertainty regarding venue and format thereby allowing more time to focus on programming, staging and marketing. It is anticipated that the focus will continue to be on the opportunities for moving towards a circular economy as well as linking action on circular economy to the pressing issue of effective action on climate change. A report by the Ellen MacArthur Foundation establishes the link between deep cuts in greenhouse gas emissions and the transition to a circular economy.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

The cost to host the 2020 Zero Waste Conference was \$275,826. It was funded by Metro Vancouver Regional District Requisitions in the amount of \$212,000 as well as \$64,268 from a combination of Conference registration fees and sponsorships.

CONCLUSION

In 2020, the 10th annual Zero Waste Conference was an entirely virtual event; essentially the same number of participants were engaged as previous years for a day-long event on November 13th that was broadcast from the Annacis Research Centre. The program was anchored by four compelling and thought-provoking keynotes and a keynote discussion on solving the plastics challenge. Interspersed through the day were spotlights on innovators, entrepreneurs and practitioners in zero waste practices and policies as well as an armchair discussion on “build back better.” The use of the Annacis Research Centre meant the venue and catering costs associated with a large in-person conference were significantly reduced which meant the price of registration could also be reduced. However, there was no compromise on the quality of programming and in fact, by creating essentially a television studio, the look and feel of the Zero Waste Conference was very different from the teleconferencing environment that has become the norm under COVID-19 restrictions. The overwhelming response from participants was that the 2020 Zero Waste Conference was one of the best – virtual or otherwise; the speakers were excellent – both thought-provoking and inspiring and generated an interesting exchange of ideas. The total number of participants for the 2020 Zero Waste Conference was 501 with on-line participation staying above 450 throughout the day and the exchange between participants was lively.

Attachment:

2020 Zero Waste Conference -- *A Future without Waste: Resiliency, Prosperity, Carbon Neutrality - the Circular Economy Solution* Program and Speaker Bios

References:

1. Highlights of 2020 Zero Waste Video: <https://vimeo.com/483240287>
2. Black Press Story on “Fed offers \$2.3 million for plastics-based scientific research”:
<https://www.bcclocalnews.com/news/fed-offers-2-3-million-for-plastics-based-scientific-research/>
3. Videos of presentations from the 2020 Zero Waste Conference:
<http://www.zwc.ca/sessions/Pages/default.aspx>

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ATTACHMENT

2020 Zero Waste Conference

Vancouver, November 13, 2020

Virtual Conference

A Future Without Waste: Resiliency, Prosperity, Carbon Neutrality - the Circular Economy Solution
Presented by Metro Vancouver and the National Zero Waste Council

PROGRAM

Conference MC: [Vanessa Timmer](#), Co-Founder and Executive Director, One Earth and Board Member, National Zero Waste Council

Disruptive times can kindle the flames of creativity and innovation. This year's conference spotlights how the circular economy is already transforming the ways we produce, use and circulate goods and services. Change-makers are designing out waste, keeping valuable materials in circulation and regenerating natural systems while creating new economic opportunities and opening the doors to a more inclusive prosperity.

8:30 am WELCOMING/OPENING REMARKS

- [Sav Dhaliwal](#), Chair, Metro Vancouver Board
- [Malcolm Brodie](#), Chair, National Zero Waste Council
- Representative, Government of Canada
- Representative, Province of British Columbia

8:45 am OPENING KEYNOTE - BEAU LOTTO, PROFESSOR OF NEUROSCIENCE AND AUTHOR AND FOUNDER & CEO, LAB OF MISFITS

- [Beau Lotto](#), Professor of Neuroscience and Author and Founder & CEO, Lab of Misfits

Adapting and Thriving in an Ever-Changing World

Life is rapidly changing, challenging each of us to adapt to an increasingly uncertain world. But for those of us passionate about systems change and innovation, these are also times of great opportunity.

In his opening keynote, neuroscientist and entrepreneur Dr. Beau Lotto will shed light on how we can 'embrace uncertainty' to drive positive changes in our local and global communities. Using the latest in brain science, Dr. Lotto will explore the nature of innovation and offer insights into how we may use today's upheavals as a springboard to a more equitable and sustainable future.

Your ideas and questions take centre stage in an interactive session with Dr. Beau Lotto following the opening keynote.

Moderator: [Kathryn Gretsinger](#), Associate Professor at UBC School of Journalism, Writing and Media



9:30 am SPOTLIGHT ON CIRCULAR ECONOMY INNOVATORS & ENTREPRENEURS

If you've been searching for practical examples of the circular economy in action, you need look no further than the two trailblazing companies featured in this session. Learn how business leaders are forging ahead with innovative circular economy business models and finding commercial success.

- [Wanjiru Waweru Waithaka](#), Founder and CEO, Funkidz and FunHomes
- [Felix Böck](#), Founder and CEO, ChopValue Manufacturing
- [Dihan Chandra](#), Founder and Managing Director, The Spent Goods Company
- [Josephine Abate](#), Sustainability Officer, Keilhauer

Moderator: [Kathryn Gretsinger](#), Associate Professor at UBC School of Journalism, Writing and Media

10:15 am NETWORKING BREAK

Network, chat, videos and more . . .

10:30 am KEYNOTE – SUZANNE LEE, FOUNDER & CEO, BIOFABRICATE

- [Suzanne Lee](#), Founder & CEO, Biofabricate

Growing a New Paradigm:

Many of the products we use every day cause untold stress to the planet. Take clothing for example – textiles are one of the fastest growing categories of waste and the industry is responsible for staggering global carbon emissions and water pollution.

The good news is that entrepreneurs, scientists and brands worldwide are pushing the boundaries of design and manufacturing to embrace new techniques and materials that meet practical needs while reducing environmental impacts.

We welcome Suzanne Lee, fashion designer and pioneer of 'biofabrication,' a suite of production methods that weave together science, agriculture, design, 3D printing, gardening and even brewing. Suzanne takes us on a journey of microscopic organisms that can reinvent the way we make everything from clothes to couches to buildings.

Moderator: [Vanessa Timmer](#), Co-Founder and Executive Director, One Earth and Board Member, National Zero Waste Council

11:00 am SPOTLIGHT ON NEXT GENERATION MATERIALS

Moderated Discussion and Q&A

Hear how innovation in next generation materials is moving the market. From biofabrication using 'mushroom' technology to using food waste for a range of products, these innovators demonstrate the daring and commitment required to reduce waste and toxics without compromising on performance and quality.



Participants will have an opportunity to directly engage with Suzanne, Eben and Valerie in a moderated Q&A

- [Suzanne Lee](#), Founder & CEO, Biofabricate
- [Eben Bayer](#), Co-Founder and CEO, Ecovative
- [Valerie Langer](#), Fiber Solutions Strategist, Canopy Planet

Moderator: [Vanessa Timmer](#), Co-Founder and Executive Director, One Earth and Board Member, National Zero Waste Council

11:30 am BREAK

Network, chat, videos and more . . .

11:45 am KEYNOTE CONVERSATION: SOLVING THE PLASTICS CHALLENGE IN ONE GENERATION - FROM SCIENCE TO SOLUTIONS

Plastic waste has captured the world's attention, yet plastic production continues to grow as does the problem. All of the latest scientific research points to the same conclusion: we are at a critical crossroads in reducing plastic waste in the world's oceans.

Time is short – Canada must take ambitious and concerted actions now to implement circular solutions and innovation in the design of plastic products if we are to solve the plastic problem.

Join us for a keynote conversation with the Honourable Jonathan Wilkinson, Minister of Environment and Climate Change, Dr. Chelsea Rochman, a leading scientist in marine ecology, and Horacio Barbeito, President & CEO of Walmart Canada, to explore how Canada can rise to the challenge of tackling plastic pollution in one generation.

- [Peter Schiefke](#), Parliamentary Secretary to the Minister of Environment and Climate Change Canada
- [Chelsea Rochman](#), Assistant Professor in Ecology, University of Toronto & Scientific Advisor to Ocean Conservancy
- [Horacio Barbeito](#), President & CEO, Walmart Canada

Moderator: [Chris Henderson](#), Chair, GLOBE Series & Executive Director, Indigenous Clean Energy

12:30 pm NETWORKING LUNCH

1:30 pm KEYNOTE - MICHAEL GREEN, ARCHITECT & PRINCIPAL, MGA

- [Michael Green](#), Architect & Principal, MGA

Michael Green is an award-winning architect known for his research, leadership, and advocacy in promoting new technologies and techniques for construction. His keynote will challenge traditional ways of designing and constructing buildings and present examples of



innovative approaches that reduce waste and enhance our experience within the built environment.

Moderator: [Brock Carlton](#), former CEO, Federation of Canadian Municipalities

2:00 pm SPOTLIGHT ON OPPORTUNITIES IN THE BUILT ENVIRONMENT

It's easy to take buildings for granted, but the structures we occupy every day actually have tremendous implications for climate change, waste management and the circular economy.

By 2050, it's expected that 68% of the world's population will live in cities and this rapid growth will require the construction of millions of new buildings. Meanwhile, the construction industry accounts for nearly half of all global GHG emissions, and in North America, consumes about 40% of raw materials.

Speakers in this Spotlight will identify new technologies, methods and materials that offer promising opportunities to vastly decrease the waste and greenhouse gas emissions generated from the built environment.

- [Michael Green](#), Architect & Principal, MGA
- [Eric Dunford](#), Director of Sustainability, Carbon Cure
- [Amy Marks](#) - Head of Industrialized Construction Strategy and Evangelism, Queen of Prefab, Autodesk
- [Vivian Kuan](#), Executive Director, Terreform ONE

Moderator: [Brock Carlton](#), former CEO, Federation of Canadian Municipalities

2:45 pm BREAK

Network, chat, videos and more . . .

3:00 pm BUILD BACK BETTER – LET'S NOT SCREW IT UP

The COVID-19 pandemic has been revealing – we are, despite our built environments and digital fixations, part of the natural world. As we look to recovery, our work is to forge a new, more resilient and equitable future where prosperity and environmental security are assured for generations to come.

The circular economy holds great promise – it creates economic opportunities, restores the environment and fosters an ethos that aligns with equity and social justice. This session will explore how Canadians can work together to make that promise a reality.

Armchair Discussion:

- [Tima Bansal](#), Ivey School of Business, Western University & Chair, Canadian Council of Academics Expert Panel on the Circular Economy
- [Richard Florizone](#), President & CEO, International Institute for Sustainable Development
- [Carol Anne Hilton](#), President & CEO, Indigenomics Institute



- [Melissa Barbosa](#), Head of Sustainability, IKEA Canada

Moderator: [Brock Carlton](#), former CEO, Federation of Canadian Municipalities

3:45 pm CLOSING KEYNOTE

- [Katie Treggiden](#), Writer, Journalist, Speaker, championing a circular approach to design. Author of newly released book "Wasted: When Trash Becomes Treasure"

The destructive impact humans are having on the earth – land, oceans and atmosphere – is clearly apparent. Katie is a storyteller and designer and will share how she believes that craft can save the world. She will share how designers are exploring the potential of increasingly plentiful waste streams to become the raw materials of the future. When trash becomes treasure, we create space to restore nature and re-invigorate our communities.

We will close out the day with an interactive discussion with Katie and your ideas and questions.

Moderator: [Kathryn Gretsinger](#), Associate Professor at UBC School of Journalism, Writing and Media

4:25 pm WRAP UP REMARKS

2020 Zero Waste Conference

Vancouver, November 13, 2020

Virtual Conference

A Future Without Waste: Resiliency, Prosperity, Carbon Neutrality - the Circular Economy Solution
Presented by Metro Vancouver and the National Zero Waste Council

PROGRAM

CONFERENCE MC:



VANESSA TIMMER
Co-Founder & Executive Director, One Earth

Dr. Vanessa Timmer is the Executive Director of One Earth, a Vancouver, Canada-based environmental ‘think and do tank’ creating and imagining sustainable ways of living in cities and around the world. One Earth collaborates with partners to transform how people live their lives – what they need, what they consume and produce, and what they aspire to – enabling everyone to live good quality of lives within their fair share of our planet’s resources. Vanessa is also a Senior Research Fellow at Utrecht University with Pathways to Sustainability, the Urban Futures Studio, and the Copernicus Institute of Sustainable Development. She holds a Doctorate and studied at Queen’s University, Oxford, UBC and Harvard. Vanessa sits on the Multi-stakeholder Advisory Committee for the United Nations 10YFP Sustainable Lifestyles Programme. In Canada, she is a Board member of the National Zero Waste Council and of the Vancouver Foundation Partnership Committee.

In 2018, Vanessa received the 2018 YWCA Women of Distinction Award in Environmental Sustainability.

8:30 am WELCOMING/OPENING REMARKS



SAV DHALIWAL
Chair, Metro Vancouver Board

Sav Dhaliwal was elected Chair of the Metro Vancouver Board in November 2018, following a decade as a Board Director and 16 years as City of Burnaby Councillor. He has also served as president of both the Union of B.C. Municipalities and Lower Mainland Local Government Association and worked with the Federation of Canadian Municipalities as the Chair of the Standing Committee for Municipal Finance and as well as Infrastructure and Transportation Policy.

Prior to local politics, Sav enjoyed a long career in the private sector working in information technology at TELUS. He has also served not-for-profit organizations in Burnaby, including the Burnaby Minor Hockey Association, Burnaby Sports Hall of Fame Committee, New Vista Society and the Burnaby Lions Club.

Sav has been recognized by the Government of Canada, the University of British Columbia & the Goel Family Charitable Foundation, the Fiji Association of British Columbia and the Chetna Association of Canada for his outstanding services to the Community. He and his wife, Cheryl, have lived in Burnaby for more than 40 years.



MALCOLM BRODIE
Chair, National Zero Waste Council

Malcolm Brodie has been a Board Director and Chair of the National Zero Waste Council since its inception in October 2013. He has also been a member of Council for the City of Richmond since 1996, and Mayor since 2001.

Malcolm Brodie has been appointed by his Council to the Board of Directors of Metro Vancouver and he currently is the Chair of the Water Committee, Vice-Chair of the Performance and Audit Committee and also serves on the Finance and Intergovernment Committee, the Mayors' Committee, the George Massey Crossing Task Force, and the Industrial Lands Task Force. He represents Metro Vancouver on the Municipal Finance Authority, and in

2015, was elected as Chair.

Before election to Council, Mayor Brodie was a practicing lawyer and had a long record of service to Richmond in the volunteer community.

8:45 am OPENING KEYNOTE



BEAU LOTTO
Professor of Neuroscience, University of London and Founder & Director, Lab of Misfits

Beau Lotto is the director of The Lab of Misfits, a neuroscience studio that seeks to "break down the walls of the traditional laboratory" and study humans in their natural habitats. By inviting audiences to take part in his interactive research, Lotto is able to achieve more authentic results. The goal of his work is not objectivity, but adaptability. "The most successful systems are the ones that are adaptable," Lotto explains. "Being able to have flexibility in our perception means we can adapt to a changing world." His methods, while unconventional, are deeply interactive and immersive. The measurable insights gleaned from these

experiments have led to organizational breakthroughs for clients as diverse as Cirque du Soleil, L'Oréal, and The London Science Museum.

Lotto is a professor of neuroscience at the University of London, and a visiting scholar at New York University. He is the author of *Why We See What We Do*, and *Deviate: The Science of Seeing Differently*. In addition to his role at The Lab of Misfits, Lotto is the Founder and CEO of the sound-based AR company Acoustigram. He has spoken at large-scale events such as the G8 Innovation Conference, as well as for companies like *WIRED* and Google. Lotto has contributed to television and radio documentaries produced by influential media such as the *BBC*, *National Geographic*, *Netflix* and *PBS*.



KATHRYN GRETSINGER

Associate Professor at UBC School of Journalism, Writing and Media

In addition to being a professor at the UBC School of Journalism, Writing and Media, Kathryn is a long time public broadcaster at the Canadian Broadcasting Corporation, with a record of creating award-winning work at the local and national level in Canada. Kathryn is also a Killam Teaching Prize winner and she was named as one of North America's top innovative journalism educators in 2018.

Kathryn is a respected mentor and trainer at CBC, where she continues to work consultant in the public broadcasters' Learning and Development department. She works across platforms, but her first love is audio. She leads training workshops for reporters, producers, editors and hosts on performance and audio skills including podcasting and compelling storytelling. There is a strong social justice undercurrent to Kathryn's work. Her commitment to teaching, reporting and fostering dialogue about issues of social justice, Indigenous relations and mental health appear in the courses she teaches and key collaborations.

9:30 am SPOTLIGHT ON CIRCULAR ECONOMY INNOVATORS & ENTREPRENEURS



WANJIRU WAWERU WAIHAKA

CEO and Founder, Funkidz and FunHomes

Wanjiru Waweru Waithaka is a creative entrepreneur, innovator and manufacturer from Kenya, and a graduate of Interior Architecture from the University of Glasgow's School of Art. She founded and successfully ran the interior architecture consultancy Amber Africa, where clients ranged from individuals to hotels and multinationals within East Africa.

After running Amber Africa for 10 years, Wanjiru's passion for design and manufacturing led her to create the first global children's brand from Africa - Funkidz Limited. Funkidz is an innovative children's brand that designs and manufactures products for children age 0-16 years. But it is a brand with a big story, multiple goals and exemplifies Wanjiru's commitment to creating change for entrepreneurs, especially women and youth, through experiential education and mentoring. Within the company

exists several brands, including Kidz Go Tech which focuses on transforming and leap-frogging education on the African continent by using storytelling, tech sensory learning and animation. The lack of homegrown technical skills in manufacturing in Kenya led Wanjiru to launch in 2016 an in-house Funkidz training program, designed to build the capacity of Kenyan carpenters and joiners to deliver on global manufacturing and design standards.

Wanjiru is a sought-after speaker, and award-winning entrepreneur. She has been asked to present her work by UNESCO, Facebook, and the World Economic Forum, has received awards from Goldmansachs, GSMA, and special mention and commendation by Former US First Lady Michelle Obama. In a recent COVID-19 pivot, Wanjiru has also now founded, and acts as the CEO, of a new company called FunHomes.



FELIX BÖCK

Founder and CEO, ChopValue Manufacturing

Felix Böck knocks on wood for a living. He is the founder of the ChopValue Microfactory concept where he developed and engineered an innovative material using under-utilized resources. ChopValue has allowed him to discover a way to connect his expertise and re search focus on bamboo composite materials within the circular economy while doing his PhD in a collaboration with UBC/MIT/Cambridge. Motivated to create a global impact in the bamboo industry, he has gained experience by working on projects supporting companies through all stages in over 20 countries with his firm CrossLink Technologies. He believes that leading by example with innovation and resilience will inspire others to rethink resource efficiency and reshape the future of

urbanization.



DIHAN CHANDRA

Founder and Managing Director, The Spent Goods Company

Dihan started his first social enterprise, Organic Lifestyle, to focus on promoting non-toxic alternatives for the home such as organic pillows, linens and mattresses.

While researching whether his dog’s poo could be used to generate energy to power his house instead of having to pick it up, he was inspired by solutions that made revenue from plastic pollution, cementing his belief that practical solutions to reducing waste while generating profits are within our reach.

One night at his local pub Dihan asked the question we’ve all been too shy to ask: What happens to all the grain used to make beer? After learning that most spent grain, especially from smaller breweries, ends up in landfills, The Spent Goods Company was born.

2 years later, Spent Goods has fed over 39K families, offset 1.6 Tons of equivalent CO₂, partnered with 17 different local businesses, and directly contributed to 10 new jobs.



JOSEPHINE ABATE
Sustainability Officer, Keilhauer

Josephine manages all of Keilhauer's sustainability initiatives, successfully ensuring the company achieves zero waste to landfill, reduces their carbon footprint, and works with watchdogs and NGOs to advance the commercial manufacturing industries standards towards a more sustainable future. Abate is a graduate from the University of Western Ontario, where she acquired her Masters Degree in Environment and Sustainability with a focus on EcoBusiness Zones and Corporate Sustainability. Since then, Abate's professional focus has been reducing lifecycle impacts of manufactured items. Career highlights include introducing one of the sector's first carbon neutral chairs, and deep supply chain management and investigation to remove prominent red-listed chemicals. Josephine has also been involved in expanding the end-of-life planning to ensure more recycled and recyclable products by 37%. Josephine has built community partnerships to support regional economics through material upcycling, targeting groups with resource and financial insecurities. She has helped Keilhauer achieve recognition as one of Canada's Greenest Employers for 4 consecutive years.

10:30 am KEYNOTE – SUZANNE LEE, FOUNDER & CEO, BIOFABRICATE



SUZANNE LEE
Founder & CEO, BIOFABRICATE

Suzanne is a designer turned pioneer of biotechnology for consumer products. She started growing materials from microbes for the fashion industry in 2003 coining the term 'Biocouture™'. Today Suzanne is the founder of Biofabricate, a global network serving the needs of biomaterial innovators, investors and consumer brands. Biofabricate's vision is 'A sustainable material world. Built with biology, not oil'.

Suzanne is the author of 'Fashioning the Future: tomorrow's wardrobe'. She is a special advisor to Parley For The Oceans on biomaterials, a TED Senior Fellow, and a Launch Material Innovator - an initiative of NASA, Nike, USAID and the US State Department. For the previous 5 years Suzanne was the Chief Creative Officer of Modern Meadow, a materials startup in New York.

11:00 am SPOTLIGHT ON NEXT GENERATION MATERIALS



EBEN BAYER
Co-Founder & CEO, Ecovative

Eben Bayer, Co-Founder of Ecovative Design, leads the biomaterials company to grow high performance, premium, award-winning products that are safe, healthy, and certified sustainable. Bayer, who grew up working on his family's Vermont farm, is a pioneer in leveraging mycelium—"nature's glue"—in Mushroom® Materials to drive sustainable innovation in the industrial sector. Eben uses biology to solve important environmental challenges by leading Ecovative to grow safe and healthy new materials as well as envisioning creative ways to use natural technology at industrial scales and in consumer applications. Eben shares his vision for a future powered by biology around the world, including presentations at TED Global,

PopTech, and Davos. Eben has led Ecovative to be widely recognized including as a World Economic Forum Tech Pioneer, a U.S.EPA Environmental Quality Award winner, and Buckminster Fuller Institute socially responsible design designee. Bayer is the primary inventor on more than 10 patents published in over 30 countries. In addition to overseeing the emergence of a new materials science at Ecovative, and promoting a more circular economy, Bayer is realizing his vision of building and operating an off-grid home and farm, while also exploring other creative uses of biology.



VALERIE LANGER
Fiber Solutions Strategist, Canopy Planet

Valerie Langer has been engaged in forest conservation campaigns for over 30 years. She works with non-profit, Canopy (www.canopyplanet.org) to accelerate globally availability of Next Generation alternatives to tree fibre pulp for manufacturing paper, packaging and viscose fabrics,. She pioneered the international market campaign strategy of influencing logging companies' practices by engaging their commercial customer base. She and her team of colleagues at Rainforest Solutions Project won the Buckminster Fuller Challenge Award for their role in the collaboration that designed the globally unique model of conservation in the Great Bear Rainforest (British Columbia, Canada). Her work has directly contributed to the conservation

of millions of hectares of biologically rich forest Valerie's focus is on large scale forest conservation by leveraging markets, investments and innovation.

11:45 am KEYNOTE CONVERSATION: SOLVING THE PLASTICS CHALLENGE IN ONE GENERATION - FROM SCIENCE TO SOLUTIONS



PETER SCHIEFKE

Parliamentary Secretary to the Minister of Environment and Climate

Peter has served as the MP for Vaudreuil-Soulanges since 2015. He is a recognized specialist in sustainable development, with over 15 years of experience in the field. Before being elected to parliament, he served as National Director of The Climate Reality Project Canada, an organization founded by Nobel Laureate Al Gore. He also co-founded the Concordia Empowerment Education Development Program based in Uganda, East Africa. For his work, he has received numerous awards and distinctions, including the YMCA Peace Medal and the Forces Avenir Award for Peace Justice and Humanitarian Aid. Peter brings a wealth of experience and perspective to the Solving the Plastics

Challenge in One Generation session.



CHELSEA ROCHMAN

Assistant Professor in Ecology, University of Toronto & Scientific Advisor to Ocean Conservancy

Chelsea received her PhD in Ecology from a joint program between University of California, Davis and San Diego State University in 2013. She then was a Smith Postdoctoral Fellow in Conservation Biology. She is currently a Sloan Fellow. She was hired as an Assistant Professor at the University of Toronto in the Department of Ecology and Evolutionary Biology in 2016. Chelsea has been researching the sources, sinks and ecological implications of plastic debris in marine and freshwater habitats for more than a decade.

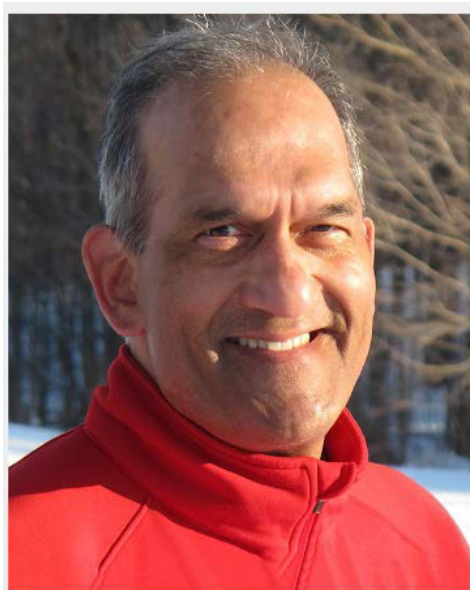
She has published dozens of scientific papers in respected journals and has led international working groups about plastic pollution. In addition to her research, Chelsea works to translate her science beyond academia. For example, Chelsea presented her work to the United Nations General Assembly and at the US State Department. Moreover, she co-founded an outreach group call the U of T Trash Team.



HORACIO BARBEITO
President and CEO of Walmart Canada

Horacio “Haio” Barbeito is President and CEO of Walmart Canada. He has been with Walmart since 1995 and has worked in Argentina, the U.S., Puerto Rico and Chile. He started as a Trainee Buyer and has worked in a variety of roles throughout the company. He led Imports and Replenishment at Walmart Argentina and then became a Division Merchandising Manager for Home and Seasonal.

Horacio later transferred to Walmart International where he became Senior Director for International Replenishment, based in Bentonville, Arkansas. Following this, Horacio became Supply Chain Lead in Puerto Rico and later the Head of Puerto Rico’s Store Operations. In 2008 he returned to Walmart Argentina as Food General Merchandising Manager before becoming Chief Merchandising Officer. He was President and CEO of Walmart Argentina and Chile from 2012 to 2019.



CHRIS HENDERSON
Chair, GLOBE Series & Executive Director, Indigenous Clean Energy

Chris Henderson is a Canadian eco-entrepreneur, community leader and environmental innovator. For the past 35 years, he has led and been at the forefront of ground-breaking Canadian enterprises and local/national business, social and ecological initiatives which have global impact and resonance. Chris is a trusted and insightful commentator on economic, environment and energy issues that respect the Planet, and generate enduring outcomes for corporations, communities and Canada. Chris prime current role in advising and equipping Indigenous peoples and communities to develop and own clean energy projects to catalyze social development, economic opportunity and to combat Climate Change. His first

book *Aboriginal Power* was published in 2013.

Chris is the President of Lumos Energy, Executive Director of the Indigenous Clean Energy Social Enterprise, Founder of The Delphi Group and Board Chair of the Globe Series.



MICHAEL GREEN
Architect & Principal, MGA

Michael Green is an award-winning architect known for his research, leadership, and advocacy in promoting the use of wood, new technology and innovation in the built environment. He lectures internationally on the subject, including his TED talk, “Why We Should Build Wooden Skyscrapers.” Based in Vancouver, Canada, Michael founded MGA to create meaningful and sustainable change in building through innovation in construction sciences and design. Michael and his team are ambitiously extending the boundaries of mass timber construction, having completed some of the largest modern timber buildings in the world, including The Wood Innovation Design Centre and T3 Minneapolis. He is also the founder of DBR | Design Build

Research and TOE | Timber Online Education, a non-profit school and research platform dedicated to teaching the design and construction of socially, culturally and environmentally relevant student-led installations, with a focus in systemic change in building for climate, environment, disaster and global shelter needs.

Michael is a Fellow of the Royal Architectural Institute of Canada and has been honoured with North America’s most prestigious awards, including two RAIC Innovation Awards and three Governor General’s Medals. In 2014, Michael received an honorary doctorate degree from the University of Northern British Columbia. He is the co-author of ‘The Case for Tall Wood Buildings,’ now in its second edition, and ‘Tall Wood Buildings: Design, Construction and Performance.’ An avid traveler and adventurer, Michael has explored remote regions on every continent and loves ice climbing, mountaineering, ocean kayaking and biking.



BROCK CARLTON

Former CEO, Federation of Canadian Municipalities

Brock Carlton recently retired after 13 years as CEO of Federation of Canadian Municipalities (FCM). Brock was a leading voice in supporting the need to build strong cities and communities as a means of solving local and national challenges. As CEO, Brock led a strong staff and a united membership in advancing municipal interests by influencing both federal government decisions and national debates on issues critical to communities. Under Brock's tenure, FCM became one of the most influential organizations in Canada, influencing federal policy decisions and spending on such issues as infrastructure, affordable housing and homelessness, environment and climate change, broadband access and public transit.

Brock also played a leadership role in the global municipal movement as Secretary General of the North American Section of the United Cities and Local Governments. He has been a speaker and panelist representing Canadian municipal perspectives and experiences at numerous international events, domestic conferences and in the media. Prior to being CEO, Brock was involved in international cooperation, managing projects engaging Canadian and overseas partners focused on municipal management, environmental management, social service delivery and good governance in such diverse places as Gaza, the Czech Republic, East and Southern Africa and Guyana. He lived in Kenya (1981-2), China (1983) and Namibia (1991). He has recently completed a course on empathic leadership and is committed to using his years of experience to help build strong effective leaders for social change and good environmental stewardship. He is an avid paddler, skier and cyclist, and enjoys time with his wife and 3 adult children.

2:00 pm SPOTLIGHT ON OPPORTUNITIES IN THE BUILT ENVIRONMENT



ERIC DUNFORD

Director of Sustainability, Carbon Cure

Eric Dunford is the Director of Sustainability at CarbonCure Technologies. In this role, he oversees CarbonCure's internal sustainability initiatives, manages government relations efforts, and works with partners in the design and construction community to build awareness of low-carbon materials options and solutions. Based in Toronto, Eric is a graduate of the University of Waterloo and Dalhousie University.



AMY MARKS

Head of Industrialized Construction Strategy and Evangelism,
Queen of Prefab, Autodesk

Amy Marks is the Head of Industrialized Construction Strategy and Evangelism at Autodesk; she is known throughout the construction industry as the "Queen of Prefab." A graduate of the University of Florida and an alumna of Harvard Business School, Marks is the former CEO of XSite Modular, a leading prefabrication consultancy and design-builder of critical infrastructure buildings. As a prefabrication consultant, she defined the language and process that is adopted by companies, countries, and builders around the world. Amy was also appointed by the Singapore government's Building &

Construction Authority as an international expert to advise its construction productivity roadmap.



VIVIAN KUAN

Executive Director, Terreform ONE

Vivian Kuan is Executive Director of Terreform ONE, a non-profit architecture and urban design think tank focused on ecological design solutions for cities. Vivian has also served as adjunct faculty at Parsons in the Strategic Design and Management graduate program. Before Terreform, Vivian designed and managed large scale architecture projects in the U.S. and Asia for Kohn, Pederson, Fox Associates, and for Sun Hung Kai Properties. Vivian currently serves on the Advisory Council of Cornell's College of Architecture, Art, and Planning, on the Dean's Council of the Yale School of Architecture, and as a board member of the Cue Art Foundation. Vivian earned an MBA from the

Wharton School and an MA from the Lauder Institute, University of Pennsylvania, and a B.Arch. from Cornell University.



TIMA BANSAL

Ivey School of Business, Western University & Chair, Canadian Council of Academics Expert Panel on the Circular Economy

Tima Bansal is a Professor and Canada Research Chair, Ivey Business School, Western University (London, Canada). She is committed to researching business issues that will facilitate sustainable development and mobilizing those ideas to business practice. She founded and continues to direct the Network for Business Sustainability (www.nbs.net) and Chairs the CCA Expert Panel on the Circular Economy.



DR. RICHARD FLORIZONE

President & CEO, International Institute for Sustainable Development

Dr. Richard Florizone is President and CEO of IISD, and President Emeritus of Dalhousie University. Originally from Prince Albert, Saskatchewan, Richard has also held senior roles with the Boston Consulting Group, Cambridge University, Bombardier Aerospace, and the International Finance Corporation. Part scientist, part strategist, Richard has a strong track record of forging collaborative partnerships to build institutions and communities that are intelligent, inclusive and inspiring. He holds a Ph.D. in Physics from MIT and is a Fellow of the Canadian Academy of Engineering.



CAROL ANNE HILTON
CEO and Founder of The Indigenomics Institute and the Global Center of Indigenomics

Carol Anne Hilton, MBA is the CEO and Founder of The Indigenomics Institute and the Global Center of Indigenomics. Carol Anne is a dynamic national Indigenous business leader and senior adviser with an international Masters Degree in Business Management (MBA) from the University of Hertfordshire, England. Carol Anne is of Nuu chah nulth descent from the Hesquiaht Nation on Vancouver Island.

Carol Anne has led the establishment of a line of thought called #indigenomics- growing from a single word to an entire movement which focuses on the re-building and strengthening of Indigenous economies. Carol Anne is the author of 'Indigenomics- Taking A Seat at the Economic Table' and is an adjunct professor at Royal Roads University School of Business.

Carol Anne served on the BC Emerging Economy the BC Indigenous Business and Investment Council and was the only Indigenous person appointed to the Canadian Economic Growth Council. Carol Anne's work has been recognized with the national Excellence in Aboriginal Relations Award from the Canadian Council for Aboriginal Business.

Carol Anne currently serves as a Director on the McGill University Institute for the Study of Canada, the BC Digital Supercluster and recently as a juror on the Canadian Smart Cities Challenge.



MELISSA BARBOSA
Head of Sustainability, IKEA Canada

For over 13 years Melissa has had the pleasure of leading change towards sustainability with diverse roles in private, non-profit, and public sectors; a range of experience that includes corporate social responsibility, academia, natural resource management, renewable energy development, and social finance. As Head of Sustainability for IKEA Canada, Melissa provides strategic and dynamic leadership working through and across the organization to facilitate the delivery of the IKEA Group People & Planet Positive Strategy; enabling the ongoing transformation and growth of the business.

3:45 pm CLOSING KEYNOTE



KATIE TREGGIDEN
 Writer, Journalist and Speaker

Katie Treggiden is a purpose-driven writer and keynote speaker championing a circular approach to design – because Planet Earth needs better stories. With 20 years' experience in the creative industries, she regularly contributes to publications such as *The Guardian*, *Crafts Magazine*, *Design Milk* and *Monocle24*. She is currently exploring the question 'can craft save the world?' through an emerging body of work that includes her fifth book, *Wasted: When Trash Becomes Treasure* (Ludion, 2020), and a podcast, *Circular with Katie Treggiden*. She has launched, edited and published an award-winning design blog and an independent print magazine. She recently gained a distinction for her Master's Degree in the History of Design from the University of Oxford. She was the founder and first president of Bloom and is a Fellow of the Royal Society of Arts and a Trustee of the Leach Pottery.

4:25 pm WRAP UP REMARKS



JACK FROESE
 Chair, Metro Vancouver's Zero Waste Committee

Re-elected to office in 2018, Mayor Jack Froese is currently serving his third term as Township of Langley Mayor. For 40 years, Mayor Jack Froese has lived, worked, and raised a family in Langley and was a successful business owner and farmer. He is also a retired police officer from the Vancouver Police Department. Mayor Froese is the Vice Chair of the TransLink Mayor's Council, Chair of Metro Vancouver Zero Waste Committee, and a Director on the Metro Board.

To: Climate Action Committee

From: Nicole Chan, Project Engineer
Conor Reynolds, Division Manager, Air Quality and Climate Change Policy
Parks and Environment Department

Date: January 20, 2021 Meeting Date: February 12, 2021

Subject: **Assessment of the Fossil Fuel Non-Proliferation Treaty Initiative**

RECOMMENDATION

That the MVRD Board:

- a) endorse the call for a Fossil Fuel Non-Proliferation Treaty as presented in the report dated January 20, 2021, titled “Assessment of the Fossil Fuel Non-Proliferation Treaty Initiative”; and
 - b) send letters urging the Canadian and BC governments to support the global initiative for a Fossil Fuel Non-Proliferation Treaty.
-

EXECUTIVE SUMMARY

The Fossil Fuel Non-Proliferation Treaty Initiative is a global campaign intended to spur international cooperation on the responsible use of fossil fuels. Staff completed an assessment of this initiative at the direction of the Climate Action Committee. Metro Vancouver’s *Climate 2050* is strongly aligned with the principles underlying the Fossil Fuel Non-Proliferation Treaty Initiative. The three key areas of focus are: ending new exploration and production of fossil fuels; phasing out existing stockpiles and production; and fast-tracking real solutions for a peaceful and just transition.

While it is difficult to predict the impact of the proposed treaty and associated public campaign, it has the potential to contribute towards the development of global policies that limit fossil fuel use and raise public awareness. Based on this assessment, staff recommend that the MVRD Board endorse the call for a Fossil Fuel Non-Proliferation Treaty. Direct actions related to limiting fossil fuel use are already being considered within the development of the *Climate 2050 Roadmaps*.

PURPOSE

To provide the Climate Action Committee with an assessment of the Fossil Fuel Non-Proliferation Treaty Initiative and recommend a course of action for Metro Vancouver.

BACKGROUND

At its November 13, 2020 meeting, the Committee received a delegation regarding the Fossil Fuel Non-Proliferation Treaty (FFNPT) and the Cities Standing Against Fossil Fuel Expansion (SAFE) initiative (see Reference). The Committee subsequently passed the motion:

That the Climate Action Committee direct staff to report back with an assessment of the Fossil Fuel Non-Proliferation Treaty and recommendations for Metro Vancouver's involvement.

This report responds to the Committee’s direction.

FOSSIL FUEL NON-PROLIFERATION TREATY INITIATIVE

The FFNPT Initiative intends to spur international co-operation on the responsible use of fossil fuels in line with the Intergovernmental Panel on Climate Change (IPCC) target of limiting global warming below 1.5°C and on a peaceful and just transition to a sustainable future. The treaty is modelled on the Treaty on the Non-Proliferation of Nuclear Weapons, commonly known as the Non-Proliferation Treaty (NPT), and calls for international cooperation in three key areas:

- Non-Proliferation: End all new exploration and production of coal, oil and gas
- Global Disarmament: Phase-out existing stockpiles and production of fossil fuels in line with maintaining warming below 1.5°C
- Peaceful Transition: Fast-tracking real solutions for a peaceful and just transition through a proactive plan to enable economic diversification, implement renewable energy and other reliable, cost-effective low carbon solutions and support every worker, community and country.

Metro Vancouver's *Climate 2050* is strongly aligned with the intent of the treaty to limit fossil fuel usage in alignment with the IPCC target of limiting global warming below 1.5°C. Metro Vancouver has adopted greenhouse gas reduction targets of 45% reduction by 2030, compared to 2010 levels, and carbon neutrality by 2050 within the *Climate 2050 Strategic Framework*, in alignment with the *IPCC Special Report on Global Warming of 1.5°C*. The UN Environment Programme's *Production Gap Report 2020* highlights that around the world, countries planned fossil fuel production levels by 2030 are 120% higher than would be consistent with limiting global warming below 1.5°C. Transitioning away from fossil fuels is essential to reaching the IPCC target and achieving carbon neutrality by 2050.

POTENTIAL IMPACT OF A FOSSIL FUEL NON-PROLIFERATION TREATY

The FFNPT Initiative makes the case that such a treaty could constructively contribute towards curbing global fossil fuel non-proliferation. However, it is difficult to assess whether a FFNPT would be effective in its stated ambitions, given uncertainty about how the treaty would be developed and implemented. To examine the question of effectiveness, staff considered the impact of the historic nuclear Non-Proliferation Treaty (NPT). The NPT was developed to contain the expansion of nuclear weapons and nuclear states, and entered into force in 1970. The NPT is considered a landmark international treaty and has close to universal participation amongst world nations. Signatories of the NPT have been shown to be less likely to initiate nuclear weapons programs, but it is unclear whether a causal relationship exists between these actions and the NPT. Scholars who have studied the NPT hold varying viewpoints about whether it has been effective at curbing the proliferation of nuclear weapons. Some scholars argue that the NPT has played a pivotal role in curbing the proliferation of nuclear weapons whereas others argue that countries were already taking action to limit proliferation of these dangerous weapons prior to ratifying the NPT. Staff's conclusion is that while it is difficult to completely quantify the effect, international non-proliferation treaties have the potential to have a positive effect towards achieving their stated ambitions.

ENDORSEMENT OF THE CALL FOR A FOSSIL FUEL NON-PROLIFERATION TREATY

Currently, the FFNPT Initiative is seeking endorsement of the call for a treaty from local governments, with the goal of building the public profile of the campaign and putting pressure on national governments to sign and ratify a treaty. The campaign calls for two key actions from local

governments: endorsement of the call for a treaty, and a commitment to implementing fossil fuel non-proliferation actions. The campaign was launched during Climate Week NYC in September 2020. To date, more than 180 organizations, over 7,000 individuals and two local governments (City of Vancouver and Amber Valley Borough Council, UK) have endorsed the call for a treaty. The City of New York, Los Angeles and Barcelona are actively considering motions to endorse. Organizational support is cross-cutting and international, including:

- Wilderness Committee
- Comox Valley Council of Canadians
- Burnaby Residents Opposing Kinder Morgan Expansion (BROKE)
- UK Youth Climate Coalition
- Canadian Union of Postal Workers
- Physicians for Social Responsibility Pennsylvania

Should the FFNPT initiative be successful, it could raise public awareness and engagement levels on fossil fuel non-proliferation. Given that the endorsement of a call for a treaty would require minimal staff time, have a potential positive effect on limiting fossil fuel use and is in alignment with the principles of *Climate 2050*, staff recommend that Metro Vancouver endorse the call for a fossil fuel non-proliferation treaty.

CLIMATE 2050 AND SAFE CITIES POLICIES

The delegation also presented on the Cities Standing Against Fossil Fuel Expansion initiative (SAFE), a movement to keep local communities safe from fossil fuels. SAFE policies have four categories: local government resolutions on fossil fuel non-proliferation, electrification policies, temporary restrictions and permanent restrictions on new fossil fuel infrastructure. Metro Vancouver is already considering policies and actions that are aligned with SAFE within the *Climate 2050 Roadmaps*, such as prioritizing electrification of new buildings. The *Energy Roadmap*, which is the subject of Report 5.1 in the Climate Action Committee's February 2021 meeting agenda package, will also be considering actions to limit expansion of fossil fuel infrastructure. Given that fossil fuel non-proliferation policies are already being considered within the *Climate 2050 Roadmaps*, no additional action on this item is required.

ALTERNATIVES

1. That the MVRD Board:
 - a) endorse the call for a Fossil Fuel Non-Proliferation Treaty as presented in the report dated January 20, 2021, titled "Assessment of the Fossil Fuel Non-Proliferation Treaty Initiative"; and
 - b) send letters urging the Canadian and BC governments to support the global initiative for a Fossil Fuel Non-Proliferation Treaty.
2. That the Climate Action Committee receive for information the report dated January 20, 2021, titled "Assessment of the Fossil Fuel Non-Proliferation Treaty Initiative", and provide alternate direction to staff.

FINANCIAL IMPLICATIONS

There are no financial implications to this report. Under Alternative 1, Metro Vancouver would join a growing list of local governments that have endorsed the call for a fossil fuel non-proliferation treaty. The treaty itself aligns with Metro Vancouver's *Climate 2050* goals and *Roadmaps*, and has the potential to raise public awareness. Staff resources are not impacted since efforts to implement actions related to fossil fuel non-proliferation are already being considered as part of the *Climate 2050 Roadmaps*.

CONCLUSION

At its November meeting, the Climate Action Committee received a delegation from representatives of the Fossil Fuel Non-Proliferation Treaty Initiative. At the direction of the Committee, Metro Vancouver staff have conducted an assessment of the Fossil Fuel Non-Proliferation Treaty Initiative. This initiative is strongly aligned with the principles of *Climate 2050* and endorsing the call for a Fossil Fuel Non-Proliferation Treaty could have a positive effect on limiting fossil fuel non-proliferation and raising public awareness and engagement.

Staff recommend Alternative 1, that the MVRD Board endorse the call for a Fossil Fuel Non-Proliferation Treaty and send letters urging the Canadian and BC governments to support the global initiative for a Fossil Fuel Non-Proliferation Treaty.

References

[Fossil Fuel Non-Proliferation Treaty Initiative](#)

43358874

To: Climate Action Committee

From: Roger Quan, Director, Air Quality and Climate Change
Parks and Environment Department

Date: January 26, 2021 Meeting Date: February 12, 2021

Subject: **2021 Regional District Sustainability Innovation Fund Applications**

RECOMMENDATION

That the MVRD Board approve the allocation from the Regional District Sustainability Innovation Fund for the following projects:

- a) Assessment of Carbon Capture Technology in the Metro Vancouver Region: \$200,000 over two years starting in 2021;
- b) Lights, Camera, Climate Action: \$200,000 over two years starting in 2021;
- c) Sharing Data for Zero Emission Buildings (SDZEB): \$200,000 over two years starting in 2021;
- d) Responding to the Climate Emergency: Enhanced Stakeholder Engagement: \$200,000 over two years starting in 2021;
- e) Social and Community Data Land Use Model: \$60,000 in 2021;
- f) Regional Land Use Assessment: \$200,000 over two years starting in 2021;
- g) Housing Retrofit Evolution – Pembina Institute Reframed Initiative: \$200,000 over two years starting in 2021;
- h) Managing Capacity and Reducing Emissions: Real-time Parking Availability in Regional Parks: \$300,000 over three years starting in 2021;
- i) Natural Asset Management in Regional Parks: \$160,000 over two years starting in 2021; and,
- j) Promoting Peatland Recovery in Areas Affected by Wildfire in Burns Bog Ecological Conservancy Area: \$199,000 over two years starting in 2021.

EXECUTIVE SUMMARY

The Climate Action Committee is responsible for overseeing the Sustainability Innovation Funds, and for making all funding recommendations to the respective Boards. Staff assist the Climate Action Committee in reviewing and evaluating all proposals that are submitted for consideration. This report presents ten projects recommended for funding, totaling \$1,919,000 over three years, which will be funded through the Regional District Sustainability Innovation Fund. The projects cover a wide range of climate action areas including carbon capture, emissions reduction, and enhancements to ecological health.

PURPOSE

To present ten projects recommended for Sustainability Innovation Funding for the Climate Action Committee and the MVRD Board's consideration.

BACKGROUND

The Regional District Sustainability Innovation Fund was created by the Board in 2004 to provide financial support to Regional District projects that contribute to the region's sustainability. The MVRD

Board adopted the *Regional District Sustainability Innovation Fund Policy* in 2014, with further amendments in 2016, to guide the use and management of the Fund. The Policy describes the process of generating, submitting, evaluating and recommending proposals for funding each year.

The Climate Action Committee is responsible for overseeing the Fund, and for making all funding recommendations to the Board. Staff assist the Climate Action Committee in reviewing and evaluating all proposals that are submitted for consideration.

REGIONAL DISTRICT SUSTAINABILITY INNOVATION FUND POLICY

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

- Be overseen by the MVRD;
- Be consistent with the authority and responsibility of the MVRD, which includes air quality management, regional parks, housing, growth management, and inter-municipal initiatives such as ecological health and climate change mitigation and adaptation;
- Be consistent with the objectives of the *Board Strategic Plan* or other regional district plans as applicable;
- Consider partnerships including, but not limited to, member jurisdictions, academic institutions, non-governmental organizations, and community groups;
- Result in a positive contribution, in the form of tangible results and/or measurable benefits, to the sustainability of the region; and,
- Demonstrate innovation and facilitate action.

On an annual basis the Climate Action Committee receives an update report on the projects supported by the Fund including the deliverables, outcomes, and the measurable benefits of these projects to the region's sustainability. A summary of past projects can be found on the Sustainability Innovation Program website.

2021 APPLICATION PROCESS

An internal call for proposals closed on November 6, 2020 and ten Regional District proposals were considered by the cross-departmental Sustainability Innovation Fund Steering Committee, comprised of representatives from seven different departments within Metro Vancouver.

The Steering Committee evaluated the submissions and determined the proposals have strong alignment with promoting regional sustainability and innovation. The proposals recommended for funding by the Steering Committee are listed in the table below with additional detail provided in the executive summaries (Attachment 1).

Recommended Allocation from the Regional District Sustainability Innovation Fund		
Project Title	Year	Amount Requested
Assessment of Carbon Capture Technology in the Metro Vancouver Region	2021-2022	\$200,000
Lights, Camera, Climate Action!	2021-2022	\$200,000
Sharing Data for Zero Emission Buildings (SDZEB)	2021-2022	\$200,000
Responding to the Climate Emergency: Enhanced Stakeholder Engagement	2021-2022	\$200,000
Social and Community Data Land Use Model	2021	\$60,000
Regional Land Use Assessment	2021-2022	\$200,000
Housing Retrofit Evolution – Pembina Institute Reframed Initiative	2021-2022	\$200,000
Managing Capacity and Reducing Emissions: Real-time Parking Availability in Regional Parks	2021-2023	\$300,000
Natural Asset Management in Regional Parks	2021-2022	\$160,000
Promoting Peatland Recovery in Areas Affected by Wildfire in Burns Bog Ecological Conservancy Area	2021-2022	\$199,000
Total		\$1,919,000

ALTERNATIVES

1. That the MVRD Board approve the allocation from the Regional District Sustainability Innovation Fund for the following projects:
 - a) Assessment of Carbon Capture Technology in the Metro Vancouver Region: \$200,000 over two years starting in 2021;
 - b) Lights, Camera, Climate Action: \$200,000 over two years starting in 2021;
 - c) Sharing Data for Zero Emission Buildings (SDZEB): \$200,000 over two years starting in 2021;
 - d) Responding to the Climate Emergency: Enhanced Stakeholder Engagement: \$200,000 over two years starting in 2021;
 - e) Social and Community Data Land Use Model: \$60,000 in 2021;
 - f) Regional Land Use Assessment: \$200,000 over two years starting in 2021;
 - g) Housing Retrofit Evolution – Pembina Institute Reframed Initiative: \$200,000 over two years starting in 2021;
 - h) Managing Capacity and Reducing Emissions: Real-time Parking Availability in Regional Parks: \$300,000 over three years starting in 2021;
 - i) Natural Asset Management in Regional Parks: \$160,000 over two years starting in 2021; and,
 - j) Promoting Peatland Recovery in Areas Affected by Wildfire in Burns Bog Ecological Conservancy Area: \$199,000 over two years starting in 2021.

2. That the Climate Action Committee receive for information the report dated January 26, 2021, titled “2021 Regional District Sustainability Innovation Fund Applications” and provide alternate direction to staff.

FINANCIAL IMPLICATIONS

If the Board approves Alternative 1, \$1,919,000 for the ten projects will be disbursed from the Regional District Sustainability Innovation Fund over three years. The Fund has sufficient budget to support Alternative 1.

Approved projects will be incorporated into the applicable work plans and budgets.

CONCLUSION

The Regional District Sustainability Innovation Fund was created by the Board in 2004 to provide financial support for Regional District projects that contribute to the region's sustainability. The *Regional District Sustainability Innovation Fund Policy* guides the use and management of the Fund and describes the process of generating, submitting, evaluating and recommending proposals for funding each year. The Climate Action Committee is responsible for overseeing the Fund, and for making all funding recommendations to the MVRD Board. Staff assist the Climate Action Committee in reviewing and evaluating all proposals that are submitted for consideration.

This report presents the Steering Committee's recommendation to fund the following project proposals:

- Assessment of Carbon Capture Technology in the Metro Vancouver Region
- Lights, Camera, Climate Action!
- Sharing Data for Zero Emission Buildings (SDZEB)
- Responding to the Climate Emergency: Enhanced Stakeholder Engagement
- Social and Community Data Land Use Model
- Regional Land Use Assessment
- Housing Retrofit Evolution – Pembina Institute Reframed Initiative
- Managing Capacity and Reducing Emissions: Real-time Parking Availability in Regional Parks
- Natural Asset Management in Regional Parks
- Promoting Peatland Recovery in Areas Affected by Wildfire in Burns Bog Ecological Conservancy Area

Additional details of each project are provided in the executive summaries (Attachment 1). Staff recommend that the Climate Action Committee approve the Steering Committee's recommendations for funding the proposals and forward the recommendations to the MVRD Board for consideration. Staff recommendations are presented as Alternative 1.

Attachment

1. Regional District Services Sustainability Innovation Fund – Executive Summaries (43396643)

Reference

1. <http://www.metrovancouver.org/services/air-quality/sustainability-innovation-program/Pages/default.aspx>

43375697

Sustainability Innovation Fund: Regional District Executive Summary

Project Name: **Assessment of Carbon Capture Technology in the Metro Vancouver Region**

Amount Requested from Sustainability Innovation Fund: \$200,000 (2021-2022)

Purpose:

To understand the applicability of carbon capture technology in reducing carbon dioxide emissions from industrial facilities in the Metro Vancouver region.

Project Objectives:

This carbon capture technology assessment project will:

- Explore the potential applications of technological carbon capture approaches at industrial facilities in the Metro Vancouver region to reduce carbon dioxide released to the atmosphere.
- Collaborate with regional partners to encourage the development of technological carbon capture sector to support the regional cleantech economy.

Key outcomes of this project would include the following:

- Jurisdictional scan of existing policies and regulatory framework for technological carbon capture in the region, including Metro Vancouver's role;
- Assessment of different technological carbon capture approaches (including technological readiness) and their potential application at industrial sites in the region;
- Identification of potential pilot sites to test technological carbon capture in the region; and
- Development of initial project description for a pilot project.

Contributions to Regional Sustainability:

Environmental

This project will explore the applicability of technological carbon capture and the deployment of innovative approaches within the region to reduce carbon dioxide concentrations in the atmosphere. Reducing these concentrations will help reduce the impacts of climate change in the region and around the world. Successful application of carbon capture technologies will be of critical importance for the region in meeting its climate action targets.

Social/Community

Climate projections for this region include longer, hotter and drier summers, warmer and wetter fall and winter seasons, and more extreme weather. Within the region, these impacts will harm public health, and damage communities, infrastructure and businesses. Vulnerable populations are at particular risk from climate change, given that they are generally less able to adapt to the changes. Actions related to reducing carbon dioxide concentrations play a role in preparing the region for the impacts of climate change.

This project will support collaboration to increase implementation of innovative approaches to reducing greenhouse gas emissions in the region. Carbon capture technologies will play an increasingly vital role in any pathway towards a low carbon, resilient community. This project can also demonstrate proactive leadership by identifying potential pilot application opportunities that can serve the regional community.

Economic/Financial benefits

Technological carbon capture represents a promising business opportunity, particularly given the recent federal government announcement to increase the carbon tax to \$170 per tonne of greenhouse gas by 2030. This project could catalyze investment in this industry, supporting the region's already strong cleantech sector. Adopting greenhouse gas regulations that are more stringent than in neighbouring jurisdictions could have the unintended consequence of pushing industrial activity (and emissions) out of the region, impacting our local economy without actually reducing global carbon dioxide concentrations.

Innovation Element:

To date, Metro Vancouver has focused its efforts on reducing emissions of air contaminants, including greenhouse gases. Technological carbon capture approaches have not yet been considered under that emission reduction focus. However, common emission reduction approaches such as fuel switching and energy efficiency upgrades are unlikely to be sufficient to achieve carbon neutrality in the industrial sector over the next 30 years. Innovative approaches such as technological carbon capture must be explored to accelerate progress toward a carbon neutral region.

In addition, most technological carbon capture projects have focused on individual industrial sites. This project aims to better understand how to implement technological carbon capture in the region as a whole. This innovative approach should help identify the effective carbon capture approaches that are most suitable in the region.

Metro Vancouver could also explore approaches to gain access to a spectrum of cleantech experts and solutions with a focus on regional application, and to identify potential pilot sites. One innovative idea generation tool under consideration for this project is crowd-sourcing, which could identify novel carbon capture approaches that have not been previously explored.

Tangible Benefits and Outcomes:

Phase 1 (2021-2022) – Assessment of Technological Approaches

- Jurisdictional scan of existing policies and regulatory framework for technological carbon capture in the region, including Metro Vancouver's role;
- Assessment of different technological carbon capture approaches (including technological readiness and cost effectiveness) and their potential application at industrial sites in the region; and
- Identification of potential pilot sites to test technological carbon capture approaches in the region.

Phase 2 (2022) – Pilot Sites

Development of initial project description for pilot project using a technological carbon capture approach. This would consider the feasibility (e.g. operational, technical, economic and temporal elements) of a technological carbon capture application in Metro Vancouver's systems or in an industrial facility within the region.

Members and other Partners:

Sheryl Cumming, Project Engineer, Air Quality and Climate Change, Parks and Environment
John Lindner, Air Quality Planner, Air Quality and Climate Change, Parks and Environment
UBC Clean Energy Research Centre

Sustainability Innovation Fund: Regional District

Executive Summary

Project Name: **Lights, Camera, Climate Action**

Amount Requested from Sustainability Innovation Fund: \$200,000 (2021-2022)

Purpose:

The purpose of the *Lights, Camera, Climate Action* project is to identify alternative clean and modular power sources for portable diesel generators currently used in the film industry. The Metro Vancouver region hosts the third largest film centre in North America, and transitioning to sustainable practices has emerged as an important issue for the industry. The project will also explore the potential co-benefits for other users of portable diesel generators such as construction sites, food trucks and festivals. The portable diesel generators currently used on film sets generate greenhouse gases (GHGs), air contaminants such as diesel particulate matter (DPM), and noise pollution. This project will explore cleaner technology alternatives to the diesel generators in order to reduce GHG emissions and improve air quality, while also ensuring the alternatives recommended are viable solutions in terms of user experience, fulfilling power requirements, and being a cost effective solution.

Project Objectives:

The objective of the project is to demonstrate the viability of clean power solutions for the film industry, and other users of portable diesel generators, which could lead to widespread adoption of electrification and associated emissions reductions. The regional film industry has recognized that it has a role to play in advancing sustainability and demonstrating climate leadership through greenhouse gas reduction projects, but has limitations for coordinating and implementing zero-emissions options for providing on-site power. Best practices identified through this project on the viability of alternative clean power technology could be extended to the benefit of other portable generator users, such as public festivals, outdoor entertainment events, food trucks and the construction industry. In addition, this project will support policy development as part of Metro Vancouver's *Climate 2050 Strategic Framework* and the *Clean Air Plan*. The technical assessment of options along with the stakeholder engagement process will inform recommendations for next steps. These will include suggestions for potential regulatory mechanisms or incentive schemes that may be used to accelerate change.

Contributions to Regional Sustainability:

This project will support regional sustainability efforts to reduce GHG and other air contaminant emissions created by diesel generators on film sets in the region. According to a November 2019 Climate Action Committee delegation on low emission filming, Metro Vancouver film sets consumed an estimated 6.3 million liters of diesel in 2018, resulting in approximately 16,910 tonnes of GHG emissions. In addition to GHG emissions, diesel generators release air contaminants such as DPM, nitrogen oxides and others, which have been shown to have significant public health impacts, as well as impacts on the environment. Non-road diesel engines – a category that includes portable diesel generators – generate 41% of DPM emissions in the region, and DPM contributes to 67% of the lifetime cancer risk associated with air contaminants in our region. By transitioning to cleaner alternatives to diesel generators, the film

industry can reduce public exposure to air contaminants and improve public health. According to the Vancouver Economic Commission, the film industry spent \$4.1 billion in British Columbia in 2019. Creating a model that allows for electric power access for the film industry could be a revenue generating opportunity for local governments and stimulate new jobs in the region. This model may also have financial benefits for the film industry by minimizing the cost from diesel and generator rentals. This project is considered an early action to support the implementation of *Climate 2050*.

Innovation Element:

Clean electrification efforts are currently underway by the film industry, but there is a gap in the scaling up of new technology options that will require innovation and regional support; this project will help to bridge this gap. It will explore scalable solutions that may be applicable to other users of portable diesel generators.

Tangible Benefits and Outcomes:

This project will assess the viability of portable electrical power solutions in Metro Vancouver's film industry, based on pilot implementation at one or more locations. As a starting point, the current use of diesel generators by the industry will be evaluated, including a technology assessment to understand the power supply needs, connection requirements, and metering options. This information will be used to inform the design of a pilot program to test alternative portable solutions. This initial assessment will also provide an assessment of clean portable energy option co-benefits for other portable diesel generator user groups such as construction sites and food trucks. Next, a pilot program will be established for clean power solutions and filming locations in Metro Vancouver.

This pilot will include installation of at least one power connection or modular battery solution for use by film industry or other above mentioned industries. Lastly, the project will include a report on findings and program handover to pilot location site owners. The final report will include documentation of work completed, lessons learned and cost-benefit analyses. It will also provide policy recommendations that can be applied across industry to promote cleaner energy alternatives to portable diesel generators.

Members and Other Partners:

Project partners and collaborators are expected to include member municipalities, BC Hydro and Creative BC (non-profit agency established by the provincial government that promotes film and television in British Columbia).

Sustainability Innovation Fund: Regional District

Executive Summary

Project Name: **Sharing Data for Zero Emission Buildings (SDZEB)**

Amount Requested from Sustainability Innovation Fund: \$200,000 (2021-2022)

Purpose:

To develop a smart and integrated regional ground-oriented housing database that will target low carbon retrofits across the region, and act as a keystone for buildings policies and programs that will accelerate the transition to zero carbon buildings in Metro Vancouver.

Project Objectives:

The Sharing Data for Zero Emission Buildings (SDZEB) project responds to a key window of opportunity to work with the City of Vancouver, the BC Government, Natural Resources Canada, the Township of Langley and other partners to support the development of Vancouver's *Housing Database and Retrofit Decision Support Tool Project*, and scale it to a regional tool. This work will demonstrate the potential of data analysis technology to inform policy, build accurate and helpful online support tools for residents to undertake high impact, low carbon building renovations.

The long-term objective of the SDZEB project is to create a buildings database with high quality data. Such a database would underpin decision support tools that transform the homeowner experience of undertaking deep carbon retrofits in existing single family homes in Metro Vancouver and ultimately more broadly in BC.

Contributions to Regional Sustainability:

Environmental Benefits

Urgent and accelerated action is required in the buildings sector to achieve our regional carbon neutral goal, requiring thousands of homes to complete low-carbon retrofits every year. Increasing energy efficiency in buildings has direct positive impacts on occupant health and comfort, including:

- increased draft protection and thermal comfort;
- reduced noise; and,
- consumer protection and preservation of the existing housing stock.

Social and Economic Benefits

The alignment and integration of the SDZEB project and the *Housing Database & Retrofit Decision Support Tool Project* creates economies of scale by building upon an existing database. The combination of better building data and targeted retrofit opportunities can result in:

- improved occupant health through better indoor air quality and reduced moisture/mold;
- reduced energy costs and more informed real estate transactions for homes with higher energy efficiency;
- more awareness of the return on investment of low carbon home renovations; and,
- a housing stock that is more resilient in the face of a changing climate.

Equity indicators in the database will be used to:

- identify positive cash-flow homes where retrofits will save money;

- identify opportunities that will lead to better health outcomes for low income or disadvantaged residents; and,
- target programs to specific neighbourhoods or communities that may be identified as living in energy poverty.

Additionally, the SDZEB project and resulting database can support regional COVID-19 recovery through increased market demand for deep carbon retrofits, which can stimulate the green buildings economy – a blossoming industry with significant opportunity for expansion in the Metro Vancouver region.

Innovation Element:

In order to effectively manage the shift to zero carbon buildings, we need better data. Many datasets already exist, but have not been brought together to realize their full potential for climate action. This project seeks to create a new database that will unlock these data and target customized retrofit opportunities for owners of similar homes in the region. It will also yield invaluable information for developing accurate and effective policies and programs that are critical to achieving deep carbon reductions. Without this data, government and homeowner action will simply not be fast enough to meet our GHG targets.

In recent years, research and software development focusing on using building data to target energy and carbon emission reduction opportunities has started to take root. A small number of leading jurisdictions in the United States have done this work to positive results.

In BC, there is now strong alignment on climate policy and goals at all levels of government and with utilities, matched by innovative regulations such as the BC Energy Step Code and the forthcoming BC Alterations Code. Together with local government climate emergency responses, now is the time to complete this fundamental task for tackling emissions in buildings.

Tangible Benefits and Outcomes:

The SDZEB project will capitalize on a unique opportunity to scale-up the City of Vancouver’s development of a city-level database to a *regional* ground-oriented housing stock database. A region-wide database will be a powerful tool that supports Metro Vancouver and its member jurisdictions to undertake informed policy-making for single family homes, allowing the creation of replicable retrofit packages that can be implemented efficiently and at scale.

The SDZEB project will ensure that Metro Vancouver and its members have access to a regional database that forms the basis for a homeowner decision software tool. Coordinating data, tools, and programs across the different partners involved in this suite of projects will result in a streamlined experience for an information-seeking homeowner through an online interface, backed by the database.

Members and other Partners:

Brady Faught, Green Buildings Engineer, City of Vancouver

Tess Rouse, Manager Climate Action, Township of Langley

Megan Lohmann, Community Energy Manager, Regional District of East Kootenay

Chris Frye, Senior Policy Advisor, Natural Resources Canada

Nat Gosman, Executive Director, Built Environment, Ministry of Energy, Mines and Low Carbon Innovation

Sustainability Innovation Fund: Regional District

Executive Summary

Project Name: **Responding to the Climate Emergency: Enhanced Stakeholder Engagement**

Amount Requested from Sustainability Innovation Fund: \$200,000 (2021-2022)

Purpose:

Given the climate emergency, Metro Vancouver needs a public and stakeholder engagement strategy that builds a constituency who will champion Climate 2050 and the actions in it. This requires an innovative strategy, over and beyond what a normal engagement strategy would entail. And it must include innovative ways to engage new audiences (e.g., youth, previously non-engaged groups including the creative community) to build a larger constituency supportive of effective climate actions.

Project Objectives:

- Working with Metro Vancouver member jurisdictions, seed on-going outreach and engagement that will enhance buy-in, including champions, for effective climate action in the region;
- Create a vocal constituency of residents who will articulate their support for climate action.

Contributions to Regional Sustainability:

Environmental – This proposal supports innovative and deeper engagement on climate action, one of the key priorities to protect people and the environment in this region.

Social/Community – The proposal will implement an ambitious public and stakeholder engagement strategy, with collaboration between Metro Vancouver and local governments, to develop an active constituency of residents that will support effective actions to address the climate emergency.

Economic/ financial – Broader public engagement will be conducive for innovators and entrepreneurs interested in local solutions in clean energy, circular economy and other carbon neutral solutions as well as initiatives to increase climate resiliency.

Innovation Element:

The ambitious nature of Climate 2050 requires a similarly ambitious, creative and strategic public and stakeholder engagement strategy – to build momentum to implement a climate plan for our region. Metro Vancouver needs to stretch beyond the regular public and stakeholder engagement strategies, and to build an constituency to champion the actions in Climate 2050. Innovations are;

- The mapping exercise with NGOs active in climate outreach in this region to highlight gaps and opportunities, and develop common messaging, priorities and communications.
- Integration of deliverables in innovative ways. For example, the youth outreach strategy might include creating space for youth to generate social content for Metro Vancouver.
- Organizing “solution labs” through a community advisory group to explore how best to implement actions identified in Climate 2050.

- Engaging with the creative community will open a new door for Metro Vancouver in our ongoing climate outreach. Art has demonstrated a pathway to opening up climate action conversations with new audiences, and acknowledges emotions related to change and loss.

Tangible Benefits and Outcomes:

Through this project, Metro Vancouver will rely on its role as a convener on issues of regional importance, specifically as it relates to climate action. This will include:

- Initiating a Community Advisory Group (individuals and organizations with knowledge on climate action to work through pathways to implementation);
- Creating a Blue Ribbon Panel (composed of subject matter experts who can validate the importance of Climate 2050);
- Building an engaged and vocal constituency of residents who support effective action on climate change; including supporting innovative actions of Metro Vancouver; and
- Other deliverables that include: convening community organizations, a climate outreach mapping exercise, a peer group for member municipalities, and engaging youth.

To ensure the public and stakeholders have a greater knowledge and understanding of what is being done now to reduce regional emissions and make the region more climate resilient, deliverables include: developing a strategic presence on social media, and taking inventory of existing outreach channels available to Metro Vancouver (i.e., parks visitations, construction outreach, fleet vehicles, facility signage) that could carry messaging on Metro Vancouver climate actions. A potential deliverable to be explored is a climate action recognition program with a climate action logo or tagline applied to publically visible assets and information signage.

One tangible demonstration of the effectiveness of Responding to the Climate Emergency project will be the size and diversity of the participants present, in-person or on-line, in a Metro Vancouver Climate Forum planned for 2022.

Staff are currently developing Metro Vancouver's climate literacy initiative (SIF 2019) and a series of Climate 2050 Roadmaps, which will provide content to many of the activities in this proposal.

Members and other Partners:

Member staff have expressed interest in Metro Vancouver convening and coordinating enhanced stakeholder engagement around climate action, including residents. Consistent messaging will help a range of audiences see and feel a cohesive movement. There are no formal partners, but there is an understanding among the team responsible for this project that to be successful, any dialogue on climate action must reflect organizations working together, and intersectional goals. A range of people will be engaged as speakers, interviewees, panel participants, and as advisors. This will create an integrated look at climate action in the Metro Vancouver region and open opportunities to partner among organizations.

Sustainability Innovation Fund: Regional District

Executive Summary

Project Name: **Social and Community Data Land Use Model**

Amount Requested from Sustainability Innovation Fund: \$60,000 (2021)

Purpose:

This project aims to fulfil the following two tasks: 1) to compile and evaluate the findings of existing research projects, surveys, and statistics about people's preferences of where to live and where to work in the region, what triggered their choices about preferable housing types, neighbourhood and municipality to live in; and 2) to identify the gaps in those research projects, surveys or existing statistics (from Task 1) relevant to the Metro Vancouver regional context.

Both tasks will assist in the future preparation of a regional behavioural model (next phase of this project), which will help to influence regional growth and urban design patterns.

Project Objectives:

The main objective of this project is to develop the foundation for a regional behavioural model that seeks to understand housing and neighbourhood choices. To achieve this goal, we need to firstly examine how usable the existing research, surveys, and statistics are from the perspective of modeling. The next stage is identifying areas that previous studies did not cover to establish a framework for the additional research necessary to prepare an accurate tool for the Metro Vancouver context.

Contributions to Regional Sustainability:

This project has a strong contribution to regional sustainability, mainly from the social/community perspective. The social component of sustainability generally does not have enough data to incorporate these aspects into overall planning and region building activities. Therefore, this project aims to bridge this gap and supply our future regional growth model with social/community data.

Innovation Element:

Having social/community data georeferenced in one geodatabase across the region is a big task and assists with the development of a regional behavioural model. This modelling tool is an innovative and advanced approach that will test how different people's choices will impact land-use change. We aim to link people's living choices to land use, transportation, and hazard modelling, while incorporating pertinent demographic data, into this model. By creating these links, it will ensure more robust data to both, assist with the long range planning for the region and the monitoring of our success in implementing the goals of the Regional Growth Strategy.

Tangible Benefits and Outcomes:

This project will summarise all existing research projects, surveys, and statistics about the regional population's social/behavior characteristics. All the data will be explored and standardised/converted into a geodatabase.

Members and other Partners:

SIF funding will be used to hire a consultant to conduct research on existing social/community projects. The outputs of their research will support the development of a regional behavioural model. The Planning Analytics team (Regional Planning) will work closely with the consultant. It is estimated that the Planning Analytics will invest 240 hours in this project over 2021. There is also an opportunity to involve TransLink and the Province as partners in this project since spatially determined social/community data might also support their various regional activities.

Sustainability Innovation Fund: Regional District

Executive Summary

Project Name: **Regional Land Use Assessment**

Amount Requested from Sustainability Innovation Fund: \$200,000 (2021-2022)

Purpose:

Completion of a regional land use assessment is a priority implementation action in the Metro Vancouver Regional Industrial Lands Strategy and supports Regional Growth Strategy policies. The project will comprise preparing a regional 'land budget' model of current supply and anticipated demand by land use category. The technical assessment, to be prepared in collaboration with member jurisdictions and other stakeholders, will look to identify the 'best' locations for uses / typologies based on land capacity and a co-developed set of criteria (current and future).

The comprehensive regional land use assessment will further enhance our understanding of the limited lands in the region by attribute, use potential (current supply) and land needs criteria (long term demand), so as to support regional growth planning. The assessment will identify opportunities for more optimized locations and uses of land to support regional policy objectives, infrastructure investments, refine growth targets, and inform policy changes.

Project Objectives:

The challenge is to balance the legitimate and competing needs for land in a growing region with a limited land base. The project results would be a rigorous land supply / demand model, contributing to separate work associated with a forecasting model, and assist with communicating analysis to planners, decision-makers and other parties.

Through this project and associated data, research, advocacy, convening and collaboration, the results would enhance achievement of regional objectives that advance sustainability through efficient land uses as well as support member municipal efforts to advance local / community objectives. This tool would also inform growth targets, making sure they are realistic relative to the use, intensity, and form. It would provide added value to member jurisdictions as it would provide robust data to assist with planning in local areas (e.g. area plans), Official Community Plans (OCP), and zoning bylaw updates, etc. The tool would also assist with utility planning to understand land use and intensity, and where those infrastructure investments would be priorities.

Contributions to Regional Sustainability:

Sound and efficient land use planning directly supports sustainability in terms of using land and resources as efficiently as possible, and advances all three measures of a triple bottom line analysis: environmental – energy consumption and GHG emissions; social – affordable housing placement and access to jobs; economic – cost effective infrastructure and transportation system.

The land use framework would set the stage for improvements in reducing trip lengths, encouraging transit usage, reducing commuting costs, guiding efficient locations for infrastructure investments, reducing energy consumption and GHG emissions, and supporting a prosperous regional economy. Success for this project, is an improved means to consider and plan for an efficient regional land use and growth pattern that balances the limited land supply with competing demands.

Innovation Element:

This project is innovative in several ways. It is outside the regular Regional Planning work program, pushes beyond established regional and municipal policies, requires strong partnerships with member jurisdictions, several regional agencies and the Province. This is a unique and innovative approach to land use planning, and will support informed decision-making for regional growth management and planning across the region.

By stepping outside of the existing policy framework, the tool will provide a unique and relevant lens to support land use change decisions and to align transportation, utility, and land use infrastructure.

Tangible Benefits and Outcomes:

Having improved criteria (by use type and capacity) for considering the distribution / allocation of land uses will make for a more efficient regional system, with improved performance and cost effectiveness. Given the limited land supply, growing population and economy of the region there is an expectation that pressures on land and its respective use will only continue to increase over time. Therefore, the project will:

1. Help to address conflicts between competing land uses and pressures to convert lands.
2. Define common development pattern typologies and associated characteristics by land uses.
3. Through separate later work, help to establish a framework / criteria for evaluating proposals for land use re-designation amendments.
4. Support regional objectives for use of lands, specifically the most efficient use of lands and intensification / densification opportunities.
5. Place related or supportive / complementary uses closer together, and competing or conflicting uses further apart.
6. Support more efficient infrastructure investment, where planning is based on more rigorous growth planning methods / targets.

Benefits include achieving improved efficiency in regional land use growth patterns, with commensurate transportation, housing, environmental, and economic improvements.

Members and other Partners:

- Possible Partners (level of involvement and possible funding co-contribution to be determined):
- TransLink, Province (Agri-Tech Land Use Secretariat, Ministry of Municipal Affairs and Housing, Ministry of Transportation & Infrastructure), Agricultural Land Commission, Port of Vancouver, Transport Canada, member municipalities.

Sustainability Innovation Fund: Regional District

Executive Summary

Project Name: **Housing Retrofit Evolution – Pembina Institute Reframed Initiative**

Amount Requested from Sustainability Innovation Fund: \$200,000 (2021-2022)

Purpose:

Background: Metro Vancouver Housing (MVH) is a member of the “Reframed” Initiative, a joint initiative of the Pembina Institute, BC Housing, BC Non-Profit Housing Association, and the City of Vancouver. Members will work together to demonstrate the technical and economic feasibility of whole-building deep resiliency retrofits that include reduction of energy use intensity by at least 50% from the pre-retrofit baseline, decarbonisation, and upgrades relating to climate adaptation, seismic, and fire safety.

With support from technical experts on climate change, energy efficiency, and health; multi-disciplinary teams will participate in an Exploration Lab to define the deep retrofits. This SIF application requests funding to support the additional consulting services associated with the Exploration Lab and the implementation of the findings into the 3 deep energy retrofit projects within our existing housing stock.

Project Objectives:

This project involves deep energy retrofit of 3 demonstration projects to reduce energy use intensity by at least 50% from the pre-retrofit baseline. The demonstration retrofits aim to decarbonize building operations to eliminate climate pollution, reduce energy waste to keep the bills low and improve tenant comfort, increase resiliency to extreme weather events like heat waves, flooding, and forest fires, seismically upgrade the structures, and create healthier homes.

Contributions to Regional Sustainability:

To reach the pace and scale needed to meet climate targets, retrofits must shift from a process that is revisited with each building to a product that offers repeatable, predictable performance at a set price. By collaborating with Reframed, the outcomes of these projects will help accelerate development and adoption of emergent retrofit technologies. It will also increase uptake of design and construction of deep retrofits by engaging a wide range of stakeholders such as municipalities, financiers, insurers, and ultimately property owners.

A key challenge to fostering innovation in multi-stakeholder environments is that no single entity is responsible for changing the ecosystem to create new outcomes. Given the complexity of the retrofit ecosystem, this will not happen organically. The emergence of deep retrofit products will simplify decision-making, procurement, and permitting, and enable continuous engineering to reduce costs through automation and vertical integration. These real-world demonstrations will help validate the feasibility and impact of deep retrofits for the Region.

Innovation Element:

Reduce energy demand and drive down carbon emissions through novel combinations of electrification and energy conservation measures that may include:

- Heating: central air-to-water heat pump
- Ventilation: in-suite heat recovery ventilators, reduction of make-up air unit flowrate
- Domestic hot water: central air-to-water heat pump
- Walls: add exterior wall insulation, e.g. with prefabricated panels
- Windows: upgrade to triple glazed, low conductivity windows
- Roof: add exterior insulation, e.g. with prefabricated panels
- Partial mechanical cooling by tempering overheating through make-up air unit
- Solar PV
- Passive shading: fixed exterior shades

Deep energy retrofits can result in projects that are cutting edge but costly and not easily replicable, failing to create a new normal. To find the right balance between ambition and replicability, and to create a critical mass necessary to push through barriers to innovation, these demonstration projects are advancing in a cohort and scoped through the multi-stakeholder Reframed Innovation Lab.

Tangible Benefits and Outcomes:

The Reframed Initiative presents an opportunity to undertake a comprehensive whole-building retrofit that examines all components of the building: heating, lighting, structure, windows, exterior and plumbing - and considers how the building interacts with other energy systems (integrating on-site generation and storage, EV charging infrastructure, etc.). We anticipate that these comprehensive upgrades will also improve tenant comfort, well-being and safety, extend the life of the asset, and reduce operational costs.

By participating in the Reframed Initiative, we will have access to sophisticated integrated design that can facilitate the long-term asset planning needed to improve energy efficiency, reduce greenhouse gas emissions, and future-proof this critical affordable housing while tenants remain in place. This in turn protects vulnerable renters in a state of climate AND housing vulnerability.

Integrated solutions that deliver deep resiliency retrofits exist today, but they are routinely dismissed because of uncertain returns, competing priorities, procurement rules, and financing practices that discourage innovation. The demonstration projects will provide costed and peer-validated designs to test these alternate propositions. By first understanding early market costs, we will be able to identify funding gaps and R&D needs to help drive down the costs and create market confidence in undertaking deep energy retrofits. They also create urgency to develop workarounds to permitting or financing barriers, and that set the wheels in motions for long term removal of these barriers.

Members and other Partners:

MOU with Pembina Institute, BC Housing, BC Non-Profit Housing Association and the City of Vancouver Participation and potential funding from other organizations (e.g. BC Hydro, FortisBC, Federation of Canadian Municipalities, CleanBC, NRCan) is actively being pursued.

Sustainability Innovation Fund: Regional District

Executive Summary

Project Name:

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

Amount Requested from Sustainability Innovation Fund: \$300,000 (2021-2023)

Purpose:

The purpose of this project is to design and implement an advanced electronic real-time parking availability system for key Metro Vancouver regional parks experiencing over capacity issues.

Project Objectives:

The primary goal of the project is to bring about a change in practices by park visitors who arrive to a regional park by personal vehicle. Providing information on when parking lots are at capacity before visitors leave their home allows them to make decisions about how to access the park, when to access the park, or to consider another destination. A communications strategy will be advanced to promote the product to the public. Outreach will include crafting and publication of key messages and collateral including: website and social media content, presentations, and videos. Learnings from this project will inform changes to how Metro Vancouver addresses capacity issues throughout the parks system, for example, potentially offering shuttle services at certain times and sites.

Contributions to Regional Sustainability:

Environment

This project will help alleviate traffic congestion problems within parks thus reducing vehicle pollution and related greenhouse gas emissions. Approval of this proposal will help Metro Vancouver achieve its Climate 2050 goals for the region by conveying information on parking stall availability at high-demand lots, thereby contributing to healthy neighborhood air quality and promoting climate change resilient communities. The platform will play a part in achieving the target of a 45% reduction in emissions from 2010 levels, by 2030. It will also help the region in its efforts to become carbon neutral region by 2050.

Society

A real-time parking availability system will reduce disruption to neighbours from crowding and traffic volumes on local access roads and from within parks. It will also reduce the need for local government involvement given municipal responsibility for traffic flows outside the parks. This new platform will offer an opportunity to share lessons learned with municipal and provincial peer agencies dealing with similar demand issues.

Economy

Real-time parking availability information can provide a foundation for future work on advanced traffic/park planning, traffic flow modelling and engineering designs. It means lower energy use and improved parking infrastructure performance will reduce park operating and traffic control costs.

Learnings will influence decisions regarding pay parking / pay in advance parking reservation systems which could result in revenue enhancements.

Innovation Element:

This project will develop novel or customized case-specific operational monitoring technologies using adapted vehicle remote sensors and a supporting digital platform. It represents an innovative approach to increasing productivity and efficiency of Metro Vancouver services by improving the management of public parking lot infrastructure. Public use of the platform will allow visitors to preferentially access amenities based on parking availability and individual perceptions of social carrying capacity, provided by online real-time parking stall inventories.

The system will be innovative in the sense that it will influence visitor behavior by allowing people to explore alternative less busy parks or entrances based on the real-time reporting of facilities at or above lot capacity, helping to balance the supply-demand equation.

Tangible Benefits and Outcomes:

When complete, the project will assist with reducing greenhouse gas emissions and other adverse environmental impacts from wasted trips and undesirable vehicle idling. Feedback will be available to the public who may wish to engage in trip planning by referencing a digital platform to view current stall availability prior to leaving their home or while en route. Improvements to the visitation experience by limiting overcrowding and congestion will also be realized.

Staff will be able to monitor and track stall inventory and relative demand which will aid in administering parking lots and controlling traffic. The ability to monitoring inventory and demand will be valuable for park planning and development projects, leading to improved management, cost-savings and social, economic and environmental benefits.

Members and other Partners:

Once approved, the proposal lays the foundation for fostering collaboration and developing partnerships enabling synergies among project participants to leverage the expertise of each stakeholder. Phase I will see collaboration with industry experts and vendors to identify best practices and leading-edge innovation/technologies. In Phase II staff will work closely with City of Delta, District of North Vancouver, Port Moody, Belcarra and Anmore to implement the system and evaluate the changes made to address neighborhood conflicts.

Sustainability Innovation Fund: Regional District

Executive Summary

Project Name: **Natural Asset Management in Regional Parks**

Amount Requested from Sustainability Innovation Fund: \$160,000 (2021-2022)

Purpose:

The 'Natural Asset Management in Regional Parks' project seeks to make significant advances in the integration of natural assets to the regional parks asset management program. Effort will focus initially on a high-level quantification and valuation of ecosystem services for the regional park system. This will be followed by a detailed study of natural assets and ecosystem services at a pilot location to determine maintenance, monitoring and restoration needs and costs, along with an assessment of risks including climate change. The final phase of the project will develop a prioritization framework for management actions that can be used over time to plan and prioritize work, and ensure the cost-effective application of park budgets. Work is focused on the regional parks system but the methods and processes developed will have broader application. In order to maximize knowledge transfer, a project advisory committee will be established with interested staff from member jurisdictions and other Metro Vancouver departments, and updates will be provided to applicable advisory committees.

Project Objectives:

- Advance the integration of regional parks natural assets into an asset management system, with the aim of ensuring that natural assets are managed and maintained for long-term ecological health, integrity and resilience, and sustainable delivery of ecosystem services.
- Complete an ecosystem services assessment and valuation for natural assets in regional parks;
- Develop a tool and/or methodology to support ongoing ecosystem service assessment and valuation for additional areas (e.g. new park acquisitions);
- Develop a framework to be used on an ongoing basis to prioritize management actions for natural assets, based on ensuring ecological function, and maximizing ecosystem service provision and cost effectiveness;
- Understand the risks facing natural assets now and in the future;
- Advance natural asset management practices in Metro Vancouver, the corporation and the region; and,
- Increase understanding of the importance of natural assets and regional parks, and their contribution to climate resilience and regional liveability.

Contributions to Regional Sustainability:

Environmental benefits: The purpose of including natural assets into asset management is to ensure their long term health and resilience, and their ability to deliver services in a sustainable manner. The project will consider risks to natural assets and incorporate this into prioritizing management actions.

Social and community benefits: This project will increase understanding of how ecosystems provide services that benefit humans. This knowledge can be incorporated into regional park planning and management.

Financial benefits: The purpose of structured asset management is to ensure service, asset and financial sustainability. Incorporating natural assets into asset management processes will ensure they are considered and incorporated into long term plans, including financial plans. Valuation of ecosystem services will provide a deeper understanding of the importance of regional parks natural assets. Developing a prioritization framework for management actions will enable an analysis of the costs and benefits of actions, and support multi-year financial planning of natural asset management.

Innovation Element:

This project seeks to make significant advances in natural asset management in the Metro Vancouver region, contributing to the growing body of knowledge on this topic. The last 5 years has seen increasing innovation in the valuation of ecosystem services and the incorporation of natural assets into a structured asset management system. But there is still a long way to go before natural asset management is standard practice and there are currently only a handful of Canadian municipalities who have made serious advances. To date, work in the natural asset management realm has been focused primarily on municipalities and services such as stormwater management that clearly overlap with services provided by local governments. As a parks service with a focus more on conservation and recreation, this project will help to expand and diversify knowledge to a broader range of ecosystem services.

Tangible Benefits and Outcomes:

- A high-level ecosystem services quantification and valuation for natural assets in the regional parks system. This will include the documentation of methods used.
- Results from a detailed study of ecological function and ecosystem services at a pilot location to inform management, monitoring and restoration. The information gained will be used to scale-up the approach to other locations in the regional park system.
- A decision-making framework to prioritize management actions in regional parks.
- Deeper understanding of the risks faced by natural assets, now and in the future, and the benefits provided by regional parks to visitors and the region.
- Significant advancement to regional parks' natural asset management program.
- Knowledge sharing opportunities with member jurisdictions interested in advancing natural asset management.

Members and other Partners:

Considerable interest in natural asset management has been demonstrated both within other Metro Vancouver departments, and by member jurisdictions. To provide review and input on the project, and maximize knowledge sharing, Regional Parks would establish a natural assets advisory team with representation from Water Services, Regional Planning, and interested staff from member jurisdictions. To date, staff from the District of West Vancouver and City of Delta have expressed interest in being involved. If the project goes ahead, an invitation to participate in the advisory team would be shared with members of the Regional Planning Advisory Committee Environment Sub-Committee (RPAC-Env) and the Regional Parks Advisory Committee (RPC) who have both expressed interest in this topic.

Sustainability Innovation Fund: Regional District

Executive Summary

Project Name: Promoting peatland recovery in areas affected by wildfire in Burns Bog Ecological Conservancy Area

Amount Requested from Sustainability Innovation Fund: \$199,00 (2021-2022). Additional funding sources are being pursued

Purpose:

The purpose of this project is to conduct research on post-fire management of forested peatlands at an operational scale to identify effects of tree seedling removal on peatland succession, recovery and greenhouse gas emissions.

Project Objectives:

This project will identify and confirm management practices that improve peatland health and potentially contribute to meeting greenhouse gas targets. By understanding how wildfire sites in forested peatlands can be manipulated to reach desired ecological states we can contribute to wider scale restoration of degraded ecosystems. This project will evaluate whether tree removal will improve water table levels as well as carbon uptake and storage in an area affected by a wildfire in 2016.

Contributions to Regional Sustainability:

This project will contribute to regional sustainability by identifying and confirming management practices that improve peatland health and contribute to meeting greenhouse gas targets. Conservation and restoration of regional peatlands has already been proven to provide these benefits.

Results of this project will influence how wildfire zones in the Burns Bog Ecological Conservancy and other forested/compromised peatlands might be managed in the future. Early interventions following wildfire in forested peatlands may identify more cost effective management options relative to postponing actions. It is anticipated that costs associated with tree cover reduction in older wildfire zones will be magnitudes of order higher than young ones. Confirming the feasibility of tree reduction to meet desired objectives at a lower cost, smaller scale and earlier stage of growth would inform management decisions.

Innovation Element:

Ditch blocking and tree removal from drained peatlands are well known approaches to restore peatland function to damaged bogs across the globe. In this project we will take advantage of an accidental wildfire having “removed” the trees from a compromised peatland area. Prevention of tree canopy renewal from natural germination of the large pine seedbank on site is a novel approach to guiding the recovery of the site along an ecological trajectory that will promote the desired raised bog species on site.

Tangible Benefits and Outcomes:

This project will contribute to restoring desired ecological conditions on 37 ha of peatland affected by a wildfire within the Burns Bog Ecological Conservancy Area. In the process, research will contribute knowledge on peatland function and potential for long-term carbon benefits. Results will guide future management of other similarly affected peatlands across the region.

Members and other Partners:

- City of Delta
- Burns Bog Ecological Conservancy Area Scientific Advisory Panel
- UBC Micrometeorology Lab
- SFU Remote Sensing

To: Climate Action Committee

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

Date: January 22, 2021 Meeting Date: February 12, 2021

Subject: **Endorsement of Host Society for the Howe Sound Ocean Watch Action Committee**

RECOMMENDATION

That the MVRD Board endorse the Howe Sound Biosphere Region Initiative Society as the host society for the Ocean Watch Action Committee.

EXECUTIVE SUMMARY

At its January 2021 meeting, the Climate Action Committee directed staff to assess Metro Vancouver's potential involvement and representation on the Howe Sound Ocean Watch Action Committee. The Ocean Watch Action Committee brings together local elected officials and others to advance actions identified in the Ocean Wise Report - Ocean Watch Át'ka7tsem/Txwnéwu7ts/Howe Sound Edition 2020 (Reference 1). Metro Vancouver is the local government for Electoral Area A and participates in Howe Sound initiatives, including the Howe Sound Community Forum, primarily because portions of Electoral Area A are located in the Howe Sound region. The Howe Sound Community Forum recently recommended that local governments endorse the Howe Sound Biosphere Region Initiative Society as the host society for the Ocean Watch Action Committee. Several local governments around Howe Sound, including Bowen Island Municipality, the Village of Lions Bay, and District of West Vancouver, have endorsed this structure. Staff also recommend this structure as it relies on an existing society that is closely linked to ongoing work to protect the environment in Howe Sound and regularly provides updates to the Howe Sound Community Forum.

PURPOSE

To provide the Climate Action Committee and MVRD Board with the opportunity to consider endorsing the Howe Sound Biosphere Region Initiative Society as the host society for the Ocean Watch Action Committee.

BACKGROUND

At the January 15, 2021 Climate Action Committee, following a presentation by Ruth Simons, the Project Lead for the Howe Sound Biosphere Region Initiative Society, the Committee passed the following motion:

That the Climate Action Committee direct staff to report back on the Ocean Watch Action Committee at the February meeting, with an assessment of Metro Vancouver's potential involvement and representation.

This report provides an assessment of Metro Vancouver's involvement in Howe Sound initiatives and addresses the recommendation put forward by the Howe Sound Community Forum, of which Metro Vancouver is a member, that local governments endorse the Howe Sound Biosphere Region Initiative Society as the host society for the Ocean Watch Action Committee.

OCEAN WATCH ACTION COMMITTEE

The Ocean Watch Action Committee brings together elected officials, government staff, and advisors to advance government actions identified by the Ocean Wise Report - Ocean Watch Átl'ka7tsem/Txwnéwu7ts/Howe Sound Edition 2020 (Reference 1).

The report highlights seven key action areas:

1. **Research:** Increase knowledge of the local area and species through research.
2. **Protect and Restore:** Protect and restore marine species, habitats and ecosystem services.
3. **Educate and Engage:** Increase awareness and education and ensure consistent messaging on environmental issues.
4. **Legislation:** Drive high-level change using official channels (e.g., guideline, policy, bylaw) appropriate to the circumstances.
5. **Funding:** Financially support conservation actions and ensure stricter enforcement.
6. **Monitor:** Collect long-term data to identify trends, support decision making, and evaluate the outcome of actions taken.
7. **Greenhouse Gas Reductions:** Decrease greenhouse gas emissions and move towards zero carbon municipalities to align with recommended reductions in global greenhouse gas emissions.

The Ocean Watch Action Committee seeks to advance those actions and keep track of progress. The Howe Sound Biosphere Region Initiative Society is the coordinator and convener of this Committee.

METRO VANCOUVER INVOLVEMENT AND REPRESENTATION

Involvement in Howe Sound Initiatives

Metro Vancouver has been an active member of the Howe Sound Community Forum since 2002 and signed the latest version of the Forum's Principles for Cooperation in 2014 (Reference 2). It was through this forum that a request was made in late 2016 for Forum members to pass a resolution in support of the initiative to nominate Howe Sound as a UNESCO biosphere reserve.

In July 2017, the MVRD Board passed a resolution supporting the UNESCO biosphere reserve nomination in principle. The MVRD Board's support represented both regional and local support for the nomination, as the MVRD is the local government for Electoral Area A, a portion of which is located in Howe Sound. Prior to the MVRD Board's resolution, the councils of the member jurisdictions of Bowen Island Municipality, the Village of Lions Bay, and the District of West Vancouver had also passed resolutions in support of the nomination.

Involvement in the Ocean Watch Task Force and Action Committee

The Howe Sound Community Forum, of which Metro Vancouver is a member, supported the creation of the Ocean Watch Task Force in 2017 when the first edition of Howe Sound Ocean Watch report was published. Following the completion of the Howe Sound Ocean Watch Strategic Plan in 2019

(Reference 3), the Howe Sound Community Forum supported the Task Force becoming the Ocean Watch Action Committee to continue collective local government efforts to protect marine and coastal environments in the Sound. Additional background is provided in Attachment 1.

Metro Vancouver Electoral Area Services staff have regularly attended meetings of the Ocean Watch Task Force (now the Ocean Watch Action Committee), as portions of Electoral Area A are located in Howe Sound, and Metro Vancouver has local land use authority over these lands (e.g. zoning, building permit, official community plan). The Electoral Area A Director has received updates on the meetings and has also attended the most recent meeting of the Ocean Watch Action Committee.

Host Society for the Ocean Watch Action Committee

The Howe Sound Community Forum, of which Metro Vancouver and other Howe Sound local governments are members, recommended that the Howe Sound Biosphere Region Initiative Society serve as the host society for the Ocean Watch Action Committee. Bowen Island Municipality, the Village of Lions Bay, and District of West Vancouver, as well as several other local governments around Howe Sound, have recently endorsed this structure. Metro Vancouver staff also support this structure, as it relies on an existing society that is closely linked to ongoing work to protect the environment in Howe Sound and regularly provides updates to the Howe Sound Community Forum.

ALTERNATIVES

1. That the MVRD Board endorse the Howe Sound Biosphere Region Initiative Society as the host society for the Ocean Watch Action Committee.
2. That the Climate Action Committee receive for information the report dated January 22, 2021, titled “Endorsement of Host Society for the Howe Sound Ocean Watch Action Committee”, and provide alternate direction to staff.

FINANCIAL IMPLICATIONS

There are no financial implications associated with this report.

CONCLUSION

The ongoing work of the Howe Sound Community Forum, the Howe Sound Biosphere Region Initiative Society, and the Ocean Watch Action Committee broadly align with Metro Vancouver’s environmental, climate change, and reconciliation goals. Local governments from around Howe Sound, including three MVRD member municipalities (Bowen Island Municipality, the Village of Lions Bay, and District of West Vancouver) actively participate in this ongoing work and have endorsed the Howe Sound Biosphere Region Initiative Society as the host society for the Ocean Watch Action Committee. Metro Vancouver staff also support this structure, as it relies on an existing society that is closely linked to ongoing work to protect the environment in Howe Sound and regularly provides updates to the Howe Sound Community Forum, of which Metro Vancouver is a long-standing member. Staff recommend Alternative 1.

Attachment

1. Recommendation for Howe Sound Community Forum (HSCF) from Ocean Watch Action Committee (43472441)

References

1. [Ocean Wise Report - Ocean Watch Átl'ka7tsem/Txwnéwu7ts/Howe Sound Edition \(2020\)](#)
2. [Howe Sound Community Forum Principles for Cooperation \(signed 2014\)](#)
3. [Howe Sound Ocean Watch Strategic Plan \(2019\)](#)

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Recommendation for Howe Sound Community Forum (HSCF) from Ocean Watch Action Committee

1. Background
2. Three Recommendations
3. Suggested Council Resolution

1. Background:

In 2017 The Coastal Ocean Research Institute (Vancouver Aquarium), produced the Ocean Watch Howe Sound Report. This comprehensive report was a culmination of collaboration and engagement supported by the HSCF. It provided a snapshot assessment of the health of the Howe Sound marine area and action items to be taken in order to improve ocean health. The Howe Sound Community Forum members supported the creation of the Ocean Watch Task Force (OWTF) with a mandate as stated in the Terms of Reference (Nov. 2017) to:

- Identify which actions in the Ocean Watch: Howe Sound Action Plan are within the mandate and reach of member communities.
- Focus on the identifying selected actions by Local Governments for implementation and highlight potential actions that include policy integration and collaboration between member Local governments and First Nations;
- Contribute information on what action local governments and Squamish Nation are already undertaking toward the goals.
- Recommend a process through which the selected actions get done
- Complete its work within six months.

Local governments appointed staff and elected representatives to participate in task force meetings. The task force met approximately every six weeks and Co-Chair Trustee Stamford reported to the HSCF in May 2018. A request to extend the term of the Task Force was supported, the Terms of Reference updated (Jan. 2019). The deliverables were a) bring forward recommendations and processes to Howe Sound Community Forum members that target selected actions for local governments to achieve and b) report at the Howe Sound Community Forums on recommendations, timelines and progress to-date on the Action Plan.

An example of supported actions by local governments was funding and leadership of the Marine Reference Guide [Marine Reference Guide](#). This project is on track to complete in 2021.

Co-Chair Stamford reported on the [strategic plan](#) as part of the deliverable at the HSCF April 2019. The Task Force continued to meet regularly concluding with targeted selected actions for local governments to achieve. The final report and recommendations were presented by Co-Chair Doug Race at the HSCF October 2019 with the following recommendations:

1. A new Terms of Reference be developed by members of the Howe Sound Community Forum that defines a governance structure for a new Ocean Watch Task Force (or similar body) that provides for a more focused follow-up of the Strategic Plan actions, continues the role as Leadership Team for the Marine Reference Guide, and provides opportunities to advocate on marine issues on a regional basis;
2. This new Terms of Reference be developed in a ½ day workshop, tentatively hosted by the Town of Gibsons at a date to be determined (before the end of the year), with representation from Forum members and participating NGOs; and
3. Consideration be given to the provision of ongoing financial support to the Ocean Watch Task Force from Forum members to enable appropriate coordination of strategic actions.

In September 2020, Ocean Wise (formerly known as Vancouver Aquarium) undertook an update on action items and produced the [Howe Sound Ocean Watch 2020 Edition](#). New information and actions items will amend the Task Force strategic plan.

[The Howe Sound Biosphere Region Initiative Society](#) (HSBRIS), striving for Howe Sound to be designated a UNESCO Biosphere Region, has been an active participant in the Ocean Watch Task Force, along with David Suzuki Foundation and Ocean Wise representatives. HSBRIS convened the former members of the Ocean Watch Task Force, now the *Ocean Watch Action Committee* on October 4th. Full list of participants and copies of meeting minutes are available at www.howesoundbri.org.

It is acknowledged that continued collaboration, commitment and resourcing by local governments are important to fulfill the strategic plan, the completion and transition of ongoing management of the Marine Reference Guide.

2. Three recommendations:

The HSCF Members:

1. Support continued appointment and participation of staff and elected officials in a renewed Ocean Watch Action Committee, a working group and network of organizations dedicated to advancing governmental actions.
2. Agree to the Howe Sound Biosphere Region Initiative Society act as the host society for the network and committees.
3. Receive the Ocean Watch 2020 Edition and support the seven recommended actions.

3. Suggested local government resolution:

WHEREAS continued collaboration, commitment and resourcing by governments are important to advance local, regional and national actions to support ocean marine health in the Átl'ka7tsem/Howe Sound bioregion, be it resolved:

THAT the Ocean Wise Ocean Watch 2020 Edition and resulting Action Items be received;

AND THAT participation by *(insert gov't name)* representatives, *(title)* staff member(s) and *(insert elected representative title)* in the Ocean Watch Action Committee be supported in order to continue to advance identified recommended actions in the Ocean Wise Howe Sound Ocean Watch 2020 Edition.

AND THAT the Howe Sound Biosphere Region Initiative Society be recommended as host society for the Ocean Watch Action Committee.

To: MVRD Board of Directors

From: Chris Plagnol, Corporate Officer

Date: February 17, 2021 Meeting Date: February 26, 2021

Subject: **External Agency Appointment Process**

RECOMMENDATION

That the MVRD Board receive for information the report dated February 17, 2021, titled “External Agency Appointment Process”.

EXECUTIVE SUMMARY

Metro Vancouver follows different processes for the appointment of representatives to variety of committees or agencies depending on the category type. The first category is for standing committees, whose representatives are appointed by the Board Chair. In contrast, the second category is for external agencies, whose representatives are appointed by the Board, following various nomination procedures. Finally, the last category is advisory panels: public advisory panels appointed by the Board, or technical advisory panels appointed by staff.

PURPOSE

To bring forward information on the process to appoint representatives to external agencies.

BACKGROUND

At its meeting held January 29, 2021, the GVS&DD Board considered a report from the Solid Waste Management Plan Independent Consultation and Engagement Panel (the “Panel”), and discussion ensued on the composition of the Panel and how the appointments had been made. Staff were subsequently directed to bring back information on the overall external agency appointment process.

This report brings forward information on the appointment process in general for the Board’s consideration.

APPOINTMENT PROCESS

Appointments generally fall into three categories, as follows:

1. **Standing Committees** -- Representatives are appointed by the Board Chair.
2. **External Agencies** -- Representatives are appointed by the Board.
3. **Advisory Panels** -- Depending on the type of panel, representatives are appointed either by the Board or by staff.

The following describes the process associated with each of these appointment categories.

Board Standing Committees

Standing committees are constituted annually and work on a continuous basis, and are the most common type at Metro Vancouver. (Select committees are another type but rarely established and

none are active at Metro Vancouver as their purpose is on focused inquiries.) Examples of long-standing standing committees are the Water Committee or the Regional Planning Committee. Of the three appointment categories in this report, only this one is set out in statute: The *Local Government Act*, in section 218, empowers the Board Chair to establish standing committees and appoint members to them. The composition and other requirements are enshrined in each Committee's Terms of Reference pursuant to the Board Chair's directions. There are no criteria or methodology set out in the Act to guide the Board Chair in those appointments; and no external requirements can fetter the Board Chair's responsibility to do so.

External Agencies

External Agencies are bodies, usually but not always external, where representation by Metro Vancouver is required, requested or desired. Examples of external agencies are: Fraser Basin Council, Fraser Valley Library Board, Municipal Finance Authority, among others. Other more unique appointments are the Union of BC Municipalities (which is administered by election), or eComm (which requires a joint representation), or YVR Airport Authority or Vancouver Port Authority (which requires a more detailed nomination process and imposes term limits by Board policy).

In most cases, the appointment process is a simple nomination that is considered for approval by the Board. While the *Procedure Bylaw* is silent on this process, the current practice is consistent with standard rule authorities (such as Roberts Rules of Order). The Metro Vancouver practice has traditionally followed the "Nominations by the Chair" method. This method takes advantage of the Chair's knowledge and judgement, ensures that there is balance and fairness in the process across all nominations, similar to the process undertaken for standing committee appointments, and is efficient. The final appointment decision still rests with the Board in closed session, and then make public.

The Board's policy titled "External Agency Appointee Reporting Requirements" requires that appointees report twice annually to the Board with a summary of key activities of the agencies to which they have been appointed.

Advisory Panels

Advisory Panels, sometimes called advisory panels, generally fall into two types:

- (i) **Public Advisory Panels** are composed of a group of community members to provide advice to elected officials on Metro Vancouver's Committees or Boards on a variety of projects, processes or plans. These Panels are public facing bodies. As a result, there is an established Board policy titled "Public Advisory Committee" that sets out the appointment process. Pursuant to the Policy, each Panel will have a Terms of Reference, and members will undergo a nomination process and the final appointment will be made by the Board.
- (ii) **Technical Advisory Panels** are composed of individuals from other public or private agencies, including experts in relevant fields, to advise Metro Vancouver staff on complex or significant projects, processes or plans. As these Panels are very technical in nature, they are generally more internally focused. Selection of the panel members has traditionally rested with the Project Team but information updates can be brought to the relevant standing committee, as appropriate.

ALTERNATIVES

This is an information report. No alternatives are presented.

FINANCIAL IMPLICATIONS

Remuneration associated with appointments of elected officials to committees or external agencies and of public or technical panels is accounted for in the annual budget.

CONCLUSION



Metro Vancouver makes a number of appointments to standing committees, external agencies, and advisory panels. This reports provides background information on the different methods of how representatives are appointed.

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Attachment

Standing Committee, External Agency or Panel Appointment Process, February 10, 2021

Standing Committee, External Agency or Panel Appointment Process

Categories of Appointments		
1	<p>Standing Committees</p> <p>A standing committee is constituted annually and works on a continuous basis. The name of the committee is not always a good indicator, as the word “standing” is often omitted from the name; and confusingly, the name may include words like “task force” or even “board”. If they follow the process in LGA 218(2), regardless of the name, they are standing committees. These are the most common type of committee at Metro Vancouver. Example: <i>Water Committee, Federal Gas Tax Task Force, or Regional Economic Prosperity Management Board.</i></p> <p>Authority: LGA s218(2)</p>	 <p>Board Chair appoints</p>
2	<p>External Agencies</p> <p>External Agencies are agencies where representation by Metro Vancouver is required, requested or desired. In most cases, the appointment process is a simple nomination that is approved. In other cases, the nomination process and appointment criteria may be prescribed by the agency itself.</p> <p>Examples of external agencies are: <i>Fraser Valley Library Board, Municipal Finance Authority</i>, among others. Other more unique appointments are the <i>Union of BC Municipalities</i> (by election), or <i>eComm</i> (joint representation), or <i>YVR</i> or <i>Vancouver Port Authority</i> (a more involved nomination process).</p> <p>The name of this category may be a misnomer, as the appointment could be to an internally established Metro Vancouver agency, such as the <i>National Zero Waste Council</i> or even the <i>Agriculture Advisory Committee</i>.</p> <p>Authority: Standard procedural practice* (<i>see below</i>)</p>	
3	<p>Public Advisory Panels</p> <p>Public Advisory Panels (sometime called committees) are public-facing bodies whose purpose is to provide advice to Metro Vancouver elected officials on projects with complex or significant community impacts. Pursuant to Board Policy, the Public Advisory Panels comprise community members.</p> <p>Authority: Board Policy</p>	 <p>Staff appoints</p>
	<p>Technical Advisory Panels</p> <p>Technical Advisory Panels are internal to Metro Vancouver and exist to advise staff on complex or significant projects, processes or plans. Each panel may comprise staff from other agencies, including technical experts in relevant fields of study.</p> <p>Authority: Internal practice</p>	

*As a general rule, the names of all nominees for external agencies must be submitted to the board for approval. While the *Procedure Bylaw* is silent on this process, it is consistent with standard rule authorities (such as Roberts Rules of Order) which sets out various methods of appointments. The Metro Vancouver practice has traditionally followed the “Nominations by the Chair” method, which takes advantage of the Chair’s knowledge and judgement, and ensures balance and fairness in the process (similar to the process for standing committee appointments), and considers any appointment criteria imposed by the agency. The final appointment still rests with the Board.

February 17, 2021

To: MVRD Board of Directors

From: David Flaks, President, Regional Economic Prosperity Service

Date: February 17, 2021 Meeting Date: February 26, 2021

Subject: **Regional Economic Prosperity Service Update**

RECOMMENDATION

That the MVRD Board receive for information the report dated, February 17, 2021, titled “Regional Economic Prosperity Service Update”.

EXECUTIVE SUMMARY

In July 2019, the MVRD Board endorsed the Business Plan for the Regional Economic Prosperity Service. The attached presentation provides an overview of the key challenges the Metro Vancouver region is facing due to the transitioning global economy and outlines the important next steps to meet these challenges and best position Metro Vancouver as an economic region. In order to support these next steps, the Regional Economic Prosperity Service will engage in activities consistent with the business plan’s three core functions:

1. Foster Collaboration
2. Conduct Regional Data Collection and Research
3. Attract Investment

Staff have been meeting with stakeholders from across the region to better understand the opportunities and challenges for the Metro Vancouver economy and to identify the best approach for the service and these functions. Key themes emerging from these meetings include the value of the regional service in providing thought leadership, acting as a regional convener and providing one voice for regional strategic priorities.

PURPOSE

To provide an overview of the key economic challenges facing the Metro Vancouver region and highlight recent activities of the Regional Economic Prosperity Service based on the Metro Vancouver Regional Economic Prosperity Service Business Plan.

BACKGROUND

At its meeting held July 26, 2019, the MVRD Board of Directors endorsed the Business Plan for the Regional Economic Prosperity Service. The plan establishes the integral role the Regional Economic Prosperity Service will play in contributing to the “Metro Vancouver region realizing its full potential as a dynamic metropolitan economy that is attractive to new investment and enables local businesses and residents to thrive”. The activities of the service based on the business plan must position the Metro Vancouver region well, as it continues to transition from the production to the information-age economy and beyond.

A presentation will be provided to the Board at its meeting of February 26, 2021 to provide key information related to initial activities and themes for the Regional Economic Prosperity Service.

ALTERNATIVES

This is an information report. No alternatives are presented.

CONCLUSION

The Metro Vancouver region is facing many challenges and opportunities due to the transitioning global economy. In order to address these issues, the region must invest in people, catalyze innovation capacities, build demand-side capacity and increase global connectedness. In order to support these important next steps, Regional Economic Prosperity Service will engage in activities consistent with the business plan's three core functions by fostering collaboration, conducting regional data collection and research and attracting investment based on the key themes emerging as a result of meetings with stakeholders.

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To: MVRD Board of Directors

From: Chris Plagnol, Director / Corporate Officer, Board and Information Services
Sean Galloway, Director, Regional Planning and Electoral Area Services, Regional Planning and Housing Services

Date: February 4, 2021 Meeting Date: February 26, 2021

Subject: **Regional Growth Strategy Amendment Bylaw No. 1310 - Re-designating Regional Park Lands to Conservation and Recreation**

RECOMMENDATION

That the MVRD Board:

- a) receive for information the comments from the affected local governments and agencies as presented in the report dated February 4, 2021, titled “Regional Growth Strategy Amendment Bylaw No. 1310 - Re-designating Regional Park Lands to Conservation and Recreation”;
 - b) rescind third reading of *Metro Vancouver Regional District Regional Growth Strategy Amendment Bylaw No. 1310, 2020*;
 - c) amend *Metro Vancouver Regional District Regional Growth Strategy Amendment Bylaw No. 1310, 2020* as outlined in the report dated February 4, 2021, titled “Regional Growth Strategy Amendment Bylaw No. 1310 - Re-designating Regional Park Lands to Conservation and Recreation”;
 - d) give third reading of *Metro Vancouver Regional District Regional Growth Strategy Amendment Bylaw No. 1310, 2020*, as amended; and
 - e) pass, and adopt *Metro Vancouver Regional District Regional Growth Strategy Amendment Bylaw No. 1310, 2020* Bylaw No. 1310, 2020.
-

EXECUTIVE SUMMARY

At its October 2020 meeting, the MVRD Board initiated the amendment of the Regional Growth Strategy to augment the existing regional land use designations to Conservation and Recreation for lands currently used as regional park or greenway. To do so, the Board gave first, second and third reading of *MVRD Amending Bylaw 1310*, and referred it to affected local governments for comment.

The Cities of Coquitlam and White Rock, the Agricultural Land Commission, and the Squamish-Lillooet Regional District provided comments, expressing no objections. The District of North Vancouver requested the removal of 6 of the property interests, and the City of New Westminister requested the removal of 5 property interests from the Bylaw. Removing the lands, as requested, from the Bylaw will not affect Metro Vancouver’s statutory rights-of-way allowing the use of those lands for greenway purposes. It is recommended that the Amending Bylaw be further amended to remove the 11 properties.

PURPOSE

To provide the MVRD Board with a summary of comments received on *Metro Vancouver Regional District Regional Growth Strategy Amendment Bylaw No. 1310, 2020* (the “Amending Bylaw”), and to recommend amending the proposed Amending Bylaw to address concerns expressed by the District of North Vancouver staff and City of New Westminster staff, before adopting the proposed Amending Bylaw.

BACKGROUND

On October 30, 2020 the MVRD Board read *Metro Vancouver Regional District Regional Growth Strategy Amendment Bylaw No. 1310, 2020* (the “Amending Bylaw”), a first, second and third time and referred it to affected local governments for comment. The Amending Bylaw, a Type 3 minor amendment to *Metro Vancouver 2040: Shaping our Future (Metro 2040)*, the regional growth strategy, proposes to re-designate property interests that have been acquired by Metro Vancouver Regional Parks from their current regional land use designations of either Rural, General Urban, Industrial, or a combination of the above, to Conservation and Recreation. The Amending Bylaw presented at the October 2020 meeting included lands in the Cities of Coquitlam, Maple Ridge, New Westminster, Pitt Meadows and Surrey, the Districts of West Vancouver and North Vancouver, and Electoral Area A.

This report brings forward a summary of the comments received, and presents the Amending Bylaw to the Board for consideration.

METRO VANCOUVER REGIONAL DISTRICT BYLAW NO. 1310, 2020

Bylaw No. 1310, 2020 contains a series of regional land use designation changes to lands that have been acquired or secured by Metro Vancouver Regional Parks for use as parks or greenways. The majority of the property interests are owned outright by Metro Vancouver, while some are statutory rights-of-way granted for greenway use. Amending the regional land use designation for these properties to Conservation and Recreation in the regional growth strategy aligns with the intent to protect them in perpetuity and publicly reflect their use as park land or greenways. None of the proposed land use changes result in adjustments to the Urban Containment Boundary. The land use changes affect *Metro 2040's maps* numbered 2, 3, 4, 5, 6, 8, and 12. For efficiency, all of the re-designations have been bundled into the proposed Amending Bylaw.

NOTIFICATION AND ENGAGEMENT

Letters dated July 28, 2020, were mailed to the planning directors of the eight member jurisdictions with lands that are proposed to be re-designated by *Bylaw No. 1310, 2020* notifying them of the proposed amendment. Municipal staff were notified of the work to re-designate the property interests directly through Regional Planning’s Municipal Liaison Program and at the Regional Planning Advisory Committee meeting held on September 18, 2020. On October 30, 2020, the MVRD Board read the draft *Amending Bylaw No. 1310* a first, second and third time and referred the Bylaw out for notification and comment.

COMMENTS FROM AFFECTED LOCAL GOVERNMENTS AND OTHER AGENCIES

Metro Vancouver received six comment letters from affected local governments and agencies in response to the notification of the *Amending Bylaw* within the notification period. Letters were

received from the Agricultural Land Commission, the Squamish-Lillooet Regional District, City of Coquitlam, the City of White Rock, the City of New Westminster, and the District of North Vancouver (Attachment 2).

Squamish-Lillooet Regional District - staff comments from the Squamish-Lillooet Regional District acknowledged the importance of regional land use designations in regional planning, and noted support for the updates to provide clarity and consistency for public, member municipalities and adjacent local governments.

Agricultural Land Commission - the Agricultural Land Commission's comments expressed no objections to the proposed re-designation provided that the 3 property interests in the Pitt River Greenway that fall within the Agricultural Land Reserve continue to be used as natural parks with no improvements. The Agricultural Land Commission requested more information about the development plans for those three property interests, and that Metro Vancouver Regional Parks utilize the Ministry of Agriculture's *Guide to Edge Planning* when planning for the 16 property interests that are located immediately adjacent to the Agricultural Land Reserve boundary to avoid conflicts between park users and agricultural uses. Regional Parks staff will be following up directly with Agricultural Land Commission staff on this comment.

City of Coquitlam - the City of Coquitlam sent a letter by council resolution indicating that it had no objection to the Bylaw. In addition, the City requested continued consultation and collaboration with Metro Vancouver to assess how visitor volumes will be managed at Widgeon Marsh Regional Park and proposes a coordinated long-range visioning exercise for the Quarry Road corridor. Regional Parks staff will be following up directly with Coquitlam staff on this request.

City of White Rock - the City of White Rock Council adopted a resolution in support of the proposed Bylaw.

City of New Westminster - Comments received by City of New Westminster staff expressed concern over the five property interests below and requested that they be excluded from *Amending Bylaw No. 1310, 2020*:

	Regional Park or Greenway	PID	Current Regional Land Use Designation	Affected Land Area (ha)	Legal Description
1.	Brunette-Fraser Greenway	023-331-933	General Urban	0.2	Parcel 1 Suburban Blocks 1 & 2 District Lot 1 Group 1 Plan LMP25418
2.	Brunette-Fraser Greenway	000-838-845	General Urban	1.7	Lot 49 of Suburban Blocks 1 and 2 of District Lot 1 Group 1 NWD Plan 68484
3.	Brunette-Fraser Greenway	003-992-748	General Urban	0.04	Lot 39 Suburban Block 1 Plan 50141

	Regional Park or Greenway	PID	Current Regional Land Use Designation	Affected Land Area (ha)	Legal Description
4.	Brunette-Fraser Greenway	002-994-852	Industrial	0.1	Lot 2 Except: part Subdivided by Plan 66859, Suburban Block 8 Plan 59670
5.	Brunette-Fraser Greenway	002-994-810	Industrial	0.05	Lot 27, EXCEPT: Parcel 1 (SRW Plan LMP17276) Suburban Blocks 1 and 8 Plan 56085

These property interests are statutory rights-of-way which have been secured for the purposes of establishing the Brunette-Fraser Greenway, and are not owned by Metro Vancouver. City staff requested that the following five property interests be excluded from *Amending Bylaw No. 1310, 2020* given that: 1) negotiations are underway with a private property owner to enhance and expand the natural areas around the greenway related to parcels 1-3 above that will likely result in its realignment; and 2) the affected private property owners of parcels 4 and 5 above have not been consulted on the proposed re-designation.

In response to this request, Metro Vancouver staff have updated *Amending Bylaw No. 1310, 2020* by removing the above five property interests (Attachment 1). Regional Parks staff have no objections to the removal of these property interests from the Bylaw as it does not affect Metro Vancouver's statutory rights-of-way on the lands nor its ability to use those lands for greenways in perpetuity.

District of North Vancouver - Comments received from District of North Vancouver staff expressed concerns about the six property interests below, and also requested that they be excluded from the Amending Bylaw:

	Regional Park	PID	Current Regional Land Use Designation	Affected Land Area (ha)	Legal Description
1.	Capilano River	n/a	General Urban	0.2	Lot A Block 1 District Lot 764 Plan VR283 Plan 15239
2.	Capilano River	n/a	General Urban	0.03	Lot E Block 1 District Lot 764 Plan 15384 VR 399
3.	Capilano River	n/a	General Urban	0.1	Strata Plan of Lot D Block 1 District Lot 764 Plan VR460
4.	Seymour River Greenway	007-698-046	General Urban	0.2	Lot 9 District Lots 612 and 620 Plan 15038

These property interests are statutory rights-of-way which have been secured over time for the purposes of establishing greenways, and are not owned by Metro Vancouver. The affected private property owners of parcels 1-4 above have not been consulted on the proposed re-designation.

The District has also requested that the following two property interests, owned by the District, be excluded from *Amending Bylaw No. 1310* given that a possible realignment of the greenway may be considered in the future:

	Regional Park	PID	Current Land Use Designation	Affected Land Area (ha)	Legal Description
5.	Seymour River Greenway	007-698-020	General Urban	0.4	Lot 5 District Lot 612 and 620 Plan 15038
6.	Seymour River Greenway	007-698-038	General Urban	0.2	Lot 8, EXCEPT: part on SRW Plan 17782 District Lots 612 and 620 Plan 15038

In response to this request, Metro Vancouver staff have updated *Amending Bylaw No. 1310* by removing the above six property interests (Attachment 1). Regional Parks staff have no objections to the removal of these property interests from the Bylaw as it does not affect Metro Vancouver’s statutory rights-of-way on the lands nor its ability to use those lands for greenways in perpetuity.

Metro Vancouver staff have requested that when the District of North Vancouver and the City of New Westminster confirms the long term use of the adjacent lands, that updated Regional Context Statements be submitted, when appropriate, that re-designate these noted parcels to a Conservation and Recreation regional land use designation so that these lands can be protected consistent with other Regional Park and greenway lands.

AMENDED METRO VANCOUVER REGIONAL DISTRICT BYLAW NO. 1310, 2020

With the amendment to *Amending Bylaw No. 1310* to remove the 11 property interests listed above, the Bylaw will affect 61 separate property interests, and result in the addition of 128.3 hectares of land to the Conservation and Recreation regional land use designation. As the Amending Bylaw has already been given third reading by the MVRD Board at its October 2020 meeting, to further amend the Amending Bylaw to remove the 11 properties noted above, the Board must rescind third reading, amend the Amending Bylaw, as proposed, and re-read third reading before proceeding to consider final adoption.

ALTERNATIVES

1. That the MVRD Board:
 - a) receive for information the comments from the affected local governments and agencies as presented in the report dated February 4, 2021, titled “Regional Growth Strategy Amendment Bylaw No. 1310 - Re-designating Regional Park Lands to Conservation and Recreation”;
 - b) rescind third reading of *Metro Vancouver Regional District Regional Growth Strategy Amendment Bylaw No. 1310, 2020*;
 - c) amend *Metro Vancouver Regional District Regional Growth Strategy Amendment Bylaw No. 1310, 2020* as outlined in the report dated February 4, 2021, titled “Regional Growth Strategy Amendment Bylaw No. 1310 - Re-designating Regional Park Lands to Conservation and Recreation”;
 - d) give third reading of *Metro Vancouver Regional District Regional Growth Strategy Amendment Bylaw No. 1310, 2020*, as amended; and
 - e) pass, and adopt *Metro Vancouver Regional District Regional Growth Strategy Amendment Bylaw No. 1310, 2020* Bylaw No. 1310, 2020.

2. That the MVRD Board receive for information the report dated February 4, 2021, titled “Regional Growth Strategy Amendment Bylaw No. 1310 - Re-designating Regional Park Lands to Conservation and Recreation” and provide alternative direction to staff.

FINANCIAL IMPLICATIONS

If the MVRD Board chooses Alternative 1, the proposed *Bylaw No. 1310, 2020* will be adopted as amended, and revised mapping reflecting the amendment will be incorporated into an updated and consolidated version of the regional growth strategy. There are no financial implications to this report.

CONCLUSION

Metro Vancouver Regional Parks has been acquiring lands to add to the Regional Parks inventory and greenways networks for many years. On October 30, 2020 the MVRD Board read *Metro Vancouver Regional District Regional Growth Strategy Amendment Bylaw No. 1310, 2020* a first, second and third time and referred it to affected local governments for comment. Comment letters were received from the Cities of Coquitlam, White Rock, and New Westminister, the District of North Vancouver, the Agricultural Land Commission, and the Squamish-Lillooet Regional District. Staff from the District of North Vancouver requested that 6 property interests be removed, and City of New Westminister staff requested that 5 property interests be removed from the Bylaw. Metro Vancouver staff are supportive of the requests and have further amended the proposed *Amending Bylaw No. 1310, 2020* accordingly.

Amending Bylaw No. 1310, as amended, will re-designate 61 property interests acquired by Regional Parks to a Conservation and Recreation regional land use designation in *Metro 2040*. Many of these lands currently have the regional land use designation that existed at the time of acquisition, which does not reflect the current and foreseeable use of them as part of a regional park or greenway. For this reason, the *Metro 2040* amendment bylaw is being recommended by staff to help protect these lands and publicly reflect their intended use into the future.

Attachments

1. *Metro Vancouver Regional District Regional Growth Strategy Amendment Bylaw No. 1310, 2020* (with proposed amendments) (43250108)
2. Correspondence received from affected local governments and agencies regarding *Metro Vancouver Regional District Bylaw No. 1310, 2020* (43393073)

Reference

[Amending Metro Vancouver 2040: Shaping our Future to Re-designate Regional Parks Lands to Conservation and Recreation, Metro Vancouver Regional District Board October 9, 2020](#)

43357332

**METRO VANCOUVER REGIONAL DISTRICT
BYLAW NO. 1310, 2020
A Bylaw to Amend “Greater Vancouver Regional District Regional Growth Strategy
Bylaw Number 1136, 2010”**

WHEREAS:

- A. Metro Vancouver Regional District’s Board of Directors (the “Board”) adopted the “Greater Vancouver Regional District Growth Strategy Bylaw Number 1136, 2010” on July 29, 2011 (the “Regional Growth Strategy”);
- B. Metro Vancouver Regional District has acquired a number of properties in recent years for use as park land or greenways, and these lands currently have Rural, General Urban, or Industrial regional land use designations;
- C. The Board wishes to change the regional land use designations for these properties to Conservation and Recreation land use, and to amend the official regional land use designation maps in the Regional Growth Strategy to reflect these changes, so as to better protect these properties from development and to publicly reflect their use and designation as park land or greenways;
- D. In accordance with subsections 6.3.4 (c) and (d) of the Regional Growth Strategy, an amendment from an Industrial, General Urban, or Rural land use designation to a Conservation and Recreation land use designation is a Type 3 minor amendment; and
- E. Metro Vancouver Regional District wishes to amend “Greater Vancouver Regional District Regional Growth Strategy Bylaw Number 1136, 2010”;

NOW THEREFORE the Board of Metro Vancouver Regional District enacts as follows:

Citation

- 1. The official citation of this bylaw is “Metro Vancouver Regional District Regional Growth Strategy Amendment Bylaw No. 1310, 2020”. This bylaw may be cited as “Regional Growth Strategy Amendment Bylaw No. 1310, 2020”.

Schedules

- 2. The following Schedules are attached to and form part of this bylaw:
 - a) Schedule “A”, City of Coquitlam;
 - b) Schedule “B”, City of Maple Ridge;
 - c) Schedule “C”, Electoral Area A;
 - d) Schedule “D”, District of North Vancouver;
 - e) Schedule “E”, City of Pitt Meadows;
 - f) Schedule “F”, City of Surrey;
 - g) Schedule “G”, District of West Vancouver; and
 - h) Schedule “H”, Official Land Use Designation Maps 2, 3, 4, 5, 6, 8 and 12.

Amendment of Bylaw

3. The “Greater Vancouver Regional District Regional Growth Strategy Bylaw Number 1136, 2010” is hereby amended as follows:

- a) the regional land use designations for the lands described in the table below, which are located within the **City of Coquitlam** and shown in the maps contained in **Schedule “A”**, are changed to Conservation and Recreation;

Regional Park	PID	Current Land Use Designation	Affected Land Area (ha)	Legal Description
Minnekhada	007-568-444	Rural	15.7	Legal Subdivision 1 Section 21 Township 40 New Westminster District
Widgeon Marsh	007-603-860	Rural	7.8	Fractional Legal Subdivision 8 Section 27 Township 40 Except: North 5 Chains NWD
Widgeon Marsh	013-534-769	Rural	8.0	Parcel C (Explanatory Plan 5236) Legal Subdivision 13 Section 26 Township 40 New Westminster District

- b) the regional land use designations for the lands described in the table below, which are located within the **City of Maple Ridge** and shown in the maps contained in **Schedule “B”**, are changed to Conservation and Recreation;

Regional Park	PID	Current Land Use Designation	Affected Land Area (ha)	Legal Description
Blaney Bog	013-180-037	Rural	5.8	West Half Fractional Legal Subdivision 13 Section 35 Township 3 Range 5 West of the Seventh Meridian New Westminster District
Blaney Bog	013-180-088	Rural	4.2	South East Quarter Legal Subdivision 1 Section 3 Township 4 Range 5 West of the Seventh Meridian New Westminster District
Kanaka Creek	008-777-985	Conservation/ Recreation / General Urban - shared	0.1	Lot W Section 10 Township 12 NWD Plan 25329

Kanaka Creek	013-684-639	General Urban	0.9	Lot 1 Section 10 Township 12 New Westminster District Plan 80959
Kanaka Creek	013-684-647	General Urban	3.6	Lot 2 Section 10 Township 12 New Westminster District Plan 80959
Kanaka Creek	013-684-655	General Urban	4.7	Lot 3 Section 10 Township 12 New Westminster District Plan 80959
Kanaka Creek	028-736-621	General Urban	0.5	Parcel A of Lot 1 Section 10 Township 12 New Westminster District Plan 7759 Shown on Plan EPP15655
Kanaka Creek	009-720-103	Conservation/ Recreation / Rural - shared	0.3	Lot 1 Section 13 Township 12 NWD Plan 12524
Kanaka Creek	009-720-120	Conservation/ Recreation / Rural - shared	0.4	Lot 2 Except: part Subdivided by Plan 80313: Section 13 Township 12 NWD Plan 12524
Kanaka Creek	011-005-661	Conservation/ Recreation / Rural - shared	0.1	Lot "B" Except: Parcel "One" (Bylaw Plan 52044), Section 13 Township 12 NWD Plan 3880
Kanaka Creek	011-440-201	Rural	1.2	Lot 20 Section 18 Township 15 New Westminster District Plan 9809
Kanaka Creek	009-849-351	Conservation/ Recreation / Rural - shared	3.5	Lot 3 Section 17 Township 15 NWD Plan 13720

- c) the regional land use designation for the lands described in the table below, which are located within **Electoral Area A** and shown in the map contained in **Schedule "C"**, is changed to Conservation and Recreation;

Regional Park	PID	Current Land Use Designation	Affected Land Area (ha)	Legal Description
Pacific Spirit	025-244-281	General Urban	0.8	Parcel A (Plan LMP52617) District Lot 140 Group 1 Dedicated Road on NWD Plan 8693

- d) the regional land use designations for the lands described in the table below, which are located within the **District of North Vancouver** and shown in the maps contained in **Schedule “D”**, are changed to Conservation and Recreation;

Regional Park	PID	Current Land Use Designation	Affected Land Area (ha)	Legal Description
Capilano River	011-351-225	General Urban	2.3	Lot 1 (Explanatory Plan 10758), Except part in Plan 19183 Block 13 District Lots 601 and 607 Plan 4740
Thwaytes Landing	015-069-567	Conservation/ Recreation / Rural - shared	0.1	Lot E, Except part in Plan 2860, District Lot 871 Plan 996
Thwaytes Landing	015-069-575	Conservation/ Recreation / Rural - shared	0.2	Lot F, Except part in Plan 2860, District Lot 871 Plan 996
Thwaytes Landing	015-972-941	Conservation/ Recreation / Rural - shared	0.4	Block G (Reference Plan 418) District Lot 871 Group 1 NWD
Thwaytes Landing	013-379-747	Rural	0.1	Lot 1 District Lot 871 Plan 2860
Thwaytes Landing	013-379-755	Rural	0.1	Lot 2 District Lot 871 Plan 2860
Thwaytes Landing	013-379-763	Rural	0.1	Lot 3 District Lot 871 Plan 2860
Thwaytes Landing	013-379-771	Rural	0.04	Lot 5 District Lot 871 Plan 2860
Thwaytes Landing	013-379-780	Rural	0.02	Lot 6 District Lot 871 Plan 2860
Thwaytes Landing	013-379-798	Rural	0.1	Lot 4 District Lot 871 Plan 2860
Thwaytes Landing	013-379-801	Rural	0.03	Lot 7 District Lot 871 Plan 2860
Thwaytes Landing	013-379-810	Rural	0.02	Lot 8 District Lot 871 Plan 2860
Thwaytes Landing	013-379-828	Rural	0.02	Lot 9 District Lot 871 Plan 2860
Thwaytes Landing	013-379-836	Rural	0.03	Lot 10 District Lot 871 Plan 2860
Thwaytes Landing	013-379-844	Rural	0.02	Lot 11 District Lot 871 Plan 2860
Thwaytes Landing	013-379-852	Rural	0.04	Lot 12 District Lot 871 Plan 2860

Thwaytes Landing	013-379-879	Rural	0.02	Lot 13 District Lot 871 Plan 2860
Thwaytes Landing	013-379-887	Rural	0.03	Lot 14 District Lot 871 Plan 2860
Thwaytes Landing	013-379-895	Rural	0.03	Lot 15 District Lot 871 Plan 2860

- e) the regional land use designations for the lands described in the table below, which are located within the **City of Pitt Meadows** and shown in the maps contained in **Schedule “E”**, are changed to Conservation and Recreation;

Regional Park	PID	Current Land Use Designation	Affected Land Area (ha)	Legal Description
Codd Wetland	013-557-009	Rural	15.5	Legal Subdivision 3 Section 7 Township 42 New Westminster District
Codd Wetland	013-557-084	Rural	14.5	Legal Subdivision 4 Section 7 Township 42 New Westminster District
Codd Wetland	013-557-157	Rural	15.9	Legal Subdivision 6 Section 7 Township 42 New Westminster District
Codd Wetland	013-557-220	Rural	7.9	East Half Legal Subdivision 5 Section 7 Township 42 New Westminster District
Pitt River Greenway	013-182-048	General Urban	0.1	Parcel B (Reference Plan 3141) Section 16 Block 6 North Range 1 East NWD
Pitt River Greenway	013-182-242	General Urban	0.6	Parcel C (Reference Plan 3141) Section 16 Block 6 North Range 1 East NWD
Pitt River Greenway	013-182-480	General Urban	0.6	Parcel K (Plan with fee deposited 14731F) Sections 16 and 21 Block 6 North Range 1 East NWD
Pitt River Greenway	013-182-684	General Urban	0.4	Parcel One (Reference Plan 17385) of Parcel A (Reference Plan 3141) Section 16 Block 6 North Range 1 East NWD
Pitt River Greenway	013-183-249	General Urban	0.2	Parcel One (394034E) of Parcel A (Reference Plan 3142) Sections 21 and 22 Block 6 North Range 1 East NWD
Pitt River Greenway	026-559-552	General Urban	0.2	Lot 2 Section 16 Block 6 North Range 1 East New Westminster District Plan BCP21881
Pitt River Greenway	012-328-081	General Urban	0.3	Lot 1 Section 5 Block 5 North Range 1 East New Westminster District Plan 1735
Pitt River Greenway	012-328-103	General Urban	0.3	Lot 2 Section 5 Block 5 North Range 1 East New Westminster District Plan 1735
Pitt River Greenway	012-328-120	General Urban	0.3	Lot 3 Section 5 Block 5 North Range 1 East New Westminster District Plan 1735

Pitt River Greenway	012-328-138	General Urban	0.2	Lot 4 Section 5 Block 5 North Range 1 East New Westminster District Plan 1735
Pitt River Greenway	012-328-146	General Urban	0.2	Lot 5 Section 5 Block 5 North Range 1 East New Westminster District Plan 1735
Pitt River Greenway	012-328-162	General Urban	0.3	Lot 6 Section 5 Block 5 North Range 1 East New Westminster District Plan 1735
Pitt River Greenway	012-328-189	General Urban	0.3	Lot 7 Section 5 Block 5 North Range 1 East New Westminster District Plan 1735
Pitt River Greenway	029-328-201	General Urban	0.3	Lot 8 Section 5 Block 5 North Range 1 East New Westminster District Plan 1735
Pitt River Greenway	029-960-584	General Urban	0.6	That part of Lot 2 section 5 Block 5 North Range 1 East New Westminster District Plan 6896 shown as Parcel A on Plan EPP63656
Pitt River Greenway	013-180-762	General Urban	0.5	Parcel B (Reference Plan 8609) South Half of the South Half Section 4 Block 5 North Range 1 East NWD
Pitt River Greenway	013-180-789	General Urban	2.1	Parcel "G" (Reference Plan 8610) Section 9 Block 5 North Range 1 East NWD

- f) the regional land use designations for the lands described in the table below, which are located within the **City of Surrey** and shown in the maps contained in **Schedule "F"**, are changed to Conservation and Recreation;

Regional Park	PID	Current Land Use Designation	Calculated Area (ha)	Legal Description
Tynehead	001-798-537	General Urban	0.3	Lot 2 Section 36 Block 5 North Range 1 West NWD Plan 10372
Tynehead	009-351-540	General Urban	0.3	Lot 1 Except: Parcel A (Explanatory Plan 15319) Section 36 Block 5 North Range 1 West NWD Plan 10372
Tynehead	029-063-817	General Urban	0.2	Lot 1 Sections 6 and 31 Townships 8 and 9 New Westminster District Plan BCP51988
Tynehead	029-063-817	General Urban	1.0	Lot 1 Sections 6 and 31 Townships 8 and 9 New Westminster District Plan BCP51989

- g) the regional land use designations for the lands described in the table below, which are located within the **District of West Vancouver** and shown in the map contained in **Schedule “G”**, are changed to Conservation and Recreation; and

Regional Park	PID	Current Land Use Designation	Calculated Area (ha)	Legal Description
Capilano River	n/a	General Urban	3.9	That part of the Bed of the Capilano River and Block B of District Lot 6927 all of Group 1, NWD

- h) the official regional land use designation maps numbered 2, 3, 4, 5, 6, 8 and 12 be revised, as shown in the maps contained in Schedule “H”, to record the changes in regional land use designations.

Read a first time this 30 day of October, 2020.

Read a second time this 30 day of October, 2020.

Read a third time this 30 day of October, 2020.

Third reading rescinded this _____ day of _____, _____.

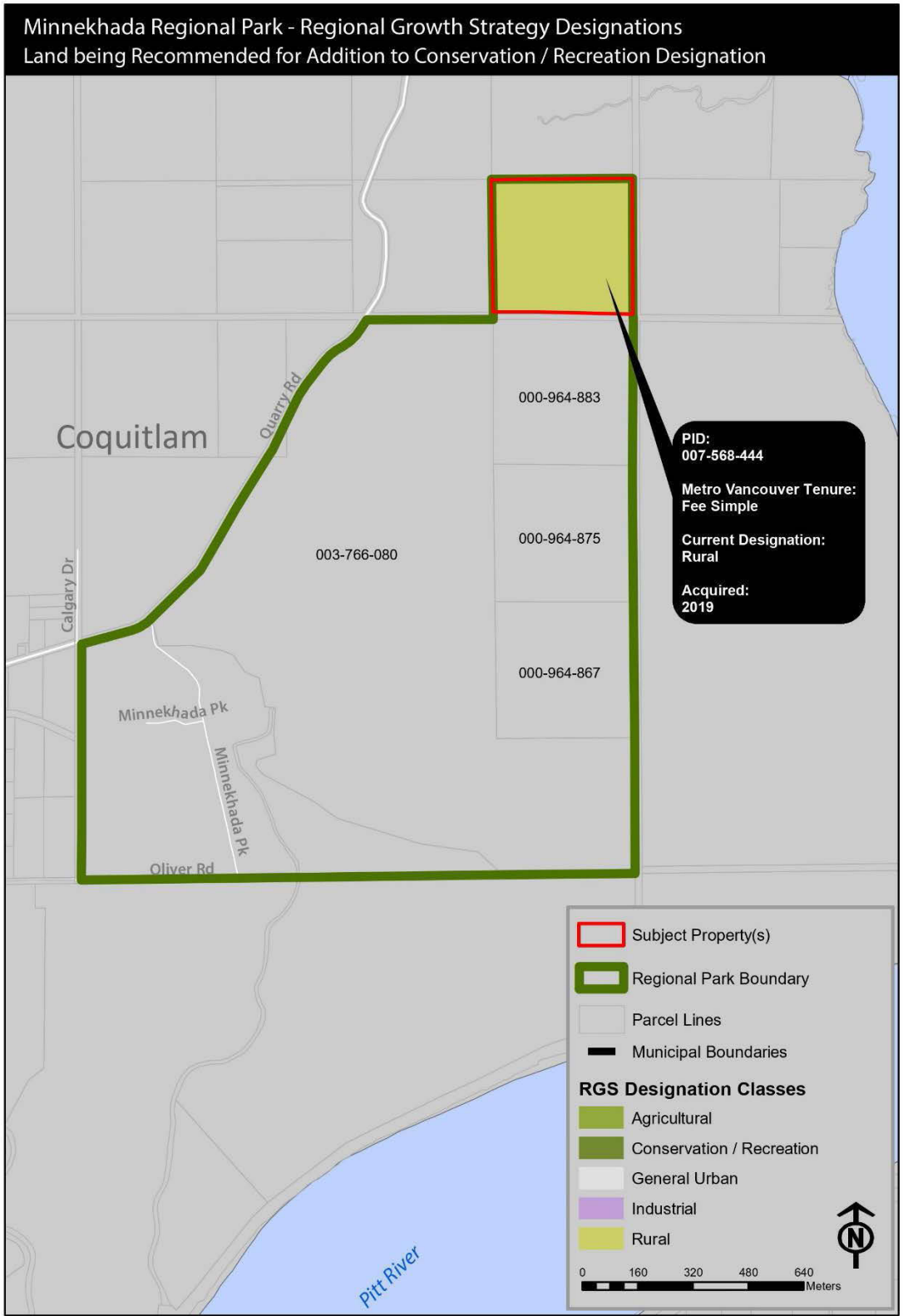
Read a third time as amended this _____ day of _____, _____.

Passed and finally adopted this _____ day of _____, _____.

Sav Dhaliwal, Chair

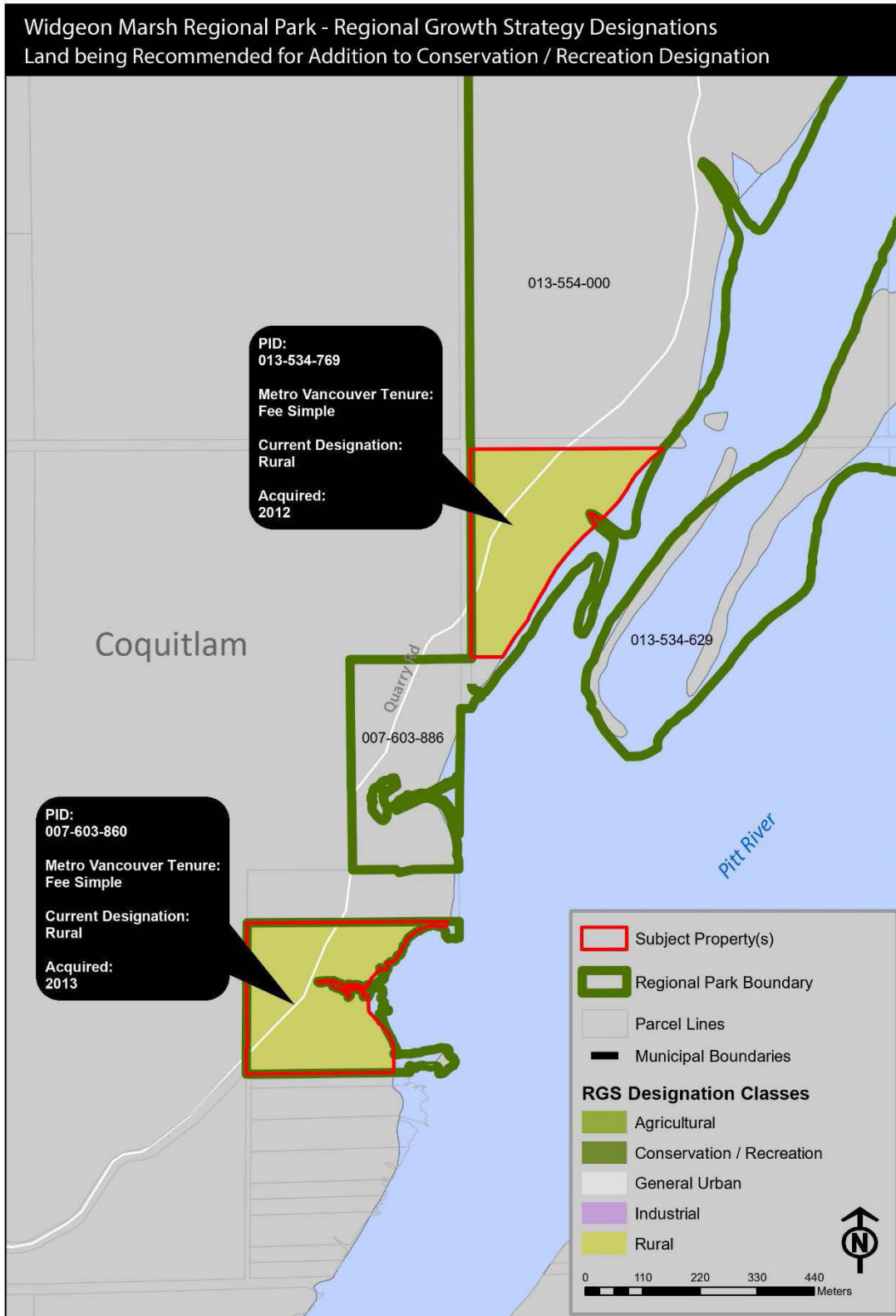
Chris Plagnol, Corporate Officer

City of Coquitlam

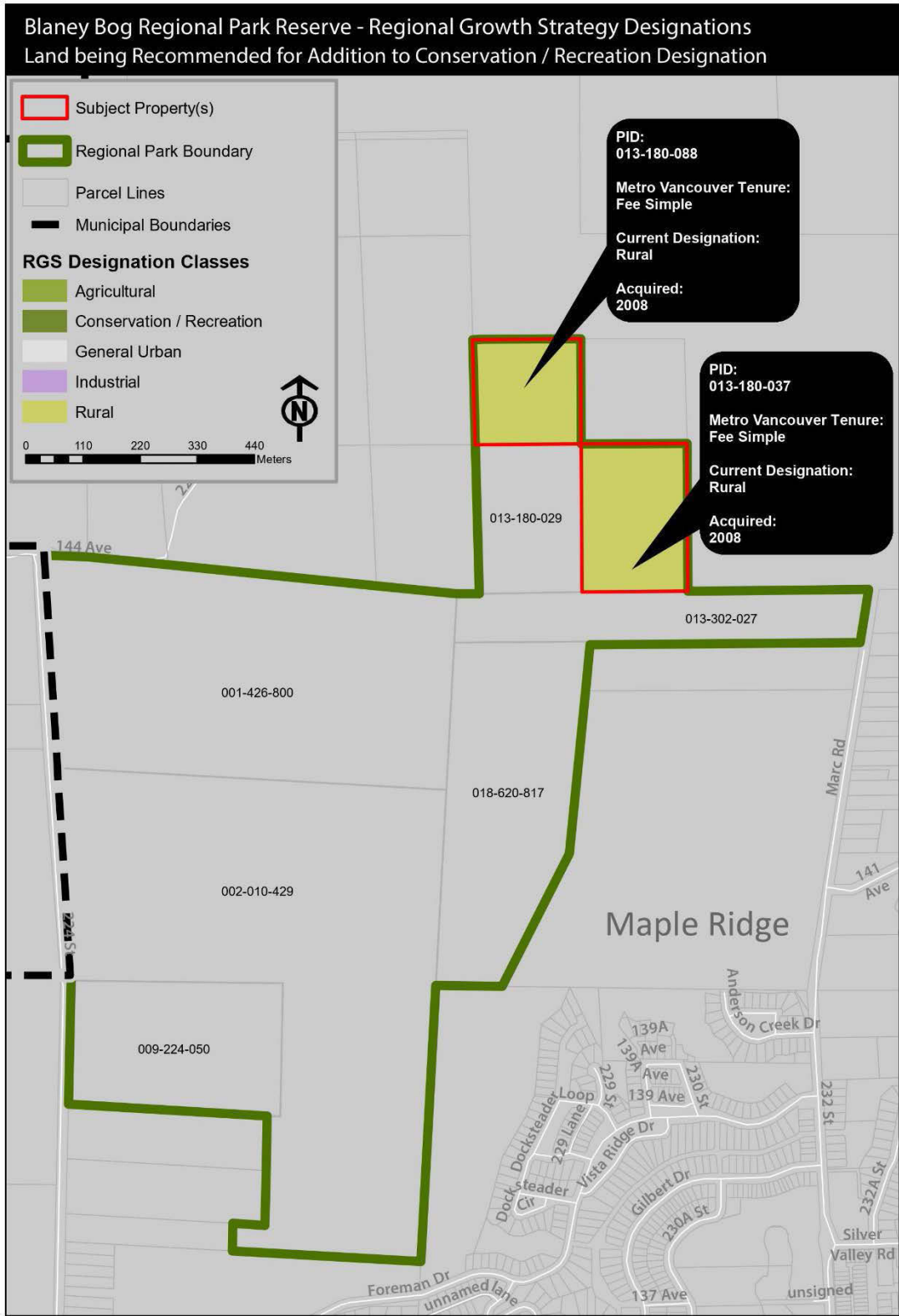


September 2020

City of Coquitlam

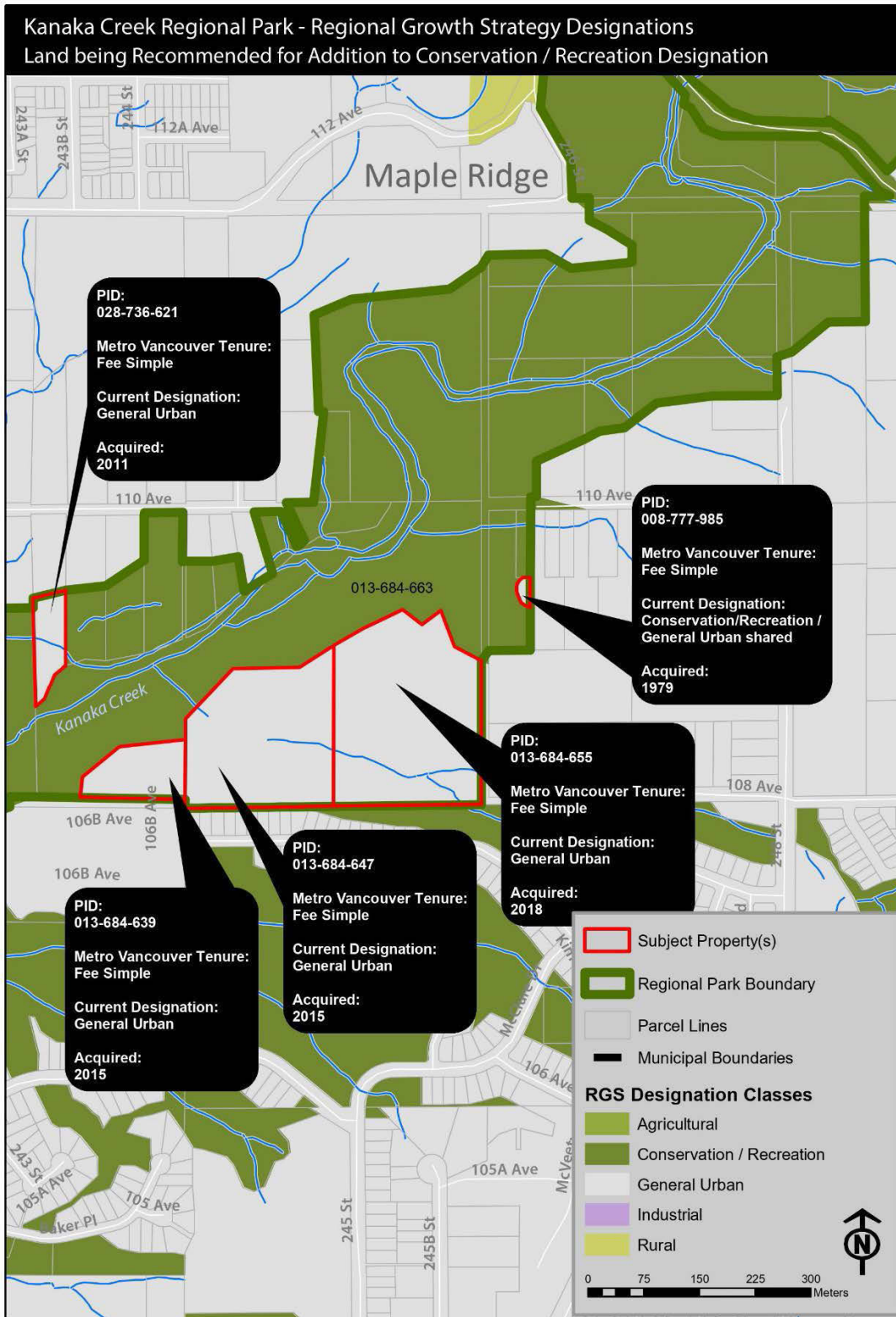


City of Maple Ridge



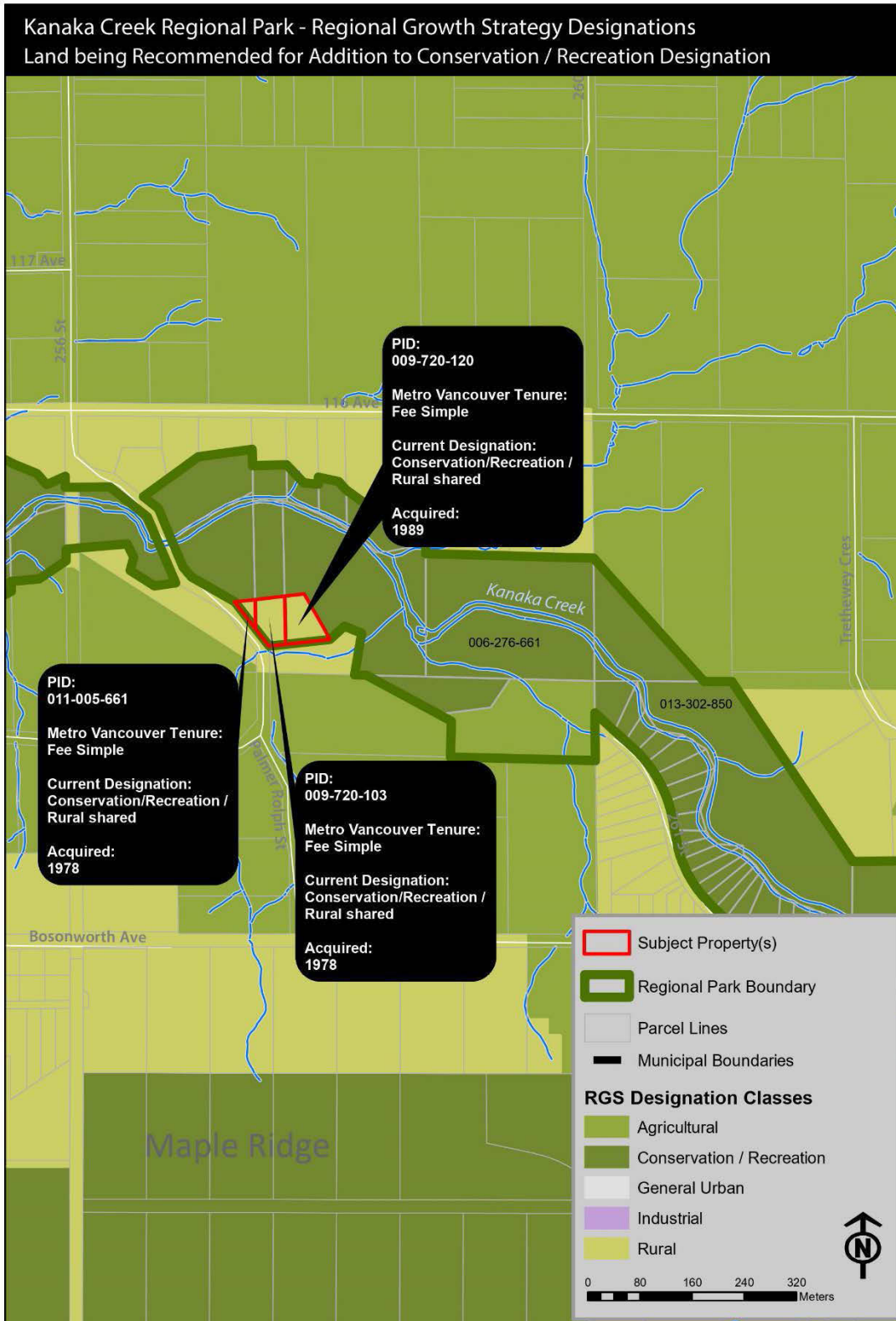
September 2020

City of Maple Ridge



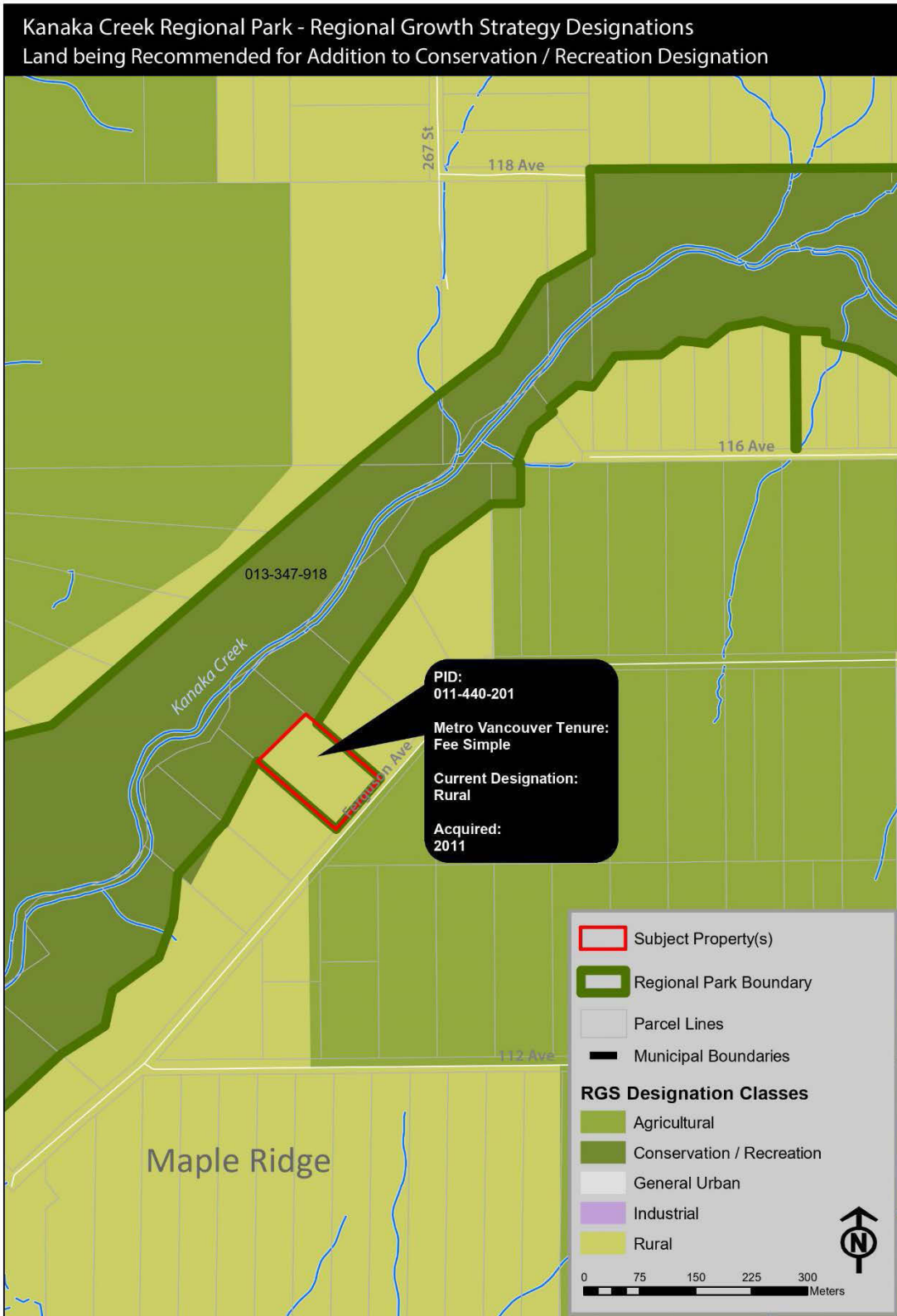
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City of Maple Ridge

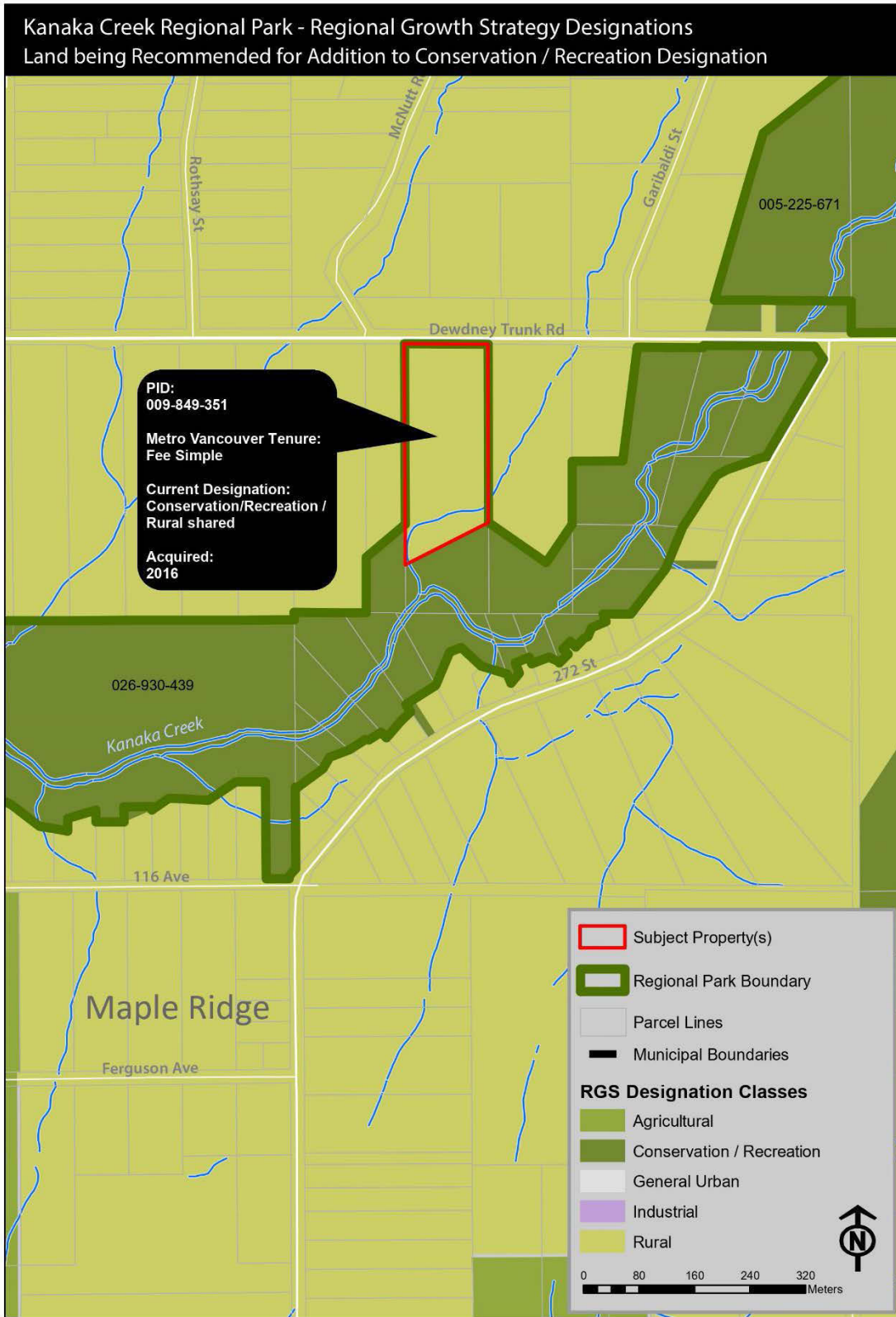


September 2020

City of Maple Ridge



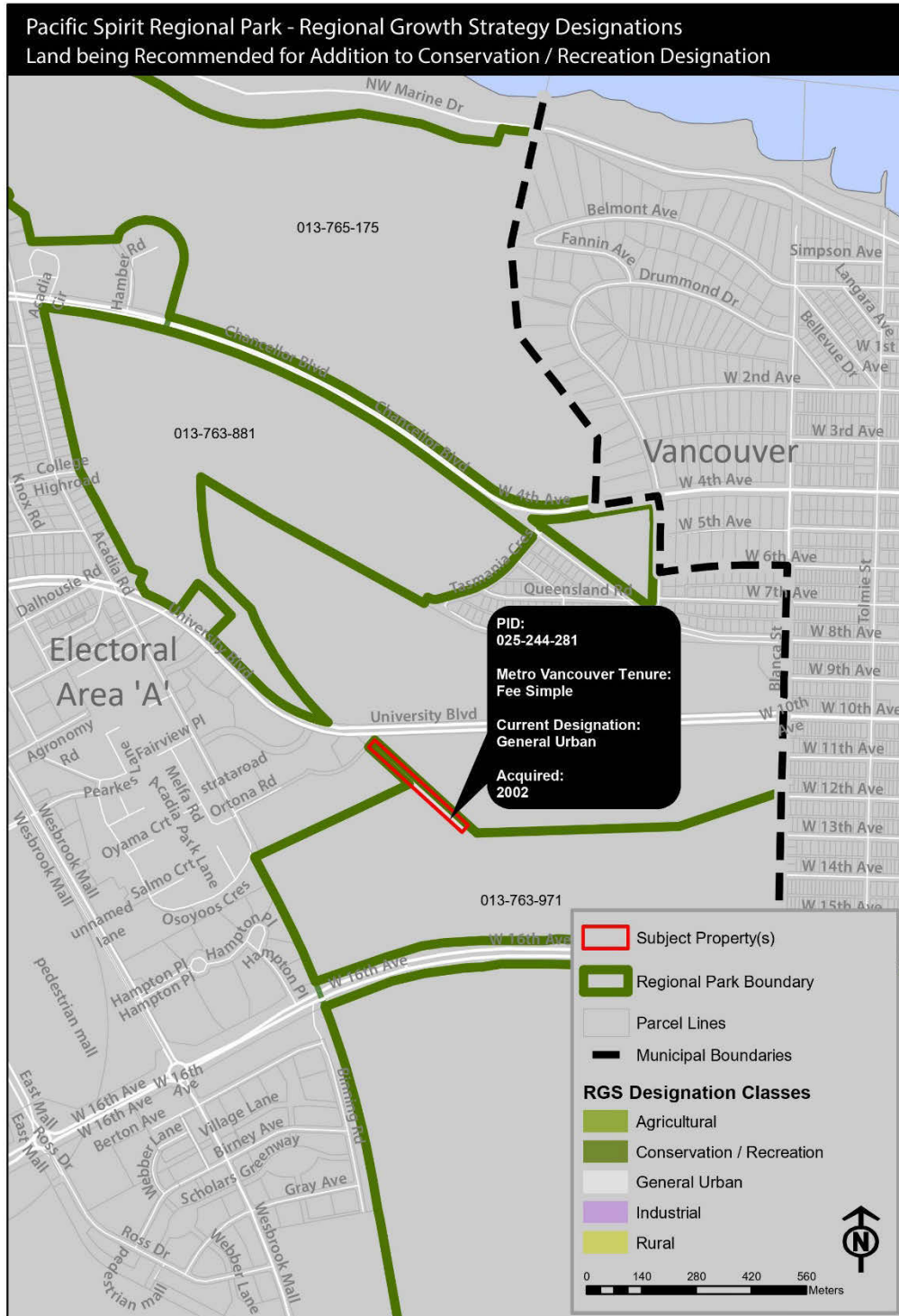
City of Maple Ridge



September 2020

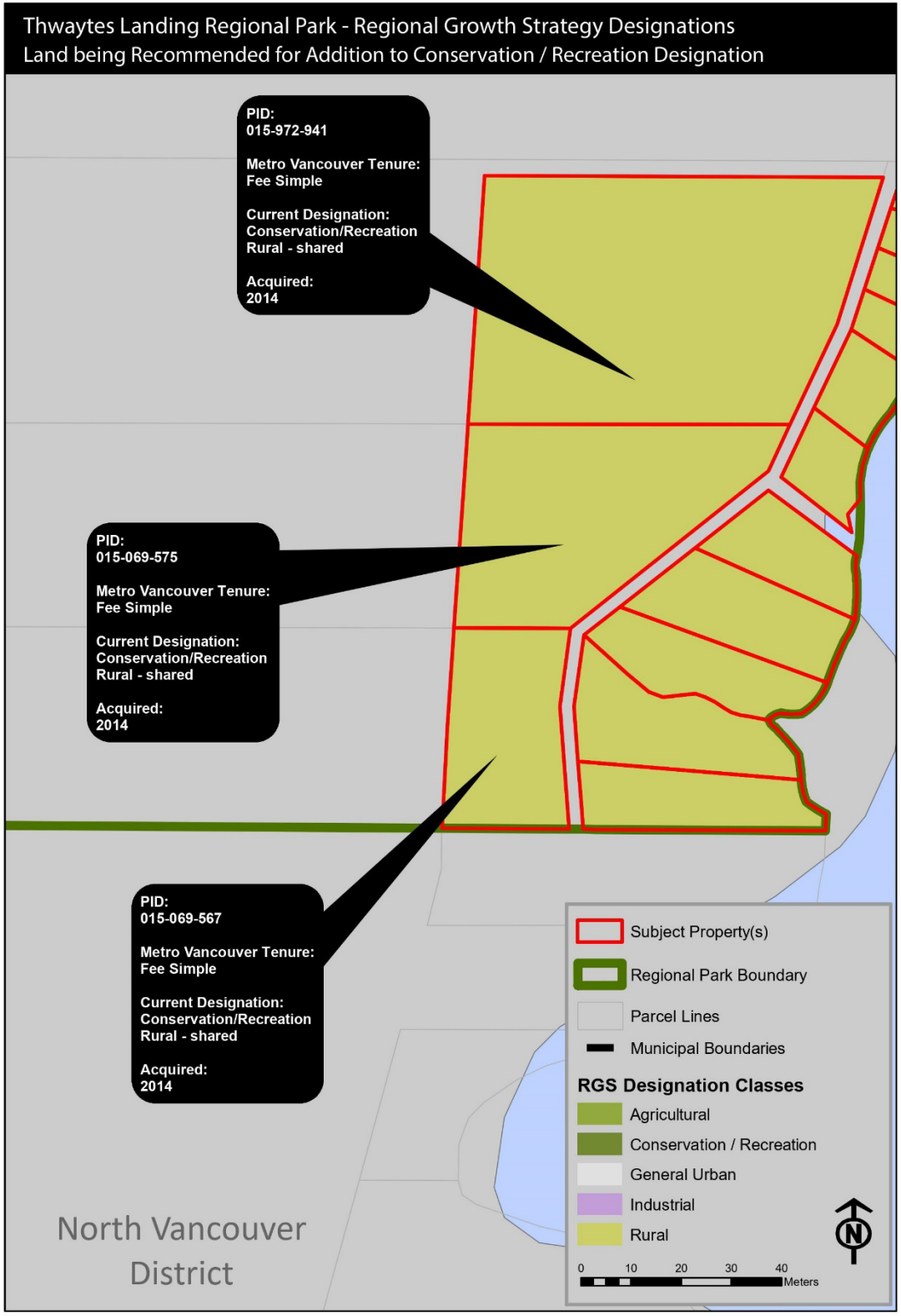
Schedule C

Electoral Area A

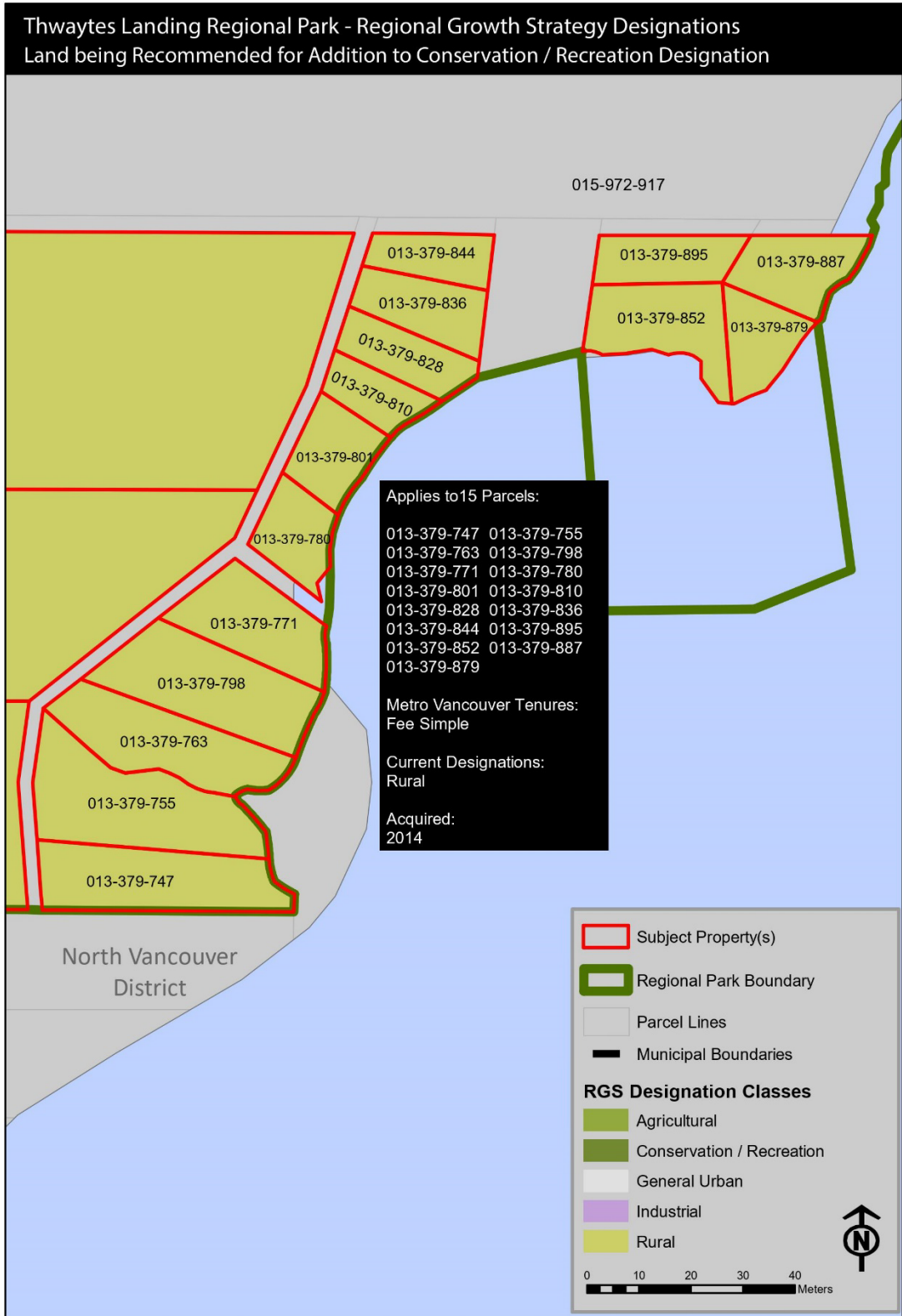


September 2020

District of North Vancouver

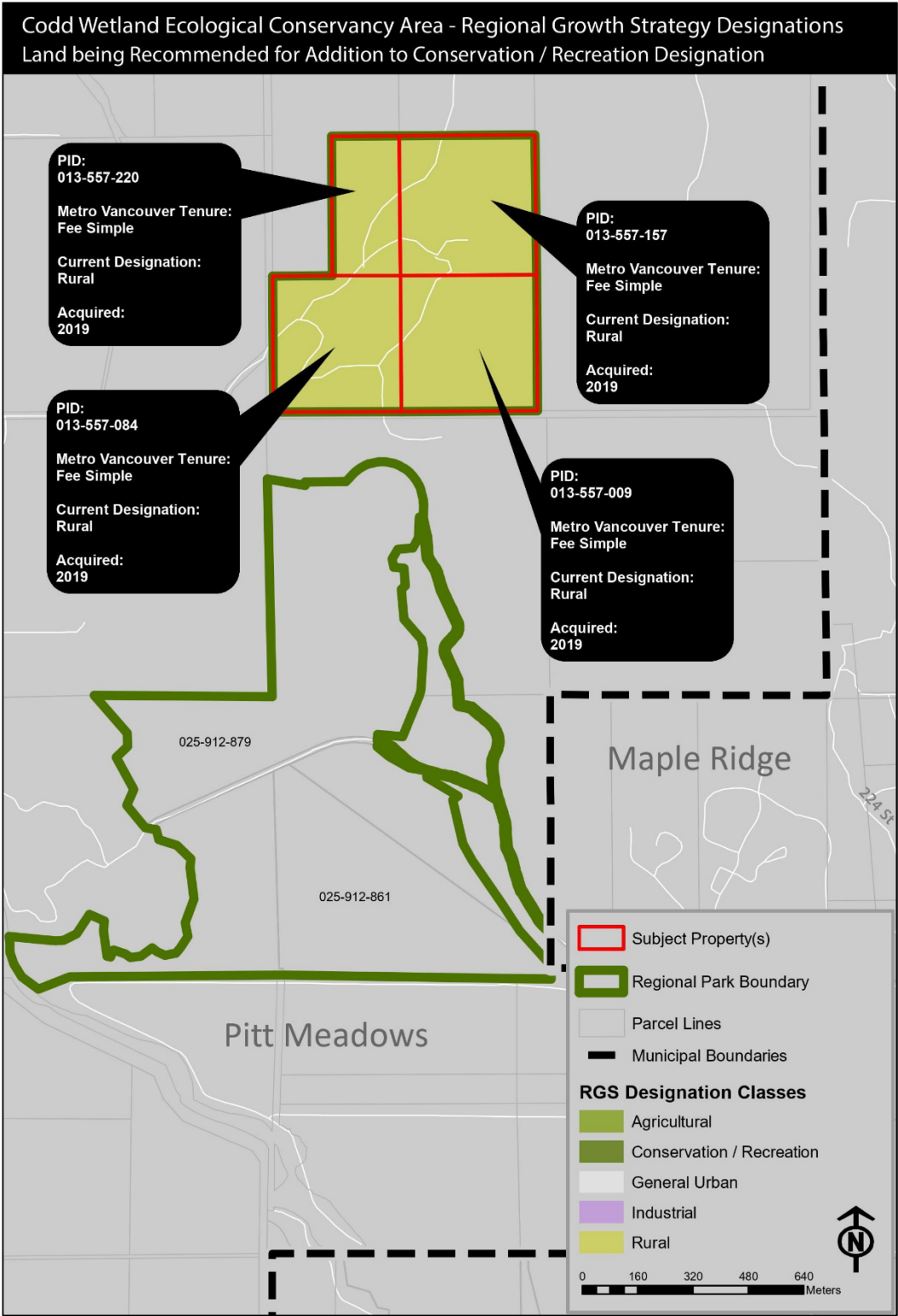


District of North Vancouver



Schedule E (1)

City of Pitt Meadows

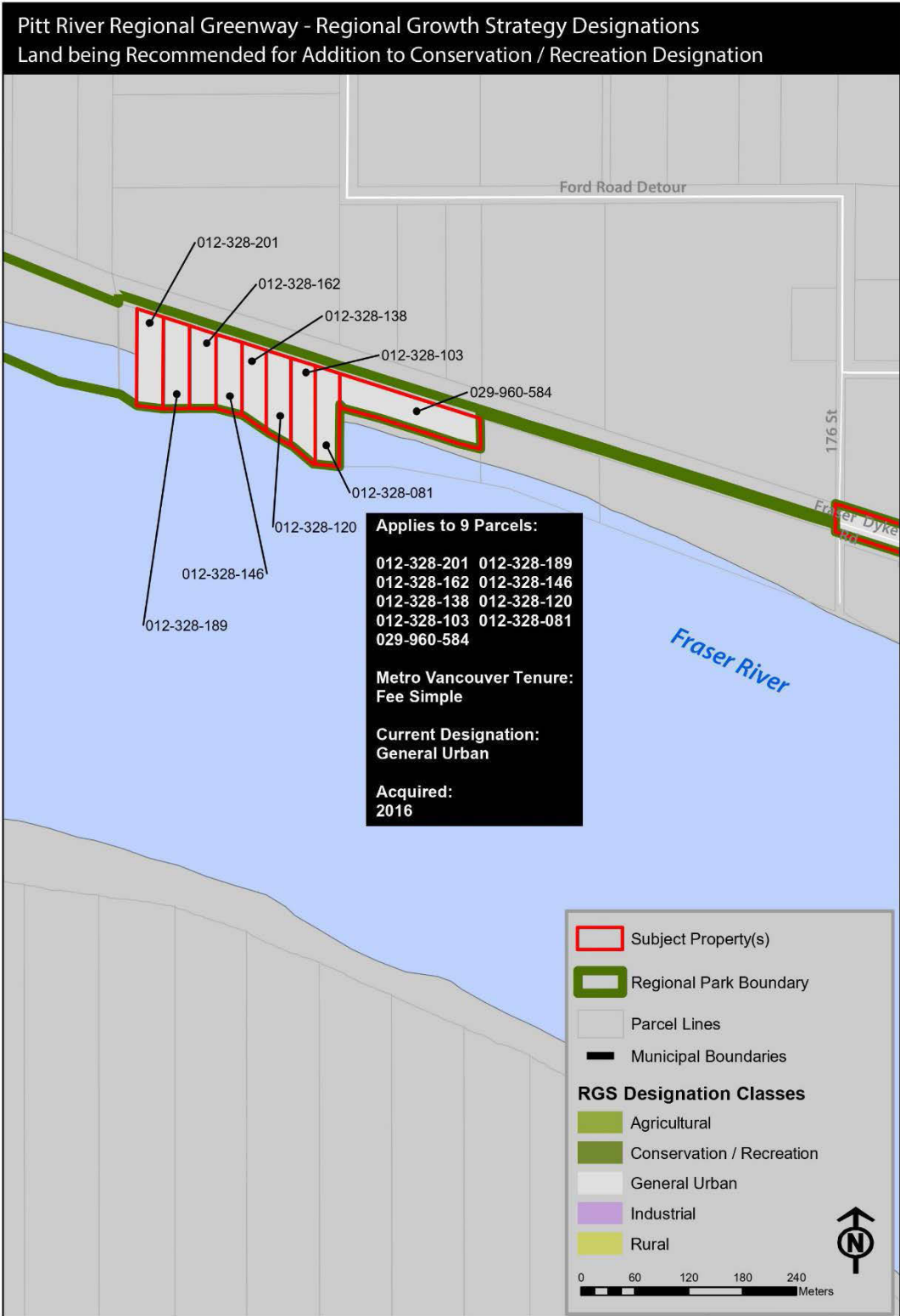


City of Pitt Meadows

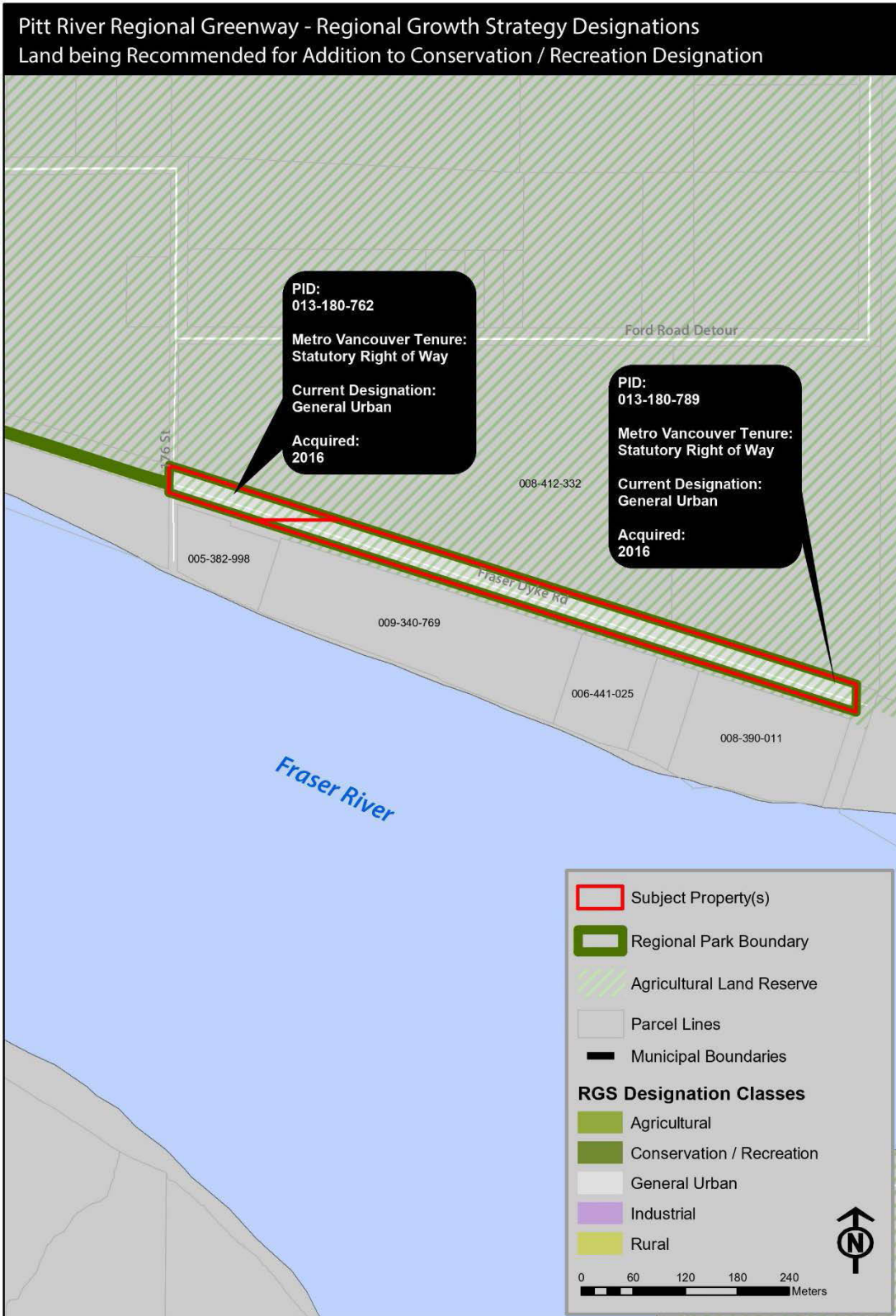


September 2020

City of Pitt Meadows



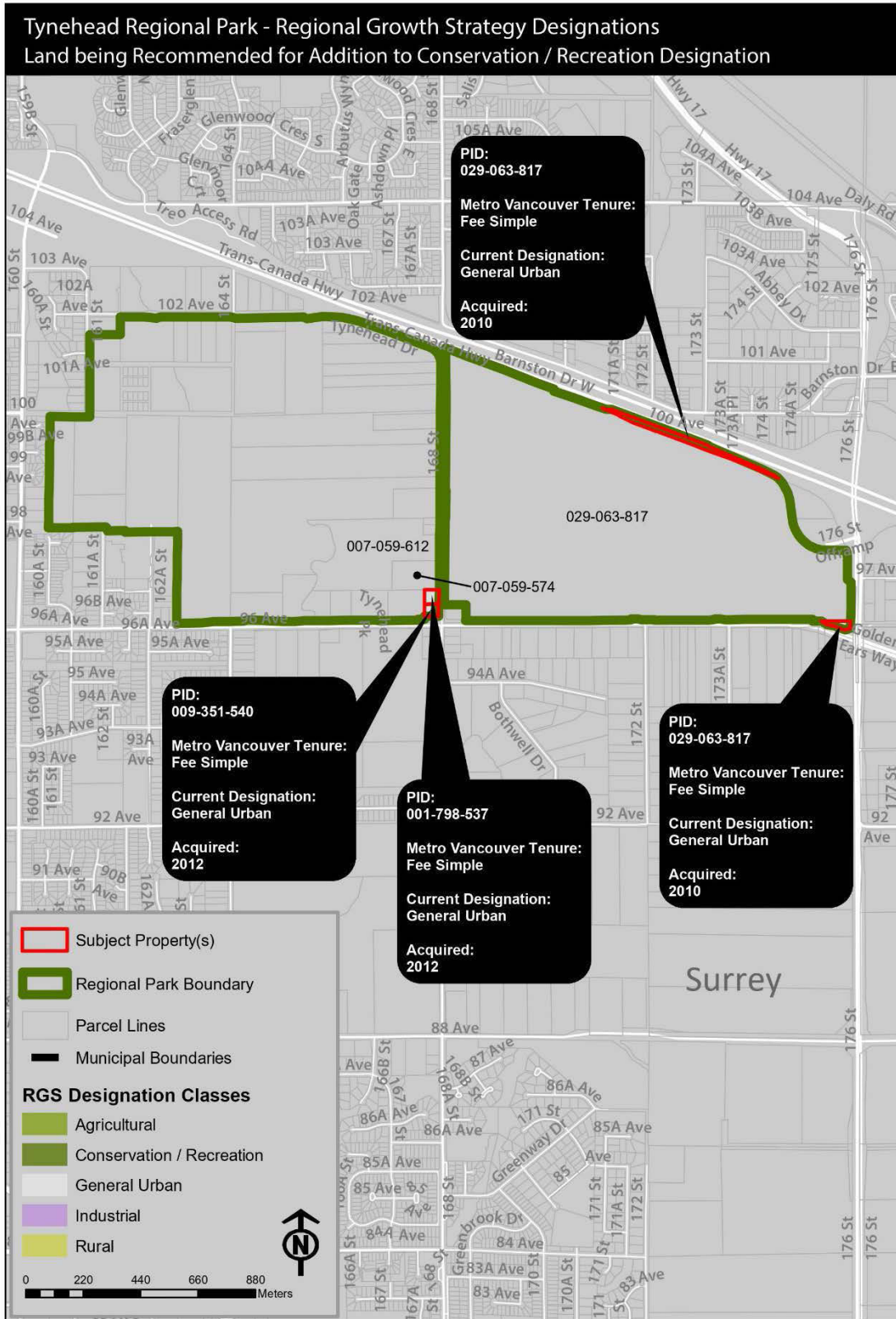
City of Pitt Meadows



September 2020

Schedule F

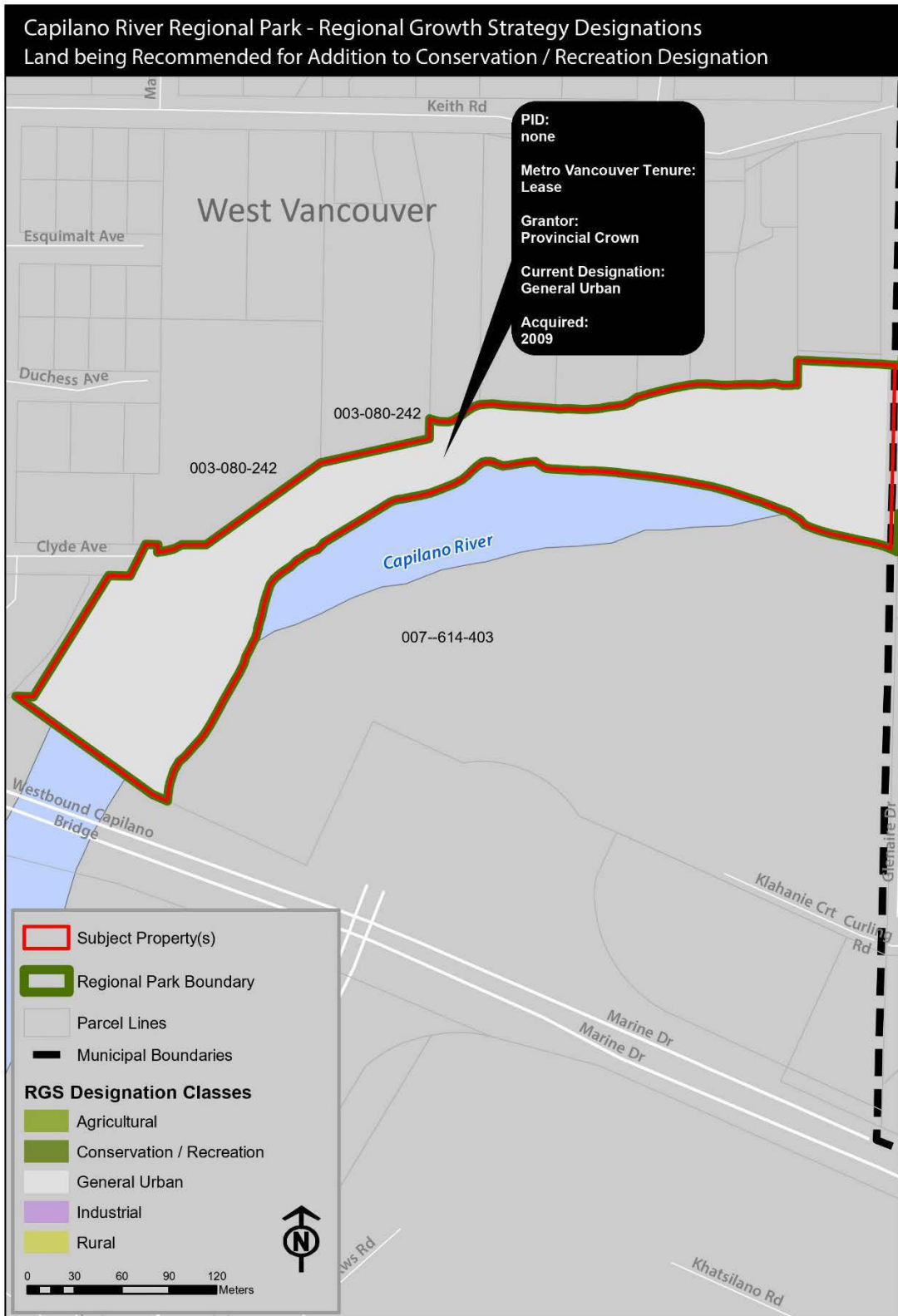
City of Surrey



September 2020

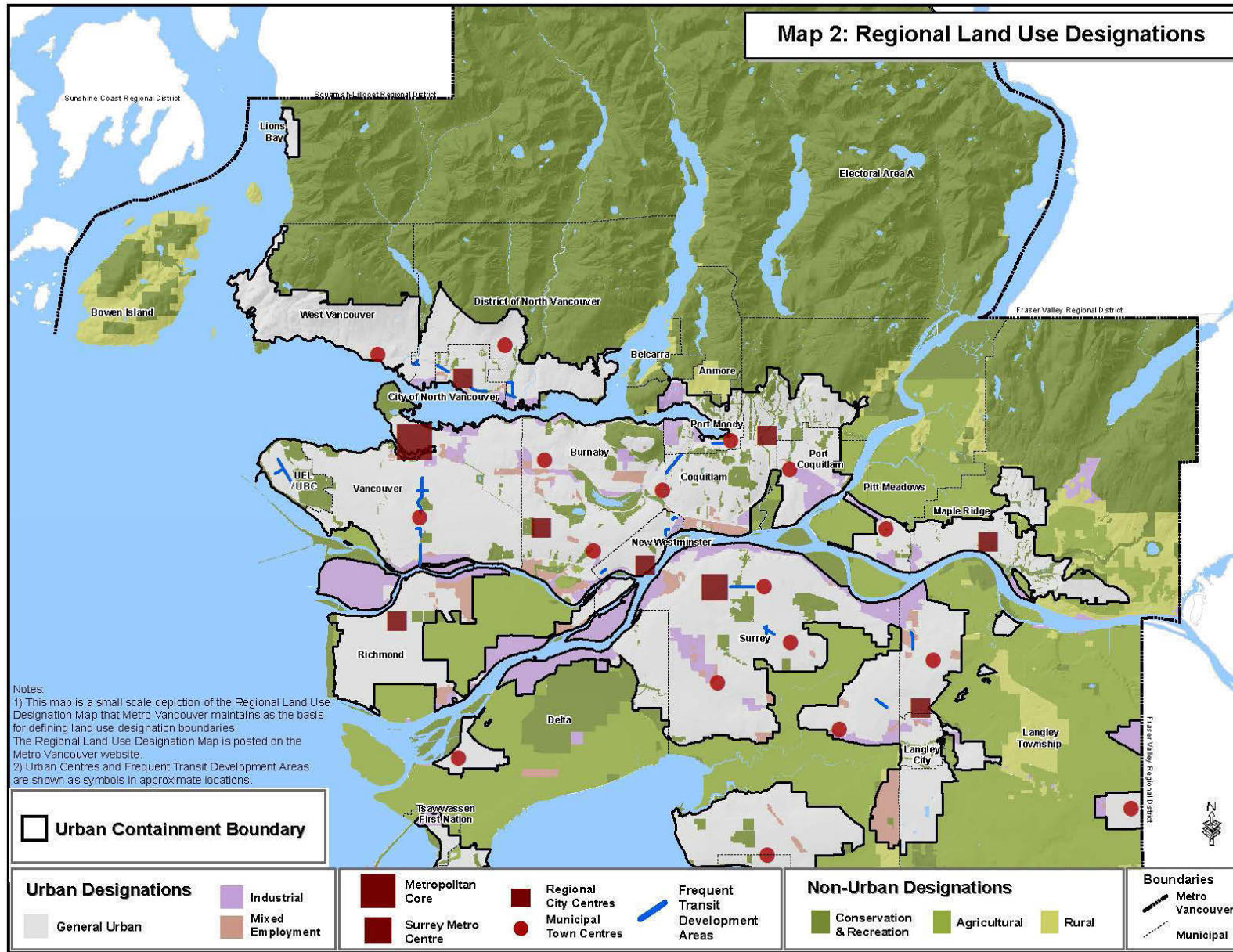
Schedule G

District of West Vancouver

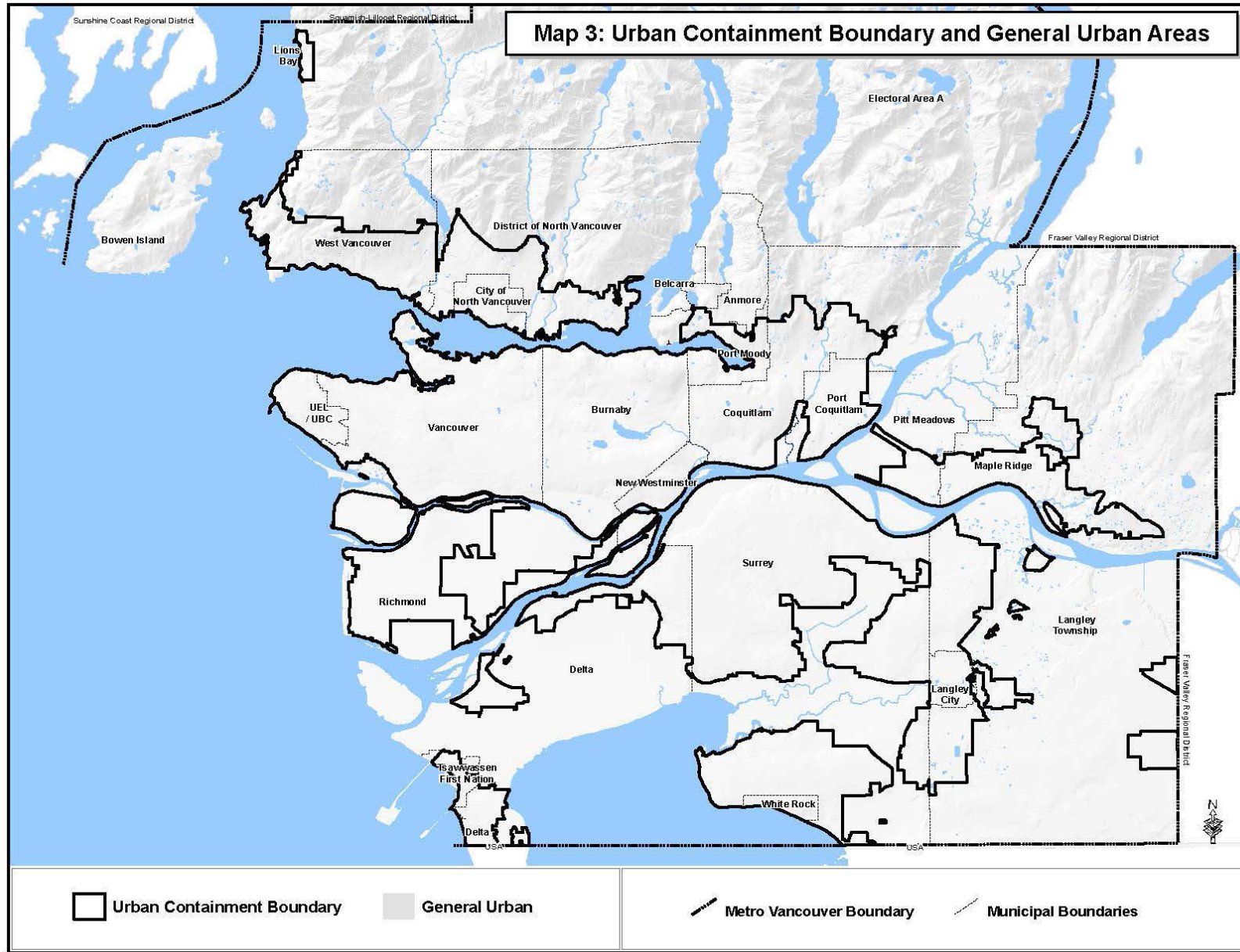


September 2020

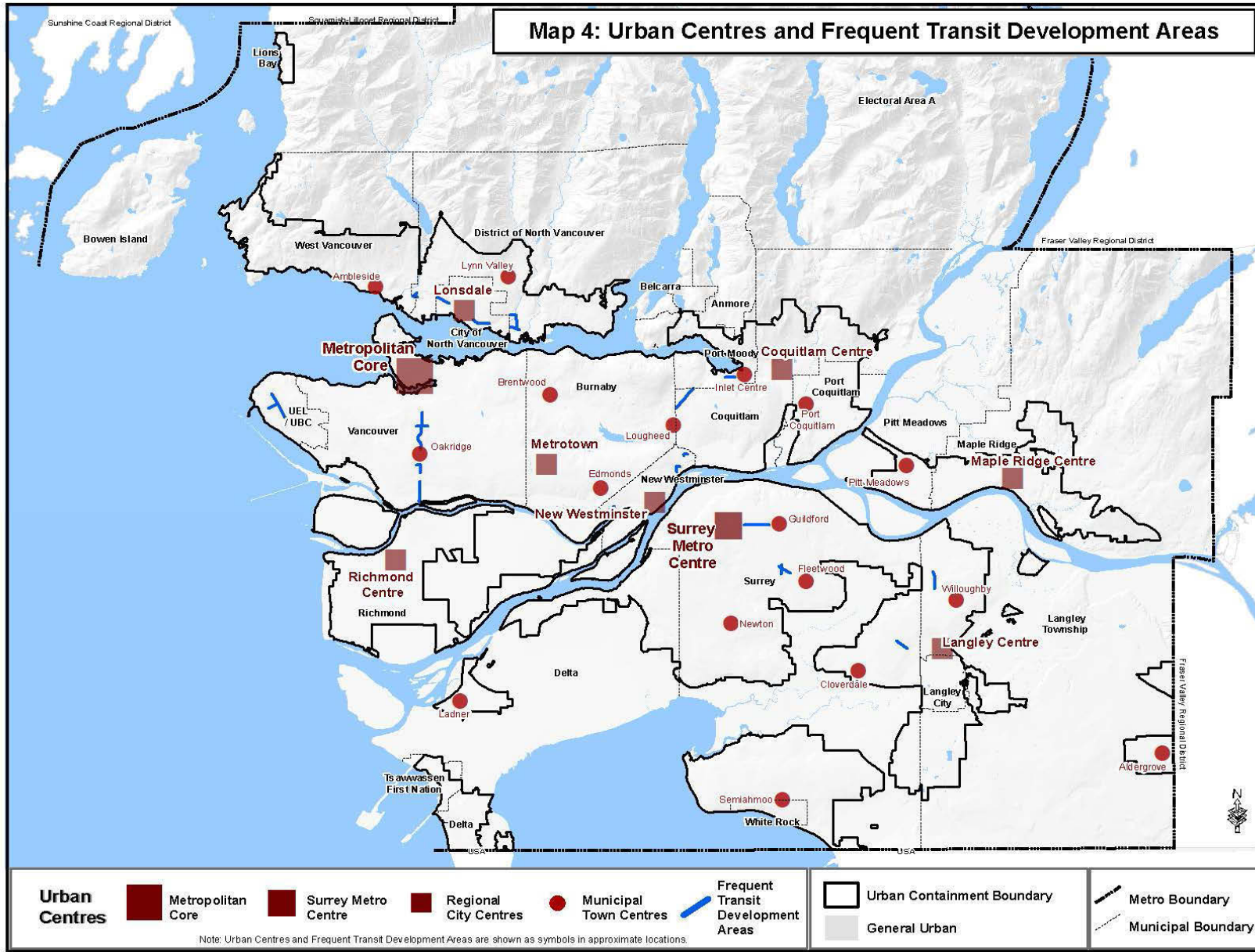
Schedule H



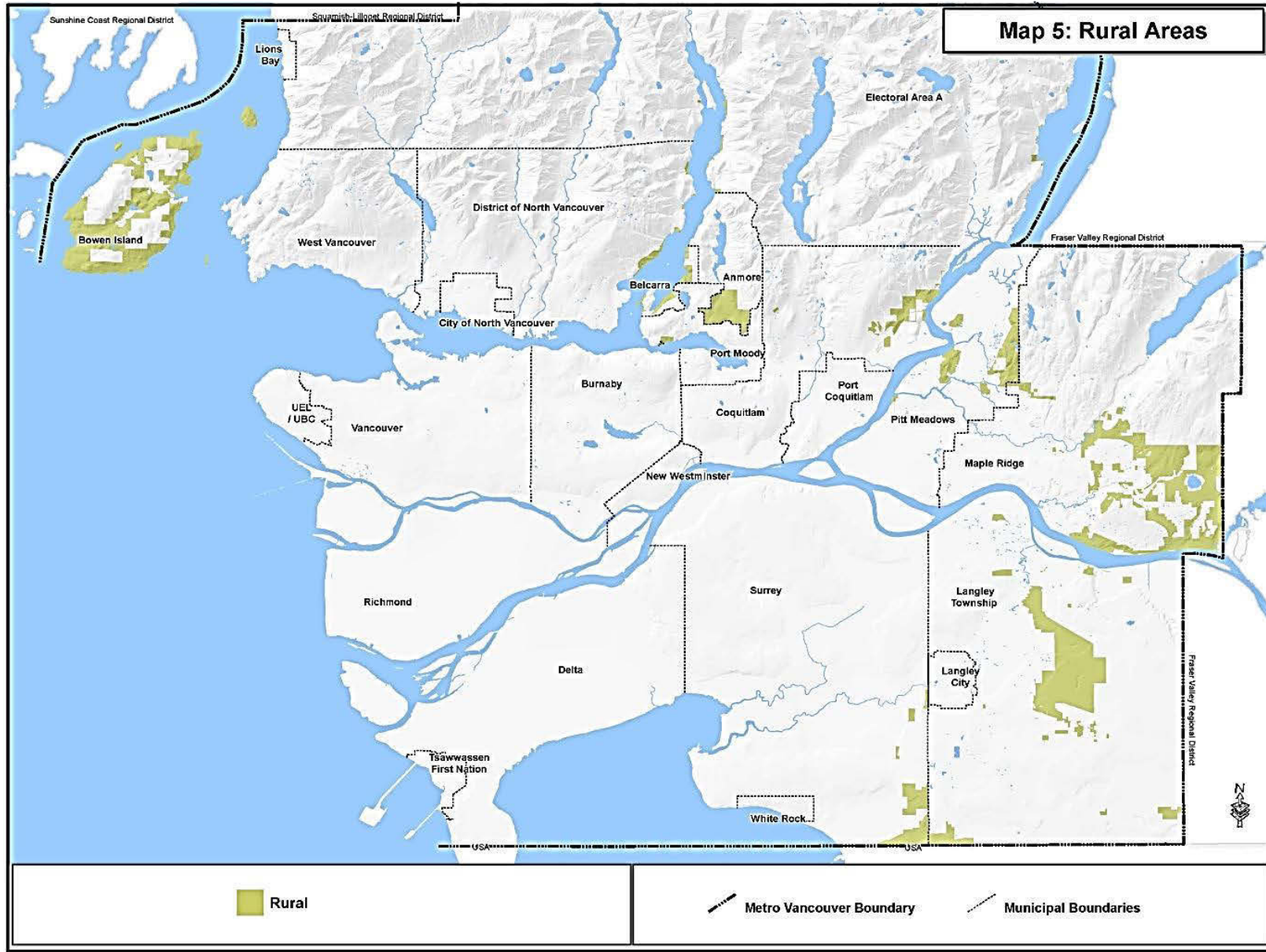
Schedule H



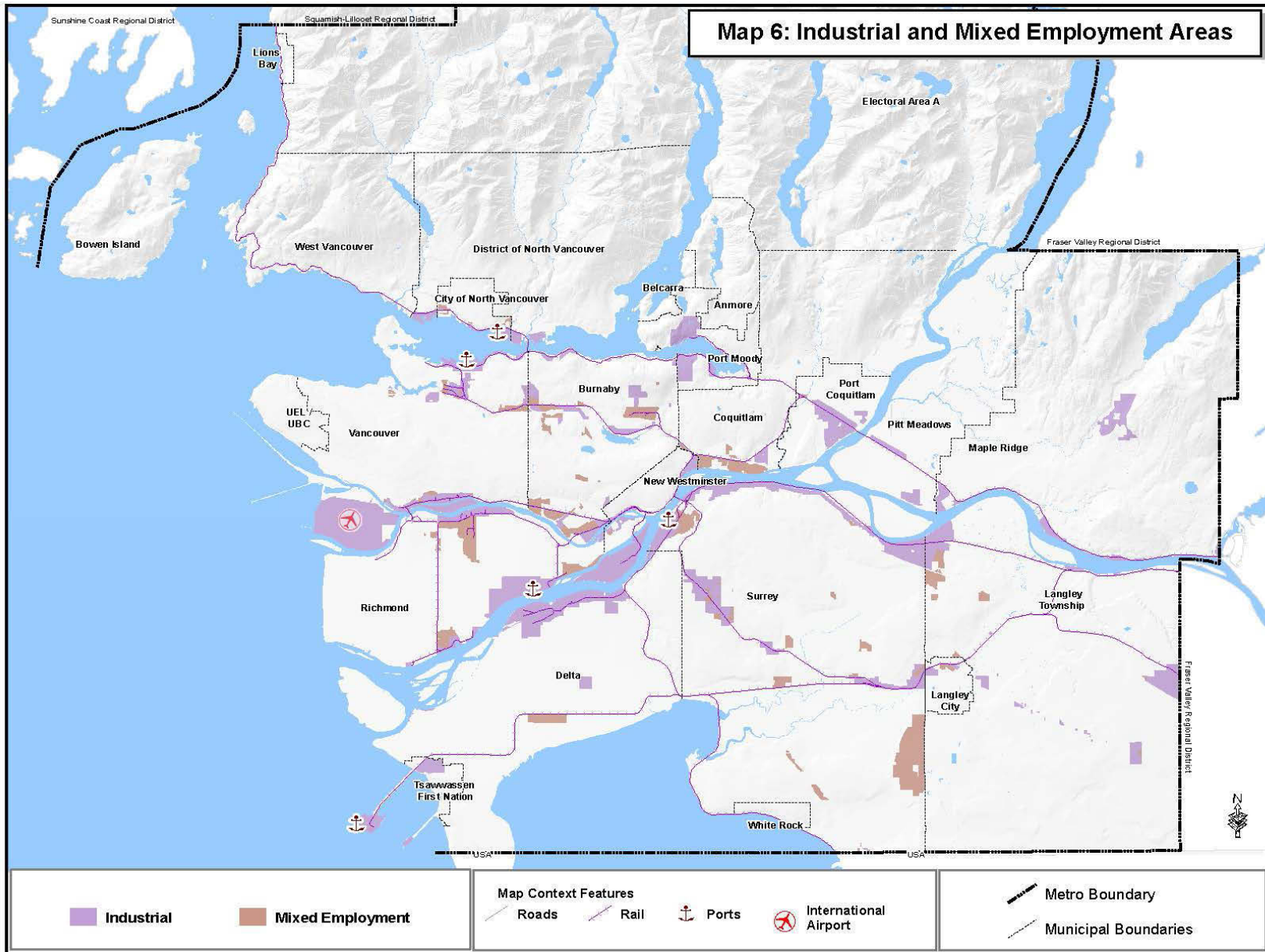
Schedule H



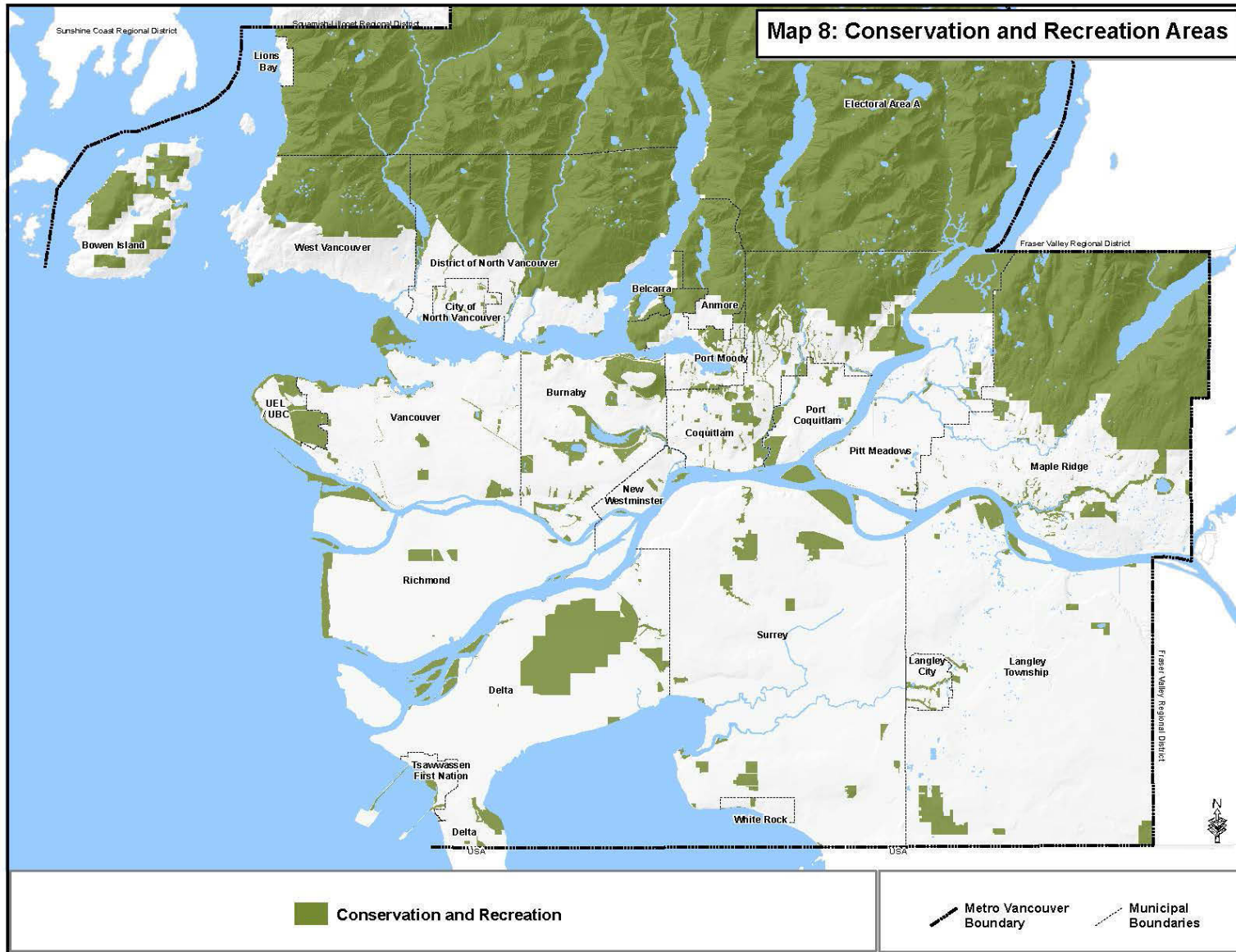
Schedule H



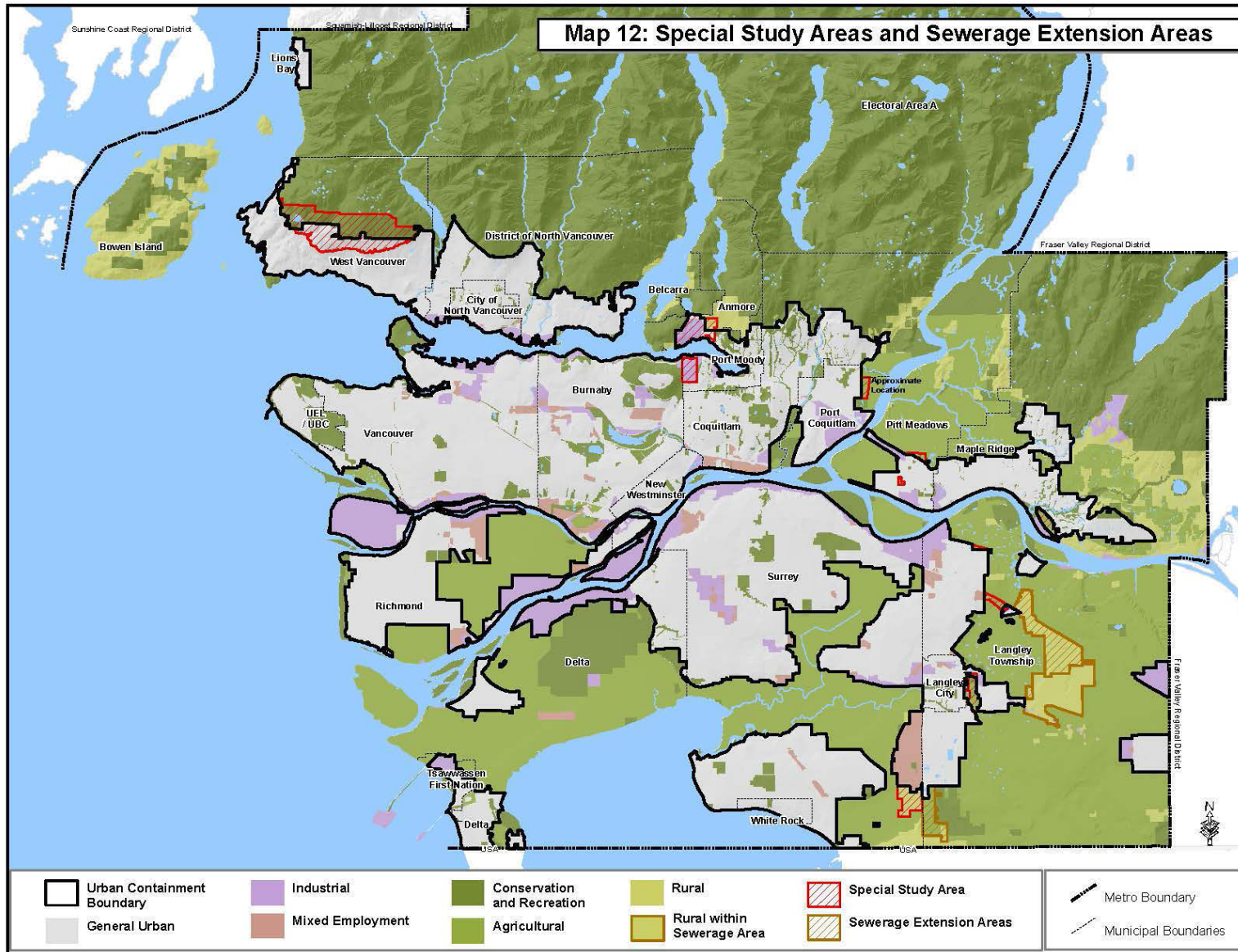
Schedule H



Schedule H



Schedule H





January 14, 2021
Our File: 01-0480-20/RD13-01/2019-1
Doc #: 3954438.v1

Chris Plagnol, Corporate Officer / Director Board and Information Services
Metro Vancouver
4330 Kingsway
Burnaby, BC V5H 4G8

VIA EMAIL: chris.plagnol@metrovancover.org

Dear Mr. Plagnol:

RE: Coquitlam Council Resolution – Proposed Metro Vancouver Regional Growth Strategy (RGS) Amendment Bylaw No. 1310, 2020 to Re-Designate Parks Lands to Conservation and Recreation

Please be advised that at the January 11, 2021 Regular Meeting of Council for the City of Coquitlam the following resolution was adopted:

That Council:

1. Inform Metro Vancouver that Coquitlam City Council has no objection to the proposed Regional Growth Strategy Amendment Bylaw No. 1310, 2020 to Re-Designate Regional Parks Lands to Conservation and Recreation; and
2. Request Metro Vancouver to continue consultation and working with the City of Coquitlam with respect to the below listed items, noting that the three Metro Vancouver property interests within Coquitlam that are subject to proposed Bylaw No. 1310, 2020 are beyond the Regional Growth Strategy Urban Containment Boundary, but are part of larger regional parks that currently, or are planned to, draw significant volumes of park users:
 - a. Identifying projected impacts on the municipal road network accessing these regional parks lands;
 - b. Determine and implement measures and road network improvements over time to address these impacts; and
 - c. Engage in ongoing communication with the City regarding a long-term vision for the lands outside the Urban Containment Boundary in proximity to these major regional parks.

City of Coquitlam
3000 Guildford Way
Coquitlam, BC Canada V3B 7N2
Reception Desk: 604-927-3000

    [cityofcoquitlam](http://cityofcoquitlam.ca) | coquitlam.ca

File #: 01-0480-20/RD13-01/2021-1 Doc #: 3954438.v1

Please find enclosed a copy of the report of the General Manager Planning and Development dated January 4, 2021 entitled "Proposed Metro Vancouver Regional Growth Strategy (RGS) Amendment Bylaw No. 1310, 2020 to Re-Designate Parks Lands to Conservation and Recreation" (attachments not included).

Should you have any questions or require further information with respect to this matter please contact me directly at 604-927-3016 or slam@coquitlam.ca.

Yours truly,

A handwritten signature in black ink, appearing to read 'SLAM', with a long, sweeping horizontal stroke extending to the right.

Stephanie Lam
Legislative Services Manager

Coquitlam

For Council

January 4, 2021

Our File: 01-0125-60/1136-2010/1

Doc #: 3928347.v1

To: City Manager

From: General Manager Planning and Development

Subject: **Proposed Metro Vancouver Regional Growth Strategy (RGS) Amendment Bylaw No. 1310, 2020 to Re-designate Parks Lands to Conservation and Recreation**

For: **Council**

Recommendation:

That Council:

1. Inform Metro Vancouver that Coquitlam City Council has no objection to the proposed Regional Growth Strategy Amendment Bylaw No. 1310, 2020 to Re-designate Regional Parks Lands to Conservation and Recreation; and
2. Request Metro Vancouver to continue consultation and working with the City of Coquitlam with respect to the below listed items, noting that the three Metro Vancouver property interests within Coquitlam that are subject to proposed Bylaw No. 1310, 2020 are beyond the Regional Growth Strategy Urban Containment Boundary, but are part of larger regional parks that currently, or are planned to, draw significant volumes of park users:
 - a. Identifying projected impacts on the municipal road network accessing these regional parks lands;
 - b. Determine and implement measures and road network improvements over time to address these impacts; and
 - c. Engage in ongoing communication with the City regarding a long-term vision for the lands outside the Urban Containment Boundary in proximity to these major regional parks.

Report Purpose:

This report provides an overview of a proposed Type 3 Minor Amendment to the Regional Growth Strategy (RGS) for re-designation of regional parks lands to Conservation and Recreation and a response to a request for comment from Metro Vancouver for Council's consideration.

Strategic Goal:

The content of this report relates to the City's strategic goal of 'Achieving Excellence in City Governance'.

Background:

A letter dated December 3, 2020 was received by the City from Metro Vancouver advising of a proposed RGS amendment involving re-designating certain regional parks lands to Conservation and Recreation and inviting Council's comments on this proposed amendment (Attachment 1). Leading to this letter, on October 30, 2020 the Metro Vancouver Board initiated a Type 3 Amendment process to the RGS by giving first, second and third readings to Bylaw No. 1310, 2020 (starting at page 1 of 36 of Attachment 2).

Res.

January 4, 2021

Specifically, Bylaw No. 1310, 2020 proposes:

- re-designating 71 property interests* (totaling 131.7 ha) which are currently designated as Rural, General Urban, or Industrial in the RGS to the regional Conservation and Recreation land use designation; and
- amend the official regional land use designation map accordingly to better reflect the use of these regional parks lands and to support long-term protection of these areas as parkland in the future.

A Type 3 Minor Amendment to the RGS requires a 50% + 1 weighted vote of the Board at each reading of the bylaw, with no regional Public Hearing being required. Metro Vancouver has referred this proposed RGS amendment to member municipalities for comment, and has requested feedback by January 15, 2021.

Discussion/Analysis:

As noted, the 71 property interests subject to proposed Bylaw No. 1310, 2020 total 131.7 hectares in area and are located across seven member municipalities (Coquitlam, Maple Ridge, New Westminster, Pitt Meadows, Surrey, West Vancouver and District of North Vancouver), as well as in Electoral Area A.

Three parcels totaling 31.5 ha are located within Coquitlam, as listed on page 2 of 36 of attached Bylaw No. 1310, 2020 and are identified on maps shown in Schedules A (1) and (2) of that Bylaw (pages 9 and 10 of 36). The largest of these three parcels (at 15.7 ha) is adjoining and north of Minnehada Regional Park and was apparently acquired in 2019. The other two parcels within Coquitlam are approximately 8 ha each in size, located adjacent or proximate to Widgeon Marsh Regional Park and were acquired in 2012 and 2013. The current RGS land use designation for the subject lands in Coquitlam is Rural, which would have reflected the use and status of these properties when the RGS was adopted in 2011.

It should be noted that Metro Vancouver, in early June 2020, submitted a pre-application to the City as a preliminary step in applying for an Official Community Plan (OCP) amendment and rezoning of the three subject properties plus the portion of the Widgeon Marsh Regional Park (WMRP) within Coquitlam. The OCP amendment proposes re-designating the subject properties and the portion of WMRP, currently designated in the City's OCP as *Rural Resource and Residential*, from that designation to *Parks and Recreation*. The accompanying rezoning would entail changing from *A-3 Agricultural and Resource* to *P-1 Civic Institutional* or *P-5 Special Park* for the subject lands.

It is anticipated that the above described OCP amendment and rezoning proposals will be brought forward to Council for consideration once formal applications have been received and processed through the initial review /

* "Property interests" include municipal statutory rights-of-way, Provincial Crown Lease Land and properties owned by Metro Vancouver.

referral / response stages. At this time and based on preliminary discussions with Metro Vancouver staff, it is expected that these applications will proceed to Coquitlam City Council for bylaw consideration later in 2021.

Through the pre-application review process to date, the following key comments have been provided by staff to Metro Vancouver:

- The park's proposed uses are compliant with permitted uses in the *P-1 Civic Institutional* zone or *P-5 Special Park* zone;
- Quarry Road is the only access road to WMRP. This road is City-owned and maintained up to the entrance to the park. The road is currently an unpaved, narrow, rural standard and the City currently has no capital plans to upgrade this road;
- Quarry Road, as currently designed, likely cannot handle the traffic to/from the WMRP;
- The City needs to understand how Metro Vancouver proposes to manage visitor volumes at the park to determine the potential impacts to Quarry Road;
- A Transportation Impact and Deficiency Report has been requested and is currently being prepared to determine which safety improvements are required to Quarry Road as part of site development; and
- More broadly, staff propose that a coordinated long-range visioning exercise be undertaken for the entire Quarry Road corridor with Metro Vancouver inputting to this process, particularly with respect to regional parks planning in this area.

As noted above, a key concern that has been flagged through the pre-application process is with regards to the impacts of increased park user traffic on Quarry Road. This lengthy, essentially dead-end rural standard road is narrow, unpaved and winding. While the current traffic volume on Quarry Road is modest, the enlargement, upgrading and increased attractiveness of both Minnekhada and Widgeon Marsh Regional Parks, in combination with existing resident access and the potential expansion of existing aggregate mining operations (Lehigh Hanson Inc.) at the north end of this roadway, will generate greater traffic and create pressures to upgrade Quarry Road.

Currently, there are about 150 vehicles / day on Quarry Road and with the expanded / upgraded parks, this could increase by 350 - 600 vehicles / day. These higher traffic volumes will increase safety concerns along narrow sections of the road, and while further assessment work is required, staff expect that safety improvements and road widening will be required at specific locations along the corridor. In addition, the higher traffic volumes will substantially increase road maintenance costs for this gravel road. Currently, the maintenance of this road is undertaken by both the City and Lehigh Hanson Inc. (by way of an agreement established due to the impact of their trucking on the road). As the planned Metro Vancouver park expansion will be a major traffic generator, staff believe that it may be appropriate for Metro Vancouver to contribute towards upgrading and / or maintenance of this road.

January 4, 2021

As well, effectively managing this increased park user traffic and vehicle parking will be critical to avoid creating future congestion issues such as those presently occurring during peak periods at the Belcarra and Buntzen Lake parks, which also draw many users from across the region.

City staff will continue to work with Metro Vancouver to address these issues and will report back in further detail when the Metro Vancouver OCP amendment and rezoning applications are advanced to Council for consideration.

Financial Implications:

There are no immediate financial implications arising from this report. However, should the proposed RGS amendment bylaw and the related OCP amendment and rezoning of the subject lands be approved, and there is a resulting increase in park user traffic over time, there may be municipal budgeting impacts to deal with any necessary upgrading of Quarry Road and increased maintenance costs.

Conclusion:

The rational expansion and upgrading of Metro Vancouver parks is desirable as this provides region-wide public, recreational and environmental benefits. On that basis, staff recommend that Council support Metro Vancouver's proposed RGS amendment Bylaw No. 1310, 2020. However, there are impacts on Coquitlam's road network with the growing regional park user traffic, which will be addressed more closely through the upcoming Metro Vancouver OCP amendment and rezoning applications. Lastly, increasing the size and usage of these regional parks, while generating many benefits, also triggers the need to undertake a long-term visioning process for the future planning of the Quarry Road Corridor.



J.L. McIntyre MCIP, RPP

JMc/ce

Attachments:

1. Metro Vancouver Letter dated December 3, 2020 re: Amending Metro Vancouver 2040: Shaping our Future to Re-designate Regional Parks Lands to Conservation and Recreation (Doc# 3930723)
2. Metro Vancouver Report dated September 18, 2020, including Metro Vancouver Regional District Bylaw No. 1310, 2020 (Doc# 3930753)

This report was prepared by Jim McIntyre, General Manager Planning and Development, with input from Jaime Boan, General Manager Engineering and Public Works, Andrew Merrill, Director Development Services, and Genevieve Bucher, Manager Community Planning.



Agricultural Land Commission
201 – 4940 Canada Way
Burnaby, British Columbia V5G 4K6
Tel: 604 660-7000 | Fax: 604 660-7033
www.alc.gov.bc.ca

January 13, 2021

Reply to the attention of Shannon Lambie
ALC Issue: 52054
ALC Planning Review: 46604

Sav Dhaliwal
Chair, Metro Vancouver Board
c/o Chris Plagnol, Corporate Officer
chris.plagnol@metrovancover.org

Re: Amending Metro Vancouver 2040: Shaping our Future to Re-designate Regional Parks Lands to Conservation and Recreation

Thank you for forwarding the proposed *Amendment Bylaw No. 1310, 2020* (the “Proposal”) for review and comment by the Agricultural Land Commission (ALC). The following comments are provided by ALC staff to help ensure that the Proposal is consistent with the purposes of the *ALC Act* (ALC Act), the Agricultural Land Reserve (ALR) General Regulation, the ALR Use Regulation, and any decisions of the ALC.

The Proposal is a type 3 minor amendment to the Metro Vancouver Regional District (MVRD) Regional Growth Strategy (RGS) to permit regional land use designation changes from *General Urban, Industrial, or Rural* to *Conservation and Recreation* on 71 publicly-owned properties that have been acquired or secured by MVRD Parks. These properties are currently used for parks or greenways and the designation change is sought by MVRD Regional Parks to better reflect their current use.

The subject properties are located within the Cities of Coquitlam, Maple Ridge, New Westminister, Pitt Meadows, Surrey, and the Districts of West Vancouver and North Vancouver. Of these 71 properties, 14 are statutory rights-of-ways granted by their municipality, 1 is leased from the Provincial government, and the remaining properties are owned by Metro Vancouver.

Three of the properties identified in the Proposal are located within the ALR. The first property, identified as PID: 013-182-480, is 0.6 ha in size, zoned *General Urban*, and is located in the City of Pitt Meadows. The second property, identified as PID: 013-180-762, is 0.5 ha in size, zoned *General Urban*, and is located in the City of Pitt Meadows. The final property, identified as PID: 013-180-789, is 2.1 ha in size, zoned *General Urban*, and is located in the City of Pitt Meadows. Each of these properties are a part of the Pitt River Greenway.

ALC staff are unable to assess when these properties were zoned as *General Urban* and cannot locate a Transportation, Utility, and Recreation (TUR) application related to their use as a greenway. All properties located in the ALR are designated for agriculture as a priority use, though “natural parks” which are undeveloped are permitted non-farm use that does not require the approval of the ALC. No information is provided as the current or intended level of development to these park properties, and as such it is possible that an ALC non-farm use application may be required to bring these parks into compliance with the ALC Act and Regulations. Please provide additional information to clarify the level of park development anticipated for these park parcels.

Should no development be anticipated and the current and future use is proposed to be a natural park with no improvements, ALC staff would have no objection to their zoning for *Conservation and Recreation*.

Sixteen properties identified by the Proposal are located immediately adjacent to the ALR boundary. This includes the properties identified as PIDs: 007-568-444, 013-180-037, 009-720-120, 011-440-201, 013-557-084, 013-557-220, 013-182-048, 013-182-242, 013-182-684, 026-559-552, 012-328-081, 012-328-103, 012-328-120, 012-328-138, 012-328-146, 012-328-162, 012-328-189, and 029-960-584. It is the Commission's experience that non-agricultural uses located on the perimeter of the ALR boundary can create conflict. As such, ALC staff recommend that MVRD staff consult the Ministry of Agriculture's [Guide to Edge Planning](#). The guide indicates that passive recreation parks with permeable surfaces (which may include a greenway) can be appropriately located near the boundary of the ALR, however, this is provided that there is a vegetated buffer and adequate fencing established to inhibit trespass along the boundary.

ALC staff do not object to the proposed designation change of these properties to *Conservation and Recreation*.

The ALC strives to provide a detailed response to all bylaw referrals affecting the ALR; however, you are advised that the lack of a specific response by the ALC to any draft bylaw provisions cannot in any way be construed as confirmation regarding the consistency of the submission with the ALCA, the Regulations, or any Orders of the Commission.

This response does not relieve the owner or occupier of the responsibility to comply with applicable Acts, regulations, bylaws of the local government, and decisions and orders of any person or body having jurisdiction over the land under an enactment.

If you have any questions about the above comments, please contact the undersigned at 236-468-1884 or by e-mail (shannon.lambie@gov.bc.ca).

Yours truly,

PROVINCIAL AGRICULTURAL LAND COMMISSION



Shannon Lambie, Regional Planner



Box 219, 1350 Aster Street
Pemberton, BC V0N 2L0
P. 604-894-6371 TF. 800-298-7753
F. 604-894-6526
info@slrd.bc.ca www.slrd.bc.ca

January 12, 2021

Attn: Metro Vancouver Board
Metro Vancouver Regional District
4730 Kingsway, Burnaby, BC, V5H 0C6
VIA EMAIL: Chris.Plagnol@metrovancover.org

Dear Metro Vancouver Board,

Re: Amending Metro Vancouver 2040: Shaping our Future to Re-designate Regional Parks Lands to Conservation and Recreation

The SLRD Board received a letter advising of Metro Vancouver's initiation of a Type 3 Minor Amendment to the regional growth strategy. It is understood that a Type 3 Minor Amendment only requires an affirmative 50% + 1 weighted vote of the MVRD Board at each reading of the bylaw. SLRD staff comments are enclosed below, as the referral comment deadline did not allow for this item to be included in a Board agenda. SLRD staff will bring an information report to the Board outlining Amendment Bylaw No. 1310, 2020. This will be included in the January 27, 2021 Board agenda.

SLRD Staff Comments:

The SLRD Regional Growth Strategy Bylaw 1062, 2008 (RGS) speaks to coordination with other governments and agencies and commits the SLRD to work with neighbouring jurisdictions, including MVRD, to facilitate the compatibility of regional growth planning and initiatives.

The SLRD RGS Goal 6 Encourage the Sustainable Use of Parks and Natural Areas, supports the intentions behind the proposed amendment bylaw. Further, SLRD staff acknowledge the importance of regional land use designations in regional planning, with updates providing clarity and consistency for public, member municipalities and adjacent local governments. Otherwise, SLRD interests are unaffected

Sincerely,

Claire Dewar
Senior Planner, SLRD

cc: Kim Needham, Director of Planning and Development Services, SLRD

January 15, 2021
File: 01.0470.35/001.000

Chris Plagnol
Corporate Officer
Metro Vancouver

Via email: Chris.Plagnol@metrovancover.org

Dear Mr. Plagnol:

**Re: Amending Metro Vancouver 2040: Shaping our Future to Re-designate
Regional Parks Lands to Conservation and Recreation**

Thank you for the letter dated December 3, 2020 addressed to Mayor Mike Little and Council with an enclosed report dated September 18, 2020.

The letter and report identify 25 properties or portions of properties in the District of North Vancouver that Metro Vancouver has proposed for re-designation in the regional growth strategy ("RGS") set out in proposed Metro Vancouver Regional District Bylaw Number 1310, 2020.

Further to our communications with Metro Vancouver staff on December 21, 2020 and January 11, 2021, we have no concerns with the re-designations, except as set out below.

Capilano River Regional Park

Schedule E (1) to Bylaw 1310, 2020

- We strongly recommend that Metro Vancouver remove the three areas identified in Schedule E (1) to Bylaw Number 1310, 2020.
- These three areas are located on private property (the Woodcroft strata development at the north end of Fullerton Avenue) and are subject to a statutory right of way in favour of Metro Vancouver registered under number C59744. All three areas are designated "Residential Level 6: Medium Density Apartments" in the District of North Vancouver Official Community Plan.
- We are uncertain of Metro Vancouver's objective of re-designating these areas, given that Metro Vancouver's existing trail is not within these areas. It is located in the portion of Capilano Regional Park adjacent to the areas.
- Schedule E (1) includes these three areas within the boundaries of Capilano Regional Park. This is incorrect because, despite RW C59744, these three areas constitute private property, not public park land.
- We recommend that Metro Vancouver carefully review RW C59744 with its lawyers in order to inform itself as to its legal rights in relation to these three areas.
- Again, we strongly recommend against changing the RGS or OCP designations of these three areas at this time.

Document Number: 4653567

Document: 4653567

Re: Amending Metro Vancouver 2040: Shaping our Future to Re-designate Regional Parks Lands to Conservation and Recreation

January 15, 2021

Page 2

Schedule E (2) to Bylaw 1310, 2020

- No concerns (PID 011-351-225)

Seymour River Regional Greenway

Schedule E (3) to Bylaw 1310, 2020

- We recommend that Metro Vancouver remove the area identified in Schedule E (3) to Bylaw Number 1310, 2020. This area traverses three parcels: two owned by the District of North Vancouver and one owned by Capilano University.
 - PID 007-698-038:
 - This parcel is owned by the District of North Vancouver and is subject to a statutory right of way in favour of Metro Vancouver registered under number BB4016968. It is designated “Commercial, Residential, Mixed Use Level 1”, “Parks, Open Space and Natural Areas” and “Institutional” in the Official Community Plan.
 - Section 3 in SRW BB4016968 reserves to the District a right to require the relocation of Metro Vancouver’s existing trail. In the District’s view, designating the current alignment of the trail as a conservation and recreation area is inconsistent with the District’s relocation right under the SRW, and as a result the District is not in favour of the designation at this time.
 - Furthermore, staff have not received direction from Council on how to develop the southern portion of this parcel and for this reason also we do not support changing the RGS or OCP designations at this time.
 - PID 007-698-046:
 - This parcel is privately owned by Capilano University.
 - We recommend that Metro Vancouver discuss the proposed RGS re-designations for the Seymour River Greenway on and adjacent to this parcel with the property owner prior to actually making the designations.
 - PID 007-698-020:
 - This parcel is owned by the District of North Vancouver and is subject to a statutory right of way in favour of Metro Vancouver registered under number BB4016968. It is designated “Parks, Open Space and Natural Areas” in the Official Community Plan.
 - See our comments under bullet 2 in relation to PID 007-698-038, which apply equally to this parcel.

Thwaytes Landing Regional Park

Schedules E (4) and E (5) to Bylaw 1310, 2020

- No concerns but please note that four parcels are partly owned by the District of North Vancouver and subject to an agreement and a Restrictive Covenant applies to fourteen parcels of land solely owned by Metro Vancouver. These state essentially that the land must only be used for park purposes.

**Re: Amending Metro Vancouver 2040: Shaping our Future to Re-designate
Regional Parks Lands to Conservation and Recreation**

January 15, 2021

Page 3

Thank you for the opportunity to comment on these items. Please contact Tina Atva, Manager, Community Planning (atvat@dnv.org or 604-990-2357) if you require further information and to discuss this further.

Yours truly,



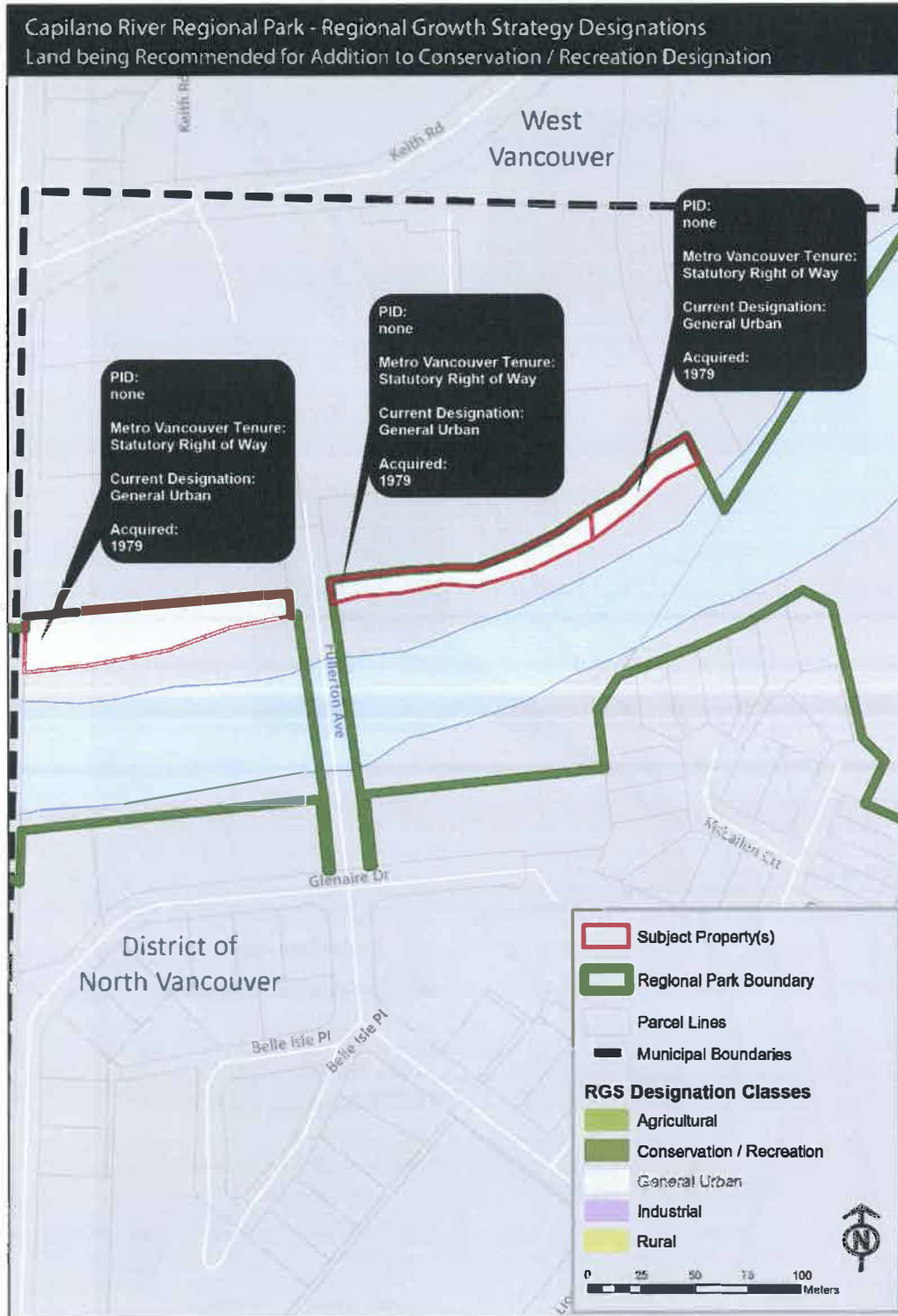
Tina Atva
Manager, Community Planning

Att: Schedules E (1-5) to Metro Vancouver *Bylaw 1310, 2020*

cc. Sean Galloway, Director, Regional Planning and Electoral Area Services
(Sean.Galloway@metrovancover.org)

Dan Milburn, General Manager, Planning, Properties & Permits, District of North
Vancouver

District of North Vancouver



September 2020

District of North Vancouver



September 2020

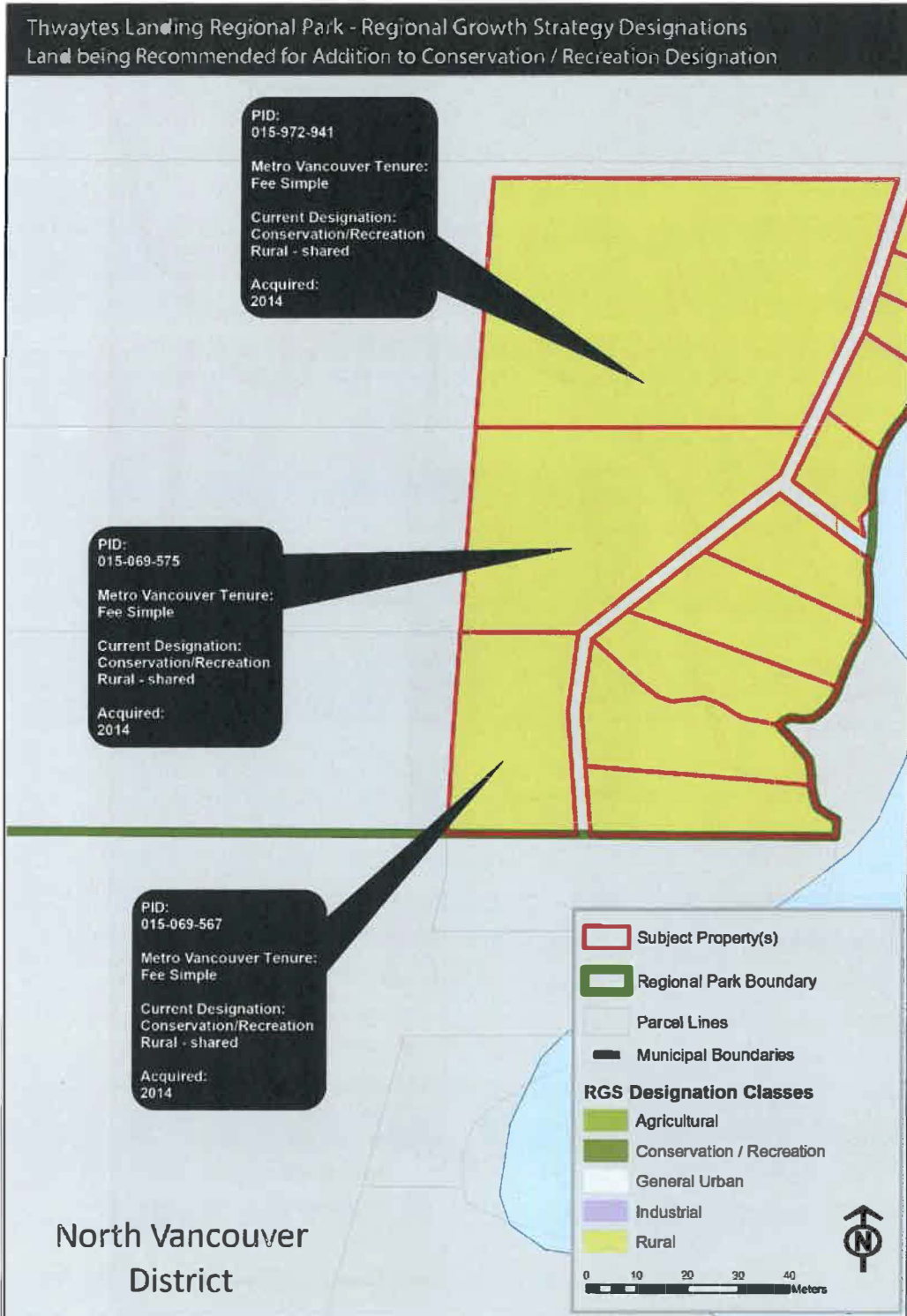
District of North Vancouver



September 2020

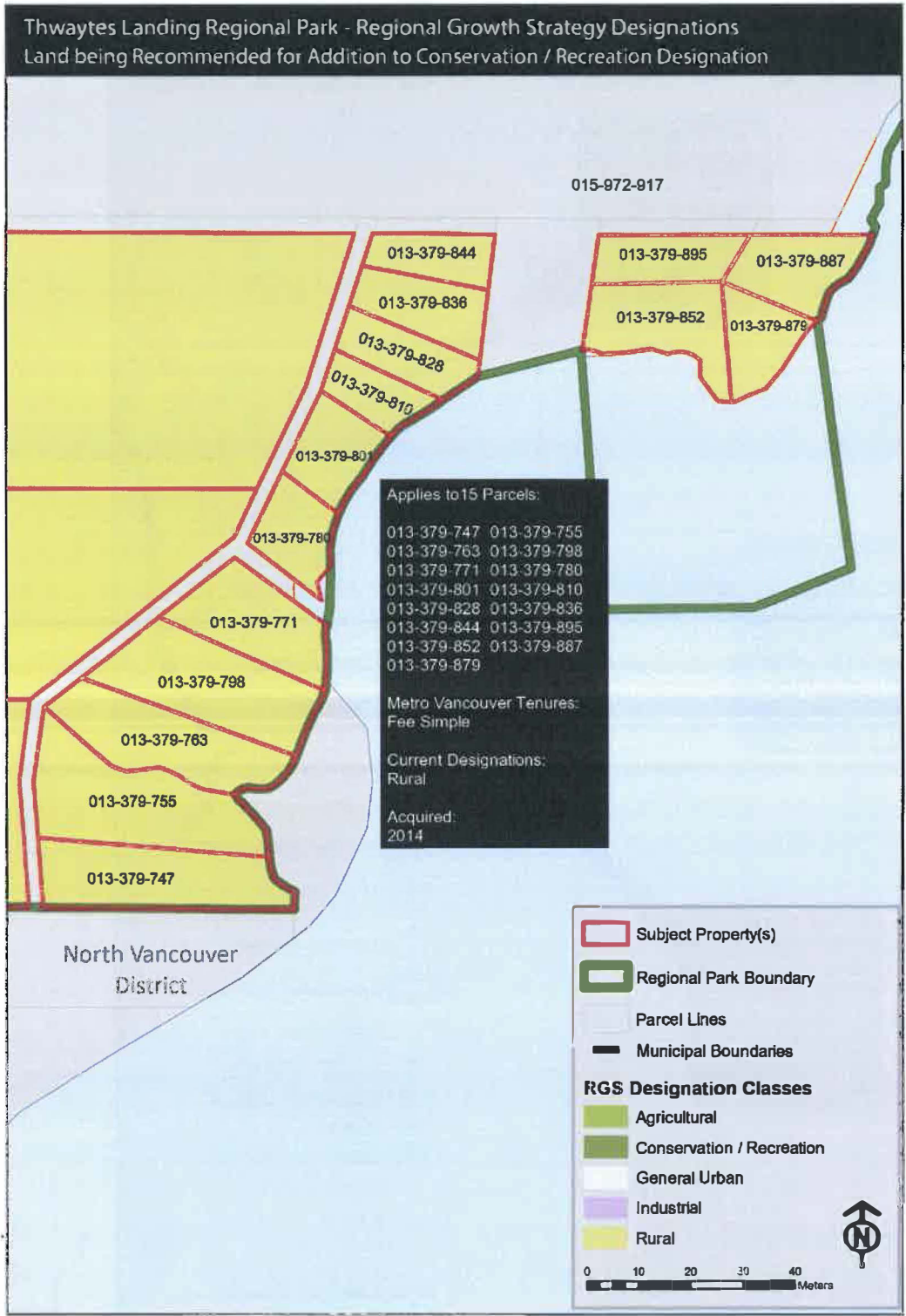
Schedule E (4)

District of North Vancouver



Schedule E (5)

District of North Vancouver



January 26, 2021

Chris Plagnol, Corporate Officer
Metro Vancouver
4730 Kingsway
Burnaby BC V5H 0C6

Sent via email to: chris.plagnol@metrovancover.org


Dear Mr. Plagnol:

RE: METRO VANCOUVER – AMENDING METRO VANCOUVER 2040: SHAPING OUR FUTURE TO RE-DESIGNATE REGIONAL PARK LANDS TO CONSERVATION AND RECREATION

On January 11, 2021, White Rock City Council received your correspondence regarding the initiation of a type 3 minor amendment to the Regional Growth Strategy. Council adopted a resolution to support the proposed Metro Vancouver amendment.

If you have any questions, please contact Carl Isaak, Director of Planning and Development Services, at cisaak@whiterockcity.ca or 604 541 2293. Thank you.

Sincerely,



T. Arthur
Director of Corporate Administration

cc: Mayor and Council, City of White Rock
Director of Planning and Development Services

Corporate Administration
P: 604.541.2212 | F: 604.541.9348

City of White Rock
15322 Buena Vista Avenue, White Rock BC, Canada V4B 1Y6

Metro Vancouver Regional District

WHITE ROCK
City by the Sea!

www.whiterockcity.ca

February 5, 2021

Doc # 1762333

Sean Galloway
Director of Regional Planning and Electoral Area Services
Metro Vancouver

Dear Sean Galloway:

Re: Proposed changes to Regional Land Use Designations in New Westminister

An amendment to the Metro Vancouver Regional District Regional Growth Strategy (RGS) proposes to change the designation for a number of right-of-ways from 'General Urban' or 'Industrial' to 'Conservation/Recreation'. The amendment proposes changes to the right-of-ways associated with five properties in the City of New Westminister. The parcel identifiers (PIDs) of these properties are: 023-331-933, 000-838-845, 003-992-748, 002-994-852 and 002-994-810. For reference, Schedule D (1) and D (2) from the Metro Vancouver Regional District Bylaw No. 1310, 2020 are attached to this letter.

The purpose of this letter is to request that the regional land use designation for these five right-of-ways not be amended within the RGS Update process.

(PIDs) 023-331-933, 000-838-845 and 003-992-748:

The properties at PIDs 000-838-845 and 003-992-748 are owned by the City and are directly adjacent to 023-331-933, located at 109 Braid Street. The right-of-way over these three properties is associated with the Brunette Fraser Regional Greenway (BFRG).

The City is currently in negotiation with the owner of 109 Braid Street regarding improvements to the BFRG that will be required as conditions of rezoning the site. Discussions with this property owner have included Metro Vancouver Regional Parks staff and have been ongoing for some time. The objective is to achieve:

- A larger naturalized zone adjacent to the Brunette River that supports biodiversity, allows for wildlife movement and protects slope stability. To protect the integrity of the ecosystem, encroachment by humans and pets would be minimized.
- An enhanced BFRG located in a transition zone between a naturalized zone and the private development envisioned for 109 Braid Street. This transition zone will result in a higher quality bicycle and pedestrian connection through this area.

Implementation will include a realignment of the BFRG, including the associated Metro Vancouver Greenway. Given this ongoing process, the City is requesting that the site specific negotiation be resolved, in collaboration with Metro Vancouver staff, prior to any amendments to land use designations taking place. Once negotiations are complete, City staff will identify additional properties and/or right-of-ways in the area to be designated Conservation/Recreation as part of the next update to the City's Regional Context Statement.



NEW WESTMINSTER

(PIDs) 002-994-852 and 002-994-810:

These two properties are privately owned industrial properties. As such, staff believe the current designation ('Industrial') is appropriate for these two locations. However, once the route of the BFRG connection through this area is determined, the City is open to revising a discussion about changing the designation in the appropriate locations. In addition, further analysis should be done prior to changing the land use designations of these parcels as there are existing legal agreements on both parcels that will first need to be reviewed.

Please let us know if you require any additional information on this, or should you have any further questions, please contact Lynn Roxburgh by phone at 604-515-3805 or email at lroxburgh@newwestcity.ca.

Kind regards,

Emilie K. Adin
Director of Development Services

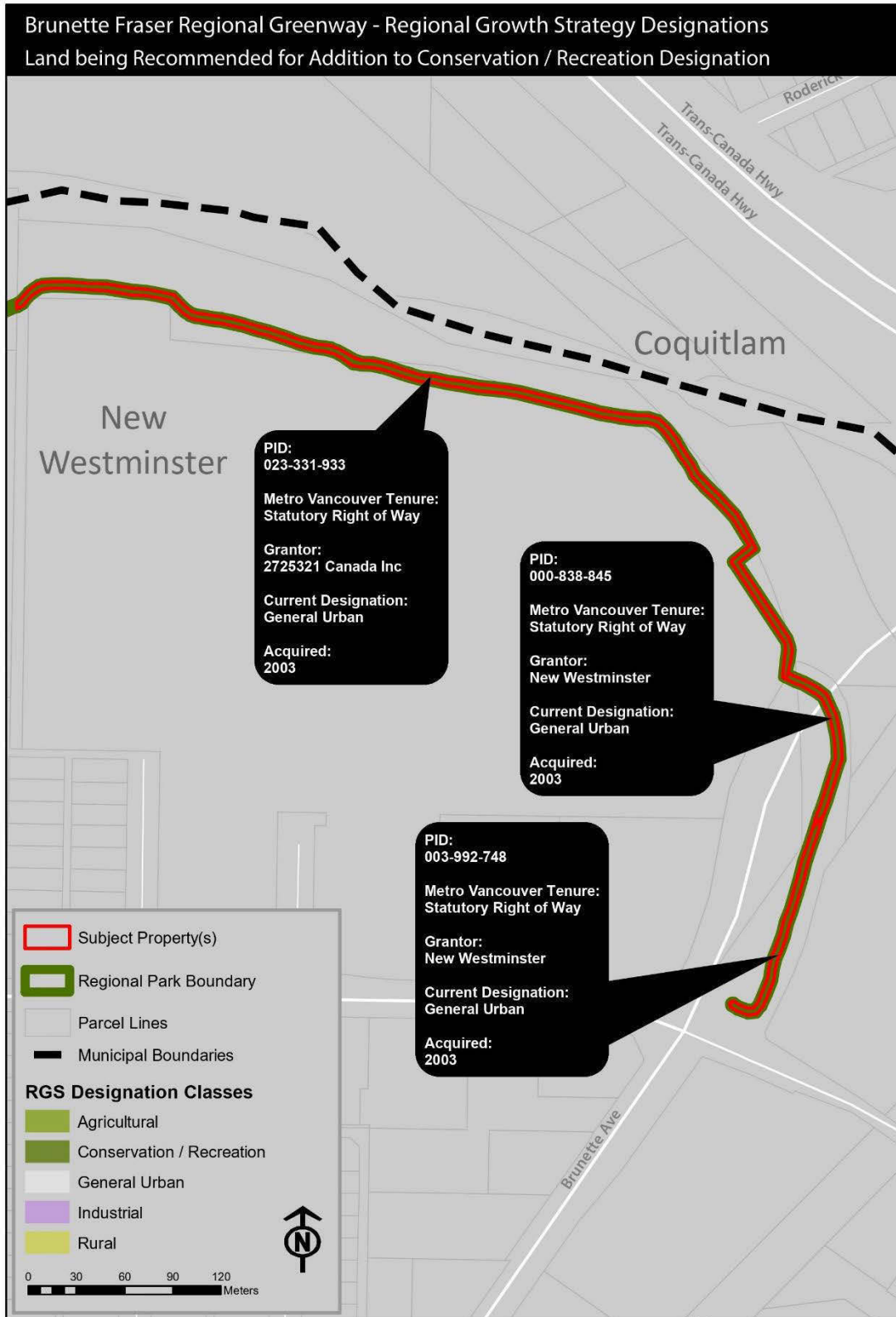
Dean Gibson
Director- Parks and Recreation

cc. Jackie Teed, Senior Manager of Development Services
Erika Mashig, Manager of Horticulture Services and Parks and Open Space Planning
Lynn Roxburgh, Senior Planner

Attachment #1

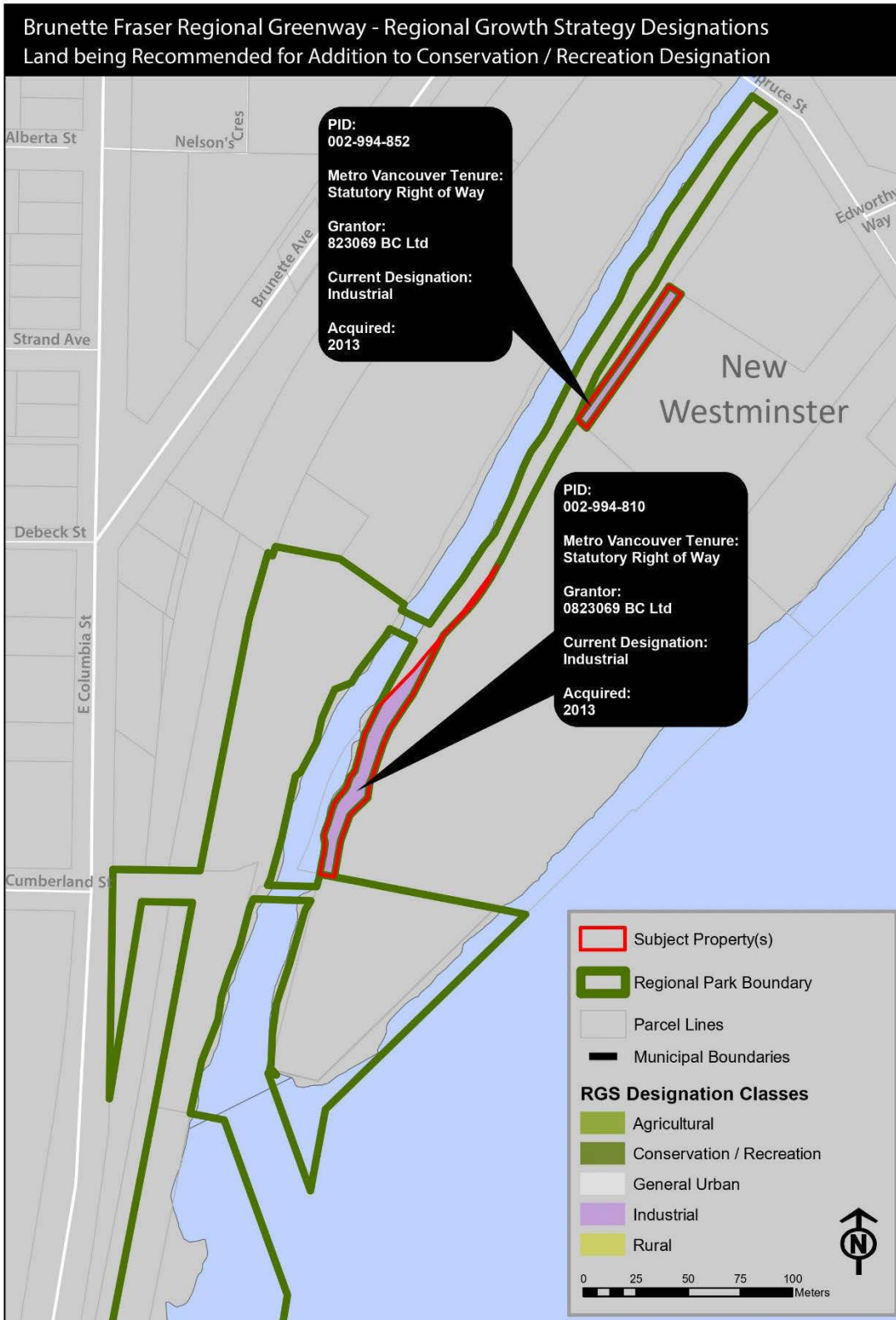
Schedule D (1) and D (2) from Metro Vancouver Regional District Bylaw No. 1310, 2020

City of New Westminster



September 2020

City of New Westminster



September 2020

COMMITTEE INFORMATION ITEMS AND DELEGATION SUMMARIES

Metro Vancouver Regional District
Board Meeting Date – Friday, February 26, 2021

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

Indigenous Relations Committee – February 4, 2021

Delegation Summaries:

No delegations presented

Information Items:

5.2 Quarterly Report on Reconciliation Activities

Regional Planning Committee – February 5, 2021

Delegation Summaries:

No delegations presented

Information Items:

5.3 Hey Neighbour Collective Discussion Paper to Inform Metro 2050

George Massey Crossing Task Force – February 5, 2021

Delegation Summaries:

No delegations presented

Information Items:

5.1 George Massey Crossing – Project Status

Regional Parks Committee – February 10, 2021

Delegation Summaries:

No delegations presented

Information Items:

5.1 Regional Parks Permit Framework

Climate Action Committee – February 12, 2021

Delegation Summaries:

No delegations presented

Information Items:

5.1 Climate 2050 Discussion Paper on Energy

43550250

February 16, 2021