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**City Council  
Electronic Meeting**

**Council Chambers, City Hall  
6911 No. 3 Road  
Monday, June 27, 2022  
7:00 p.m.**

Pg. #      ITEM

**MINUTES**

1. *Motion to:*

**CNCL-14**      (1) *adopt the **minutes** of the Regular Council meeting held on June 13, 2022; and*

**CNCL-22**      (2) *adopt the **minutes** of the Regular Council meeting for Public Hearings held on June 20, 2022.*



**AGENDA ADDITIONS & DELETIONS**

**COMMITTEE OF THE WHOLE**

2. *Motion to resolve into Committee of the Whole to hear delegations on agenda items.*



3. Delegations from the floor on Agenda items.

**PLEASE NOTE THAT FOR LEGAL REASONS, DELEGATIONS ARE NOT PERMITTED ON ZONING OR OCP AMENDMENT BYLAWS WHICH ARE TO BE ADOPTED OR ON DEVELOPMENT PERMITS/DEVELOPMENT VARIANCE PERMITS.**

4. *Motion to rise and report.*



## RATIFICATION OF COMMITTEE ACTION

## CONSENT AGENDA

**PLEASE NOTE THAT ITEMS APPEARING ON THE CONSENT AGENDA WHICH PRESENT A CONFLICT OF INTEREST FOR COUNCIL MEMBERS MUST BE REMOVED FROM THE CONSENT AGENDA AND CONSIDERED SEPARATELY.**

**RECOMMENDATIONS FROM COMMITTEE WILL APPEAR ON THE REVISED COUNCIL AGENDA, EITHER ON THE CONSENT AGENDA OR NON-CONSENT AGENDA DEPENDING ON THE OUTCOME AT COMMITTEE.**

## CONSENT AGENDA HIGHLIGHTS

- Receipt of Committee minutes
- 2022 Neighbourhood Celebration Grants Allocation
- Endorsement of UBCM Resolution For Library Funding
- Land use applications for first reading (to be further considered at the Public Hearing on July 18, 2022):
  - 11460 Williams Road – Rezone from Single Detached (RS1/E)” Zone To The “Compact Single Detached (RC2)” Zone (Jude Da Silva – Applicant)
- Proposed Metro Vancouver Regional Growth Strategy Bylaw 1339, 2022, Metro 2050
- Referral Response: Spires Road Area Proposed Rental Tenure & Density



## Council Agenda – Monday, June 27, 2022

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ITEM

- Ministry Of Transportation And Infrastructure Application To National Trade Corridors Fund
- Municipal Access Agreement With Cik Telecom Inc.
- Federation Of Canadian Municipalities Municipal Asset Management Program Grant Funding Application – Sanitary Pump Station Condition Assessments
- 2021 Annual Water Quality Report
- Regional Public Works Mutual Aid Agreement
- Award Of Contract: 7268p – Roll-Off And In-Ground Container Collection And Recycling/Disposal Services

5. *Motion to adopt Items No. 6 through No. 17 by general consent.*

☐

Consent  
Agenda  
Item

6. **COMMITTEE MINUTES**

*That the minutes of:*

- CNCL-26 (1) *the **Community Safety Committee** meeting held on June 14, 2022;*
- CNCL-30 (2) *the **General Purposes Committee** meeting held on June 20, 2022;*
- (3) *the Planning Committee meeting held on June 21, 2022; (distributed separately) and*
- (4) *the Public Works and Transportation Committee meeting held on June 22, 2022; (distributed separately)*
- be received for information.*

☐

## Council Agenda – Monday, June 27, 2022

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Consent  
Agenda  
Item

7. **2022 NEIGHBOURHOOD CELEBRATION GRANTS ALLOCATION**  
(File Ref. No. 11-7000-01) (REDMS No. 6899905)

CNCL-32

See Page CNCL-32 for full report

### GENERAL PURPOSES COMMITTEE RECOMMENDATION

- (1) *That the Neighbourhood Celebration Grants be awarded for the recommended amount of \$74,947.96 as identified in Attachment 2 of the staff report titled, “2022 Neighbourhood Celebration Grants Allocation”, dated May 30, 2022, from the Director, Arts, Culture and Heritage Services; and*
- (2) *That the grant funds be disbursed accordingly.*



Consent  
Agenda  
Item

8. **ENDORSEMENT OF UBCM RESOLUTION FOR LIBRARY FUNDING**

(File Ref. No. 11-7000-01) (REDMS No. 6914553)

CNCL-46

See Page CNCL-46 for full report

### GENERAL PURPOSES COMMITTEE RECOMMENDATION

*That the resolution in support of restoring provincial funding for public libraries, as outlined in Attachment 1 of the attached report from the Chief Librarian, be endorsed and forwarded to the Union of BC Municipalities for consideration during its 2022 Convention.*



Consent  
Agenda  
Item

9. **APPLICATION BY JUDE DA SILVA FOR REZONING AT 11460 WILLIAMS ROAD FROM THE “SINGLE DETACHED (RS1/E)” ZONE TO THE “COMPACT SINGLE DETACHED (RC2)” ZONE**

(File Ref. No. RZ 21-940331: 12-8060-20-10387) (REDMS No. 6905161)

CNCL-51

See Page CNCL-51 for full report

### PLANNING COMMITTEE RECOMMENDATION

*That Richmond Zoning Bylaw 8500, Amendment Bylaw 10387, for the rezoning of 11460 Williams Road from the “Single Detached (RS1/E)” zone to the “Compact Single Detached (RC2)” zone, be introduced and given first reading.*



Consent  
Agenda  
Item

10. **PROPOSED METRO VANCOUVER REGIONAL GROWTH STRATEGY BYLAW 1339, 2022, METRO 2050**  
(File Ref. No. 01-0157-30-RGST1) (REDMS No. 6900027)

**CNCL-70**

**See Page CNCL-70 for full report**

**PLANNING COMMITTEE RECOMMENDATION**

- (1) *That the proposed Metro Vancouver Regional Growth Strategy Bylaw 1339, 2022, Metro 2050, be accepted, and*
- (2) *That the Metro Vancouver Board be advised of the City of Richmond's position on the Regional Growth Strategy.*



Consent  
Agenda  
Item

11. **REFERRAL RESPONSE: SPIRES ROAD AREA PROPOSED RENTAL TENURE & DENSITY INCREASES**  
(File Ref. NO. 08-4045-20-20) (REDMS NO. 6904985)

**CNCL-215**

**See Page CNCL - 215 for staff memorandum dated June 22, 2022**

**CNCL-217**

**See Page CNCL-217 for full report**

**PLANNING COMMITTEE RECOMMENDATION**

- (1) *That Richmond Official Community Plan Bylaw 7100, Amendment Bylaw 10190, which proposes to amend Schedule 2.10 (City Centre Area Plan) by:*
  - *designating the area bounded by Westminster Hwy, Garden City Road, Cook Road and Cooney Road as “Urban Centre T5” and “Sub-Area B2 Mixed Use – Mid-Rise Residential & Limited Commercial”; and*
  - *establishing a rental tenure overlay and supporting policies, which outline density increases associated with secured rental tenure for properties in and adjacent to Spires Road, as described in the attached report titled “Referral Response: Spires Road Area Proposed Rental Tenure & Density Increases”;**be introduced and given first reading;*
- (2) *That Richmond Official Community Plan Bylaw 7100, Amendment Bylaw 10190, having been considered in conjunction with:*

- *the City's Financial Plan and Capital Program;*
- *the Greater Vancouver Regional District Solid Waste and Liquid Waste Management Plans;*

*is hereby found to be consistent with said program and plans, in accordance with Section 477(3)(a) of the Local Government Act;*

- (3) *That Richmond Official Community Plan Bylaw 7100, Amendment Bylaw 10190, having been considered in accordance with OCP Bylaw Preparation Consultation Policy 5043, is hereby found not to require further consultation;*
- (4) *That instream rezoning applications that are received prior to adoption of Richmond Official Community Plan Bylaw 7100, Amendment Bylaw 10190, may be exempt from the Spires Road Area Market Rental Policy provided the application achieves first reading within one year of the amendment bylaw being adopted and final adoption and issuance of a Development Permit within one year following the associated Public Hearing;*
- (5) *That staff report back to Council regarding key findings related to the implementation of updates to the City Centre Area Plan for the Spires Road area after the policy provisions are in place for one year; and*
- (6) *That staff be directed, on an interim basis, to consider development applications within the Arterial Road Land Use Policy that would allow higher densities provided that all of the additional density is used for rental housing, and that this interim measure becomes a foundation for the overall policy review of the Arterial Road Land Use Policy as part of the Official Community Plan targeted review to secure more rental along designated Arterial Road, in particular near Neighbourhood Service Centres and frequent transit routes.*



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Item

12. **MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE  
APPLICATION TO NATIONAL TRADE CORRIDORS FUND**

(File Ref. No. 01-0150-20-THIG1) (REDMS No. 6894828)

CNCL-245

See Page **CNCL-245** for full report

**PUBLIC WORKS AND TRANSPORTATION RECOMMENDATION**

*That the City provide a letter of support for the Ministry of Transportation and Infrastructure's submission of the Moray Bridge Area Integrated Planning Study for consideration of cost-share funding from the Government of Canada's National Trade Corridors Fund, as described in the report titled "Ministry of Transportation and Infrastructure Application to National Trade Corridors Fund" dated May 6, 2022 from the Director, Transportation.*



Consent  
Agenda  
Item

13. **MUNICIPAL ACCESS AGREEMENT WITH CIK TELECOM INC.**

(File Ref. No. 10-6000-01) (REDMS No. 6886345)

CNCL-250

See Page **CNCL-250** for full report

**PUBLIC WORKS AND TRANSPORTATION RECOMMENDATION**

*That the Chief Administrative Officer and the General Manager, Engineering & Public Works be authorized to negotiate and execute, on behalf of the City, a Municipal Access Agreement between the City and CIK Telecom Inc. as outlined in the staff report titled, "Municipal Access Agreement with CIK Telecom Inc.", dated May 17, 2022 from the Director, Engineering.*



Consent  
Agenda  
Item

14. **FEDERATION OF CANADIAN MUNICIPALITIES MUNICIPAL ASSET MANAGEMENT PROGRAM GRANT FUNDING APPLICATION – SANITARY PUMP STATION CONDITION ASSESSMENTS**

(File Ref. No. 10-6060-03-01) (REDMS No. 6893847))

CNCL-253

See Page CNCL-253 for full report

PUBLIC WORKS AND TRANSPORTATION RECOMMENDATION

- (1) *That the City's grant application for the Sanitary Pump Station Condition Assessments project to the Federation of Canadian Municipalities Municipal Asset Management Program be endorsed; and*
- (2) *That the Chief Administrative Officer and General Manager, Engineering and Public Works, be authorized to negotiate and execute funding agreements with the Federation of Canadian Municipalities for the Sanitary Pump Station Condition Assessments project should it be approved for funding, and that the Consolidated 5 Year Financial Plan (2022-2026) be amended accordingly.*



Consent  
Agenda  
Item

15. **2021 ANNUAL WATER QUALITY REPORT**

(File Ref. No. 10-6000-01) (REDMS No. 6886255)

CNCL-256

See Page CNCL-256 for full report

PUBLIC WORKS AND TRANSPORTATION RECOMMENDATION

- (1) *That the annual report titled, “2021 Annual Water Quality Report” dated May 16, 2022, from the Director, Public Works Operations, be endorsed; and*
- (2) *That the annual report titled, “2021 Annual Water Quality Report” dated May 16, 2022, be made available to the community on the City’s website and through various communication tools including social media channels and as part of community outreach initiatives.*



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Consent  
Agenda  
Item

16. **REGIONAL PUBLIC WORKS MUTUAL AID AGREEMENT**

(File Ref. No. 10-6000-00) (REDMS No. 6845456)

CNCL-317

See Page CNCL-317 for full report

**PUBLIC WORKS AND TRANSPORTATION RECOMMENDATION**

*That the following actions be taken in regard to approving the Regional Public Works Mutual Aid Agreement as more particularly described in the staff report dated May 9, 2022 from the Director, Public Works Operations:*

- (1) *The Chief Administrative Officer and the General Manager, Engineering and Public Works be authorized to execute the Regional Public Works Mutual Aid Agreement on behalf of the City of Richmond; and*
- (2) *The General Manager, Engineering and Public Works or his delegate be designated as the Authorized representative under the Regional Public Works Mutual Aid Agreement.*



Consent  
Agenda  
Item

17. **AWARD OF CONTRACT: 7268P – ROLL-OFF AND IN-GROUND CONTAINER COLLECTION AND RECYCLING/DISPOSAL SERVICES**

(File Ref. No. 10-6370-01) (REDMS No. 6882400)

CNCL-320

See Page CNCL-320 for full report

**PUBLIC WORKS AND TRANSPORTATION RECOMMENDATION**

- (1) *That Contract 7268P – Roll-Off and In-Ground Container Collection and Recycling/Disposal Services be awarded for a five-year term, commencing August 1, 2022 to GFL Environmental Inc. at an estimated total contract value of \$3,163,153.03, as described in the report titled “Award of Contract: 7268P – Roll-Off and In-Ground Container Collection and Recycling/Disposal Services”, dated May 13, 2022, from the Director, Public Works Operations;*

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- (2) *That the Chief Administrative Officer and General Manager, Engineering and Public Works be authorized to extend the initial five-year term, up to the maximum total term of seven years, for the maximum total amount of \$4,588,832.26, as described in the report titled “Award of Contract: 7268P – Roll-Off and In-Ground Container Collection and Recycling/Disposal Services”, dated May 13, 2022, from the Director, Public Works Operations; and*
- (3) *That the Chief Administrative Officer and General Manager, Engineering and Public Works be authorized to execute the contract and all related documentation with GFL Environmental Inc.*



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### CONSIDERATION OF MATTERS REMOVED FROM THE CONSENT AGENDA

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### NON-CONSENT AGENDA ITEMS

### PLANNING COMMITTEE

Councillor Bill McNulty, Chair



18. **APPLICATION BY FARRELL ESTATES LTD. FOR REZONING AT 6831 GRAYBAR ROAD, 20455 DYKE ROAD, 20911 DYKE ROAD, 7500 NO. 9 ROAD, LOT A BLOCK 4N PLAN EPP113853 SECTION 9 RANGE 4W NEW WESTMINSTER LAND DISTRICT & SEC 16, 17, 20 (031-553-231) AND A PORTION OF GRAYBAR ROAD FROM THE “INDUSTRIAL AND MARINA (ZI17) – GRAYBAR ROAD (EAST RICHMOND)”, “INDUSTRIAL BUSINESS PARK (IB1)”, AND “LIGHT INDUSTRIAL (IL)” ZONES TO THE “INDUSTRIAL BUSINESS PARK AND MARINA (ZI20) – GRAYBAR ROAD (EAST RICHMOND)”ZONE**

(File Ref. No. RZ 21-928623) (REDMS No. 6797839)

CNCL-325

See Page CNCL-325 for full report

PLANNING COMMITTEE RECOMMENDATION

Opposed: Cllr. Day

*(1) That Richmond Zoning Bylaw 8500, Amendment Bylaw 10336 to:*

- (a) create the “Industrial Business Park and Marina (ZI20) – Graybar Road (East Richmond)” zone, and to rezone 6831 Graybar Road, 20455 Dyke Road, 20911 Dyke Road, 7500 No. 9 Road, Lot A Block 4N Plan EPP113853 Section 9 Range 4W New Westminster Land District & SEC 16, 17, 20 (PID 031-553-231), and a portion of Graybar Road from the “Industrial and Marina (ZI17) – Graybar Road (East Richmond)”, “Industrial Business Park (IB1)”, and “Light Industrial (IL)” zones to the “Industrial Business Park and Marina (ZI20) – Graybar Road (East Richmond)” zone be introduced and given first reading; and*
- (b) discharge “Land Use Contract 127”, entered in to pursuant to “Farrell Estates Ltd. Land Use Contract Bylaw No. 3613 (RD85962)”, from the title of 6831 Graybar Road:*

*be introduced and given first reading.*



FINANCE AND CORPORATE SERVICES DIVISION

## Council Agenda – Monday, June 27, 2022

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19.	<b>2021 ANNUAL REPORT AND 2021 ANNUAL REPORT HIGHLIGHTS</b> (File Ref. No. 01-0375-01) (REDMS No. 6898968)
CNCL-370	<b>See Page CNCL-370 for full report</b>
	STAFF RECOMMENDATION  <i>That the reports titled “2021 Annual Report” and “2021 Annual Report – Highlights” be approved.</i>
	<input type="checkbox"/>
20.	<b>2021 STATEMENT OF FINANCIAL INFORMATION</b> (File Ref. No. 03-1200-03) (REDMS No. 6909545)
CNCL-469	<b>See Page CNCL-469 for full report</b>
	STAFF RECOMMENDATION  <i>That the 2021 Statement of Financial Information be approved.</i>
	<input type="checkbox"/>
21.	<b>2021 COUNCIL REMUNERATION AND EXPENSES</b> (File Ref. No. 03-1200-03) (REDMS No. 6909545)
CNCL-560	<b>See Page CNCL-560 for full report</b>
	STAFF RECOMMENDATION  <i>That the report titled 2021 Council Remuneration and Expenses be received for information.</i>
	<input type="checkbox"/>

PLANNING AND DEVELOPMENT DIVISION

## Council Agenda – Monday, June 27, 2022

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22.	<b>ENDORSEMENT OF UBCM RESOLUTION FOR AN INCREASE TO MAXIMUM RENT CEILINGS AND MONTHLY PAYMENT AMOUNTS THROUGH BC HOUSING'S SAFER PROGRAM</b> (File Ref. No. 01-0375-01) (REDMS No. 6898968)

CNCL-562

See Page CNCL-562 for full report

### STAFF RECOMMENDATION

*That the resolution in support of an increase to the maximum rent ceilings and monthly payment amounts through BC Housing's Shelter Aid for Elderly Renters (SAFER) program be endorsed, as outlined in Attachment 1 of the report titled "Endorsement of UBCM Resolution for an Increase to Maximum Rent Ceilings and Monthly Payment Amounts through BC Housing's SAFER Program," from the Director, Community Social Development, be endorsed and forwarded to the Union of BC Municipalities (UBCM) for consideration during its 2022 Convention.*



### NEW BUSINESS

### ADJOURNMENT





## Regular Council

Monday, June 13, 2022

Place: Council Chambers  
Richmond City Hall

Present: Mayor Malcolm D. Brodie  
Councillor Chak Au  
Councillor Carol Day  
Councillor Andy Hobbs  
Councillor Alexa Loo  
Councillor Bill McNulty (by teleconference)  
Councillor Linda McPhail (by teleconference)  
Councillor Harold Steves (by teleconference)  
Councillor Michael Wolfe

Corporate Officer – Claudia Jesson

Call to Order: Mayor Brodie called the meeting to order at 7:00 p.m.

RES NO.    ITEM

### MINUTES

- R22/11-1    1.    It was moved and seconded  
*That:*
- (1)    *the minutes of the Regular Council meeting held on May 24, 2022, be adopted as circulated; and*
  - (2)    *the Metro Vancouver 'Board in Brief' dated May 27, 2022, be received for information.*

**CARRIED**



**Regular Council  
Monday, June 13, 2022**

**AGENDA ADDITIONS & DELETIONS**

R22/11-2

It was moved and seconded

That Item No. 7 - Public Electric Vehicle Charger Program Update: Additional Motion be corrected to read "That a letter be sent to the Province of BC, Minister of Housing, requesting Right to Charge Legislation confirming the right of an owner or occupant of a strata unit to charge an Electric Vehicle that will promote installation of electric vehicle charging infrastructure in more strata and apartment buildings."

**CARRIED**

**PRESENTATION**

Jenna Stevens, representative from the Recreation Facilities Association of British Columbia (RFABC) presented Council with the Bill Woycik Outstanding Facility Award 2022 for the Minoru Centre for Active Living for its operational efficiencies, sustainable initiatives and for delivering exceptional recreational services to the Community.

Mayor Brodie noted that there were no members of the public present in the Council Chambers or pre-registered to participate by phone and therefore motions to resolve into Committee of the Whole to hear delegations from the floor on Agenda items and to rise and report (Items No. 2, 3, and 4) were not necessary.

**CONSENT AGENDA**

R22/11-3

5. It was moved and seconded

*That Items No. 6 through No. 12 be adopted by general consent.*

**CARRIED**

6. **COMMITTEE MINUTES**



**Regular Council  
Monday, June 13, 2022**

*That the minutes of:*

- (1) the Finance Committee meeting held on June 6, 2022;*
- (2) the General Purposes Committee meeting held on June 6, 2022;*
- (3) the Parks, Recreation and Cultural Services Committee meeting held on May 25, 2022;*
- (4) the Planning Committee meeting held on June 7, 2022 and*
- (5) the Public Works and Transportation Committee meeting held on May 18, 2022*

*be received for information.*

**CARRIED**

**7. PUBLIC ELECTRIC VEHICLE CHARGER PROGRAM UPDATE:  
ADDITIONAL MOTION**

(File Ref. No. 10-6460-03) (REDMS No. 6869022)

R22/11-4

It was moved and seconded

*That a letter be sent to the Province of BC Minister of Housing requesting the Right To Charge Legislation confirming the right of an owner or occupant of a strata unit to charge an electric vehicle that will promote installation of electric vehicle charging infrastructure in more strata and apartment buildings.*

**CARRIED**

**8. RICHMOND ANIMAL SHELTER PUBLIC ART PROJECT TERMS  
OF REFERENCE**

(File Ref. No. 11-7000-09-20-284) (REDMS No. 6856017; 6841472 )

R22/11-5

It was moved and seconded

*That the Terms of Reference for the Richmond Animal Shelter Public Art Project as presented in the report titled, "Richmond Animal Shelter Public Art Project Terms of Reference", dated April 13, 2022, from the Director, Arts, Culture and Heritage Services, be approved.*

**CARRIED**





**Regular Council  
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**9. STEVESTON CANNERY CHANNEL**

(File Ref. No. 10-6150-02; 01-0140-20-SHAR1 ) (REDMS No. 6918285)

R22/11-6

It was moved and seconded

- (1) *That Council endorses a sustainable and cost-sharing approach to the critical necessity of dredging the Steveston Cannery Channel; and,*
- (2) *That the matter of the Steveston Cannery Channel dredging be referred to staff to:*
  - (a) *determine the potential costs and likely share of the costs to the City of Richmond and source of funding;*
  - (b) *determine a potential cost-sharing arrangement model;*
  - (c) *outline the terms for a permanent funding formula;*
  - (d) *outline the rationale for the proposed dredging;*
  - (e) *undertake a historical review of dredging in the Channel; and,*
  - (f) *review the feasibility of the City owning and operating dredging equipment permanently.*

**CARRIED**

**10. 2022 BC ENERGY STEP CODE AND GHG REQUIREMENTS FOR NEW BUILDINGS**

(File Ref. No. 10-6125-07-02, 12-8060-20-010365/10364 ) (REDMS No. 6898984, 6895944, 6900256, 6836452, 6846449, 6846377)

R22/11-7

It was moved and seconded

- (1) *That Building Regulation Bylaw 7230, Amendment Bylaw 10365, which amends Sections 10.1.1 and 16.1 regarding updates to existing BC Energy Step Code and greenhouse gas intensity (GHGI) requirements for Part 9 residential buildings and Part 3 residential, hotel, commercial and office buildings, be introduced and given first reading;*
- (2) *That for buildings requiring a Development Permit, notwithstanding the adoption of Building Regulation Bylaw 7230, Amendment Bylaw 10365:*
  - (a) *If a Development Permit is issued prior to July 1, 2022, the*



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*owner may, while their Development Permit remains valid, apply for a Building Permit in compliance with energy efficiency requirements applicable prior to the adoption of Bylaw 10365; or*

- (b) If an acceptable Development Permit application has been submitted to the City prior to adoption of Bylaw 10365, is considered and endorsed by the Development Permit Panel prior to July 1, 2023, and has a complete Building Permit application acceptable to the City submitted prior to July 1, 2023, the owner may apply for a Building Permit in compliance with energy efficiency requirements applicable prior to adoption of Bylaw 10365.*
- (3) That Official Community Plan Bylaw 9000, Amendment Bylaw 10364, which amends Section 14.2.10 to Schedule 1 (Development Permit Guidelines) regarding the use of design approaches and technologies that improve the energy performance of buildings, be introduced and given first reading;*
- (4) That Richmond Official Community Plan Bylaw 9000, Amendment Bylaw 10364, having been considered in conjunction with:*
  - (a) the City's Financial Plan and Capital Program; and*
  - (b) the Greater Vancouver Regional District Solid Waste and Liquid Waste Management Plans;*

*is hereby found to be consistent with said program and plans, in accordance with Section 477(3)(a) of the Local Government Act; and*

- (5) That Richmond Official Community Plan Bylaw 9000, Amendment Bylaw 10364, having been considered in accordance with Section 475 of the Local Government Act and the City's Official Community Plan Bylaw Preparation Consultation Policy 5043, is found not to require further consultation.*

**CARRIED**





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Monday, June 13, 2022**

11. **APPLICATION BY D.C. LTD. (DHINJAL CONSTRUCTION LTD.) FOR REZONING AT 9231 KILBY STREET FROM THE "SINGLE DETACHED (RS1/E)" ZONE TO THE "SINGLE DETACHED (RS2/A)" ZONE**

(File Ref. No. RZ 21-925460; 12-8060-20-010379 )(REDMS No. 6884760; 3186793, 280279, 6884771)

R22/11-8

It was moved and seconded

*That Richmond Zoning Bylaw 8500, Amendment Bylaw 10379, for the rezoning of 9231 Kilby Street from "Single Detached (RS 1 /E)" zone to "Single Detached (RS2/ A)" zone, be introduced and given first reading.*

**CARRIED**

12. **APPLICATION BY PARM DHINJAL FOR REZONING AT 9271 KILBY STREET FROM THE "SINGLE DETACHED (RS1/E)" ZONE TO THE "SINGLE DETACHED (RS2/A)" ZONE**

(File Ref. No. RZ 21-934410; 12-8060-20-010380) (REDMS No. 6886931; 3186793, 6886935)

R22/11-9

It was moved and seconded

*That Richmond Zoning Bylaw 8500, Amendment Bylaw 10380, for the rezoning of 9271 Kilby Street from the "Single Detached (RS1/E)" zone to the "Single Detached (RS2/A)" zone, be introduced and given first reading.*

**CARRIED**

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**CONSIDERATION OF MATTERS REMOVED FROM THE  
CONSENT AGENDA**

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**PUBLIC ANNOUNCEMENTS AND EVENTS**

Mayor Brodie announced that Kristin Defer has been appointed to the Advisory Design Panel for the remainder of a two-year term to expire on December 31, 2022; and



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Mayor Brodie advised that the Wednesday, June 15, 2022 Development Permit Panel meeting has been cancelled.

**BYLAWS FOR ADOPTION**

R22/11-10

It was moved and seconded

*That the following bylaws be adopted:*

*Civic Election Administration and Procedure Bylaw No. 7244, Amendment Bylaw No. 10349; and*

*Richmond Zoning Bylaw No. 8500, Amendment Bylaw No. 10351*

**CARRIED**

R22/11-11

It was moved and seconded

*That Richmond Zoning Bylaw 8500, Amendment Bylaw No. 10047 be adopted.*

**CARRIED**

**Opposed: Cllrs: Day  
Wolfe**

**DEVELOPMENT PERMIT PANEL**

R22/11-12 13.

It was moved and seconded

(1) *That the minutes and the Chair's report for the Development Permit Panel meeting held on November 25, 2020 be received for information.*

(2) *That the recommendations of the Panel to authorize the issuance of a Development Permit (DP 19-867710) for the property located at 9020 Glenallan Gate, 9460, 9480 and 9500 Garden City Road be endorsed and the Permits so issued.*

**CARRIED**



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**ADJOURNMENT**

R22/11-13

It was moved and seconded  
*That the meeting adjourn (8:01 p.m.).*

**CARRIED**

Certified a true and correct copy of the  
Minutes of the Regular meeting of the  
Council of the City of Richmond held on  
Monday, June 13, 2022.

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Mayor (Malcolm D. Brodie)

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Corporate Officer (Claudia Jesson)



**Regular Council meeting for Public Hearings  
Monday, June 20, 2022**

Place: Council Chambers  
Richmond City Hall

Present: Mayor Malcolm D. Brodie, Chair  
Councillor Chak Au  
Councillor Carol Day  
Councillor Andy Hobbs  
Councillor Alexa Loo  
Councillor Bill McNulty  
Councillor Linda McPhail (by teleconference)  
Councillor Harold Steves (by teleconference)  
Councillor Michael Wolfe (by teleconference)

Matthew O'Halloran, Acting Corporate Officer

Call to Order: Mayor Brodie opened the proceedings at 7:00 p.m.

**1. RICHMOND ZONING BYLAW 8500, AMENDMENT BYLAW 10383  
(RZ 21-936512)**

(Location: 3660/3662 Williams Road; Applicant: Pakland Properties)

*Applicant's Comments:*

The applicant was available to respond to queries.

*Written Submissions:*

None

*Submissions from the floor:*

Laura Gillanders, Richmond resident, spoke about densifying single family neighbourhoods and the possibility of redeveloping older duplexes into new duplexes or triplexes as a more affordable option for home buyers.





**Regular Council meeting for Public Hearings  
Monday, June 20, 2022**

Discussion ensued regarding (i) options to build something other than two single-family homes, (ii) staff recommendation is based on compliance of the City's Zoning bylaw and Official Community Plan (OCP) (iii) this application does not fall under the Arterial Road policy, and (iv) a rezoning application would not be required to permit the development of a duplex or a single family home on this property.

PH22/6-1

It was moved and seconded

***That Richmond Zoning Bylaw 8500, Amendment Bylaw 10383 be given second and third readings.***

The question on the motion was not called as discussion ensued regarding access to the property and the creation of a hub for the neighborhood by redesigning this development as it is close to an elementary school and park.

As a result of the discussion the following referral motion was introduced:

PH22/6-2

It was moved and seconded

***That The Staff Report Titled "Application By Pakland Properties For Rezoning At 3660/3662 Williams Road From The "Two-Unit Dwellings (RD1)" Zone To The "Single Detached (RS2/B)" Zone From the Director of Development, dated May 3, 2022 be referred back to staff to review more design options.***

The question on the referral motion was not called as discussion ensued regarding (i) the proposal for a hub for this development would be contrary to the OCP (ii) project delays contribute to higher costs and lower affordability, (iii) use of creativity in property development and design, (iv) the application meets all requirements and is consistent with the current area plan, and (v) the suitability of the proposed secondary suites for families.

The question on the referral motion was then called and **DEFEATED** with Mayor Brodie, Cllrs: Hobbs, Loo, McNulty, McPhail, and Steves opposed.

The question on the main motion was then called and **CARRIED** with Cllrs: Au, Day and Wolfe opposed.



Regular Council meeting for Public Hearings  
Monday, June 20, 2022

2. **OFFICIAL COMMUNITY PLAN BYLAW 9000, AMENDMENT BYLAW 10375 AND RICHMOND ZONING BYLAW 8500, AMENDMENT BYLAW 10376 (MARKET RENTAL HOUSING AMENDMENTS)**

(Location: City-wide; Applicant: City of Richmond)

*Applicant's Comments:*

The applicant was available to respond to queries.

*Written Submissions:*

None

*Submissions from the floor:*

Laura Gillanders, Richmond resident shared her concerns about the need for more 100 percent market rental housing and that she felt rental tenure zoning was the solution.

Discussion ensued regarding (i) the City purchasing property to provide affordable rental housing options; (ii) this policy if adopted would be a mandatory requirement for 15 percent Market rental with some incentives for density bonusing and parking, (iii) limitations caused by height restrictions, (iv) policy will be reviewed annually, (v) there is a need for housing units from all across the housing continuum. (vi) Initiatives needed to encourage rental of all kind, (vii) larger development sites are not able to take on high percentage of rentals, and (viii) adding provisions limiting the use of market rental units as short term accommodations.

PH22/6-3

It was moved and seconded

***Official Community Plan Bylaw 9000, Amendment Bylaw 10375 be given second and third readings.***

**CARRIED**

Opposed: Cllr. Au

PH22/6-4

It was moved and seconded

***Richmond Zoning Bylaw 8500, Amendment Bylaw 10376 be given second and third readings.***

**CARRIED**

Opposed: Cllr. Au

PH22/6-5

It was moved and seconded



Regular Council meeting for Public Hearings  
Monday, June 20, 2022

*Official Community Plan Bylaw 9000, Amendment Bylaw 10375 be adopted.*

**CARRIED**

Opposed: Cllr. Au

PH22/6-6

It was moved and seconded

*Richmond Zoning Bylaw 8500, Amendment Bylaw 10376 be adopted.*

**CARRIED**

Opposed: Cllr. Au

ADJOURNMENT

PH22/6-7

It was moved and seconded

*That the meeting adjourn (8:11 p.m.).*

**CARRIED**

Certified a true and correct copy of the  
Minutes of the Regular meeting for Public  
Hearings of the City of Richmond held on  
Monday, June 20, 2022.

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Mayor (Malcolm D. Brodie)

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Acting Corporate Officer  
(Matthew O'Halloran)



## Community Safety Committee

Date: Tuesday, June 14, 2022

Place: Council Chambers  
Richmond City Hall

Present: Councillor Linda McPhail, Chair (by teleconference)  
Councillor Carol Day (by teleconference)  
Councillor Andy Hobbs  
Councillor Alexa Loo (by teleconference)  
Councillor Bill McNulty  
Councillor Harold Steves (by teleconference)

Also Present: Councillor Michael Wolfe

Call to Order: The Chair called the meeting to order at 4:00 p.m.

### MINUTES

It was moved and seconded

*That the minutes of the meeting of the Community Safety Committee held on May 10, 2022, be adopted.*

**CARRIED**

### COMMUNITY SAFETY DIVISION

1. **COMMUNITY BYLAWS ANIMAL PROTECTION SERVICES  
MONTHLY ACTIVITY REPORT – APRIL 2022**

(File Ref. No. 12-8060-01) (REDMS No. 6881417)

It was moved and seconded

*That the staff report titled “Community Bylaws Animal Protection Services Monthly Activity Report – March 2022”, dated May 12, 2022, from the General Manager, Community Safety, be received for information.*

**CARRIED**



## Community Safety Committee

Tuesday, June 14, 2022

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2. **PROPERTY USE AND PARKING ENFORCEMENT MONTHLY ACTIVITY REPORT – APRIL 2022**

(File Ref. No. 12-8060-00) (REDMS No. 6896758)

A brief discussion ensued with respect to soil deposit/removal.

It was moved and seconded

*That the staff report titled “Property Use and Parking Enforcement Monthly Activity Report – April 2022”, dated May 20, 2022, from the Director, Community Bylaws & Licencing, be received for information.*

**CARRIED**

3. **RICHMOND FIRE-RESCUE MONTHLY ACTIVITY REPORT – APRIL 2022**

(File Ref. No. 99-Fire Rescue1) (REDMS No. 6893553)

In response to questions from the Committee, Chief Wishlove noted the following:

- There was a significant amount of outdoor fires reported in April; typical causes include discarded cigarettes in medians and back yard burning.
- Medical call responses are in line with current firefighter licensing. Further to Minister Dix’s announcement in December 2021, an expansion on the licensing for increased medical abilities and treatment is forthcoming.
- With respect to emergency events that require shelter response, there are a number of stable resources within different neighbourhoods in the City already earmarked with the ability to set up 24 hours per day, 7 days per week.
- With respect to any hesitancy in issuing permits for large agricultural burning, there is still concern due to the significant amount of outdoor fires experienced with dryness, despite the wet weather.

It was moved and seconded

*That the staff report titled “Richmond Fire-Rescue Monthly Activity Report – April 2022”, dated May 10, 2022, from the Fire Chief, be received for information.*

**CARRIED**

# Community Safety Committee

## Tuesday, June 14, 2022

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4. **FIRE CHIEF BRIEFING**

(Verbal Report)

Chief Wishlove noted that the City's Emergency Programs planning branch recently conducted an update and table top exercise with City business units and external partners such as Vancouver Coastal Health, Metro Vancouver and EMBC, in the familiarization for the City's heat operations plan. The plan has been revised with significant operations planned and ready in case of another heat event similar to last year. In particular, the ability to deliver at risk or heat vulnerable people to the City's cooling centres, and an improved communications plan to reach those people. Additionally, Public Works and Transportation have an inventory of misting stations ready to be deployed, as well as drinking fountains that can be connected to hydrants, as part of the heat operations plan.

5. **RCMP MONTHLY ACTIVITY REPORT - APRIL 2022**

(File Ref. No. 09-5000-01) (REDMS No. 6883237)

A brief discussion ensued with respect to hospital wait times, noting that the average hospital wait times increased from 87 to 122 minutes for the month of April as a result of a number of files with exceptional wait times.

Chief Supt. Chauhan noted that safety concerns regarding e-bikes on streets, sidewalks, etc. is an issue which will be reviewed with the Road Safety Unit.

It was moved and seconded

*That the staff report titled "RCMP Monthly Activity Report – April 2022", dated May 16, 2022, from the Chief Superintendent, Officer in Charge, Richmond RCMP Detachment, be received for information.*

**CARRIED**

6. **RCMP/OIC BRIEFING**

(Verbal Report)

Chief Supt. Chauhan noted the following:

**(1) Police Week Events**

In May, the Community Engagement team and volunteers were busy on a number of initiatives, including Emergency Preparedness Week, National Boat Safety Week and Canada Road Safety Week, celebrating Jewish Heritage Month and Asian Heritage Month and the Moose Hide Campaign.

National Police Week was also held mid-May where members from the Community Engagement Team, as well as volunteers, attended Minoru Centre Park for Active Living, providing two well received workshops on personal safety, fraud awareness and "coffee with a cop".

## Community Safety Committee

Tuesday, June 14, 2022

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Citizen engagement also took place at Lansdowne Centre, offering photos with members in red serge and providing education tables on the Block Watch, the “Spot the Target” initiative (objects subject to theft by auto thieves) and Canada Post mail theft information.

**(2) *Richmond Night Market***

Police engagement, with two officers on-site, is providing enhanced visibility and has been well received by Richmond Night Market businesses.

**(3) *Property Crime***

There is an ongoing effort to proactively address property crime. A list of prolific offenders and prolific priority targets is closely monitored and updated.

**7. MANAGER’S REPORT**

*None.*

## ADJOURNMENT

It was moved and seconded

*That the meeting adjourn (4:40 p.m.).*

**CARRIED**

Certified a true and correct copy of the Minutes of the meeting of the Community Safety Committee of the Council of the City of Richmond held on Tuesday, June 14, 2022.

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Councillor Linda McPhail  
Chair

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Lorraine Anderson  
Legislative Services Associate



## General Purposes Committee

Date: Monday, June 20, 2022

Place: Council Chambers  
Richmond City Hall

Present: Mayor Malcolm D. Brodie, Chair  
Councillor Chak Au  
Councillor Carol Day (by teleconference)  
Councillor Andy Hobbs  
Councillor Alexa Loo (by teleconference)  
Councillor Bill McNulty (by teleconference)  
Councillor Linda McPhail (by teleconference)  
Councillor Harold Steves (by teleconference)  
Councillor Michael Wolfe (by teleconference)

Call to Order: The Chair called the meeting to order at 4:00 p.m.

### MINUTES

It was moved and seconded

*That the minutes of the meeting of the General Purposes Committee held on June 6, 2022, be adopted as circulated.*

**CARRIED**

### COMMUNITY SERVICES DIVISION

1. **2022 NEIGHBOURHOOD CELEBRATION GRANTS ALLOCATION**  
(File Ref. No. 11-7000-01) (REDMS No. 6899905)

Staff provided a brief review of the adjudication process for eligible funding requests. It was noted that the Adjudication Committee was comprised of an internal committee representing Arts, Culture and Heritage, Recreation and Sport, Parks Programs, and Community Social Development, with equal contribution to the scoring.

## General Purposes Committee

### Monday, June 20, 2022

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Staff further noted the grant opportunity was widely promoted through media releases, social media, and through the city's community associations, and that the funding requests received were a good representation from across the city.

It was moved and seconded

- (1) *That the Neighbourhood Celebration Grants be awarded for the recommended amount of \$74,947.96 as identified in Attachment 2 of the staff report titled, "2022 Neighbourhood Celebration Grants Allocation", dated May 30, 2022, from the Director, Arts, Culture and Heritage Services; and*
- (2) *That the grant funds be disbursed accordingly.*

**CARRIED**

#### 2. **ENDORSEMENT OF UBCM RESOLUTION FOR LIBRARY FUNDING**

(File Ref. No. 11-7000-01) (REDMS No. 6914553)

It was moved and seconded

*That the resolution in support of restoring provincial funding for public libraries, as outlined in Attachment 1 of the attached report from the Chief Librarian, be endorsed and forwarded to the Union of BC Municipalities for consideration during its 2022 Convention.*

**CARRIED**

## ADJOURNMENT

It was moved and seconded

*That the meeting adjourn (4:21 p.m.).*

**CARRIED**

Certified a true and correct copy of the Minutes of the meeting of the General Purposes Committee of the Council of the City of Richmond held on June 20, 2022.

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Mayor Malcolm D. Brodie  
Chair

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Lorraine Anderson  
Legislative Services Associate




# City of Richmond

## Report to Committee



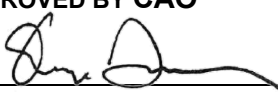
**To:** General Purposes Committee  
**From:** Marie Fenwick  
Director, Arts, Culture and Heritage Services  
**Date:** May 30, 2022  
**File:** 11-7000-01/2022-Vol 01  
**Re:** 2022 Neighbourhood Celebration Grants Allocation

### Staff Recommendation

1. That the Neighbourhood Celebration Grants be awarded for the recommended amount of \$74,947.96 as identified in Attachment 2 of the staff report titled, "2022 Neighbourhood Celebration Grants Allocation", dated May 30, 2022, from the Director, Arts, Culture and Heritage Services; and
2. That the grant funds be disbursed accordingly.

  
Marie Fenwick  
Director, Arts, Culture and Heritage Services  
(604-276-4288)

Att. 2

REPORT CONCURRENCE		
<b>ROUTED TO:</b>	<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>
Finance Department	<input checked="" type="checkbox"/>	
Recreation and Sport Services	<input checked="" type="checkbox"/>	
Parks Services	<input checked="" type="checkbox"/>	
Community Social Development	<input checked="" type="checkbox"/>	
<b>SENIOR STAFF REPORT REVIEW</b>	<b>INITIALS:</b> 	<b>APPROVED BY CAO</b> 

## Staff Report

### Origin

The Neighbourhood Celebration Grant Program was originally established in 2017 as part of the Richmond Canada 150 program to help small, Richmond-based non-profit organizations and neighbourhood groups plan and execute community-building events that connect residents with their local streets, parks and green spaces, and each other. The program has been on hold for the past two years as a result of the COVID-19 pandemic.

At the regular Council meeting on October 25, 2021, Council endorsed the 2022 Neighbourhood Celebration Grant Program as part of the 2022 City Event Program.

This report supports Council's Strategic Plan 2018-2022 Strategy #3 One Community Together:

*Vibrant and diverse arts and cultural activities and opportunities for community engagement and connection.*

*3.1 Foster community resiliency, neighbourhood identity, sense of belonging, and intercultural harmony.*

This report supports Council's Strategic Plan 2018-2022 Strategy #4 An Active and Thriving Richmond:

*An active and thriving community characterized by diverse social and wellness programs, services and spaces that foster health and well-being for all.*

This report supports the following Strategic Directions set out in the *Richmond Arts Strategy*:

Strategic Direction #1: Ensure Affordable and Accessible Arts for All

- 1.1.1 Review the City's offerings of free and low-cost arts programming and events, and assess required resources to keep cost barriers low.*
- 1.1.2 Develop or expand opportunities to directly support individual artists, cultural organizations and venues that provide low and no cost public program delivery.*

Strategic Direction #2: Promote Inclusivity and Diversity in the Arts

- 2.1. Celebrate Richmond's cultural diversity, history, growth and change as a community.*
- 2.1.5 Connect with the diverse cultural communities of Richmond (including faith-based communities) to encourage sharing of art, food and music.*

This report supports the following Strategic Directions set out in the *Community Wellness Strategy*:

*Focus Area #2: Enhance physical and social connectedness within and among neighbourhoods and communities.*

This report supports the following Strategic Directions set out in the *Cultural Harmony Plan*:

Strategic Direction #1: Intercultural Connections

- 1.1 *Continue to recognize and celebrate Richmond's diverse cultures and unique heritage through intercultural celebrations and events.*
- 1.2 *Develop and implement a neighbourhood approach to facilitating positive intercultural exchange and understanding between Richmond's diverse cultural communities, such as community-based dialogues, storytelling, and sharing of art, food, and music.*
- 1.5 *Incorporate criteria into the City Grant program that supports programs and events that facilitate intercultural interaction and promote intercultural understanding.*

Strategic Direction #5: Programs and Services

- 5.4 *Strengthen relationships with various cultural and ethnic communities in order to integrate their arts, cultural and heritage practices into the City's programs and events.*

## **Analysis**

### **Program Objectives and Eligibility Criteria**

The Neighbourhood Celebration Grant Program fosters community engagement at the grassroots level by providing an opportunity for groups of residents, artists and community organizations to submit proposals for events and initiatives to (re)connect residents of diverse backgrounds through shared experiences.

The Neighbourhood Celebration Grant Program supports a number of the guiding principles of the Council-endorsed City Events Strategy including: building local capacity by investing in community-driven events; providing opportunities for Richmond residents and community groups to collaborate, contribute and participate; and maximizing social benefits to the community by fostering volunteerism and increasing sense of community pride and belonging.

This program also supports the objectives of the Community Wellness Strategy and offers opportunities to activate specific actions in the Cultural Harmony Plan at the grassroots level by incorporating criteria that prioritizes proposals that facilitate intercultural interaction and promote intercultural understanding.



The objectives of the program are to:

- Provide an opportunity for groups of neighbours, artists, community champions and community organizations to receive funding to support initiatives and activities that offer opportunities to connect residents of diverse backgrounds through shared experiences;
- Encourage community event planners to collaborate with community partners, local businesses and Richmond-based artists to animate local neighborhoods, parks and open spaces and engage community members to make new neighbourhood connections;
- Encourage the development of grassroots events that support priority themes identified in the Cultural Harmony Plan, such as facilitating intercultural interaction and promoting intercultural understanding; and
- Promote environmentally sustainable event practices, ensuring events follow the principles set out in the Richmond Sustainable Event Toolkit.

Eligible applicants include:

- Richmond based neighbourhood groups (application must come from two individuals living in the same neighbourhood but from different households. Both applicants are responsible for managing the grant money);
- Not-for-profit community groups;
- Local artists who connect with a local neighbourhood group or community organization;
- Parent Advisory Committees;
- Community Associations; and
- Student Councils.

Individuals, political parties or events related to political activities or lobbying, events or projects that have funding from another City of Richmond grants program, and for-profit organizations and business are ineligible for funding. (Attachment 1 – Neighbourhood Celebration Grant Program Guide)

Additionally, all applicants must agree to adhere to any relevant Provincial Health Orders at the time of the event. They must demonstrate capacity and provide a realistic estimate of resources needed and total budget required in their proposal. The event must take place in Richmond and prior to December 31, 2022.

#### Program Promotions and Applications Received

The launch of the Neighbourhood Celebration Grant Program was announced to the public on May 2, 2022 via the City website, various social media channels, through targeted communications to previous program applicants and in community facilities throughout Richmond.

In total, 105 applications were received by the May 23, 2022 deadline. Applicants included Parent Advisory Councils, student groups, neighbourhood and strata groups, and non-profit societies. A summary of all submissions can be found in Attachment 2.

This represents a significant increase from 2019 when 54 applications were received and 44 projects totalling \$55,103 were funded. In 2020, 62 applications were received but none were funded as a result of the COVID-19 pandemic.

### Adjudication Process

Of the 105 applicants, 61 are recommended for funding and 43 were deemed ineligible for funding as they failed to meet the eligibility criteria and/or program mandate. One submission was received that had no project or budget information, so was not included in the review.

An adjudication panel reviewed the applications and evaluated each project based on the following five key areas: alignment with program community engagement objectives, inclusiveness/intercultural connections, capacity, budget and sustainability. A score was then assigned to each project.

The 61 eligible projects requested a cumulative total of \$141,630 in grant funding however, some projects requested funding for expenses that were ineligible. The ineligible expenses were deducted from the project's requested funding total which reduced the total eligible funding requests to \$133,134.

With a goal to award a level of funding to all eligible projects, the adjudication team multiplied the project score (expressed as a percentage) by the project's eligible funding request. In order to fund all of the eligible projects within the \$75,000 budget for this program, staff recommend that all eligible applicants receive 79% of this amount as detailed in Attachment 2. This resulted in a total of \$74,947.96 in recommended funding.

### Next Steps

Pending Council approval of the 2022 Neighbourhood Celebration Grant Program allocation, all applicants will be notified of the status of their application. Staff will provide the necessary resources and guidance to all successful applicants, including referring them to the Richmond Event Approval Coordination Team (REACT) process, if necessary. Applicants whose submissions were deemed to be ineligible this year will be provided with recommendations to inform potential future applications, including connections with community organizations/associations which may offer future partnership opportunities either within or outside of this program.

Applicants who receive funding will be asked to submit a brief final report providing an overview of the event/initiative, including the number of attendees, how the funds were used, and a photograph.

### **Financial Impact**

The 2022 Neighbourhood Celebration Grants budget of \$75,000 was approved as part of the City's 2022 Operating Budget. A total of \$74,947.96 in allocations is being recommended for the 2022 Neighbourhood Celebration Grant program, subject to City Council's approval.

## **Conclusion**

The distribution of \$74,947.96 through the Neighbourhood Celebration Grant Program will support Richmond-based non-profits and neighbourhood groups to develop and deliver initiatives and events that connect, and re-connect, residents with their local neighbourhoods, parks and green spaces, and each other after many challenging months of navigating the pandemic. These events and initiatives will provide lasting social benefits to the community by enhancing event planning and hosting capacity at the neighbourhood level, encouraging intercultural connections, and contributing to an increased sense of community connectedness and belonging.



Lisa Fedoruk  
Program Manager, Events  
(604-276-4320)

- Att. 1: Neighbourhood Celebration Grant Program Guide  
2: Neighbourhood Celebration Grant Proposed Distribution

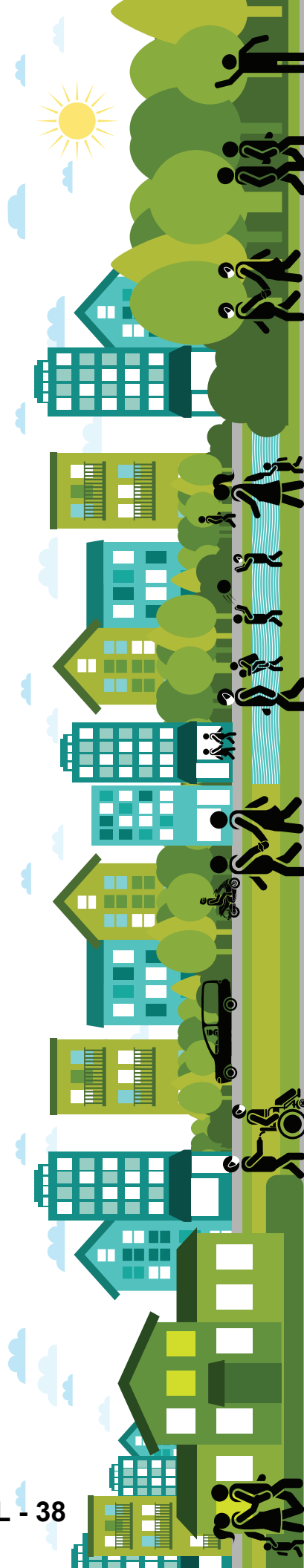
# RICHMOND NEIGHBOURHOOD CELEBRATION GRANT PROGRAM

Receive up to \$2,500 in funding to plan and implement events or shared experiences that (re)connect residents and encourage new neighbourhood connections.

Apply  
now!

[www.richmond.ca/celebrationgrant](http://www.richmond.ca/celebrationgrant)

CNCL - 38



APPLICATIONS MUST BE SUBMITTED BY MAY 23, 2022.

For more information,  
[RichmondHasHeart@richmond.ca](mailto:RichmondHasHeart@richmond.ca)  
[www.richmond.ca/celebrationgrant](http://www.richmond.ca/celebrationgrant)

City of Richmond | 6911 No.3 Road, Richmond, BC V6Y 2C1



# RICHMOND NEIGHBOURHOOD CELEBRATION GRANT PROGRAM

## OBJECTIVES:

The Neighbourhood Celebration Grant Program is designed to provide an opportunity for groups of neighbours, local artists, community champions and community organizations to submit creative proposals for events that offer opportunities to (re)connect residents of diverse backgrounds through shared experiences that can be delivered safely even if barriers to gathering in physical locations continue into summer/fall of 2022.

## This year's program will:

- Support participatory activities reflective of the themes of (re)connection.
- Encourage collaboration with residents, community organizations and Richmond-based artists to animate neighbourhoods, local business districts, parks and open spaces and encourage community members to make new neighbourhood connections.
- Support events and activities that facilitate intercultural interaction and promote intercultural understanding.

## ELIGIBLE APPLICANTS:

- Richmond-based neighbourhood groups (application must come from two individuals living in the same neighbourhood but from different households. Both applicants are responsible for managing the grant money).
- Not-for-profit community groups
- Local artists who connect with a local neighbourhood group or community organization
- Parent Advisory Committees
- Community Associations
- Student Councils

## INELIGIBLE APPLICANTS:

- Individuals
- Political parties or events related to political activities or lobbying
- Events or projects that have funding from another City of Richmond grants program
- For-profit organizations or businesses

## ELIGIBLE PROJECT EXPENSES:

- Supplies and materials
- Food
- Artist fees
- Sustainability initiatives
- Marketing materials
- Insurance

## INELIGIBLE PROJECT EXPENSES:

- Expenses that have already been incurred at the time of the application
- Building construction and repairs
- Proposals which primarily fund or award other groups or individuals
- Political activities
- Travel costs
- Ongoing operational expenses for organizations
- Capital projects
- Office administration
- Fundraisers
- Deficit reduction
- Activity outside of Richmond
- Bursaries or scholarships

## ASSESSMENT CRITERIA:

- Event must demonstrate alignment with the program objectives.
- Event must be inclusive and demonstrate engagement of community members from diverse backgrounds.
- Applicants must show evidence of capacity to host event.

- Project approach must show a realistic estimate of resources needed and total budget required.
- Project must demonstrate commitment to incorporate sustainability initiatives.
- Event must take place prior to December 31, 2022.
- Event must be held in Richmond.
- Applicants must commit to complying with any relevant Provincial Health Orders that may be in place at time of event delivery.

## DELIVERABLES:

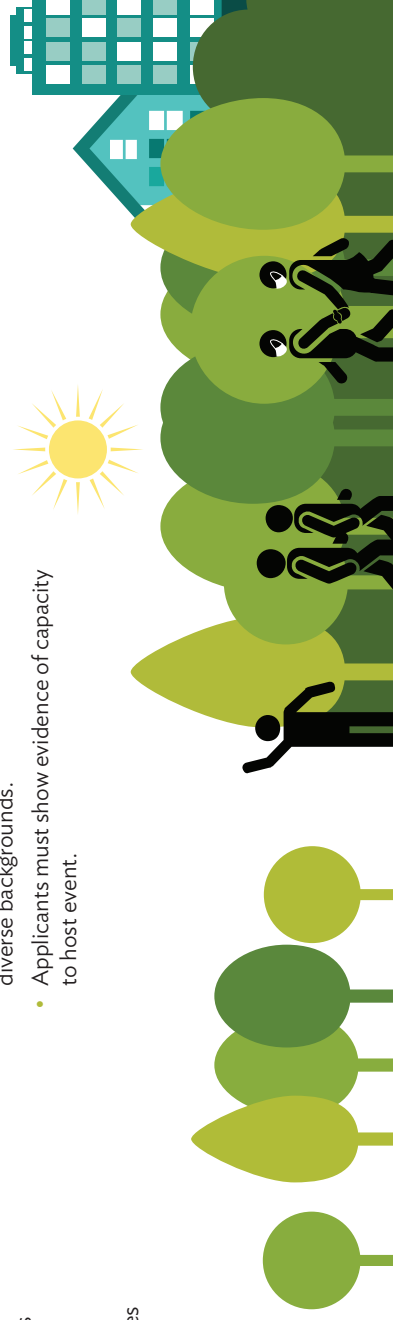
- Group photo
- Post event summary report

## APPLICATION DEADLINE:

- May 23, 2022

## APPLY ONLINE:

- [www.richmond.ca/celebrationgrant](http://www.richmond.ca/celebrationgrant)



Neighbourhood Celebration Grant Proposed Distribution 2022

An adjudication panel reviewed the applications and evaluated each project based on the following five key areas: alignment with program community engagement objectives, inclusiveness/intercultural connections, capacity, budget and sustainability. A score was then assigned to each project.

With a goal to award a level of funding to all eligible projects, the adjudication team multiplied the project score (expressed as a percentage) by the project’s eligible funding request. In order to fund these programs within the \$75,000 budget staff have recommended that all eligible applicants receive 79% of this amount.

RECOMMENDED							
	Project	Organization	Description	(A) Adjudicator Avg. Score	(B) Requested Funding	(C) Eligible Requested Funding	(A) x (C) x 79% = (D) Recommended Grant Funding
1	Tomsett Elementary Back to School BBQ	Tomsett School PAC	An outdoor event to allow families and teachers to reconnect again.	79%	\$2,500	\$2,500.00	\$ 1,560.25
2	Dorval and Woodward's Neighbourhood Canada Day Celebration	Neighbours	An event to build and solidify community connections and neighbourhood pride.	66%	\$2,500	\$2,500.00	\$ 1,303.50
3	Dockside Community Block Party	More Than a Roof	Community block party at South Arm Pool for tenants of Dockside complex.	68%	\$2,500	\$2,500.00	\$ 1,343.00
4	Kiwanis Towers Community BBQ	Richmond Kiwanis Senior Citizens Housing Society	A Kiwanis Community BBQ for the residents to allow seniors isolated due to Covid-19 to meet and greet their fellow neighbours once again.	87%	\$2,500	\$2,500.00	\$ 1,718.25
5	St. Alban's Community Picnic	Parish of St. Alban's	A picnic to recognize the dozens of volunteers who help with the outreach programs, and to celebrate with the entire neighbourhood.	81%	\$2,500	\$2,500.00	\$ 1,599.75
6	Richmond Cosom Hockey Block Party	Richmond Cosom Floor Hockey Association	Introduce community members to Cosom Hockey by providing introductory skills, activities and games throughout the weekend.	66%	\$2,500	\$2,500.00	\$ 1,303.50
7	Stanford Post COVID Block Party 2022	Neighbours	Block party to celebrate togetherness.	69%	\$2,500	\$2,500.00	\$ 1,362.75
8	Celebration of Light	Richmond Jewish Day School	An event that will celebrate peace and diversity by hosting neighbouring religious communities along the “Highway to Heaven” for a night of warmth, snacks, songs, and joy through a celebration of diversity around the theme of light.	89%	\$2,500	\$1,500.00	\$ 1,054.65
9	Our Saviour Community Pollinator Garden	Our Saviour Lutheran Church	This community pollinator garden celebration event will promote opportunities for Richmond residents to collaborate, contribute and participate in Our Saviour's community garden initiative by fostering volunteerism and increasing a sense of community pride and belonging.	72%	\$2,500	\$2,500.00	\$ 1,422.00
10	Chanukah Skate 2022	Chabad of Richmond	Chabad will be inviting the entire Richmond community to participate in a Chanukah Skate & Party at Minoru Arenas. This program is open to the entire community and represents the diversity of our community. Event to be followed by Candle Lighting of Menorah at Library Square.	81%	\$2,400	\$2,400.00	\$ 1,535.76
11	Steveston Block Party	Neighbours	A "block party" for the residents of Steveston, including live music, a BBQ, kids’ face painting, balloon artist, crafts and henna art and pick up hockey games.	80%	\$2,500	\$2,500.00	\$ 1,580.00
12	Community Multicultural Gathering	Neighbours	Bring together the members of Delta Green Co-op to help reconnect with old and new members alike through	77%	\$2,500	\$2,200.00	\$ 1,338.26

RECOMMENDED							
	Project	Organization	Description	(A) Adjudicator Avg. Score	(B) Requested Funding	(C) Eligible Requested Funding	(A) x (C) x 79% = (D) Recommended Grant Funding
			food, music, art and games.				
13	Vintage Fair	Steveston Historical Society	Activate the space with a Vintage Market to bring community together in fun, outdoor setting.	54%	\$2,500	\$2,500.00	\$ 1,066.50
14	Richmond, BC Chess - Meet, Greet and Play	Neighbours	A chess club meet up event to allow people to make new connections through the game of chess.	71%	\$2,450	\$2,450.00	\$ 1,374.21
15	Mamas Coming Together	Mamas for Mamas	An event to connect moms with other local mamas for support and guidance.	67%	\$2,500	\$1,550.00	\$ 820.42
16	City Centre Concerts in the Park	City Centre Community Association	A series of community gatherings that celebrates community connection and showcases diversity through performances from local artists and musicians.	73%	\$2,500	\$2,500.00	\$ 1,441.75
17	Walking in a Westwind Wonderland	Neighbours	A community event that asks neighbours in the Westwind neighbourhood to decorate their house for the festive season, turn the lights on together at 7pm, and then stroll the neighbourhood to enjoy the holiday cheer.	78%	\$2,500	\$1,700.00	\$ 1,047.54
18	Artists in the Park	Steveston Community Society	Opportunity for Steveston residents to (re)connect and engage with one another through arts, crafts, games and performances.	82%	\$2,500	\$2,500.00	\$ 1,619.50
19	We Belong	Richmond Family Place Society	RFP families from the many cultures represented in Richmond will be invited to create a participatory activity based on their own cultural background to share with children and families from the community within the theme of “connection and belonging”.	87%	\$2,500	\$2,500.00	\$ 1,718.25
20	Community Gardeners Meet and Greet	Urban Bounty	This event will bring together all Paulik Park partners that use the growing spaces to formally meet for the first time. User groups are not aware of who shares the space and this event would help to build relationships and embrace the principles of diversity and inclusion.	76%	\$2,500	\$2,500.00	\$ 1,501.00
21	Motivational Mornings	Thompson Community Association	Provide opportunities for youth in our community to re-engage, form connection, find support and joy in our communities through barrier free breakfast and an open floor to talk about health and wellness as well as inclusion of youth in the community.	71%	\$2,500	\$2,500.00	\$ 1,402.25
22	Miyawaki Pocket Forest Planting Event	Richmond Secondary Green Team	A grassroots event held in the outdoor learning environment built at Richmond High School raising awareness about the pocket forest being planted there.	74%	\$2,500	\$2,500.00	\$ 1,461.50
23	Jasmine Lane Community Connections	Strata	Connecting residents of a townhouse complex through a BBQ with games and activities.	78%	\$1,000	\$1,000.00	\$ 616.20
24	Richmond Family Carnival	Church on Five	A free carnival and block party, open to everyone in the community.	78%	\$2,500	\$2,500.00	\$ 1,540.50

RECOMMENDED							
	Project	Organization	Description	(A) Adjudicator Avg. Score	(B) Requested Funding	(C) Eligible Requested Funding	(A) x (C) x 79% = (D) Recommended Grant Funding
25	Amazing Grade 7 Grad Scavenger Hunt	Ecole William Bridge Elementary School PAC	An "Amazing Race" event to bring a diverse community together to celebrate former grade 7 grads who were not able to celebrate their elementary school exit due to pandemic along with current grads.	72%	\$2,000	\$1,700.00	\$ 966.96
26	Richmond Eid Fest	BC Muslim Association	Introduce the Eid Al-Adha celebration to the wider Richmond community.	79%	\$2,500	\$2,500.00	\$ 1,560.25
27	St. Joseph the Worker Summer Fair	St. Joseph the Worker Parish	An event inclusive of all residents of Richmond that promises family fun for all ages.	84%	\$2,500	\$2,500.00	\$ 1,659.00
28	Summer Celebration Series	West Richmond Community Association	Three events on consecutive Tuesday evenings in July/August focused on bringing the community together outdoors in a fun and creative way to encourage togetherness and highlight the diverse and vibrant West Richmond Community.	83%	\$2,000	\$1,400.00	\$ 917.98
29	General Currie Neighbourhood Block Party	General Currie School PAC	An opportunity for neighbours to get together, meet each other, have fun and work together on team building activities.	80%	\$2,500	\$2,500.00	\$ 1,580.00
30	Edgewater Family Picnic	Strata	Gathering of Edgewater families for an afternoon of fun for all ages to gather and reconnect after being apart for so long.	69%	\$2,000	\$2,000.00	\$ 1,090.20
31	A Vision for Richmond - A Connection of New and Old	Richmond Multicultural Community Services	An interactive intergenerational event for up to 250 people where newcomers can mingle and meet community leaders and longer established families and learn more about community recreation, health, employment, housing and settlement services.	89%	\$2,500	\$2,500.00	\$ 1,757.75
32	Getting To Know You – Granville Gardens	Housing Co-op	A seniors lunch initiative to enable senior residents to meet neighbors, socialize and have a nutritious meal.	78%	\$2,500	\$2,500.00	\$ 1,540.50
33	Richmond Growing - a community harvest gathering	Urban Bounty	A potluck and sharing circle celebrating our mutual love for food regardless of language or lived experience.	57%	\$2,500.00	\$1,300.00	\$ 585.39
34	Community Cob Oven	Sharing Farm Society	A cob building workshop in August followed by a harvest celebration in late September, after the fire ban is lifted.	70%	\$2,500.00	\$2,000.00	\$ 1,106.00
35	South Arm Neighbourhood Block Party	South Arm Community Association	A free, family friendly opportunity for the local community to come together and reconnect through a night filled with outdoor games and activities, fitness try-its, live performances from local performers and local food vendors.	73%	\$2,500.00	\$2,500.00	\$ 1,441.75
36	JN Burnett FIRST Robotics - Community Open House	FIRST Robotics Club - JN Burnett Secondary School	A community open house event to foster creativity and community amongst future generations of youth entrepreneurs within Richmond.	61%	\$2,400.00	\$2,400.00	\$ 1,156.56
37	The Jensen/Harrison Summer Block Party	Neighbours	A summer Block Party to allow residents to meet in person again.	70%	\$2,500.00	\$2,200.00	\$ 1,216.60
38	British Columbia Chinese Soccer Federation summer fun day	BC Chinese Soccer Federation	An event to connect more local residents to join a multicultural soccer league.	60%	\$2,500.00	\$1,924.00	\$ 911.98



RECOMMENDED							
	Project	Organization	Description	(A) Adjudicator Avg. Score	(B) Requested Funding	(C) Eligible Requested Funding	(A) x (C) x 79% = (D) Recommended Grant Funding
39	Garry Estates Block Party and Garden Celebration	Strata	A community planting and decorating party offering hands-on activities for all ages and abilities, including a planting station, a bird and bat house building station, and a stepping stone painting area.	73%	\$2,400.00	\$2,400.00	\$ 1,384.08
40	Welcome to the Hood	Neighbours	A street party to meet and greet one another and build a sense of community spirit.	69%	\$1,750.00	\$1,750.00	\$ 953.93
41	Odlinwood Neighbourhood Party	Neighbours	A pot-luck style party in a close-by park where it is safe for all ages to gather and share before the school year starts in September.	72%	\$2,500.00	\$2,500.00	\$ 1,422.00
42	Community Block Party – Diefenbaker Park	Neighbours	Re-connect with neighbours and friends by having a neighbourhood block party.	72%	\$1,200.00	\$1,000.00	\$ 568.80
43	Welcome Back to Walter Lee Family BBQ	Walter Lee School PAC	To enhance the school’s annual Meet the Teachers event, a Welcome Back to Walter Lee family BBQ will(re)connect families to the school, community and each other.	78%	\$2,500.00	\$2,200.00	\$ 1,355.64
44	Kobe Memory Basketball Festival	Kobe Memory Basketball Club	A half day basketball festival including drop in contests, street ball exhibition show, dancing show, fitness workshop, and carnival type participation games for kids and family.	46%	\$2,500.00	\$2,500.00	\$ 908.50
45	Welcome Back Diefenbaker 2022	Diefenbaker School PAC	A community BBQ/Outdoor Movie night.	62%	\$2,500.00	\$2,500.00	\$ 1,224.50
46	Knit for Charity	Neighbours	Engage community members through free yarn craft workshops (e.g. knitting, crochet, loom), with finished products donated to those less fortunate.	65%	\$2,500.00	\$1,430.00	\$ 734.31
47	Islamic Art Experience Festival	Community Arts Council of Richmond	Connecting Richmondites together with the hope of creating a new tradition of celebrating Canadian diversity with Islamic Art.	75%	\$2,500.00	\$2,500.00	\$ 1,481.25
48	McKinney Crossing Summer Bash	Neighbours	An inclusive, all ages Neighbourhood block party connecting the diverse people and families in the area together.	70%	\$2,500.00	\$2,500.00	\$ 1,382.50
49	Fall Festival	Dixon Elementary School PAC	A gathering to reconnect the local community and school families.	63%	\$2,500.00	\$2,500.00	\$ 1,244.25
50	Recognition of Indigenous Day and Reconciliation Day	James Gilmore Elementary School PAC	This project will provide funding for art supplies and a speaker for a Reconciliation Day program at James Gilmore Elementary school.	41%	\$2,500.00	\$2,500.00	\$ 809.75
51	Celebrating Sustainable Gardening	Richmond Allotment Garden Association	An event to bring the gardeners together with the neighbourhood, feature learning sessions, volunteer appreciation, pot luck lunch and live music.	68%	\$1,430.00	\$1,430.00	\$ 768.20
52	Keywest is a family	Neighbours	A happy party through which community members can get to know each other better.	49%	\$2,500.00	\$2,100.00	\$ 812.91
53	Music in the Park	Ferris Elementary School PAC	Ferris Elementary Grade 6/7 band would like to invite the whole community to come out and enjoy an outdoor concert performance.	68%	\$2,000.00	\$2,000.00	\$ 1,074.40
54	DeBeck Community Scavenger Hunt	DeBeck School PAC	The scavenger hunt is a great way for parents, students, and staff to collaborate in a fun activity while making meaningful connections	67%	\$2,500.00	\$2,500.00	\$ 1,323.25

RECOMMENDED							
	Project	Organization	Description	(A) Adjudicator Avg. Score	(B) Requested Funding	(C) Eligible Requested Funding	(A) x (C) x 79% = (D) Recommended Grant Funding
			that will last throughout the school year.				
55	Block Party – Rekis Avenue	Neighbours	Event to get to know the households on the same block.	62%	\$800.00	\$800.00	\$ 391.84
56	Annual Summer Block Party	Neighbours	A block party to get everyone mingling and having fun, reconnecting with old neighbours, and meeting new ones.	69%	\$1,000.00	\$1,000.00	\$ 545.10
57	Branscombe Social	West Richmond Community Association	An intergenerational celebration BBQ/Block Party event outside at Branscombe House where people jam and create music together.	85%	\$2,500.00	\$2,500.00	\$ 1,678.75
58	International Day	BC Muslim School PAC	The event, open to the school and broader community, will celebrate the multicultural mosaic of the school’s diversity.	88%	\$2,500	\$2,500.00	\$ 1,738.00
59	G.O.A's Community Picnic	GOA Vancouver	An event to reconnect GOA Vancouver members for an afternoon of music, sports and activities.	47%	\$2,300.00	\$2,300.00	\$ 853.99
60	Meet the Teacher Night BBQ - Spul'u'kwuks Elementary School	Spul'u'kwuks Elementary School PAC	A BBQ to encourage mingling during Meet the Teacher Night.	68%	\$2,500.00	\$2,500.00	\$ 1,343.00
61	Bike Parade for Steveston Spirits	Neighbours	A children's bike parade to re-build spirits in Steveston community after COVID.	46%	\$2,000.00	\$2,000.00	\$ 726.80
	Total				\$ 141,630	\$133,134	\$ 74,947.96

Not Recommended For Funding				
	Project	Requested Funding	Ineligible Submission Due To:	Proposed Recommendation to Applicant
62	Navratri - Garba Event	Not specified	Individuals from same household	Consider potential partnership with community centre
63	Diwali Festival Celebration	1,000.00	Individuals from same household	Consider potential partnership with community centre
64	Bibingka Breakfast - A Fusion Pancake Breakfast Celebration	2,500.00	Proposed event has already occurred	Consider potential partnership with community centre
65	She Shanty Socials	2,500.00	Individual applicant	Consider submitting a program proposal to a community centre.
66	Indo Canadian Roots in Canada Heritage Celebration	2,500.00	Individuals from same household; budget not clearly defined	Consider potential partnership with community centre
67	Clawsum Kids Club SUMMER CAMP	2,500.00	Proposal does not meet program mandate.	Consider potential partnership with community centre
68	Post COVID Summer Celebration	2,500.00	Individuals from same household	Consider co-submitting application with another neighbour.
69	Creating a welcoming neighbourhood	2,500.00	Individuals from same household	Consider co-submitting application with another neighbour or partnering with a community association.
70	Chess tables at the Park	Not specified	Individual applicant; budget not clearly defined	Consider future partnership opportunity with community centre
71	Community Connections Summer Flash Mob	750.00	Individuals from same household	Consider potential partnership with community centre
72	Richmond Health Companion Day	2,500.00	For profit business	Consider potential partnership with local businesses or business organization
73	South Arm Park BBQ	800.00	Individuals from same household	Consider co-submitting application with another neighbour or partnering with a community association.
74	Kids Paint Day	2,500.00	Not enough detail in proposal or budget to assess; not clear how it is targeting Richmond neighbourhood	
75	Welcome Summer Vacation	1,500.00	Individuals from same household	Consider co-submitting application with another neighbour or partnering with a community association.
76	Madrona Mingles	705.00	Individual applicant	Consider co-submitting application with another neighbour.
77	Community Get Together for parents responsible pet raising in the community	2,000.00	Proposed activity to take place outside of Richmond, co-applicant not from Richmond	
78	No event name	1,500.00	No event description/details provided.	
79	Community Pizza Bake	1500-1700	Individuals from same household who are a for-profit business	Consider potential partnership with community society or association

Not Recommended For Funding				
	Project	Requested Funding	Ineligible Submission Due To:	Proposed Recommendation to Applicant
80	Chinese Moms reunion		Applicants not Richmond residents and proposed venue not in Richmond	
81	Kingsley Community Block Party	2,500.00	Individuals from same household; unrealistic budget	Consider co-submitting application with another neighbour and refining budget.
82	Renew well-being	2,500.00	Does not meet mandate of grant; ongoing programming	
83	Richmond 3 on 3 basketball league	Not specified	Does not meet mandate of grant; proposal for a basketball league	Consider potential partnership with community centre
84	Soul Dance 2022	2,500.00	Does not meet mandate of grant; paid performance at River Rock.	
85	Richmond Yule Ball	2,500.00	Applicants are not Richmond residents	Consider completing a facility rental application at local community facility
86	How to Maximize your Resources	2,300.00	Does not meet mandate of grant; proposal for an employment Skills program	Consider potential partnership with community centre or local community organization
87	Association members reunion	2,190.00	Does not meet mandate of program for inclusive event; event only open to association members from across BC.	
88	Gratitude Messages	2,500.00	Proposal is for an activation as part of Steveston Salmon Festival	Connect applicant with Steveston Salmon Festival Committee.
89	Virtue based summer camp 2022	1,000.00	Proposal does not meet program mandate.	Consider potential partnership with community centre
90	Bridgeview Courts Community BBQ	2,500.00	Not enough detail in proposal or budget to assess.	
91	Maple Lane Playground Grand Opening	2,500.00	Does not meet program mandate; murals are coordinated through the City's Public Art Program.	Refer to Community Mural Program.
92	Dragon boat festival community block party	900.00	Individuals from same household.	Consider co-submitting application with another neighbour or partnering with a community association.
93	English Club	2,500.00	Individuals from same household; lack of detail in proposal and budget.	Consider partnership with community centre or other community organization.
94	6 Weeks to Wellness - Helping Women Enjoy & Thrive Together in Richmond Again	2,500.00	Does not meet program mandate.	Consider partnership with community centre or other community organization
95	Rebranding of the Richmond Ravens	2,500.00	Does not meet program mandate.	
96	Southwind Resident's Block Party	625.00	Individuals from same household.	Consider co-submitting application with another neighbour.
97	Better tomorrow	not specified	No detail provided.	
98	Making traditional Chinese rice-pudding and handmade article	2,500.00	Individuals from same household; limited event description to determine alignment with program mandate.	Consider co-submitting application with another neighbour or partnering with a community association.
99	Kids is future	2,500.00	Individuals from same household; unrealistic budget.	Consider co-submitting application with another neighbour or partnering with preschool.
100	Richmond Food Festival	2,500.00	Scope of proposal not aligned with program mandate.	Consider other partnership opportunities.
101	Puppet Show: "The King Salmon's Ring"	2,500.00	Only one local applicant; this type of project should be coordinated with Steveston Salmon Festival Committee directly.	Connect applicant with Steveston Salmon Festival Committee.
102	Here Comes Summer BBQ in Support of Richmond Food Bank and Big Brothers of Greater Vancouver	2,500.00	Does not meet program mandate; proposed event has already occurred.	
103	Ferndale Block Party	not specified	Not enough detail in proposal or budget to assess.	
104	Hamilton Night Out	2,500.00	Event has already received funding through PRCE Grant Program.	



# City of Richmond

## Report to Committee

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<b>To:</b>	General Purposes Committee	<b>Date:</b>	June 7, 2022
<b>From:</b>	Serena Lusk Deputy CAO and GM, Community Services	<b>File:</b>	11-7000-01/2022-Vol 01
<b>Re:</b>	<b>Endorsement of UBCM Resolution for Library Funding</b>		


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### Staff Recommendation

That the resolution in support of restoring provincial funding for public libraries, as outlined in Attachment 1 of the attached report from the Chief Librarian, be endorsed and forwarded to the Union of BC Municipalities for consideration during its 2022 Convention.

Serena Lusk  
Deputy CAO and General Manager, Community Services  
(604-233-3344)

Att. 1

<b>REPORT CONCURRENCE</b>
<b>APPROVED BY CAO</b> 

**TO:** Serena Lusk  
Deputy CAO and GM, Community Services

**FROM:** Susan Walters  
Chief Librarian

**DATE:** June 7, 2022

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### **Recommendation**

That the resolution in support of restoring provincial funding for public libraries, as outlined in Attachment 1, be endorsed and forwarded to the Union of BC Municipalities for consideration during its 2022 Convention.

## Origin

This report requests Council support for a resolution to the Union of British Columbia Municipalities (UBCM) for restoring provincial support for public libraries. This resolution applies the principles of Council's Long Term Financial Management Strategy (LTFMS 3703), support policy #3: Alternative Revenues and Economic Development:

*“Any increases in alternative revenues and economic development beyond all the financial strategy targets can be utilized for increased level of service or reduce the tax rate.”*

## Analysis

### Background

Libraries are critical to creating robust, resilient communities. They are community hubs, promoting belonging and equity. They support traditional and technological literacy, and through well-trained and compassionate staff, connect residents to essential services.

Public Libraries and Library Federations established under the authority of the Library Act are eligible for provincial funding. The BC Government provides annual operating grants to public libraries. As the most equitable and accessible public amenities across BC, consisting of 71 library systems, public libraries require ongoing reliable investment.

In recent years, the BC Library Partners (Association of BC Public Library Directors, BC Library Trustees Association, BC Libraries Association and the BC Libraries Cooperative) have advocated to the provincial government for increased funding. Since 2016, the Select Standing Committee on Finance and Government Services has made specific recommendations for public libraries.

While these appeals have increased understanding of the need for adequate and reliable provincial funding and yielded one-time funding for specific initiatives – \$3 million for Digital Initiatives (2020) and \$8 million for COVID-19 Relief and Recovery (2022) – they have not resulted in a permanent, sustained increase to provincial funding for BC public libraries. The draft Union of BC Municipalities resolution attached to this report was drafted by the Association of BC Public Library Directors to be shared with Library Boards across the Province.

At their meeting on May 27, 2022, the Richmond Public Library Board passed a motion to request Richmond City Council to consider a resolution to the Union of BC Municipalities to appeal for increased provincial support for public libraries.

### Financial Implications of Provincial Funding

In 2009, provincial funding for libraries was reduced by 20%, from \$17.6 million to \$14 million. Since 2010, annual provincial funding has remained stagnant.

Richmond Public Library's 2022 annual budget is \$10.9 million, with 95.6% of the funding provided by the City of Richmond. Based on grants in prior years and increase in population, the

library's 2022 budget identified the provincial contribution as \$376,500 which represents 3.5% of the overall library budget.

Between 2015 and 2022, provincial operating grants to Richmond Public Library decreased 7.4% from \$406,253 to \$376,500 despite increases to cost of living and population growth.

Table 1 provides the breakdown of the provincial funding for the last eight years:

	2015	2016	2017	2018	2019-2022
<b>Per Capita Operating</b>	358,319	358,319	369,836	352,990	352,990
<b>One Card Grant</b>	40,873	35,153	30,229	20,593	16,664
<b>BC Equity Grant</b>	4,500	4,500	4,500	4,500	4,500
<b>Resource Sharing Grants</b>	2,831	3,128	2,116	1991	2,374
<b>Provincial Grant Total</b>	406,523	401,100	406,681	380,074	376,528

With no annual increase in funding support from the Province, there is increased financial pressure on the City of Richmond and Richmond Public Library's limited revenue options to address inflationary pressure and meet the demand for new and expanded services.

### Financial Impact

None.

### Conclusion

Supporting a Union of BC Municipalities resolution for restoring provincial funding for public libraries is aligned with the principles of Council's Long Term Financial Management Strategy and supports the advocacy work of the BC Library Partners and other municipalities across the province.



Susan Walters  
Chief Librarian, Richmond Public Library  
(604-231-6466)

Att. 1: Draft UBCM Resolution in Support of Restoring Provincial Funding for Public Libraries

**Proposed Council Resolution Supporting Restoring Provincial Funding for Public Libraries**

WHEREAS libraries in British Columbia are largely financed by levies paid by local governments, and where provincial library funding has remained stagnant for the past 10 years;

AND WHEREAS public libraries are central to communities, providing equitable access to vital resources including internet, computers, digital tools and in-person services from expert staff;

AND WHEREAS public libraries provide British Columbians with low-barrier services that support job seekers and small businesses, that increase literacy in communities, that advance reconciliation with Indigenous peoples, and that promote equity and inclusion;

THEREFORE BE IT RESOLVED that the City of Richmond urge the Government of British Columbia to provide long-term sustainable funding for public libraries in BC;

AND BE IT FURTHER RESOLVED that the Province ensure that BC Libraries will henceforth receive regular increases to Provincial Government funding in subsequent years.





# City of Richmond

## Report to Committee

**To:** Planning Committee  
**From:** Wayne Craig  
Director, Development

**Date:** June 2, 2022  
**File:** RZ 21-940331

**Re:** Application by Jude Da Silva for Rezoning at 11460 Williams Road from the  
"Single Detached (RS1/E)" Zone to the "Compact Single Detached (RC2)" Zone

### Staff Recommendation

That Richmond Zoning Bylaw 8500, Amendment Bylaw 10387, for the rezoning of 11460 Williams Road from the "Single Detached (RS1/E)" zone to the "Compact Single Detached (RC2)" zone, be introduced and given first reading.

Wayne Craig  
Director, Development  
(604-247-4625)

WC/NA:blg  
Att. 6

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Affordable Housing	<input checked="" type="checkbox"/>	

## **Staff Report**

### **Origin**

Jude Da Silva, property owner, has applied to the City of Richmond for permission to rezone 11460 Williams Road from the “Single Detached (RS1/E)” zone to the “Compact Single Detached (RC2)” zone, to permit a subdivision to create two lots with vehicle access from the rear lane. A location map and aerial photo are provided in Attachment 1. A survey and proposed subdivision plan of the subject site is included in Attachment 2.

### **Findings of Fact**

The subject site is located on the south side of Williams Road, between Seacote Road and No. 5 Road. The subject site is currently accessed via the existing lane.

A Development Application Data Sheet providing details about the development proposal is provided in Attachment 3.

#### **Subject Site Existing Housing Profile**

The subject site consists of a single lot containing a single-family dwelling that is occupied by the property owner. There are no secondary suites in the existing dwelling. The existing dwelling is proposed to be demolished at future development stage.

### **Surrounding Development**

Existing development immediately surrounding the subject site is as follows:

To the North: Across Williams Road, are compact single-family lots zoned “Compact Single Detached (RC1)”.

To the South: Across a lane, is a duplex lot zoned “Two-Unit Dwellings (RD1)” fronting Seabrook Crescent with vehicle access via the lane.

To the East: Compact single-family lots zoned “Compact Single Detached (RC1)”.

To the West: Compact single-family lots zoned “Compact Single Detached (RC1)”.

### **Related Policies & Studies**

#### **Official Community Plan**

The Official Community Plan (OCP) land use designation for the subject site is “Neighbourhood Residential”. This redevelopment proposal is consistent with this designation.

### Arterial Road Land Use Policy

The Arterial Road Land Use Policy identifies the subject site for “Arterial Road Compact Lot Single Detached”, which allows single detached housing on lots greater than 9.0 m wide provided that there is rear lane access. This redevelopment proposal is consistent with the Arterial Road Land Use Policy designation.

### Single-Family Lot Size Policy 5434

The subject site is located within the area governed by Single-Family Lot Size Policy 5434, which was adopted by Council on February 19, 1990, and subsequently amended in 1991 and 2006 (Attachment 4). This Policy permits rezoning and subdivision of lots along this section of Williams Road in accordance with the provisions of “Single-Family Housing District (R1-06)” or “Coach House District (R9)” provided there is access to an operational rear lane. These Districts are equivalent to the “Compact Single Detached (RC2)” and “Coach House (RCH)” zones of the current Zoning Bylaw 8500. This redevelopment proposal would allow for the creation of two lots, each approximately 9.1 m wide and 307 m<sup>2</sup> in area, which is consistent with the Lot Size Policy.

### Affordable Housing Strategy

Consistent with the Affordable Housing Strategy, the applicant has proposed to construct a two-bedroom secondary suite of approximately 42.7 m<sup>2</sup> (460 ft<sup>2</sup>) in each of the new dwellings. Prior to final adoption of the rezoning bylaw, the applicant is required to register a legal agreement on title stating that no final Building Permit inspection will be granted until the two-bedroom secondary suites of minimum 42.7 m<sup>2</sup> (460 ft<sup>2</sup>) in size are constructed to the satisfaction of the City in accordance with the BC Building Code and the City’s Zoning Bylaw.

### Floodplain Management Implementation Strategy

The proposed redevelopment must meet the requirements of the Richmond Flood Plain Designation and Protection Bylaw 8204. Registration of a flood indemnity covenant on title is required prior to final adoption of the rezoning bylaw.

### **Public Consultation**

A rezoning sign has been installed on the subject property. Staff have not received any comments from the public about the rezoning application in response to the placement of the rezoning sign on the property.

Should the Planning Committee endorse this application and Council grant first reading to the rezoning bylaw, the bylaw will be forwarded to a Public Hearing, where any area resident or interested party will have an opportunity to comment. Public notification for the Public Hearing will be provided as per the *Local Government Act*.

## Analysis

### Existing Legal Encumbrances

None.

### Transportation and Site Access

The subject site currently has vehicular access from the rear lane only. In accordance with Residential Lot (Vehicular) Access Regulation Bylaw No. 7222, vehicle access from the proposed lots to Williams Road is not permitted, and vehicle access to/from the proposed lots is required to be from the rear lane.

### Tree Retention and Replacement

The applicant has submitted a Certified Arborist's Report; which identifies off-site tree species, assesses tree structure and condition, and provides recommendations on tree retention and removal relative to the proposed development. The Report assesses zero bylaw-sized trees on the subject property, two trees on neighbouring properties, and two street trees on City property.

The City's Tree Preservation Coordinator and the City's Parks Department have reviewed the Arborist's Report and supports the Arborist's findings, with the following comments:

- Two City trees (tag #A (32.5 cm caliper Liquidambar Styraciflua) and tag #B (33.5 cm caliper Liquidambar Styraciflua)), are in good health and condition and should be retained and protected. A \$10,000.00 Tree Survival Security for each tree will be required.
- Two trees (tag #C and #D) located on adjacent neighbouring properties are identified to be retained and protected. Provide tree protection as per City of Richmond Tree Protection Information Bulletin Tree-03.
- Four new trees (two on each new lot) are to be planted on-site in accordance with Zoning Bylaw regulations and landscape guidelines for compact lots in the Arterial Road Land Use Policy.

### *Tree Protection*

Four trees on City property (tag # A and B) and the neighbouring property (tag # C and D) are to be retained and protected. The applicant has submitted a tree protection plan showing the trees to be retained and the measures taken to protect them during development stage (Attachment 5). To ensure that the trees identified for retention are protected at development stage, the applicant is required to complete the following items:

- Prior to final adoption of the rezoning bylaw, submission to the City of:
  - A contract with a Certified Arborist for the supervision of all works conducted within or in close proximity to tree protection zones. The contract must include the scope of work required, the number of proposed monitoring inspections at specified stages of construction, any special measures required to ensure tree protection, and a provision for the Arborist to submit a post-construction impact assessment to the City for review.

- A tree survival security in the amount of \$20,000.00 for the two trees located on City property (Tree tags # A and B). The security will be held until construction and landscaping on the subject site is completed and a landscape inspection has been passed by City staff.
- Prior to demolition of the existing dwelling on the subject site, installation of tree protection fencing around all trees to be retained. Tree protection fencing must be installed to City standard in accordance with the City's Tree Protection Information Bulletin Tree-03 prior to any works being conducted on-site, and remain in place until construction and landscaping on-site is completed.

#### Tree Planting and Landscaping

Consistent with Zoning Bylaw regulations and the landscape guidelines for compact lots in the Arterial Road Land Use Policy, the applicant must plant and maintain two new trees per lot (a total of four trees). The City's Tree Preservation Coordinator has identified that the new trees must be a minimum 8 cm caliper for deciduous trees or 4 m high for coniferous trees.

To ensure that the two new required trees are planted and maintained on each lot proposed and that the front yards of the proposed lots are enhanced, the applicant is required to complete the following prior to final adoption of the rezoning bylaw:

- Submit a Landscaping Security in the amount of \$3,000.00 (\$750.00/tree).
- Submit a Landscape Plan for the front yards prepared by a Registered Landscape Architect, to the satisfaction of the Director of Development. The Landscape Plan must comply with the guidelines of the Arterial Road Land Use Policy in the OCP.
- Submit a Landscaping Security based on 100% of a cost estimate for the proposed Landscape Plan works provided by the Landscape Architect (including materials, installation, and a 10% contingency). The security will be held until construction and landscaping on-site is completed and a site inspection is conducted. The City may retain a portion of the security for a one-year maintenance period to ensure that the landscaping survives. To accompany the landscaping security, a legal agreement that sets the terms for release of the security must be entered into between the applicant and the City.

#### Site Servicing and Frontage Improvements

At Subdivision stage, the applicant must enter into a Servicing Agreement for the design and construction of the required site servicing and off-site improvements as described in Attachment 6, including:

- Assessment of Williams Road sidewalk, curb, and gutter, and replacement of any damaged/uneven sections as required.
- Rear lane is to be upgraded with approximately 0.6 m lighting strip, 0.15 m wide roll-over curb, 5.1 m wide driving surface, and a 0.15 m wide roll-over curb (from north to south). Final design to be confirmed through the Servicing Agreement process.

At Subdivision stage, the applicant is required to pay:

- \$21,364.00 for cost recovery of rear lane upgrades previously constructed by the City as part of a City Capital Works Program in accordance with Works and Services Cost Recovery Bylaw 8752.
- Development Cost Charges (City and GVS & DD and TransLink), School Site Acquisition Charge, Address Assignment Fees, and other costs associated with completion of the water, storm, and sanitary servicing works as described in Attachment 6.

### **Financial Impact**

This rezoning application results in an insignificant Operational Budget Impact (OBI) for off-site City infrastructure (such as roadworks, waterworks, storm sewers, sanitary sewers, street lights, street trees, and traffic signals).

### **Conclusion**

This application is to rezone the property at 11460 Williams Road from the “Single Detached (RS1/E)” zone to the “Compact Single Detached (RC2)” zone to permit the property to be subdivided to create two lots, with vehicle access from the rear lane.

This rezoning application complies with the land use designations and applicable policies for the subject site that are contained within the OCP and it complies with Single-Family Lot Size Policy 5434.

The list of rezoning considerations is included in Attachment 6, which has been agreed to by the applicant (signed concurrence on file).

It is recommended that Richmond Zoning Bylaw 8500, Amendment Bylaw 10387 be introduced and given first reading.



Nathan Andrews  
Planning Technician  
(604-247-4911)

NA:blg

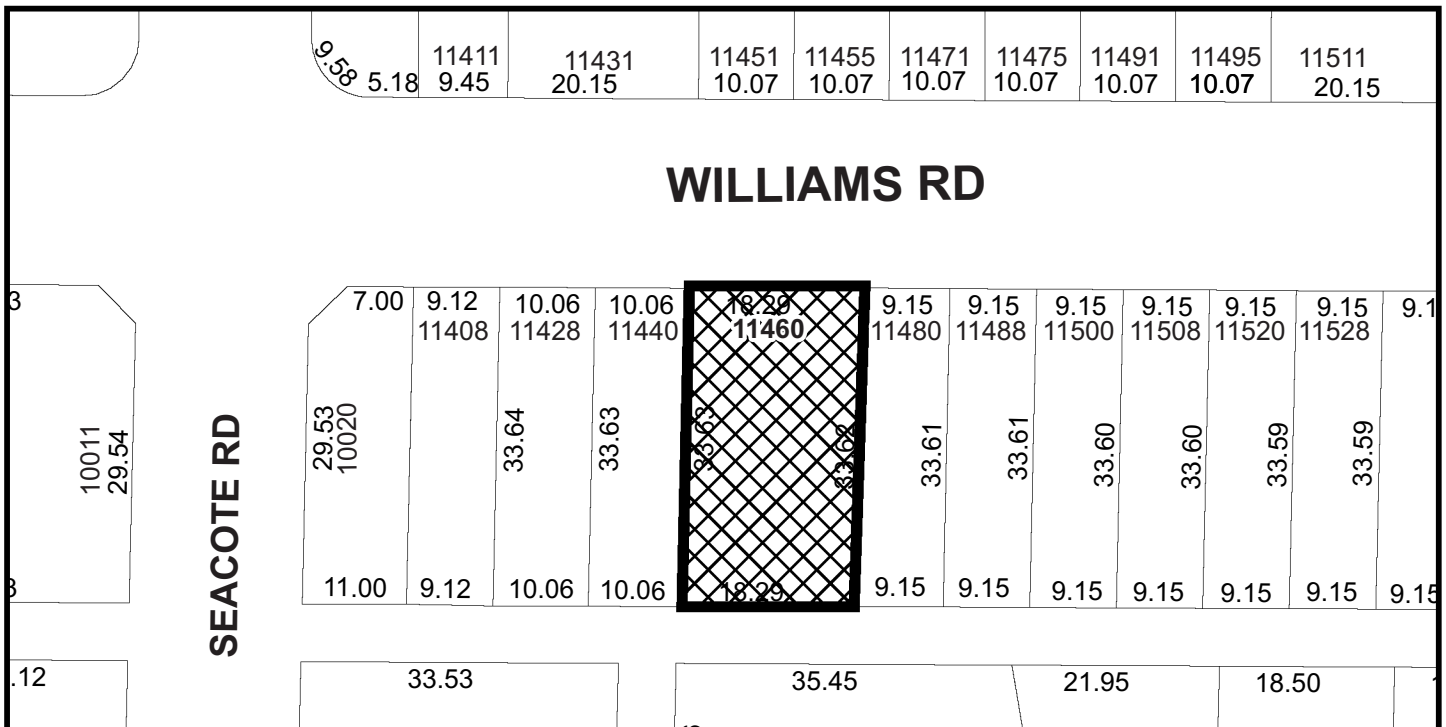
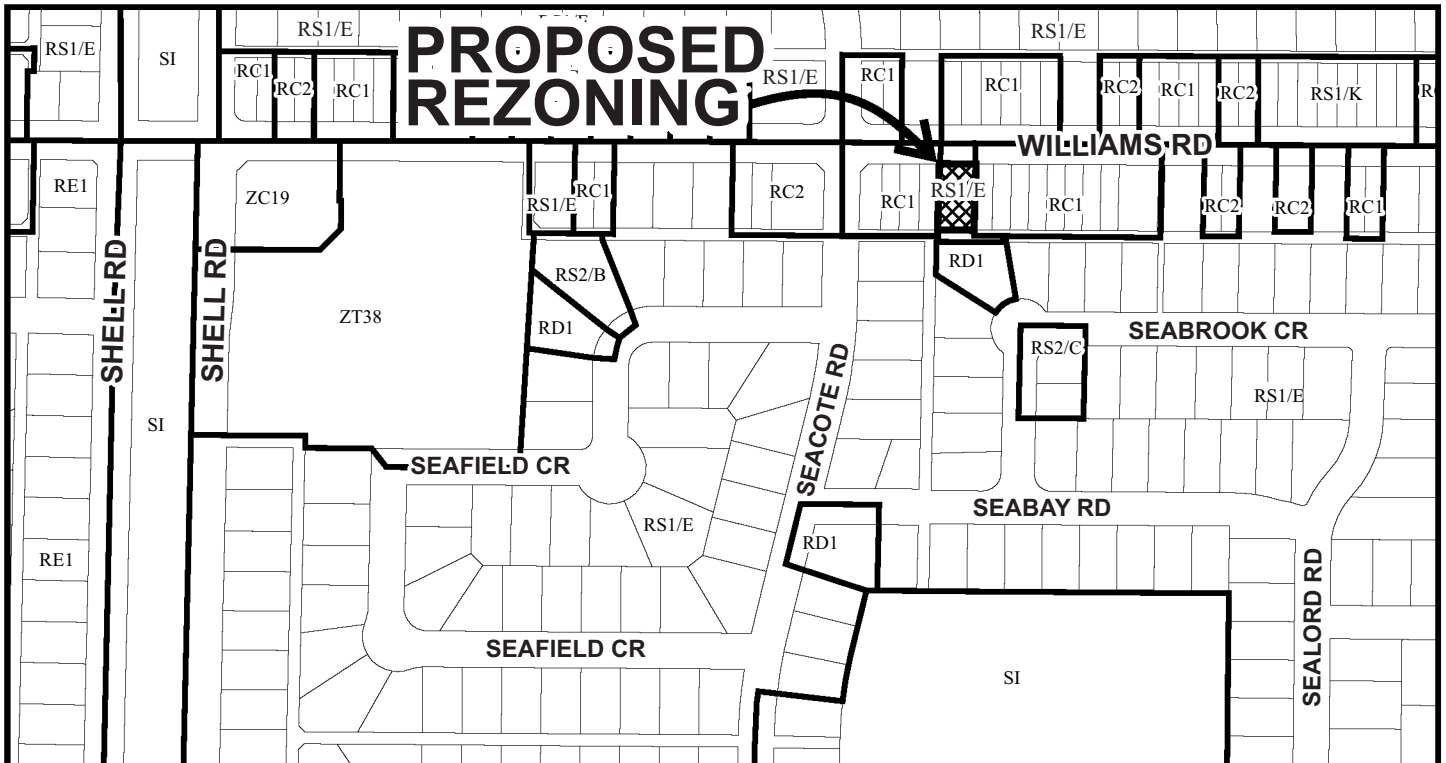
### Attachments:

- Attachment 1: Location Map/Aerial Photo
- Attachment 2: Site Survey and Proposed Subdivision Plan
- Attachment 3: Development Application Data Sheet
- Attachment 4: Single-Family Lot Size Policy 5434
- Attachment 5: Tree Retention Plan
- Attachment 6: Rezoning Considerations



# City of Richmond

ATTACHMENT 1



## RZ 21-940331

Original Date: 10/19/21

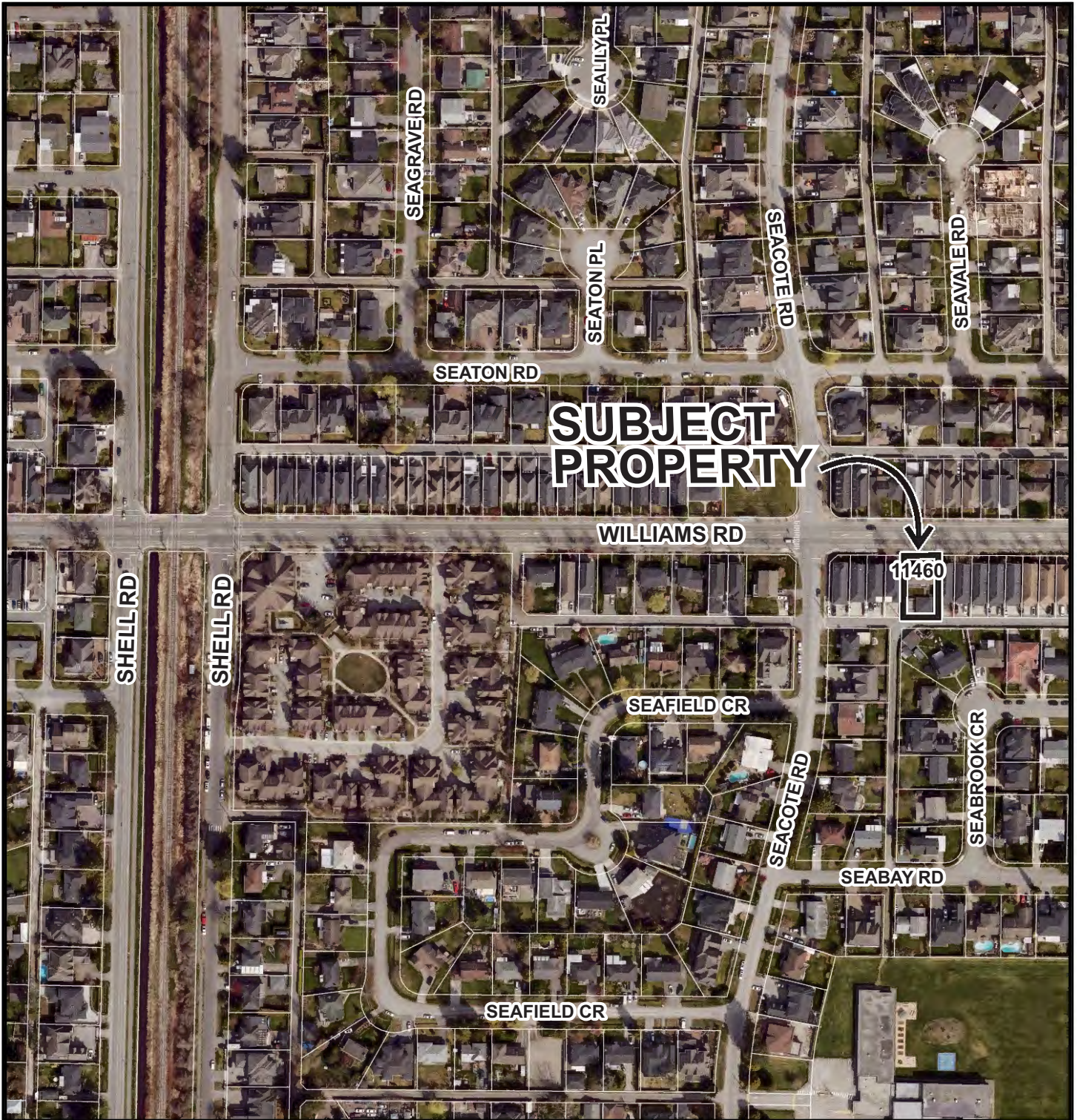
Revision Date:

Note: Dimensions are in METRES





# City of Richmond



RZ 21-940331

Original Date: 10/19/21

Revision Date:

Note: Dimensions are in METRES



**TOPOGRAPHIC SURVEY AND PROPOSED SUBDIVISION OF  
LOT 42 SECTION 36 BLOCK 4 NORTH RANGE 6 WEST  
NEW WESTMINSTER DISTRICT PLAN 28788**

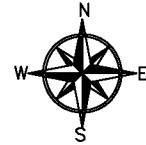
#11460 WILLIAMS ROAD,  
RICHMOND, B.C.  
P.I.D. 003-846-024

**NOTE:**

Elevations shown are based on  
City of Richmond HPN  
Benchmark network.  
Benchmark: HPN #191  
Control Monument 02H2453  
Elevation: 1.664m  
Benchmark: HPN #204  
Control Monument 02H2452  
Elevation: 1.559m

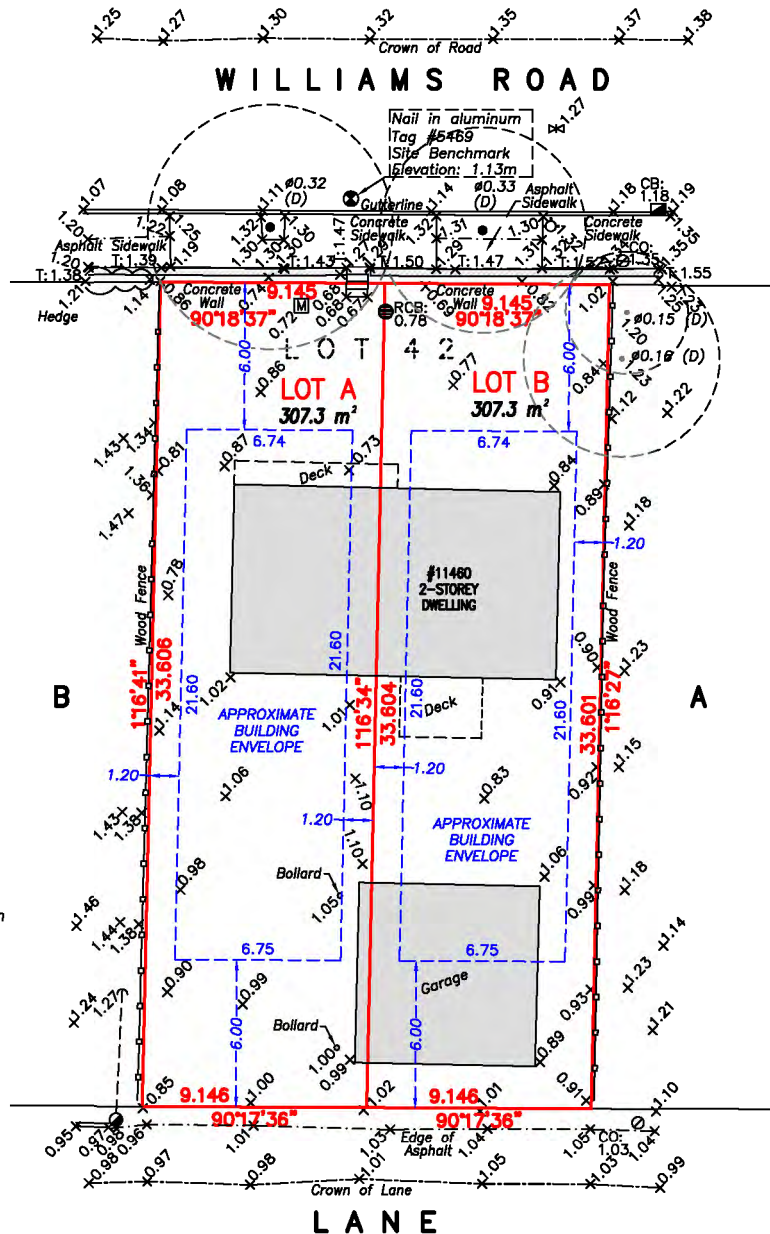
**Current Zoning: RS1/E**

**Proposed Zoning: RC1**



**LEGEND:**

- (D) denotes deciduous
- denotes catch basin
- denotes round catch basin
- ⊕ denotes water valve
- ⊞ denotes water meter
- denotes cleanout
- ⊙ denotes fire hydrant
- ⊙ denotes guy wire anchor
- denotes power post
- T: denotes top of wall



© copyright  
J. C. Tam and Associates  
Canada and B.C. Land Surveyor  
115 - 8833 Odlin Crescent  
Richmond, B.C. V6X 3Z7  
Telephone: (604) 214-8928  
Fax: (604) 214-8929  
E-mail: office@jctam.com  
Website: www.jctam.com  
Job No. 7754  
FB-403 P108-110  
Drawn By: WK

**DWG No. 7754-Topo**

**SCALE: 1:200**

0 5 10 15  
ALL DISTANCES ARE IN METRES AND DECIMALS  
THEREOF UNLESS OTHERWISE INDICATED

**NOTE:**

Use site Benchmark Tag #5469 for  
construction elevation

**ONCL - 59**

**CERTIFIED CORRECT:**

LOT DIMENSION ACCORDING TO  
FIELD SURVEY.

**Johnson**

**Tam U814B9**

Digitally signed by  
Johnson Tam U814B9  
Date: 2021.08.25  
09:06:08 -0700

JOHNSON C. TAM, B.C.L.S., C.L.S.

**August 6th, 2021.**



**RZ 21-940331**

**Attachment 3**

Address: 11460 Williams Road

Applicant: Jude Da Silva

Planning Area(s): Shellmont

	Existing	Proposed
<b>Owner:</b>	Jude Da Silva	To be determined
<b>Site Size (m<sup>2</sup>):</b>	614.6 m <sup>2</sup>	Lot A: 307.3 m <sup>2</sup> Lot B: 307.3 m <sup>2</sup>
<b>Land Uses:</b>	Single-family dwelling	Two single-family residential lots
<b>OCP Designation:</b>	Neighbourhood Residential	No change
<b>Single-Family Lot Size Policy Designation:</b>	Compact Single Detached (RC2) with rear lane access	No change
<b>Zoning:</b>	Single Detached (RS1/E)	Compact Single Detached (RC2)
<b>Number of Units:</b>	1	2
<b>Other Designations:</b>	The Arterial Road Land Use Policy designates the subject site for redevelopment to "Arterial Road Compact Lot Single Detached"	No change

On Future Subdivided Lots	Bylaw Requirement	Proposed	Variance
Floor Area Ratio:	Max. 0.60	Max. 0.60	none permitted
Buildable Floor Area (m <sup>2</sup> ):*	Lot A: Max. 184.38 m <sup>2</sup> (1984.6 ft <sup>2</sup> ) Lot B: Max. 184.38 m <sup>2</sup> (1984.6 ft <sup>2</sup> )	Lot A: Max. 184.38 m <sup>2</sup> (1984.6 ft <sup>2</sup> ) Lot B: Max. 184.38 m <sup>2</sup> (1984.6 ft <sup>2</sup> )	none permitted
Lot Coverage (% of lot area):	Building: Max. 50% Non-porous Surfaces: Max. 70% Live Landscaping: Min. 20%	Building: Max. 50% Non-porous Surfaces: Max. 70% Live Landscaping: Min. 20%	none
Lot Size:	Min. 270 m <sup>2</sup>	Lot A: 307.3 m <sup>2</sup> Lot B: 307.3 m <sup>2</sup>	none
Lot Dimensions (m):	Width: Min. 9.0 m Depth: Min. 24.0 m	Width: 9.1 m Depth: 33.6 m	none
Setbacks (m):	Front: Min. 6.0 m Rear: Min. 6.0 m Side: Min. 1.2 m	Front: Min. 6.0 m Rear: Min. 6.0 m Side: Min. 1.2 m	none
Height (m):	2.5 storeys or 9.0 m	2.5 storeys or 9.0 m	none

On Future Subdivided Lots	Bylaw Requirement	Proposed	Variance
Off-street Parking Spaces – Regular (R) / Suite (S):	2 (R) and 1 (S) per unit	2 (R) and 1 (S) per unit	none

Other: \_\_\_\_\_

\* Preliminary estimate; not inclusive of garage; exact building size to be determined through zoning bylaw compliance review at Building Permit stage.



# City of Richmond

# Policy Manual

Page 1 of 2

Adopted by Council: February 19, 1990  
 Amended by Council: November 18, 1991  
 Amended by Council: October 16, 2006

**POLICY 5434**

File Ref:

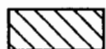
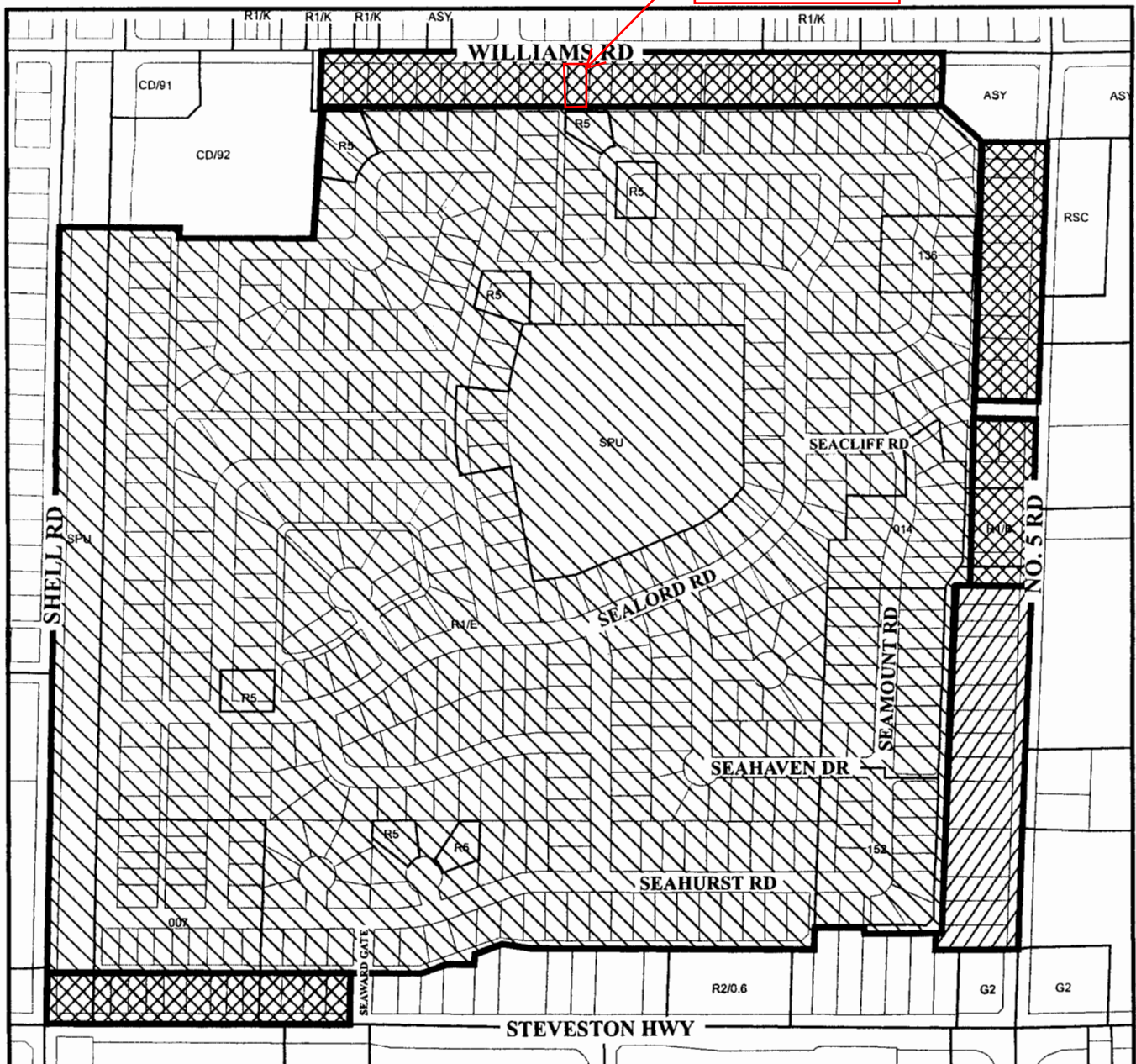
SINGLE-FAMILY LOT SIZE POLICY IN QUARTER-SECTION 36-4-6

**POLICY 5434:**

The following policy establishes lot sizes in a portion of Section 36-4-6, within the area bounded by **Steveston Highway, Shell Road, No. 5 Road, and Williams Road**:

1. That properties within the area bounded by Shell Road, Williams Road, No. 5 Road, and Steveston Highway, in a portion of Section 36-4-6, be permitted to subdivide in accordance with the provisions of Single-Family Housing District (R1/E), with the exception that:
  - a) Properties fronting on Williams Road from Shell Road to No. 5 Road, properties fronting on Steveston Highway from Seaward Gate to Shell Road, and properties fronting on No. 5 Road from Williams Road to approximately 135 m south of Seacliff Road to rezone and subdivide in accordance with the provisions of Single-Family Housing District (R1-0.6) or Coach House District (R/9) provided that vehicle accesses are to the existing rear laneway only. Multiple-family residential development shall not be permitted in these areas.
  - b) Properties fronting on No. 5 Road from Steveston Highway to approximately 135 m south of Seacliff Road be permitted to subdivide in accordance with the provisions of Single-Family Housing District, Subdivision Area B (R1/B) provided that vehicle accesses are to the existing rear laneway only.
2. This policy, as shown on the accompanying plan, is to be used to determine the disposition of future rezoning applications in this area, for a period of not less than five years, unless changed by the amending procedures contained in the Zoning and Development Bylaw.

**SUBJECT SITE**



Subdivision permitted as per **R1/E** (18 m wide lots)



Subdivision permitted as per **R1-0.6 or R/9**  
(access to lane only) (No Multiple-family residential development  
is permitted.)



Subdivision permitted as per **R1/B**

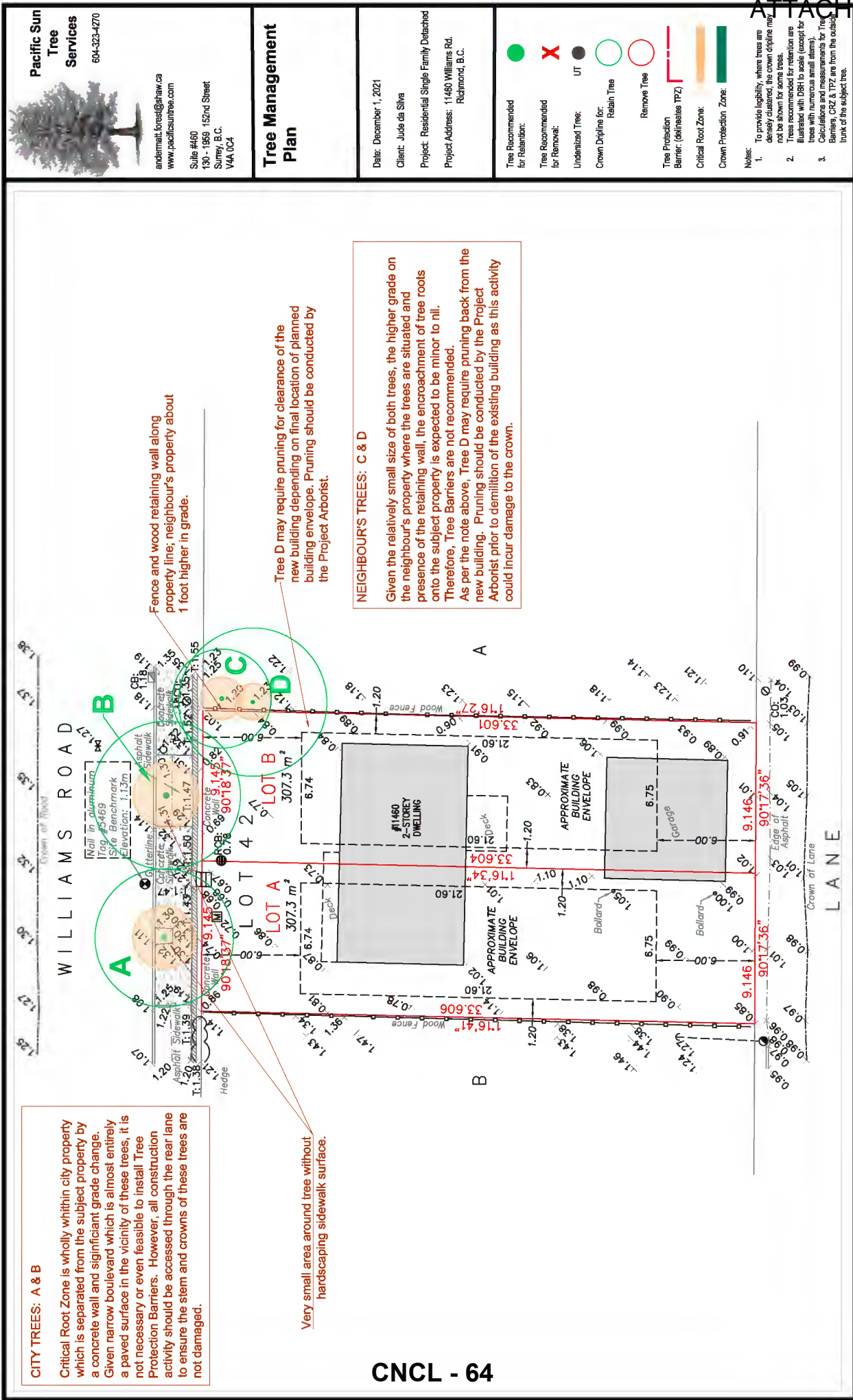


## Policy 5434 Section 36-4-6

Adopted Date: 02/19/1990

Amended Date: 11/18/1991  
10/16/2006









**Address:** 11460 Williams Road

**File No.:** RZ 21-940331

**Prior to final adoption of Richmond Zoning Bylaw 8500, Amendment Bylaw 10387, the developer is required to complete the following:**

1. Submission of a Contract entered into between the applicant and a Certified Arborist for supervision of any off-site works conducted within the tree protection zone of the trees to be retained (Tree tag # A and B), including (but not limited to) the installation or removal of servicing infrastructure. The Contract should include the scope of work to be undertaken, the proposed number of site monitoring inspections at specified stages of construction, any special measures required to ensure tree protection, and a provision for the Arborist to submit a post-construction impact assessment report to the City for review.
2. Submission of a Tree Survival Security to the City in the amount of \$20,000 for Tree tag # A and Tree tag # B to be retained. To accompany the tree survival security, a legal agreement that sets the terms for release of the security must be entered into between the Applicant and the City.
3. Submission of a Landscaping Security in the amount of \$3,000 (\$750/tree) to ensure that a total of two trees are planted and maintained on each lot proposed (for a total of 4 trees); minimum 8 cm deciduous caliper or 4.0 m high conifers. To accompany the landscaping security, a legal agreement that sets the terms for release of the security must be entered into between the Applicant and the City.
4. Submission of a Landscape Plan, prepared by a Registered Landscape Architect, to the satisfaction of the Director of Development, and deposit of a Landscaping Security based on 100% of the cost estimate provided by the Landscape Architect (including materials, installation, and a 10% contingency). The Landscape Plan should:
  - comply with the guidelines of the OCP's Arterial Road Policy and should not include hedges along the front property line;
  - include a mix of coniferous and deciduous trees;
  - include the dimensions of tree protection fencing as illustrated on the Tree Retention Plan attached to this report; and
  - include the 2 required trees (minimum 8 cm deciduous caliper or 4.0 m high conifers) to be planted on each new lot.To accompany the landscaping security, a legal agreement that sets the terms for release of the security must be entered into between the Applicant and the City.
5. Registration of a flood indemnity covenant on title (2.9 m GSC – Area A).
6. Registration of a legal agreement on Title to ensure that no final Building Permit inspection is granted until a minimum two-bedroom secondary suite of minimum 42.7 m<sup>2</sup> (460 ft<sup>2</sup>) in size is constructed on each of the two lots proposed, to the satisfaction of the City in accordance with the BC Building Code and the City's Zoning Bylaw.

**Prior to Demolition Permit\* issuance, the following must be completed:**

- Installation of tree protection fencing around all trees to be retained (Tree tags # A, B, C, and D). Tree protection fencing must be installed to City standard in accordance with the Arborist's Report recommendations and the City's Tree Protection Information Bulletin Tree-03 prior to any works being conducted on-site, and must remain in place until construction and landscaping on-site is completed.

**At Subdivision\* stage, the following must be completed:**

- pay \$21,364.00 for cost recovery of rear lane drainage upgrades constructed as part of a City Capital Works program in accordance with Works and Services Cost Recovery Bylaw 8752.

- pay Development Cost Charges (City and GVS & DD), School Site Acquisition Charge, Address Assignment Fees, and the costs associated with the completion of the required frontage works, and water, storm, and sanitary service connections.
- Enter into a Servicing Agreement at the developer's sole cost to complete the following works:

**Water Works:**

- Using the OCP Model, there is 737 L/s of water available at a 20 psi residual at the Williams Road frontage. Based on your proposed development, your site requires a minimum fire flow of 95 L/s.

At Developer's cost, the Developer is required to:

- Submit Fire Underwriter Survey (FUS) or International Organization for Standardization (ISO) fire flow calculations to confirm development has adequate fire flow for onsite fire protection. Calculations must be signed and sealed by a Professional Engineer and be based on Building Permit Stage building designs.
- Install two new service connections complete with water meters per City standards on the Williams Road frontage to service Lot A and Lot B.
- Cut and cap at main the existing water connection and remove water meter on the Williams Road frontage.
- Provide a right-of-way for the water meter. Minimum right-of-way dimensions to be the size of the meter box (from the City of Richmond supplementary specifications) + any appurtenances (for example, the bypass on W2o-SD) + 0.5 m on all sides. Exact right-of-way dimensions to be finalized during the building permit process (or via the servicing agreement process, if one is required).

At Developer's cost, the City will:

- Complete all tie-ins for the proposed works to existing City infrastructure.

**Storm Sewer Works:**

At Developer's cost, the Developer is required to:

- Provide an erosion and sediment control plan for all on-site and off-site works, to be reviewed as part of the servicing agreement design.
- Inspect existing storm service connection near the northeast property line of Lot A. Reuse if in good condition to service Lot A.
- Inspect existing storm service connection near the northeast property line of Lot B. Reuse if in good condition to service Lot B.

At Developer's cost, the City will:

- Complete all tie-ins for the proposed works to existing City infrastructure.

**Sanitary Sewer Works:**

At Developer's cost, the Developer is required to:

- Not start onsite excavation or foundation construction until completion of rear-yard sanitary works by City crews.
- Install a new sanitary sewer service connection complete with inspection chamber near the south property line of Lot A to service Lot A.
- Inspect existing sanitary sewer service connection near the southeast property line of Lot B. Reuse if in good condition to service Lot B.

At Developer's cost, the City will:

- Complete all tie-ins for the proposed works to existing City infrastructure.

**Street Lighting:**

At Developer's cost, the Developer is required to:

- Review street lighting levels along all road and lane frontages, and upgrade as required.

**General Items:**

At Developer's cost, the Developer is required to:

- Complete other frontage improvements as per Transportation requirements.
  - Review condition of Williams Road sidewalk, curb, and gutter, and replace any damaged/uneven sections as required.
  - Rear lane is to be upgraded with approximately 0.6m lighting strip, 0.15m wide roll-over curb, 5.1m wide driving surface, and a 0.15m wide roll-over curb (from north to south).
- Not encroach into City rights-of-ways with any proposed trees, retaining walls, or other non-removable structures. Retaining walls proposed to encroach into rights-of-ways must be reviewed by the City's Engineering Department.

**Prior to Building Permit\* issuance, the following must be completed:**

- Submission of a Construction Parking and Traffic Management Plan to the Transportation Department. The Management Plan shall include location for parking for services, deliveries, workers, loading, application for any traffic lane closures, and proper construction traffic controls as per Traffic Control Manual for works on Roadways (by Ministry of Transportation) and MMCD Traffic Regulation Section 01570.
- If applicable, payment of latecomer agreement charges, plus applicable interest associated with eligible latecomer works.
- Obtain a Building Permit for any construction hoarding. If construction hoarding is required to temporarily occupy a public street, the air space above a public street, or any part thereof, additional City approvals and associated fees may be required as part of the Building Permit. For additional information, contact the Building Approvals Department at 604-276-4285.

**Note:**

- \* This requires a separate application.
- Where the Director of Development deems appropriate, the preceding agreements are to be drawn not only as personal covenants of the property owner but also as covenants pursuant to Section 219 of the Land Title Act.

All agreements to be registered in the Land Title Office shall have priority over all such liens, charges and encumbrances as is considered advisable by the Director of Development. All agreements to be registered in the Land Title Office shall, unless the Director of Development determines otherwise, be fully registered in the Land Title Office prior to enactment of the appropriate bylaw.

The preceding agreements shall provide security to the City including indemnities, warranties, equitable/rent charges, letters of credit and withholding permits, as deemed necessary or advisable by the Director of Development. All agreements shall be in a form and content satisfactory to the Director of Development.

- Additional legal agreements, as determined via the subject development's Servicing Agreement(s) and/or Development Permit(s), and/or Building Permit(s) to the satisfaction of the Director of Engineering may be required including, but not limited to, site investigation, testing, monitoring, site preparation, de-watering, drilling, underpinning, anchoring, shoring, piling, pre-loading, ground densification or other activities that may result in settlement, displacement, subsidence, damage or nuisance to City and private utility infrastructure.
- Applicants for all City Permits are required to comply at all times with the conditions of the Provincial *Wildlife Act* and Federal *Migratory Birds Convention Act*, which contain prohibitions on the removal or disturbance of both birds and their nests. Issuance of Municipal permits does not give an individual authority to contravene these legislations. The City of Richmond recommends

that where significant trees or vegetation exists on site, the services of a Qualified Environmental Professional (QEP) be secured to perform a survey and ensure that development activities are in compliance with all relevant legislation.

---

Signed

---

Date



**Richmond Zoning Bylaw 8500  
Amendment Bylaw 10387 (RZ 21-940331)  
11460 Williams Road**

The Council of the City of Richmond, in open meeting assembled, enacts as follows:

1. The Zoning Map of the City of Richmond, which accompanies and forms part of Richmond Zoning Bylaw 8500, is amended by repealing the existing zoning designation of the following area and by designating it **“COMPACT SINGLE DETACHED (RC2)”**.

P.I.D. 003-846-024

Lot 42 Section 36 Block 4 North Range 6 West New Westminster District Plan 28788

2. This Bylaw may be cited as **“Richmond Zoning Bylaw 8500, Amendment Bylaw 10387”**.

FIRST READING

A PUBLIC HEARING WAS HELD ON

SECOND READING

THIRD READING

OTHER CONDITIONS SATISFIED

ADOPTED

_____
_____
_____
_____
_____
_____



\_\_\_\_\_  
MAYOR

\_\_\_\_\_  
CORPORATE OFFICER



# City of Richmond

## Report to Committee

---

**To:** Planning Committee **Date:** May 26, 2022  
**From:** John Hopkins **File:** 01-0157-30-  
Director, Policy Planning RGST1/2022-Vol 01  
**Re:** **Proposed Metro Vancouver Regional Growth Strategy Bylaw 1339, 2022,**  
**Metro 2050**

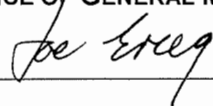

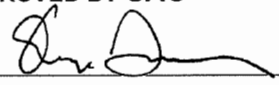
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### Staff Recommendation

1. That the proposed Metro Vancouver Regional Growth Strategy Bylaw 1339, 2022, Metro 2050, be accepted, and
2. That the Metro Vancouver Board be advised of the City of Richmond's position on the Regional Growth Strategy.

John Hopkins  
Director, Policy Planning  
(604-276-4279)

Att. 3

REPORT CONCURRENCE	
CONCURRENCE OF GENERAL MANAGER 	
SENIOR STAFF REPORT REVIEW	INITIALS: 
APPROVED BY CAO 	

## Staff Report

### Origin

Metro Vancouver Regional District (Metro Vancouver) Regional Growth Strategy (RGS) Bylaw 1339, 2022, entitled Metro 2050, was given first and second readings by the Metro Vancouver Board on March 25, 2022, and a Public Hearing was held on April 20, 2022. At its meeting of April 29, 2022, the Metro Vancouver Board resolved to refer Bylaw 1339, 2022, to all affected local governments (signatories) for acceptance (Attachment 1). A copy of the proposed RGS is provided in Attachment 2.

This report supports Council's Strategic Plan 2018-2022 Strategy #6 Strategic and Well-Planned Growth:

*Leadership in effective and sustainable growth that supports Richmond's physical and social needs.*

### Background

Metro Vancouver has been working with member jurisdictions, local First Nations, and other agencies and organizations over the past three years on the review and update of the Regional Growth Strategy (RGS). Most recently, the draft RGS was presented to Planning Committee on July 21, 2021 and again on November 17, 2021. On November 22, 2021, Council directed staff to forward Richmond's comments on the Draft RGS to Metro Vancouver and member jurisdictions. In response, Metro Vancouver provided an Issue-Response table, which was presented to the Metro Vancouver Board. Metro Vancouver's Issue-Response table, applicable to Richmond's comments, is provided in Attachment 3.

In accordance with Section 436 of the *Local Government Act* (LGA), affected local governments must, by way of a Council resolution submitted to Metro Vancouver and within 60 days of receipt of notice (May 3, 2022), accept or reject the RGS. The LGA affirms that if an affected local government fails to act within the period for acceptance, it is deemed to have accepted the RGS. If an affected government does not accept the RGS, it must indicate by way of a resolution within the 60 day period, including (a) the provision(s) to which it objects, (b) reasons for its objection, and (c) whether it is willing that a provision to which it objects be included in the RGS on the basis that the provision will not apply to its jurisdiction.

Upon the conclusion of the acceptance period, Metro Vancouver staff will be reporting to the Metro Vancouver Board at its July 29, 2022 meeting on the status of affected local government acceptances, and, if appropriate, whether third reading and adoption of Bylaw No. 1339, 2022 may be considered. This will also repeal Metro 2040 (GVRD RGS Bylaw No. 1136, 2010, as amended).

In addition, a non-binding dispute resolution process is an option for affected local governments that may have an objection to a provision(s) of the RGS. Should the non-binding dispute resolution process not be successful, the LGA, under Sections 440 and 441, provides for a binding dispute resolution process.



## Analysis

The proposed Regional Growth Strategy (RGS), Metro 2050, is not a comprehensive re-write of the current RGS (Metro 2040), instead, proposed changes build on the current RGS framework and focus on extending the timeline to 2050, refining existing policy direction, filling identified gaps, and responding to new and emerging priorities. Key changes include:

- Stronger, stand-alone strategies to promote and support affordable housing;
- Integration of climate action across the five existing goal areas;
- Greater emphasis on resiliency to natural hazards, including those exacerbated by climate change;
- New elements that aim to advance reconciliation with First Nations;
- Greater clarity about the role of Metro Vancouver in advocating to senior government;
- Adding new targets for region-wide performance on housing and natural environment;
- Improved integration of Metro 2050 and Transport 2050, the region's long-range transportation plan;
- Adjusted designations for transit-related growth to support regional coordination of growth and services while enabling more local flexibility to define the specifics of growth; and
- Integration of social equity as a core objective and policy throughout.

The changes captured in the proposed RGS are aligned with the Council's Strategic Plan, the Official Community Plan, and other City plans and strategies.

On November 22, 2021, Council directed staff to forward a comprehensive list of Richmond's comments on the draft RGS to Metro Vancouver and member jurisdictions. Staff's review of the draft RGS was guided by Richmond's regional planning interests, which include the following:

- Protect the City's autonomy in decision making;
- Pursue City goals;
- Deliver services efficiently, through City efforts and regional cooperation; and
- Pursue shared regional goals.

The cross-departmental staff review did not identify any significant concerns, but resulted in ways to strengthen the document, and improve clarity and consistency, including the following recommendations:

- Strengthen policy related to ecosystem services, alternative transportation, and climate change;
- Enhance the discussion on social equity and inclusivity; and
- Capture Metro Vancouver's climate action support role.

In response to Richmond's comments, Metro Vancouver has provided an Issue-Response table, which is provided in Attachment 3. Generally, Richmond's comments have been adequately addressed and revisions to the RGS have been incorporated accordingly.

As a result of discussion with member jurisdictions on the draft RGS, the proposed RGS also includes the following changes:

- Removed the Frequent Transit Development Area (FTDA) Sub-Types: comments submitted by member jurisdictions indicated that sub-types added too much complexity and confusion to the FTDA growth framework. Instead of sub-types, the revised RGS includes guidance notes encouraging members to tailor the urban form of an FTDA to suit the transportation service provided.
- Additional content related to Indigenous perspectives and priorities: comments submitted by local First Nations and others identified multiple ways that Metro 2050 could better reflect Indigenous perspectives and priorities for regional planning. Many of these suggestions have been integrated while others require further study and engagement, which may result in minor amendments to the RGS in the future.
- Refinement of the Regional Affordable Housing Target: Policy Actions 4.2.3 and 4.2.7 a) have been reworded to provide greater clarity to member jurisdictions, emphasizing that the target is intended to be measured at a regional scale, and not applied to individual municipalities, individual developments, or individual Urban Centres or FTDA's and that each community contributes towards the regional target.
- Refinement of Policy 2.2.9 d) vi) allowing limited residential uses on Employment lands: This Policy Action received a variety of comments from the public, stakeholders, and members across the region. Given this, Policy action 2.2.9 d) vi) has been revised to provide greater clarity, emphasizing that considering flexibility to allow residential uses on Employment lands adjacent to rapid transit stations is an option for member jurisdictions, not a requirement.

It is important to highlight that the Metro Vancouver staff report associated with Metro 2050 included an additional recommendation to direct MV staff to undertake work and engagement with an aim to proposing an early amendment to Metro 2050 post-adoption to strengthen climate change language and policy. A subsequent report was presented by MV staff to the MV Regional Planning Committee (RPAC) on May 19, 2022, outlining a process to consider stronger climate action language and policy for Metro 2050 post-adoption and further coordination with the development of Climate 2050, the primary regional document for GHG emissions reduction and resilience from all sectors within the region.

### **Financial Impact**

None.

## Conclusion

On April 29, 2022, the Metro Vancouver Board resolved to refer the Metro Vancouver Regional Growth Strategy (RGS) Bylaw 1339, 2022, entitled Metro 2050, to all affected local governments (signatories) for acceptance. Staff previously completed a comprehensive review of the draft RGS and provided comments to Metro Vancouver, which have been adequately addressed in the proposed RGS. Staff recommend that the proposed RGS be accepted and that the Metro Vancouver Board be advised of the City's position on the RGS.



Steven De Sousa  
Planner 2  
(604-204-8529)

SDS:cas

- Att. 1: Letter from the Metro Vancouver Board  
2: Proposed Metro Vancouver Regional Growth Strategy Bylaw 1339, 2022, Metro 2050  
3: Metro 2050 Issue-Response Table to Richmond's Comments

Office of the Chair  
Tel. 604 432-6215 or via Email  
CAOAdministration@metrovancouver.org

May 3, 2022

File: CR-12-01  
Ref: RD 2022 Apr 29

Mayor Malcolm Brodie and Council  
City of Richmond  
6911 No. 3 Road  
Richmond, BC V6Y 2C1  
**VIA EMAIL: mayorea@richmond.ca; cityclerk@richmond.ca**

Dear Mayor Brodie and Council:

**Submission of *Metro 2050* for Acceptance by Affected Local Governments**

Metro Vancouver has been working closely with member jurisdictions, local First Nations, and other agencies and organizations over the past three years on the review and update of the regional growth strategy. Thank you for your participation and thoughtful contributions to the *Metro 2050* process. *Metro 2050* will replace *Metro Vancouver 2040: Shaping our Future*, and will guide land use decisions in Metro Vancouver over the coming decades.

*Metro 2050* introduces important new and enhanced policies that will help Metro Vancouver, member jurisdictions, TransLink, and other parties address the significant challenges facing this region - including climate change, housing affordability, equity, and resilience - and will advance our shared vision for a sustainable, prosperous, and livable region.

*Metro Vancouver Regional District Regional Growth Strategy Bylaw No. 1339, 2022*, was given first and second readings by the Metro Vancouver Board on March 25, 2022, and a public hearing was held on April 20, 2022. At its meeting of April 29, 2022, the Metro Vancouver Board resolved to refer *Bylaw No. 1339, 2022* to all affected local governments (signatories) for acceptance. A copy of the Bylaw and the accompanying report dated April 22, 2022, titled "*MVRD Regional Growth Strategy Bylaw No. 1339, 2022, a bylaw to adopt Metro 2050 – Public Hearing Minutes and Bylaw Referral for Acceptance*" is attached.

In accordance with Section 436 of the *Local Government Act*, affected local governments must, by way of a council resolution submitted to Metro Vancouver and within 60 days of receipt of this notice, accept the regional growth strategy. The *Local Government Act* affirms that if an affected local government fails to act within the period for acceptance, it is deemed to have accepted the regional growth strategy.

51386459

If an affected local government does not accept the regional growth strategy, it must indicate by way of a resolution within the sixty (60) day period: (a) the provision(s) to which it objects, (b) the reasons for its objection, and (c) whether it is willing that a provision to which it objects be included in the regional growth strategy on the basis that the provision will not apply to its jurisdiction.

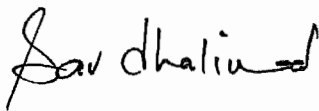
Upon the conclusion of the acceptance period, Metro Vancouver staff will be reporting to the Metro Vancouver Board at its July 29, 2022 meeting on the status of affected local government acceptances, and, if appropriate, whether third reading and adoption of *Bylaw No. 1339, 2022* may be considered. Correspondingly, this will repeal *Metro 2040* (i.e. *Greater Vancouver Regional District Regional Growth Strategy Bylaw No. 1136, 2010*, as amended).

At the April 29, 2022 Metro Vancouver Board meeting, staff provided a summary of the engagement on the development of *Metro 2050* over the past three years. The Board expressed that this would be helpful context for member jurisdictions, and asked that the presentation be attached to the consideration of acceptance letter and email going to affected local government Councils and Boards. Please find attached the presentation titled "*Metro 2050: Public Hearing and Referral for Acceptance*".

Council resolutions can be sent to Chris Plagnol, Corporate Officer, Metro Vancouver, by email at [Chris.Plagnol@metrovancover.org](mailto:Chris.Plagnol@metrovancover.org).

If you have any questions about the regional growth strategy or the process for adopting the Bylaw, please do not hesitate to contact Heather McNell, General Manager, Regional Planning and Housing Services, by email at [Heather.Mcnell@metrovancover.org](mailto:Heather.Mcnell@metrovancover.org) or by phone at 604-436-6813.

Yours sincerely,



Sav Dhaliwal  
Chair, Metro Vancouver Board

SD/JWD/hm

cc: George Duncan, Chief Administrative Officer, City of Richmond  
John Hopkins, Director of Policy Planning, City of Richmond  
Jerry W. Dobrovolny, Commissioner/Chief Administrative Officer, Metro Vancouver  
Heather McNell, General Manager, Regional Planning and Housing Services, Metro Vancouver  
Chris Plagnol, Corporate Officer, Metro Vancouver

Enclosures:

1. Report dated April 22, 2022, titled "*MVRD Regional Growth Strategy Bylaw No. 1339, 2022*, a bylaw to adopt *Metro 2050* – Public Hearing Minutes and Bylaw Referral for Acceptance"
2. *Metro Vancouver Regional District Regional Growth Strategy Bylaw No. 1339, 2022*
3. Presentation – *Metro 2050* Public Hearing Report and Referral for Acceptance

All enclosures can also be found at this link:

<https://cloudshare.metrovancouver.org:5001/sharing/3wjoLF21c>

**METRO VANCOUVER REGIONAL DISTRICT  
BYLAW NO. 1339, 2022**

**A Bylaw to Adopt a Regional Growth Strategy for the Metro Vancouver Regional District**

**WHEREAS:**

- A. Part 13 of the *Local Government Act* provides for a regional district to undertake the development, adoption, implementation, monitoring, and review of a regional growth strategy; and
- B. The Board of the Metro Vancouver Regional District by resolution on April 26, 2019 initiated the review of "Greater Vancouver Regional District Regional Growth Strategy Bylaw Number 1136, 2010" pursuant to section 433 of the *Local Government Act*.

**NOW THEREFORE** the Board of the Metro Vancouver Regional District enacts as follows:

**Citation**

- 1. The official citation of this bylaw is "Metro Vancouver Regional District Regional Growth Strategy Bylaw No. 1339, 2022". This bylaw may be cited as "Metro 2050".

**Repeal of Bylaw**

- 2. "Greater Vancouver Regional District Regional Growth Strategy Bylaw Number 1136, 2010", as amended, is hereby repealed.

**Schedule**

- 3. The following Schedule is attached to and forms part of the bylaw:  
Schedule "A", Metro 2050, Regional Growth Strategy for the Metro Vancouver Regional District.

**Regional Growth Strategy**

- 4. Schedule "A", Metro 2050, Regional Growth Strategy for the Metro Vancouver Regional District, is adopted and designated as the regional growth strategy for the Metro Vancouver Regional District.

Read a first time this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

Read a second time this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

Public Hearing held the \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

Read a third time this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

Passed and finally adopted this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.



Accepted, by Resolution:

- by the Village of Anmore on the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_
- by the Village of Belcarra on the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_
- by the City of Burnaby on the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_
- by the City of Coquitlam on the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_
- by the City of Delta on the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_
- by the City of Langley on the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_
- by the Township of Langley on the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_
- by the Village of Lions Bay on the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_
- by the City of Maple Ridge on the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_
- by the City of New Westminster on the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_
- by the City of North Vancouver on the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_
- by the District of North Vancouver on the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_
- by the City of Pitt Meadows on the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_
- by the City of Port Coquitlam on the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_
- by the City of Port Moody on the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_
- by the City of Richmond on the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_
- by the City of Surrey on the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_
- by the Tsawwassen First Nation on the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_
- by the City of Vancouver on the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_
- by the District of West Vancouver on the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_
- by the City of White Rock on the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_
- by the Fraser Valley Regional District on the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_
- by the Squamish-Lillooet Regional District on the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_
- by the South Coast British Columbia  
Transportation Authority on the \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_

---

Sav Dhaliwal, Chair

---

Chris Plagnol, Corporate Officer

## **Schedule A**

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### **Metro 2050, Regional Growth Strategy for the Metro Vancouver Regional District**

metrovancover

# METRO 2050

Regional Growth Strategy

**Metro 2050 Metro Vancouver Regional District**

4515 Central Boulevard, Burnaby, BC,  
V5H 0C6

February, 2022



# Acknowledgment of Indigenous Territory

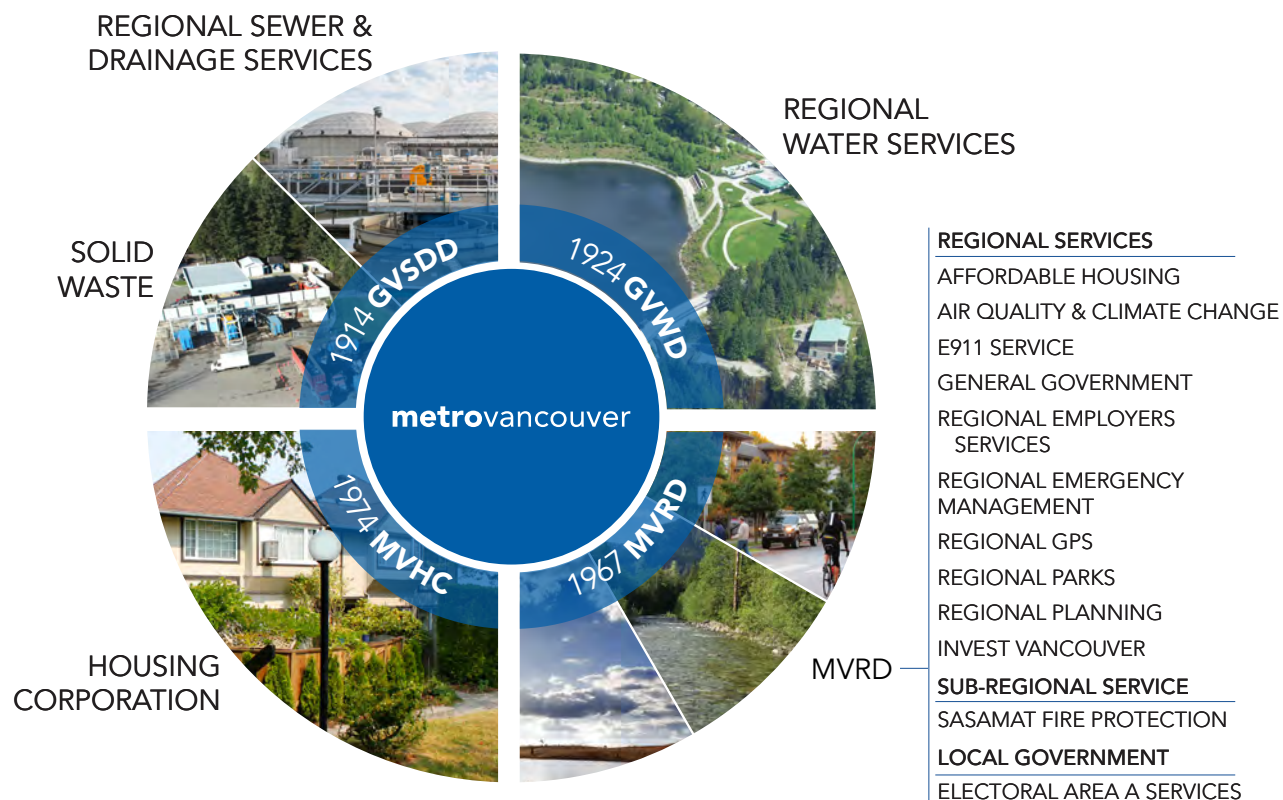
Metro Vancouver acknowledges that the region's residents live, work, and learn on the shared territories of many Indigenous peoples, including ten local First Nations: Katzie, Kwantlen, Kwikwetlem, Matsqui, Musqueam, Qayqayt, Semiahmoo, Squamish, Tsawwassen, and Tsleil-Waututh.

Metro Vancouver respects the diverse and distinct histories, languages, and cultures of First Nations, Métis, and Inuit, which collectively enrich our lives and the region.

## Metro Vancouver

Metro Vancouver is a federation of 21 municipalities, one Electoral Area and one Treaty First Nation, working collaboratively in planning and providing vital utility and local government services to about 2.75 million residents. Essential services include the provision of drinking water, sewage treatment, and solid waste disposal, along with regional services like parks, affordable housing, land use planning, and air quality management that help keep the region one of the most livable in the world.

FIGURE 1. METRO VANCOUVER ENTITIES AND SERVICES



# Mission

Metro Vancouver's mission is framed around three broad roles:

**1. Serve as a Regional Federation**

Serve as the main political forum for discussion of significant community issues at the regional level, and facilitate the collaboration of members in delivering the services best provided at the regional level.

**2. Deliver Core Services**

Provide regional utility services related to drinking water, liquid waste, and solid waste to members.

Provide regional services, including parks and affordable housing, directly to residents and act as the local government for Electoral Area A.

**3. Plan for the Region**

Carry out planning and regulatory responsibilities related to the three utility services as well as air quality, regional planning, regional parks, Electoral Area A, affordable housing, regional economic prosperity, and regional emergency management.

## Building a Resilient Region

Building the resilience of the region is at the heart of Metro Vancouver's work. Each of Metro Vancouver's regional plans and strategies adopts a vision, guiding principles, goals, strategies, actions, and key performance measures that will support a more resilient, low carbon and equitable future. Metro Vancouver's interconnected plans and strategies are guided by the Board Strategic Plan, which provides strategic direction for each of Metro Vancouver's legislated areas of responsibility and the Long-Term Financial Plan which projects total expenditures for capital projects and operations that sustain important regional services and infrastructure. Together these documents outline Metro Vancouver's policy commitments and specific contributions to achieving a resilient region.

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# A. Metro 2050 Scope and Linkages to Other Plans

## Regional Growth Strategies: Legislative Authority

The *Local Government Act* establishes authority for regional districts to prepare a regional growth strategy, which is intended to “promote human settlement that is socially, economically and environmentally healthy and that makes efficient use of public facilities and services, land and other resources.”

## Metro Vancouver’s Management Plans

Metro Vancouver’s regional growth strategy, *Metro 2050*, is one plan among a suite of interconnected management plans developed around Metro Vancouver’s Board Strategic Plan (Figure 2). The regional growth strategy uses land use policies to guide the future development of the region and support the efficient provision of transportation, regional infrastructure, and community services; it helps support the region’s priorities, mandates, and long-term commitments to sustainability and resiliency, in combination with other management plans.

The regional growth strategy provides the land use framework for planning related to regional utilities (water, liquid waste, and solid waste), transportation, housing, and air quality. Reciprocally, the *Drinking Water Management Plan*, *Integrated Liquid Waste and Resource Management Plan*, and *Integrated Solid Waste and Resource Management Plan* set the utility frameworks within which the regional growth strategy

must be developed. Housing policies in the regional growth strategy are implemented in part through the *Metro Vancouver Housing 10-Year Plan*, while the environmental and active transportation policies have important linkages with the *Regional Parks Plan*, *Ecological Health Framework*, and *Regional Greenways 2050*. The regional growth strategy helps improve air quality and reduce greenhouse gas emissions, as called for in the *Clean Air Plan* and *Climate 2050*, by encouraging growth patterns that facilitate energy efficient built form and travel patterns. Finally, the economic actions in the regional growth strategy support a prosperous economy through the implementation of the *Regional Industrial Lands Strategy* and *Invest Vancouver*.

## Metro Vancouver and TransLink: Working Together for a Livable Region

Metro Vancouver has a unique relationship with TransLink, the regional transportation authority responsible for planning, managing, and operating the regional transportation system. TransLink is required by the *South Coast British Columbia Transportation Authority Act* to support Metro Vancouver’s regional growth strategy, air quality and greenhouse gas reduction objectives, and the economic development of the region. TransLink’s regional transportation strategy, *Transport 2050*, sets out transportation strategies for the road and transit networks as well as other matters affecting the regional transportation system. The regional growth strategy and regional transportation plan must support each plan’s policy frameworks to be successful.

Metro Vancouver acknowledges TransLink's mandate is to prepare and implement regional transportation system plans and demand management strategies. The mandate of the Mayors' Council on Regional Transportation includes approving long-term, 30 year transportation strategies and 10 year investment plans.

Metro Vancouver's role in regional transportation planning is to:

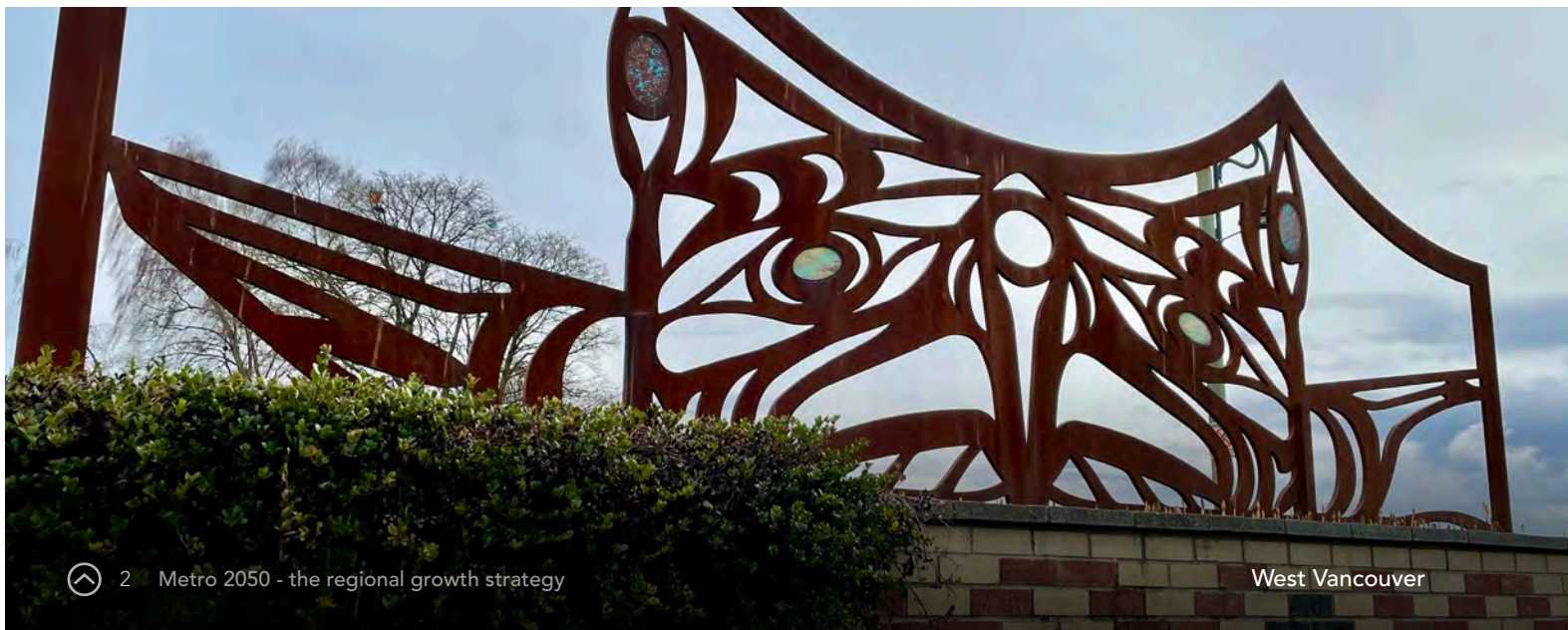
- communicate its objectives for the regional transportation system to TransLink;
- provide transportation planning input through the provision of land use, growth management and air quality information and forecasts and, as appropriate, the evaluation of land use and vehicle emissions impacts; and
- provide advice and input to TransLink and the Mayors' Council in the fulfillment of their roles in light of regional objectives and the circumstances of the day.

Metro Vancouver and TransLink share a commitment to coordination, information-sharing, and pursuing joint policy research on topics of mutual interest such as walkability, parking, new mobility, social equity, and resilience.

## Working Together with First Nations

Metro Vancouver acknowledges that all levels of government have roles and responsibilities with regards to the implementation of the Truth and Reconciliation Commission of Canada's Calls to Action. Metro Vancouver engages and collaborates with local First Nations on matters of shared regional planning interest. With regards to the regional growth strategy, this includes engaging with First Nations on regional growth strategy updates, amendments, and projections, as well as on key planning initiatives. It may also include opportunities to partner or collaborate on regional planning projects such as corridor studies or inventories. Metro Vancouver shares regional planning reports and data and is available to serve as a planning resource. Metro Vancouver strives to work towards better relationships with Indigenous groups and encourages member jurisdictions to also foster improved relationships.

Metro Vancouver acknowledges that regional growth has impacts on Indigenous territories. Metro Vancouver respects that First Nations' reserve lands are not subject to the land use policies in the regional growth strategy. In addition, many First Nations have interests in land and land holdings off reserve, which are subject to the regional growth strategy. If and when First Nations develop land management plans, Metro Vancouver, the respective First Nation,



and adjacent member jurisdictions will endeavour to engage, collaborate, and coordinate with one another at an early stage to ensure, to the extent possible, that the regional growth strategy, municipal Official Community Plans, regional transportation plans, and First Nations' land management plans are all mutually respectful and supportive.

## Working Together with Federal and Provincial Governments and Other Regional Stakeholders

An important part of successful regional planning is collaboration and building inter-jurisdictional partnerships. Metro Vancouver works with other important partners including the Federal Government and the Province, other authorities and agencies, residents, non-profit organizations and business associations on all aspects of the regional growth strategy where there are shared or overlapping interests. Metro Vancouver strives to foster strong relationships with other government agencies and regional stakeholders, seeks to find opportunities for collaboration, and shares information for the benefit of all, while respecting unique jurisdictional responsibilities.

Due to Canada's federal system, there are federal, provincial, and local jurisdictions and responsibilities that interplay and have significant impacts on how people live and use the region. While some jurisdiction is clearly separate, others can be shared or overlapping. In Canada, international immigration policy and rates are set by the Federal Government. The Province has some influence over immigration programs. In addition, the Province is responsible for immigrant settlement programs. The Federal Government has jurisdiction and funding responsibilities for federal trade and transportation facilities, such as ports and airports, while the Province is responsible for transportation planning, education, agriculture, child care, and health care, all of which have significant impacts on how people live and use the region. Both the Federal Government and the Province are responsible for funding programs that enable the creation of affordable and supportive housing and for taking action on climate change.

Metro Vancouver's collaboration with regional stakeholders includes the role of convening and fostering dialogue with and among health authorities, port and airport authorities, post-secondary educational institutions, the Agricultural Land Commission, housing providers, industry groups, and the non-profit sector.

**FIGURE 2. METRO VANCOUVER REGIONAL MANAGEMENT PLANS.**





## B. Introduction to the Region

### Context for the Regional Growth Strategy

#### Geographic Context: Surrounded by Natural Beauty, but Constrained

Located in the southwestern corner of the British Columbia mainland, the Metro Vancouver region is a diverse urban place rich in natural beauty. Metro Vancouver is a globally important ecological hub. It is an essential stop for migratory birds along the Pacific Flyway, and the Fraser River is one of the world's most significant salmon rivers. Situated on the Salish Sea, bisected by the Fraser River, and flanked by the Coast Mountains to the north, the region's natural features have contributed to its position as a major international port, an important location for agricultural production, and one of the most desirable places to live in Canada. These features, as well as the international border to the south, lead to a constrained land base that strengthens the imperative for regional planning and growth management. Consequently, the regional federation has a long history of thoughtfully considering how to accommodate population and economic growth with limited land for expansion.

#### Indigenous Context: A Rich Indigenous History and Vibrant Modern Presence

For thousands of years, Indigenous peoples have lived on, and responsibly stewarded, their respective and shared territories that collectively have also become known as the Metro Vancouver region. Today there are ten First Nations with communities located within the Metro Vancouver region: Katzie First Nation, Kwantlen First Nation, Kwikwetlem First Nation, Matsqui First Nation, Musqueam Indian Band, Qayqayt First Nation, Semiahmoo First Nation, Squamish Nation, Tsawwassen First Nation, and Tsleil-Waututh Nation. In addition, there are many other Indigenous Nations and organizations located outside the boundaries of Metro Vancouver, having land and territorial interests that include the Metro Vancouver region. Furthermore, many First Nation peoples from other areas of Canada, as well as Inuit and Métis peoples, live within this region. Indigenous communities continue to thrive in the region and aim to enhance current environmental stewardship measures.



## Social Context: A Culturally Diverse Region

Metro Vancouver is the largest region in British Columbia with over 53% of the province's population. Metro Vancouver is an ethnically diverse region with approximately 49% of the population of European heritage, 20% Chinese, 12% South Asian, 5% Filipino, 2.5% Indigenous, and a wide variety of other cultural backgrounds. This cultural diversity continues to enrich the region; helps make the region an attractive place to live; and supports tourism, immigration, and investment.

Immigration is a major driver of population growth and diversity with approximately 80% of permanent residents to BC settling in Metro Vancouver. India, China, and the Philippines are the top countries of origin for immigrants, with a particularly strong growth trajectory for immigration from India. Temporary residents in BC (international students and foreign workers) also predominantly reside in Metro Vancouver and numbers have grown substantially in recent years. Temporary residents likely comprise between 5-10% of the Metro Vancouver population.

Housing is one of the most important social and economic issues in Metro Vancouver. Land values and housing prices in the region are very high and have led to associated housing challenges, including: barriers to accessing housing in both the rental and ownership markets, many households spending more than 30% of their gross income on housing, lack of supply across the housing continuum, low rental vacancy rates, and a high rate of homelessness.

The BC Centre for Disease Control estimates that approximately 75% of our overall health is determined by social and ecological factors like working or living conditions, built environment, income, and educational opportunities. These factors strongly affect the rates of chronic disease and injury, leading to different levels of health and well-being for people of different groups. Community and regional planning decisions have the potential to support better health outcomes for all residents. Improving air quality, access to nature, community resilience, and neighbourhood walkability can support health equity in Metro Vancouver.

## Climate Change and Natural Hazards Context: Vulnerable to Impacts and Risks

Metro Vancouver is situated on the Fraser River delta, amongst many forested areas and steep slopes, and in one of the most seismically active zones in Canada. As a result, the region is susceptible to a variety of natural hazards, including earthquakes, wildfires, landslides, and floods. Climate change is already affecting Metro Vancouver, and the impacts are projected to become more frequent and severe over time, increasingly affecting the communities, infrastructure, and natural environment within the region. Climate change can also amplify the impacts of natural hazards; for instance, sea level rise can increase the severity of coastal floods, heavier rainfall events can influence the likelihood of floods and landslides, and warmer temperatures combined with longer drought periods can increase the risk of wildfires.

## Challenges and Opportunities

Metro Vancouver's population has grown substantially over the past decades, adding more than one million people in a generation. This strong population growth is projected to continue, therefore the key challenge will be to accommodate growth in ways that advance both livability and sustainability. To accomplish this, the regional growth strategy strives to address the following issues:

### Accommodating Growth to Advance Livability and Sustainability

The region is expected to continue to grow by about 35,000 residents per year. Accommodating growth within a land-constrained region implies greater density of development. By carefully shaping and structuring growth and ensuring the right diversity of land uses, regional planning can reduce congestion, improve the efficiency of transportation infrastructure, improve the economics of public services, increase the viability of local businesses and retail services, foster the creation of vibrant centres for culture and community activities, and maintain an attractive urban environment.

### Building Resilient, Healthy, and Complete Communities

As the region's population both grows and ages, ensuring access to the key elements of healthy, social and complete communities becomes more challenging. Access to amenities like local shops, personal services, community activities, recreation, green spaces, employment, culture, entertainment, and a safe and attractive public realm can improve community health, social connectedness, and resilience. Planning for complete communities also means considering the needs of a diverse population to promote inclusion and accessibility. This requires careful planning, primarily at the local scale, but also regionally. Complete communities can also help with other challenges, such as climate change, by encouraging active transportation and reducing the need to commute or travel long distances to access employment, amenities, or services.



## Ensuring Housing for All

Ensuring affordable and appropriate housing that meets a variety of needs across the housing continuum is an ongoing challenge. While the region's housing market continues to evolve, stresses of high prices and low supply have evolved over the past decade to the point where there is extreme pressure on both ownership and rental tenure, and heightened public concern over the impacts of housing challenges on the region's social and economic well-being. Strong regional policy and performance measures pertaining to housing can help to increase the supply of all forms and tenures of housing, and reduce pressures on the housing market.

## Supporting Economic Prosperity

Metro Vancouver's economy benefits from a highly varied and specialized base of employment activities, including international trade and logistics; manufacturing; professional and business services; film and television production; tourism and hospitality; education and knowledge creation; agriculture; and emerging technology-driven sectors, such as apparel technology, agri-tech, clean technology, digital media, medical technology, and new mobility. The region connects with, and serves, a resource-rich province and has strong gateway links to the North American and Asia-Pacific regions through the Port of Vancouver and YVR International Airport. An intent of the regional growth strategy is to provide an adequate supply of jobs-producing industrial and commercial space throughout the region for new and expanding industrial and employment uses. This could include research and development, incubation and acceleration, production, and export, located according to their needs, and in a manner that supports an efficient transportation system on which the economy depends.

## Advancing Social Equity

Economic and social inequity can contribute to broad health and social problems as well as a wide variety of other challenges. In Metro Vancouver, incorporating social equity into regional growth planning practice is crucial to ensuring that the region moves forward in an equitable and inclusive manner. Improving social equity will also support the region's other objectives including resilience, sustainability, livability, and prosperity for all. Some of the key social equity concerns in the Metro Vancouver region that relate to the regional growth strategy include: access to green space, employment, public safety, and transit; housing adequacy, suitability, and affordability; vulnerability to climate change impacts and natural hazards; and the displacement impacts that are the result of redevelopment.

## Ensuring Resilience

Metro Vancouver is vulnerable to a variety of shocks and stressors. Regional resilience is the capacity of communities and organizations to prepare, avoid, absorb, recover, and adapt to the effects of shocks and stresses in an efficient manner through the preservation, restoration, and adaptation of essential services and functions, while learning from shocks and stresses to build a more resilient place. Proactive growth management policies can promote land use and built form patterns that reduce exposure to risk, help communities prepare for future shocks, and ensure that residents have the necessary community and social assets located close to where they live and work.

## Reconciliation with Indigenous Peoples

The Province passed the *Declaration on the Rights of Indigenous Peoples Act* into law in November 2019. It is anticipated that the *Local Government Act* will be brought into harmony with the *Declaration* over time which will provide greater clarity on the relationship between regional districts and Indigenous governments. In the meantime, a commitment to ongoing relationship building is essential.

Working towards reconciliation introduces a cross jurisdictional consideration for regional districts, since the primary intergovernmental relationships for First Nations is with the federal and provincial governments. While the regional growth strategy does not apply to reserve lands, it potentially impacts them. In further fostering relationships with First Nations and understanding the various challenges, opportunities, and impacts on all partners, we can collectively move forward and be inclusive of all residents of the region. Fostering stronger relationships with First Nations also offers the opportunity for all members to learn about Indigenous knowledge systems and Indigenous values, which can inform and complement regional planning policy and practice.

## Protecting the Environment

Many natural assets in Metro Vancouver are of national and international significance, such as the Fraser River Estuary. Managed carefully, natural assets provide essential ecosystem services such as clean air, fresh water, and nutritious food. The challenge is to protect and restore the integrity of these assets for the benefit of current and future generations in the face of a growing population, associated development, and a changing climate. Regional policy that emphasizes protecting, connecting, and enhancing ecosystems and integrating best practices across disciplines can help address this challenge. In addition, Indigenous knowledge can inform and complement approaches to environmental protection.

## Preparing for Climate Change and Natural Hazards

The major natural hazard risks in Metro Vancouver include earthquakes, floods, landslides, and wildfires. The risks associated with these hazards are often worsened by climate change. By 2050, the region is projected to experience sea level rise; warmer temperatures; longer summer drought periods; increased precipitation in the fall, winter, and spring; a reduced annual snowpack; and more frequent extreme weather events. The challenge is to prepare for the impacts of climate change and regional natural hazards, while also reducing regional greenhouse gas emissions and achieving a carbon neutral region by the year 2050. Emerging global issues such as climate change-related population displacement may impact and influence land use and growth management planning in the Metro Vancouver region. An example of a policy approach focused on preparing for the impacts of climate change and natural hazards includes avoiding siting new settlements and infrastructure in locations with known and unmitigated hazards and, where settlements already exist, mitigating those hazards to minimize risk to people and property. In addition, Indigenous knowledge can inform and complement regional resilience strategies.



## Protecting Agricultural Land to Support Food Production

Local production of food is dependent on a protected land base for agriculture. Metro Vancouver has approximately 60,000 hectares in the provincial Agricultural Land Reserve, and that land is a vital asset for the economic viability of the region, the agricultural sector in particular, along with supporting local food production for future generations. The ongoing production of fresh and local food contributes to a secure food supply and economic resilience, and supports other co-benefits such as ecosystem services. Yet land speculation, the conflicts between urban and agricultural uses, and the conversion pressures from other land uses on agricultural lands continue to threaten the resilience of agriculture in the region. The impacts of climate change are also projected to have significant impacts on the agricultural industry. Effective growth management policy includes strategies to protect and enhance agricultural lands and support agricultural viability over the long-term.

## Improving Accessibility and Mobility and Reducing Congestion

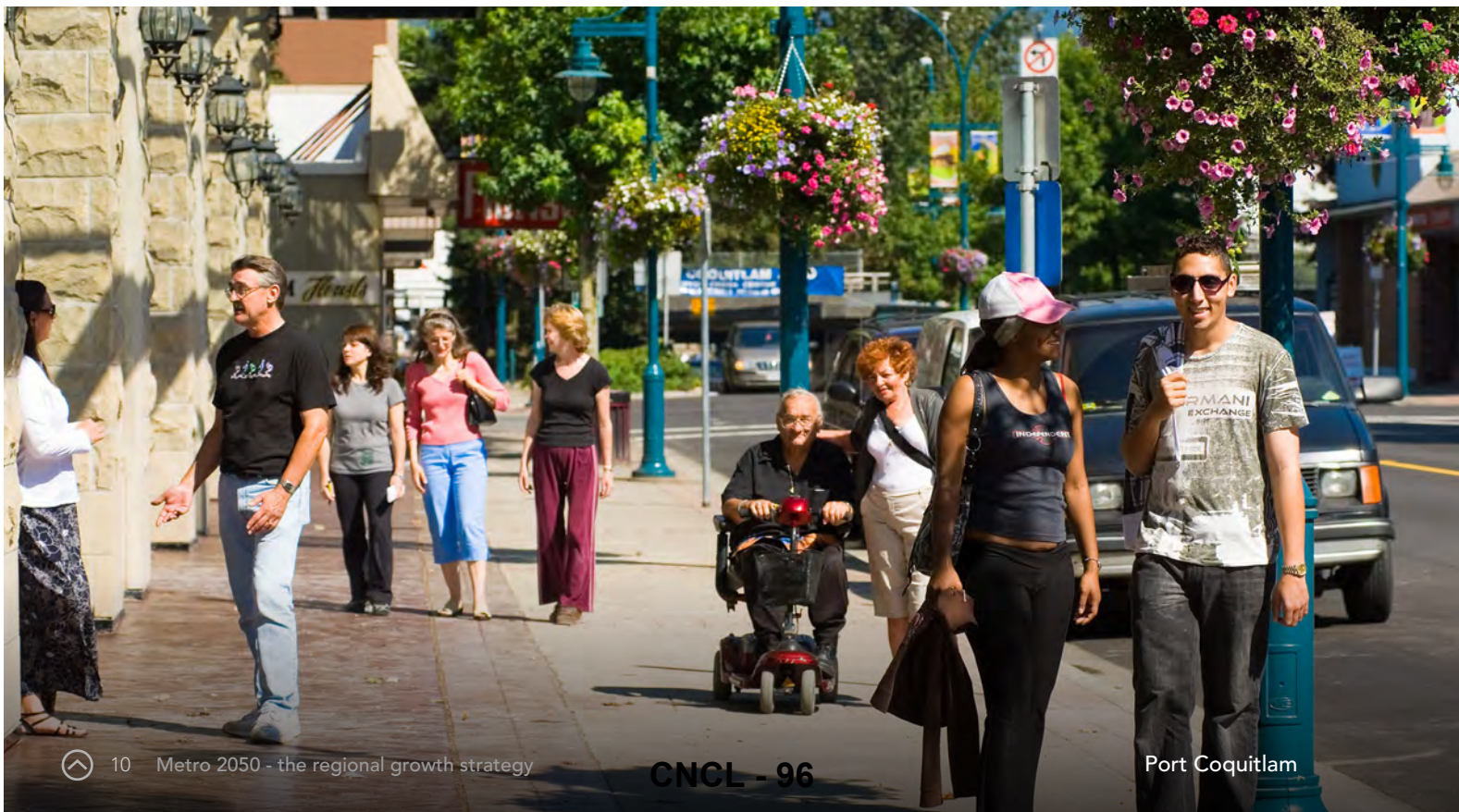
Metro Vancouver has some of the highest levels of transit ridership, walking, and cycling in Canada. However, sustainable mode share varies significantly across the region, the majority of trips are still taken by private motor vehicle, and transportation remains the region's largest source of greenhouse gas emissions. Shaping infrastructure, street design, and population growth in a way that supports sustainable transportation choices are keys to reaching the region's carbon neutrality target by 2050. Strategies include investing in transit and active transportation; supporting the creation of compact, complete, and walkable communities; directing growth towards transit-oriented areas; and managing transportation demand through parking requirements, transportation user pricing, and other tactics for promoting sustainable modes of transportation.



## Changing Generational Trends and Behaviours

Younger and older generations often have different perspectives, preferences, and options regarding: housing type, tenure, and location; transportation choice; employment; proximity to amenities and services; and recreational opportunities. In addition, macroeconomic trends have delayed or limited many opportunities for employment and home ownership while technological innovation is also impacting consumer behaviour. The result has been a general trend towards living in more urban environments, making more environmentally-sensitive choices, and prioritizing access over ownership.

Other trends that are being seen include smaller family sizes, lower personal savings, higher educational attainment, older age of household formation, and lower rates of home and car ownership. Demographic shifts including an aging population and immigration will also impact consumer behaviour. An awareness and consideration of changing generational and demographic trends and behaviours will support better long-range planning as well as regional prosperity through improved labour force recruitment and retention.





## C. Introduction to the Regional Growth Strategy

### *Metro 2050 Vision*

Metro Vancouver is a region of diverse, equitable, and complete communities connected by sustainable transportation choices where residents take pride in vibrant neighbourhoods that offer a range of opportunities to live, work, play, and learn, and where natural, agricultural, and employment lands are protected and enhanced.

Shaping long-term growth and development in the region is essential to meeting this vision in a way that protects the natural environment, fosters community well-being, fuels economic prosperity, provides local food security, improves social equity, provides diverse and affordable housing choices, ensures the efficient provision of utilities and transit, reduces greenhouse gas emissions, and improves resilience to climate change impacts and natural hazards.

### Guiding Regional Planning Principles

*Metro 2050* is guided by the following five principles:

1. Put growth in the right places;
2. Protect important lands;
3. Develop complete communities;
4. Provide affordable mobility, housing, and employment choices for all; and
5. Support the efficient provision of infrastructure.



North Vancouver District







## Responding to the Challenges: *Metro 2050* Goals

To respond to the challenges faced by the region, the regional growth strategy sets out a series of strategies and actions for Metro Vancouver and member jurisdictions arranged under five overarching goals intended to achieve the desired outcomes. While each of the goals in *Metro 2050* are separate sections by theme, they are all closely interrelated and complementary to the others. Collectively, the goals, actions, and strategies support *Metro 2050*'s vision and five guiding regional planning principles, and it is intended that they be considered together as they are mutually-supportive.

### **Goal 1.** Create a Compact Urban Area

Metro Vancouver's growth is focused inside an Urban Containment Boundary, within which are a variety of complete communities with access to a range of housing choices, employment opportunities, amenities, and services. Concentrating growth in a network of transit-oriented centres and corridors helps reduce greenhouse gas emissions and pollution, while supporting an efficient transportation network and the efficient use of land.

### **Goal 2.** Support a Sustainable Economy

The objective of this goal is to protect and optimize the land base and transportation systems required to ensure the viability of business sectors. This means supporting regional employment and economic growth, including the established and new emerging sectors and businesses. This is best achieved through the long-term protection of Industrial, Employment, and Agricultural lands, and ensuring that supports are in place to allow commerce to flourish in Urban Centres throughout the region, and heavy and light industrial activities on Industrial lands, connected by a diverse and reliable transportation system.



### **Goal 3. Protect the Environment, Address Climate Change, and Respond to Natural Hazards**

The region's vital ecosystems provide essential services for all life. A connected network of protected Conservation and Recreation lands and other green spaces throughout the region provides opportunities to enhance physical and mental health, supports biodiversity, and increases community resilience. The strategies in this goal also help Metro Vancouver and its member jurisdictions contribute to meeting the regional greenhouse gas emission reduction targets, and prepare for the impacts of climate change and natural hazards.

### **Goal 4. Provide Diverse and Affordable Housing Choices**

Metro Vancouver is a region of communities with a diverse and affordable range of housing choices suitable for residents at any stage of their lives, including a variety of unit types, sizes, tenures, prices, and locations. There is an increased supply of purpose-built rental housing, particularly in proximity to transit, and there are robust tenant protections in place to mitigate the impacts of renovation and redevelopment on renters. Residents experiencing or at risk of homelessness and those with lower incomes or special needs can access permanent, affordable, and supportive housing in neighbourhoods across the region.

### **Goal 5. Support Sustainable Transportation Choices**

Metro Vancouver's compact, transit-oriented urban form supports a range of sustainable transportation choices. This pattern of development expands the opportunities for transit, walking, cycling, and multiple occupancy vehicles, which reduces greenhouse gas emissions and household expenditures on transportation, and improves air quality. The region's road, transit, rail, and waterway networks play vital roles in serving and shaping regional development, providing linkages among the region's communities, and providing important goods movement networks.



## D. Urban Containment Boundary, Regional Land Use Designations, Overlays, and Projections

The following tools, regional land use designations, and overlays are key to achieving the five goals of the regional growth strategy. They establish a long-term regional land use framework and provide the basis for defining land use matters of regional significance.

The intent statements for the regional land use designations and overlays are to be read in conjunction with applicable strategies and actions under each goal and are to be supported by member jurisdictions in their Regional Context Statements. The boundaries for the regional designations are established on a parcel-based map maintained by Metro Vancouver and are depicted on the Regional Land Use Designations map (Map 2).

Once they have been defined by member jurisdictions, the locations of Urban Centre and Frequent Transit Development Area overlays are shown on Maps 4 and 5. The parcel-based boundaries of Urban Centre and Frequent Transit Development Area overlays, as determined by member jurisdictions, will be depicted on a reference map maintained by Metro Vancouver.

### Urban Containment Boundary

The Urban Containment Boundary is a stable, longterm, regionally-defined area for urban development that protects Agricultural, Conservation and Recreation, and Rural lands from developments requiring utility infrastructure and from auto-oriented, dispersed development patterns. Locating housing, regional transportation, and other infrastructure investments within the Urban Containment Boundary supports land development patterns that can protect food producing land and reduce energy demand and greenhouse gas emissions from commuter traffic; it also secures land that stores carbon and helps communities adapt to climate change. Residential and employment infill development is encouraged within the Urban Containment Boundary.



## Urban Land Use Designations

### General Urban

General Urban lands are intended for residential neighbourhoods and centres, and are supported by shopping, services, institutions, recreational facilities and parks. Within General Urban lands, commercial, employment, and residential development should be focused in Urban Centres and Frequent Transit Development Areas (FTDAs). Higher density trip-generating development is to be directed to Urban Centres and FTDAs. Neighbourhood-serving shops and services are encouraged in General Urban lands both inside and outside Urban Centres and FTDAs. In central locations of the region, outside of Urban Centres and FTDAs, multi-unit and mixed-use infill development may be aligned with the goals and strategies of *Metro 2050*, however, the principles of walkability, proximity to frequent transit and employment, and resilience to hazards must be given due consideration.

General Urban areas are intended to emphasize place-making and an enriched public realm, and to promote transit-oriented communities, where transit, multiple-occupancy vehicles, cycling, walking, and rolling are the preferred modes of transportation.

### Industrial

Industrial lands are intended for heavy and light industrial activities, including: distribution, warehousing, repair, construction yards, infrastructure, outdoor storage, wholesale, manufacturing, trade, e-commerce, emerging technology-driven forms of industry, and appropriately-related and scaled accessory uses.

The intensification and densification of industrial activities and forms, as contextually appropriate to the surrounding area, are encouraged. Limited industrial-serving commercial uses that support the primary industrial functions are appropriate. Residential uses are not intended.

## Employment

Employment lands are intended for light industrial, commercial, and other employment-related uses to help meet the needs of local and regional economic activities, and complement the planned functions of Urban Centres and Frequent Transit Development Areas.

Employment lands that are located within Urban Centres and Frequent Transit Development Areas provide locations for a range and mix of employment activities and more intensive forms of commercial development.

Residential uses are not intended on Employment lands, with the exception of sites that are located within 200 metres of a rapid transit station and within either an Urban Centres or FTDA. In those exceptional circumstances, limited residential uses (with an emphasis on affordable, rental housing) are permitted on the upper floors of mid- to high-rise buildings, where appropriate, while commercial and light industrial uses are to be located on the ground or lower floors.

Employment lands located outside of Urban Centres and Frequent Transit Development Areas are primarily intended for: light industrial and commercial uses that require larger-format buildings, which may have particular goods movement needs and impacts; generally lower employment densities and lower transit-generating uses; and uses and forms that are not consistent with the character of a dense transit-oriented neighbourhood, Urban Centre, or Frequent Transit Development Area.



## Non-Urban Land Use Designations

### Rural

Rural lands are intended to protect the existing character, landscapes, and environmental qualities of rural communities outside the Urban Containment Boundary. Land uses in these areas include low density forms of residential; agricultural; and small-scale commercial, industrial, or institutional uses, that do not require the provision of urban services such as sewerage or transit. As such, Rural lands are not intended as future urban development areas and generally will not have access to regional sewerage services. Rural designated land generally comprise natural areas, agricultural lands, lands with low-intensity residential or built environments that are historical, remote, or not contiguous with the urban area, and may have topographic constraints.

### Agricultural

Agricultural lands are intended for agricultural production and agriculture-related uses that are compatible with farming operations and that directly support the local agricultural industry. Lands designated as Agricultural reinforce the provincial Agricultural Land Reserve and local land use plans that protect the region's agricultural land base. These lands are protected to encourage agricultural activities over the long-term.

## Conservation and Recreation

Conservation and Recreation lands are intended to protect significant ecological and recreation assets, including: drinking water supply areas, environmental conservation areas, wildlife management areas and ecological reserves, forests, wetlands, riparian areas, major parks and outdoor recreation areas (e.g. ski hills and other tourist recreation areas), and other ecosystems that may be vulnerable to climate change and natural hazard impacts, or that provide buffers to climate change impacts or natural hazard impacts for communities. These lands are protected and managed to ensure they continue providing vital ecosystem services for the benefit of current and future generations.

## Regional Overlays and the Major Transit Growth Corridors

Within the Urban Containment Boundary, Urban Centres and Frequent Transit Development Areas may be overlaid on any regional land use designation. Urban Centre and Frequent Transit Development Area overlays and policies enable higher density residential and commercial development for General Urban lands, and higher density commercial and industrial development for Employment lands. Where overlays cover lands other than those designated General Urban or Employment, the intent and policies of the underlying regional land use designations still apply.

## Urban Centres

Urban Centres are intended to be the region's primary focal points for concentrated growth and transit service. They are intended as priority locations for employment and services, higher density forms, mixed residential tenures, affordable housing options, commercial, cultural, entertainment, institutional, and mixed uses. Urban Centres are intended to emphasize place-making and an enriched public realm, and to promote transit-oriented communities, where transit, multiple-occupancy vehicles, cycling, walking, and rolling are the preferred modes of transportation. Urban Centres are priority locations for services and amenities that support a growing population.

Maps 4 and 5 show the location of Urban Centres. Urban Centre boundaries are identified by member jurisdictions in their Regional Context Statements in a manner generally consistent with the guidelines in Table 3 (Guidelines for Urban Centres and Frequent Transit Development Areas). As per Table 3, there are different types of Urban Centres with different scales of expected activity and growth.

## Major Transit Growth Corridors

Major Transit Growth Corridors are select areas along TransLink's Major Transit Network within which member jurisdictions, in consultation with Metro Vancouver and TransLink, may identify new Frequent Transit Development Areas (FTDAs). These corridors, shown on Map 5, extend approximately 1 kilometre from the roadway centreline in both directions and do not extend outside the Urban Containment Boundary. The intent of these corridors is to provide a framework for the region in an effort to support the regional planning principle of directing significant proportions of the region's growth towards Urban Centres and areas around transit. The Major Transit Growth Corridors are also a growth monitoring tool to assess performance on transit-oriented development objectives.

The Major Transit Growth Corridors have been identified as good potential locations for regionally-significant levels of transit-oriented growth based on a consideration of the following principles: anchored by Urban Centres or FTDAs, connected by the Major Transit Network, generally resilient to natural hazards, accessible to jobs and services, and walkable. Not all locations in the Major Transit Growth Corridors will be appropriate locations for growth (such as: rail yards or parks). Further local planning will be needed along these corridors to ensure that human settlement patterns support the development of healthy, walkable, and complete communities.

Major Transit Growth Corridors are not an overlay; rather, they are an organizing framework to support the identification of FTDAs. Major Transit Growth Corridors do not alter the underlying land use designation.

### Major Transit Growth Corridor

#### Selection Principles

1. Anchored by Urban Centres or FTDAs,
2. Connected by the Major Transit Network,
3. Generally resilient to natural hazards,
4. Accessible to jobs and services, and
5. Walkable

## Frequent Transit Development Areas

Frequent Transit Development Areas (FTDAs) are additional priority locations to accommodate concentrated growth in higher density forms of development. They are identified by member jurisdictions and located at appropriate locations within the Major Transit Growth Corridors. FTDAs complement the network of Urban Centres, and are characterized by higher density forms of residential, commercial, and mixed uses. FTDAs may contain community, cultural, and institutional uses. Urban design for these areas promotes transit-oriented communities where transit, cycling, walking, and rolling are the preferred modes of transportation.

Identifying FTDAs within the Major Transit Growth Corridors: 1) provides greater certainty and integration between local, regional, and transit plans; and 2) supports transit-oriented development planning across jurisdictional boundaries.

Maps 4 and 5 show the location of FTDAs. The FTDA boundaries are established by member jurisdictions in Regional Context Statements in a manner generally consistent with the guidelines in Table 3 (Guidelines for Urban Centres and Frequent Transit Development Areas). The size and shape of FTDAs may manifest in different ways in accordance with the transit service provided as well as with the local context. In corridors where transit stops are spaced more closely together, a linear shaped FTDA may be more appropriate, whereas when stops are spaced further apart a “nodal” FTDA around the station area may be a better fit. Transit service that is more frequent and higher capacity is better supported by an FTDA with a larger geographic area (up to 1000 metres) while transit service that is less frequent or lower capacity could be better supported by an FTDA with a slightly smaller geographic area (approximately 800 metres). All FTDAs are good locations for a variety of multi-unit housing forms, especially affordable and rental housing, but in general densities should scale with the level of transit service provided.

## Trade-Oriented Lands Overlay

The Trade-Oriented Lands Overlay is intended for Industrial lands that are required to support goods movement in, out, and through the Metro Vancouver region, and that keep British Columbia and Canada connected to the global supply chain.

These important areas are occupied by such uses as: terminal facilities, distribution centres, warehouses, container storage, and freight forwarding activities that serve a national trade function and contribute to the provincial and regional economies. These operations generally require large sites and are located near major transportation infrastructure corridors and terminals.

Industrial lands with a Trade-Oriented Lands Overlay are not intended for stratification tenure or small lot subdivision.

## Natural Resource Areas Overlay

The Natural Resource Areas Overlay is intended to illustrate existing provincially-approved natural resource uses within the Conservation and Recreation regional land use designation that may not be entirely consistent with the designation, but continue to reflect its longterm intent. These uses include a landfill; quarries; lands with active forest tenure managed licences; and wastewater and drinking water treatment facilities. Metro Vancouver creates and maintains this overlay.

## Growth Projections

The population, housing, and employment growth projections are included in the regional growth strategy as a collaborative guide for land use and infrastructure planning for Metro Vancouver utilities, member jurisdictions, TransLink, and other regional agencies. The growth projections are provided as a reference, and are not specific growth targets for the region, sub-regional areas, or member jurisdictions.

### Regional Projections

*Metro 2050* forecasts indicate that over the next thirty years, Metro Vancouver will need to accommodate approximately one million more residents. This means that the region will also require approximately 500,000 additional housing units and almost 500,000 additional jobs. The regional growth strategy encourages member jurisdictions to focus this growth in Urban Centres and Frequent Transit Development Areas to support complete and walkable communities. It is projected that between 2021 and 2050, most housing and employment growth will occur in these key areas, aligning with the *Metro 2050* Urban Centre and Frequent Transit Development Area growth targets.

At the last Census in 2016, Metro Vancouver's population was just under 2.6 million. Growth over the next thirty years is projected to add about one million people to reach 3.8 million by the year 2050 (Figure 3).

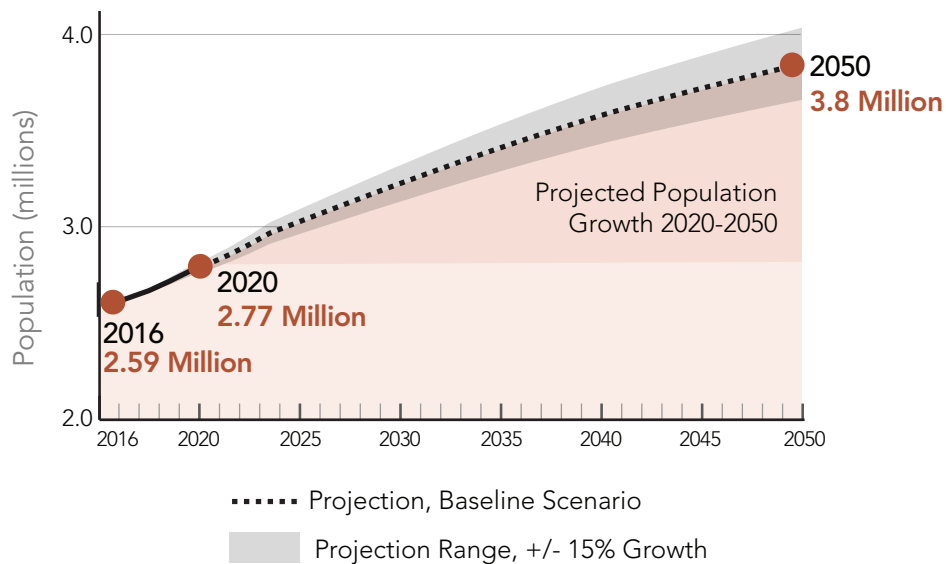
Similar to the majority of Canadian cities, Metro Vancouver's population is aging. While the percentage of seniors (aged 65 and over) comprised 14.7% of the total population in 2016, this is projected to increase to 22% by 2050. The aging population will have a significant impact on the demand for services in the region, from seniors' housing, health care, accessible public transit, and many other aspects.

Strong population growth is an indicator of strong housing growth. To accommodate projected growth, the region will require an additional 500,000 dwelling units. Apartments are projected to make up over 50% of future growth, followed by multi-attached units. Single-detached housing will grow; however, minimally as locations for additional housing are exhausted.

In 2016, the average number of people living in a household in Metro Vancouver was 2.54 persons. Household size has been decreasing over the last two census periods. This trend is projected to continue and is expected to reach 2.38 by 2050 for all housing structure types. This shift will impact the number and type of new housing units required to accommodate the projected population.

Employment growth tends to follow strong population growth, and Metro Vancouver is expected to gain approximately 500,000 additional jobs by the year 2050, for a total of 1.9 million jobs (Table 1), with a population-to-employment ratio of 0.5. Commercial services will continue to grow and will make up about 50% of total future jobs. New jobs in public administration and other employment sectors will each make up approximately a quarter of job growth. The primary resource sector is projected to remain at a very low level for the region.

FIGURE 3. PROJECTED POPULATION TO 2050 FOR METRO VANCOUVER



## Sub-Regional Projections

To establish a long-term regional growth management framework, the regional growth strategy provides population, dwelling unit, and employment projections at a sub-regional level (Figure 4) to help frame growth distribution across the region and support the following objectives:

- support Metro Vancouver utility, TransLink and member jurisdiction long-term capital planning and infrastructure investment programs;
- establish a baseline in setting future growth targets for the Urban Centres and Frequent Transit Development Areas within sub-regions;
- provide flexibility for member jurisdictions in preparing and adjusting local projections over time, and to guide long-range policy planning; and
- achieve greater resiliency to changes in residential and employment market demands.

*Metro 2050's sub-regions are:*

1. **North Shore** (Bowen Island Municipality; City of North Vancouver; Districts of North Vancouver and West Vancouver; Electoral Area A; and Village of Lions Bay);
2. **Burrard Peninsula** (Cities of Burnaby, New Westminster, and Vancouver; UBC; and UEL);
3. **Northeast** (Cities of Coquitlam, Port Coquitlam, and Port Moody; Villages of Anmore and Belcarra);
4. **South of Fraser – West** (Cities of Delta and Richmond; Tsawwassen First Nation);
5. **South of Fraser – East** (Cities of Langley, Surrey, and White Rock; Langley Township; and Barnston Island); and
6. **Ridge Meadows** (Cities of Maple Ridge and Pitt Meadows).

FIGURE 4. METRO VANCOUVER'S SUB-REGIONS FOR THE PURPOSES OF METRO 2050 PROJECTIONS



**TABLE 1. REGIONAL AND SUB-REGIONAL PROJECTIONS BY DECADE TO 2050**

POPULATION						
SUB-REGIONS		2016	2020	2030	2040	2050
	<b>Metro Vancouver Total</b>	<b>2,593,200</b>	<b>2,767,000</b>	<b>3,206,100</b>	<b>3,564,100</b>	<b>3,836,800</b>
	Burrard Peninsula	1,014,800	1,064,900	1,206,000	1,311,900	1,387,800
	North Shore	199,600	207,600	236,400	254,100	271,000
	Northeast	245,300	263,100	316,100	363,800	396,500
	Ridge Meadows	105,500	110,800	127,200	142,800	155,000
	South of Fraser – East	713,400	782,600	939,300	1,077,400	1,185,300
	South of Fraser – West	314,500	337,900	381,100	414,100	441,300
DWELLING UNITS						
SUB-REGIONS		2016	2020	2030	2040	2050
	<b>Metro Vancouver Total</b>	<b>1,000,500</b>	<b>1,075,500</b>	<b>1,287,700</b>	<b>1,460,500</b>	<b>1,589,400</b>
	Burrard Peninsula	435,900	462,900	533,200	584,600	623,400
	North Shore	79,600	83,500	100,500	111,800	121,900
	Northeast	90,000	96,800	124,800	148,600	165,700
	Ridge Meadows	38,800	42,200	50,000	56,800	61,900
	South of Fraser – East	242,800	267,000	332,400	395,300	441,100
	South of Fraser – West	113,500	123,100	146,700	163,400	175,400
EMPLOYMENT						
SUB-REGIONS		2016	2020	2030	2040	2050
	<b>Metro Vancouver Total</b>	<b>1,342,200</b>	<b>1,420,100</b>	<b>1,621,600</b>	<b>1,775,300</b>	<b>1,883,600</b>
	Burrard Peninsula	643,700	671,700	739,500	786,500	820,000
	North Shore	89,400	94,000	107,200	115,900	123,200
	Northeast	92,000	98,900	120,500	137,500	148,200
	Ridge Meadows	35,800	38,600	45,500	51,200	55,100
	South of Fraser – East	287,100	309,500	372,900	426,600	465,200
	South of Fraser – West	194,100	207,500	236,000	257,700	271,900

To minimize urban sprawl and its negative impacts; support the protection of agricultural, industrial, and ecologically important lands; and support the efficient provision of urban infrastructure, the regional growth strategy sets a target of containing 98% of the region's growth to areas within the Urban Containment Boundary.

To support the development of compact, complete, and transit-oriented communities within the Urban Containment Boundary, the regional growth strategy also includes targets for structuring growth to the network of Urban Centres and Frequent Transit Development Areas. It sets out targets of focusing 40% of the region's dwelling unit growth and 50% of the region's employment growth to areas within Urban Centres, and targets of focusing 28% of the region's dwelling unit growth and 27% of the region's employment growth to Frequent Transit Development Areas (Table 2).



**TABLE 2. DWELLING UNIT AND EMPLOYMENT GROWTH TARGETS FOR URBAN CENTRES AND FREQUENT TRANSIT DEVELOPMENT AREAS\*\***

REGIONAL TARGETS FOR RESIDENTIAL GROWTH BY LOCATION	
Location	Percent of Regional Dwelling Unit Growth 2006-2041
<b>All Urban Centre Types</b>	<b>40%</b>
<b>Frequent Transit Development Areas</b>	<b>28%</b>
<i>Urban Centre Type Breakdown</i>	
• Metropolitan Core	5%
• Surrey Metro Core	6%
• Regional City Centres	16%
• Municipal Town Centres*	13%
REGIONAL TARGETS FOR EMPLOYMENT GROWTH BY LOCATION	
Location	Percent of Regional Employment Growth 2006-2041
<b>All Urban Centre Types</b>	<b>50%</b>
<b>Frequent Transit Development Areas</b>	<b>27%</b>
<i>Urban Centre Type Breakdown</i>	
• Metropolitan Core	10%
• Surrey Metro Core	5%
• Regional City Centres	19%
• Municipal Town Centres*	16%

\*Includes Municipal Town Centres and High Growth Municipal Town Centres.

\*\*This table provides guidance to assist in regional and local planning. It will be updated to extend the targets out to the year 2050 in an amendment following the adoption of *Metro 2050*.





## E. Goals, Strategies & Actions



GOAL  
1

# Create a Compact Urban Area



Langley Township



## Goal 1: Create a Compact Urban Area

A commitment to a compact urban area within the region reflects the recognition that sprawling urban development consumes the natural landscape, necessitates costly and inefficient urban infrastructure such as sewerage services and transit, contributes to negative health impacts, and adds to the global problem of greenhouse gas emissions thereby worsening climate change. Strategies under this goal delineate between urban and non-urban areas through the use of an Urban Containment Boundary.

To protect Rural, Conservation and Recreation, and Agricultural lands, it is critical to maintain the Urban Containment Boundary and to structure growth within it. This includes creating strong Urban Centres throughout the region that are well served by transit and the road network. These centres collectively make an important contribution to providing locations for employment and convenient access to shops and services close to home. Frequent Transit Development Areas, located in strategic areas within Major Transit Growth Corridors, provide an additional focus for growth, particularly for higher density residential, commercial, transit-oriented, and mixed-use development. Major Transit Growth Corridors represent the priority locations for transit investment and new Frequent Transit Development Areas, helping to bring additional certainty and greater coordination for member jurisdictions, TransLink and Metro Vancouver. Together, the Urban Centres and Frequent Transit Development Areas help shape transportation demand, optimize investments in the region's transportation system, and support the development of a region-wide network of complete communities.

Complete communities are walkable, mixed use, and transit-oriented places where people can live, work, and play, at all ages and stages of their lives. Compact and complete communities enable most people to have close access to a wide range of employment, health, social, cultural, educational, and recreational services and amenities. This is integral to positive mental and physical health and well-being, and helps reduce greenhouse gas emissions and air pollution. These places also help create a strong sense of neighbourhood identity, social connection, and community resilience.

Equitable growth management includes a commitment to advancing equity to enhance sustainability, social cohesion, and overall living conditions for all, while intentionally working to mitigate negative consequences that are unique to each community.

### Strategies to achieve this goal are:

- 1.1 Contain urban development within the Urban Containment Boundary
- 1.2 Focus growth in Urban Centres and Frequent Transit Development Areas
- 1.3 Develop resilient, healthy, connected, and complete communities with a range of services and amenities
- 1.4 Protect Rural lands from urban development



## Strategy 1.1 Contain urban development within the Urban Containment Boundary

Containing urban development, including job and housing growth, within the Urban Containment Boundary limits urban sprawl and supports the efficient and cost-effective provision of infrastructure (such as water, sewerage, and transit) and services and amenities (such as schools, hospitals, community centres, and child care). The Urban Containment Boundary helps to protect important lands such as Conservation and Recreation, Agricultural, and Rural lands from dispersed development patterns. Containing urban development also supports greenhouse gas emission reductions through trip reduction and trip avoidance, while protecting some of the region's important lands for food production and carbon sequestration and storage.

### Metro Vancouver will:

**1.1.1** Direct the Greater Vancouver Sewerage and Drainage District (GVS&DD) to not allow connections to regional sewerage services to lands with a Rural, Agricultural, or Conservation and Recreation regional land use designation. Notwithstanding this general rule, in the exceptional circumstances specified below, the Metro Vancouver Regional District (MVRD) Board will advise the GVS&DD Board that it may consider such a connection for existing development or for new development where, in the MVRD Board's opinion, that new development is consistent with the underlying regional land use designation, and where the MVRD Board determines either:

- a) that the connection to regional sewerage services is the only reasonable means of preventing or alleviating a public health or environmental contamination risk; or
- b) that the connection to regional sewerage services would have no significant impact on the goals of containing urban development within the Urban Containment Boundary, and protecting lands with a Rural, Agricultural, or Conservation and Recreation regional land use designation.

**1.1.2** Accept Regional Context Statements that accommodate all urban development within the areas defined by the Urban Containment Boundary, and that meet or work towards Action 1.1.9.

**1.1.3** In collaboration with member jurisdictions, develop an Implementation Guideline to guide the process by which member jurisdictions are to provide Metro Vancouver's Liquid Waste Services with specific, early, and ongoing information about plans for growth that may impact the regional sewer system, as well as plans to separate combined sewer systems.

**1.1.4** Work collaboratively with the Federal Government, the Province, TransLink, BC Transit, and adjacent regional districts to study how interregional transportation connections can be supported and enhanced.

**1.1.5** Ensure that sea level rise, flood risk, and other natural hazards have been considered and that a plan to mitigate any identified risks is in place when approving applications submitted by the respective member jurisdiction related to new sewers, drains or alterations, connections, or extensions of sewers or drains.

**1.1.6** Work with First Nations to incorporate development plans and population, employment, and housing projections into the regional growth strategy to support potential infrastructure and utility investments.

**1.1.7** Advocate to the Federal Government and the Province requesting that they direct urban, commercial, and institutional facilities and investments to areas within the Urban Containment Boundary, and to Urban Centres and Frequent Transit Development Areas.

**1.1.8** Advocate to the Province to ensure that any transportation plans, strategies, and infrastructure investments do not encourage the dispersal of housing and employment growth outside the Urban Containment Boundary, consistent with the goals of the regional growth strategy.

**Member Jurisdictions will:**

**1.1.9** Adopt Regional Context Statements that:

- a) Depict the Urban Containment Boundary on a map, generally consistent with the Regional Land Use Designations map (Map 2);
- b) Provide member jurisdiction population, dwelling unit, and employment projections, with reference to guidelines contained in Table 1, and demonstrate how local plans will work towards accommodating the projected growth within the Urban Containment Boundary in accordance with the regional target of focusing 98% of residential growth inside the Urban Containment Boundary;

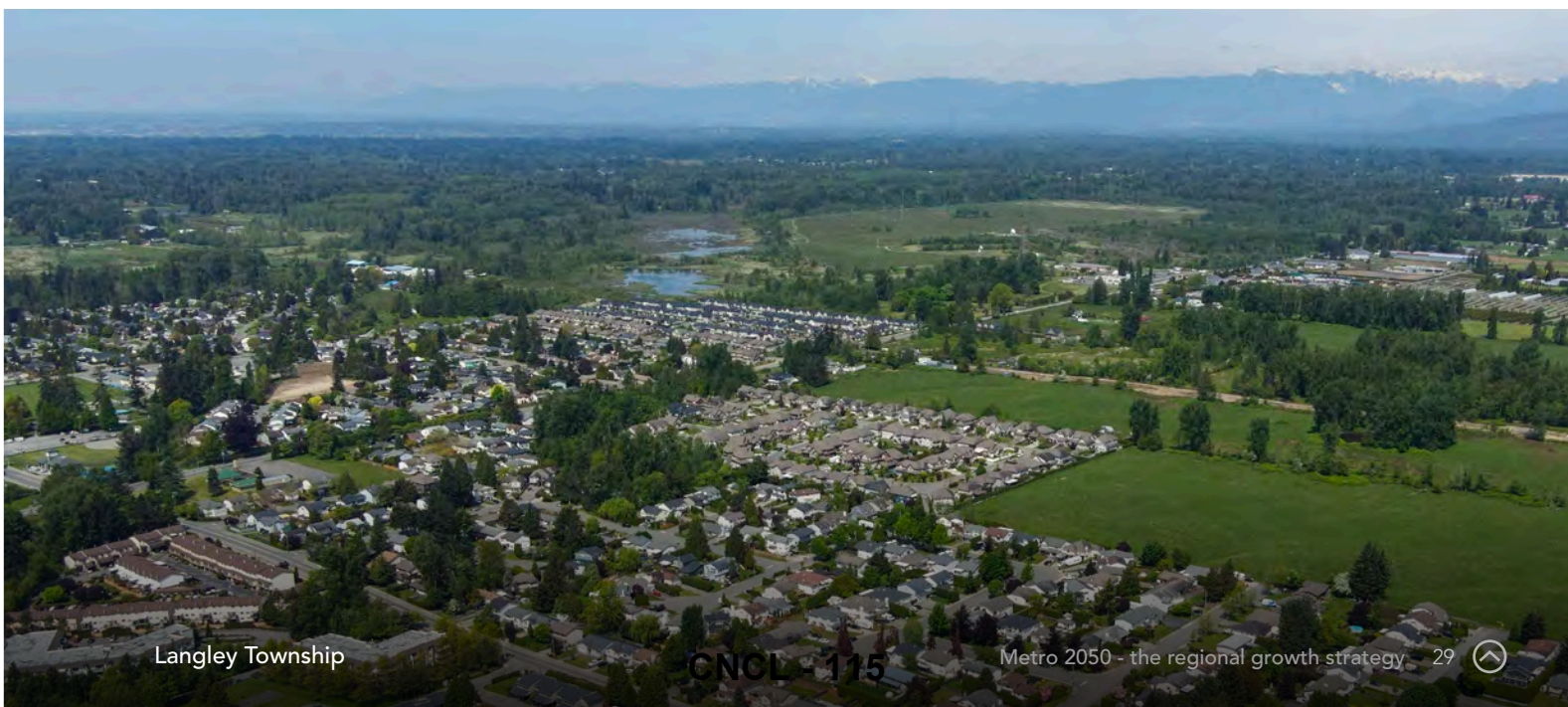
c) Include a commitment to liaise regularly with Metro Vancouver Liquid Waste Services and Metro Vancouver Water Services to keep them apprised of the scale and timeframe of major development plans as well as specific plans to separate combined sewers; and

d) Integrate land use planning policies with local and regional economic development strategies, particularly in the vicinity of the port and airports, to minimize potential exposure of residents to environmental noise and other harmful impacts.

**TransLink will:**

**1.1.10** Continue to support a compact urban form within the Urban Containment Boundary when developing and implementing transportation plans, strategies, and investments.

**1.1.11** Discourage the provision of infrastructure that would facilitate the dispersal of housing and employment growth outside the Urban Containment Boundary when preparing and implementing transportation plans, strategies, and investments.





## Strategy 1.2 Focus growth in Urban Centres and Frequent Transit Development Areas

Focusing growth into a network of centres and corridors reduces greenhouse gas emissions both by supporting sustainable transportation options and by reducing the distances that people have to travel to make essential trips, all while improving the cost-efficiency of infrastructure investments. In addition, a compact built form is, on average, significantly more land and energy efficient than other forms of development. Focusing growth into centres and corridors fosters the development of walkable, vibrant, and mixed use communities that can support a range of services and amenities.

Identifying Frequent Transit Development Areas in appropriate locations within Major Transit Growth Corridors ensures that growth is being directed to locations with high quality and frequent transit service. This provides greater certainty to residents, TransLink, and member jurisdictions, and ensures greater integration of land use and transportation planning.

### Metro Vancouver will:

**1.2.1** Through its Regional Planning and Invest Vancouver functions, explore, with member jurisdictions, other governments and agencies, the use of financial and economic development tools and other incentives to support the location of major commercial, office, retail, and institutional development in Urban Centres.

**1.2.2** Work with member jurisdictions, TransLink, and other governments and agencies to support the development and delivery of effective regional transportation networks and services that support the growth and development of Urban Centres and Frequent Transit Development Areas.

**1.2.3** Maintain a reference map to provide updated information on the location and extent of Urban Centres, Frequent Transit Development Areas, and Major Transit Growth Corridors.

**1.2.4** Monitor progress towards the targets set out in Table 2 (Metro Vancouver Dwelling Unit and Employment Growth Targets for Urban Centres and Frequent Transit Development Areas) for Urban Centres and Frequent Transit Development Areas.

**1.2.5** Accept Regional Context Statements that prioritize growth and focus higher density development primarily in Urban Centres, additionally in Frequent Transit Development Areas, and that meet or work towards Action 1.2.24.

**1.2.6** In consultation with TransLink, accept the identification of new Frequent Transit Development Areas located within Major Transit Growth Corridors identified on Map 5.

**1.2.7** Work with member jurisdictions, TransLink, and other governments and agencies to support the development and delivery of effective regional transportation networks and services that support the growth and development of Urban Centres and Frequent Transit Development Areas.

**1.2.8** Consult with TransLink and utilize the required criteria set out in the Urban Centre and Frequent Transit Development Area Type Reclassification Framework (Table 4) when reviewing Regional Context Statements for acceptance or proposed amendments to the regional growth strategy for the reclassification of Frequent Transit Development Areas or Urban Centres.

**1.2.9** Only consider a new Urban Centre in the regional growth strategy where, in addition to meeting the criteria listed in Urban Centre and Frequent Transit Development Area Type Reclassification Framework (Table 4), all of the following criteria have been met:

- a) it intersects with a Major Transit Growth Corridor identified on Map 5;
- b) appropriate supporting local or neighbourhood plans have been completed by the respective member jurisdiction, that demonstrate how the future Urban Centre will accommodate the intended regionally-significant levels of employment and residential growth, and identify the adequate provision of park land, public spaces, and amenities to serve the anticipated growth; and
- c) the location is outside known and unmitigated flood and other natural hazard risk areas

**1.2.10** Only consider the identification of a new Frequent Transit Development Area that is:

- a) within a Major Transit Growth Corridor; and
- b) outside known and unmitigated flood and other natural hazard risk areas.

**1.2.11** Only consider reclassifying an Urban Centre or a Frequent Transit Development Area to a growth-intensive classification if it is located outside of known and unmitigated flood and natural hazard areas.

**1.2.12** Develop an Implementation Guideline, in collaboration with member jurisdictions and TransLink, to be used as a resource to support transit-oriented planning throughout the region.

**1.2.13** Implement the strategies and actions of the regional growth strategy that contribute to regional targets as shown on Table 2 to:

- a) focus 98% of the region's dwelling unit growth to areas within the Urban Containment Boundary;
- b) focus 40% of the region's dwelling unit growth and 50% of the region's employment growth to Urban Centres; and
- c) focus 28% of the region's dwelling unit growth and 27% of the region's employment growth to Frequent Transit Development Areas.

**1.2.14** Monitor the region's total dwelling unit and employment growth that occurs in Major Transit Growth Corridors.

**1.2.15** Work with First Nations and other relevant agencies to encourage all major new development and infrastructure investments on First Nations lands to be transit-oriented and resilient to climate change impacts and natural hazards.

**1.2.16** Advocate to the Federal Government and the Province requesting that:

- a) they direct major office and institutional development, public service employment locations, and other Major Trip-Generating uses to Urban Centres, Frequent Transit Development Areas, and locations within the Major Transit Growth Corridors, where appropriate. This may include, but is not necessarily limited to hospitals, post-secondary institutions, secondary schools, and public-serving health care service facilities; and
- b) that government-owned or funded affordable or supportive housing developments be located in areas with good transit access.

**1.2.17** Advocate to the Federal Government and the Province that their procurement, disposition, and development of land holdings be consistent with the goals of the regional growth strategy.

**1.2.18** Advocate to the Province that Metro Vancouver, member jurisdictions, TransLink, First Nations, and other stakeholders be engaged early in the process on any initiatives pertaining to the planning of new or expanded major transit capital investments.

**1.2.19** Advocate to the Province that any future or expanded rail-based rapid transit service:

- a) avoid locations that are exposed to unmitigated natural hazards and climate change risk;
- b) improve place-making, safety, access, and amenities for people on foot, on bikes, and for those using mobility aids; and
- c) support the safe and efficient movement of people, goods, and service vehicles, to, from, and within Urban Centres and Frequent Transit Development Areas.

**1.2.20** Advocate to the Federal Government and the Province to support the coordination of growth, land use, and transportation planning at the regional scale through updates to legislation, regulations, partnerships, plans, agreements, and funding programs, including coordination between regional districts.

**1.2.21** Advocate to the Federal Government and the Province to support the integration of regional land use and transportation by ensuring that all housing and transportation funding programs and initiatives for the region are consistent with the goals of the regional growth strategy.

**1.2.22** Advocate to the Federal Government and the Province requesting that they support local community concerns and public health by ensuring that the Port of Vancouver, rail companies, and airport operators continue with efforts to measure, report, and manage traffic, noise, air pollution, and vibration impacts, including cumulative impacts, on adjacent communities.

**1.2.23** Advocate to the Province, Health Authorities, and TransLink, requesting continued efforts to develop guidance on community design, appropriate setbacks, and building standards along the Major Roads Network, Major Transit Network, railways, and Federal and Provincial Highways to minimize public exposure to unhealthy levels of noise, vibration, and pollution.

#### **Member Jurisdictions will:**

**1.2.24** Adopt Regional Context Statements that:

- a) provide dwelling unit and employment projections that indicate the member jurisdiction's share of planned growth and contribute to achieving the regional share of growth for Urban Centres and Frequent Transit Development Areas as set out in Table 2 (Dwelling Unit and Employment Growth Targets for Urban Centres and Frequent Transit Development Areas);
- b) include policies and actions for Urban Centres and Frequent Transit Development Areas that:
  - i) identify the location, boundaries, and types of Urban Centres and Frequent Transit Development Areas on a map that is consistent with the guidelines set out in Table 3 (Guidelines for Urban Centres and Frequent Transit Development Areas) and Map 4;
  - ii) focus and manage growth and development in Urban Centres and Frequent Transit Development Areas consistent with guidelines set out in Table 3 (Guidelines for Urban Centres and Frequent Transit Development Areas) and demonstrate how that growth will contribute to the Urban Centre and Frequent Transit Development Area targets set out in Table 2 and Action 1.2.13;
  - iii) encourage office development to locate in Urban Centres through policies, economic development programs, or other financial incentives;

- iv) support modal shift by establishing or maintaining reduced residential and commercial parking requirements in Urban Centres and FTDA's and consider the use of parking maximums;
  - v) consider the identification of appropriate measures and neighbourhood plans to accommodate urban densification and infill development in Urban Centres, Frequent Transit Development Areas, and, where appropriate, Major Transit Growth Corridors in a resilient and equitable way (e.g. through community vulnerability assessments, emergency services planning, tenant protection policies, and strategies to enhance community social connectedness and adaptive capacity);
  - vi) consider support for the provision of child care spaces in Urban Centres and Frequent Transit Development Areas;
  - vii) consider the implementation of green infrastructure;
  - viii) focus infrastructure and amenity investments (such as public works and civic and recreation facilities) in Urban Centres and Frequent Transit Development Areas, and at appropriate locations within Major Transit Growth Corridors;
  - ix) support the provision of community services and spaces for non-profit organizations;
  - x) consider, where Urban Centres and Frequent Transit Development Areas overlap with Employment lands, higher density forms and intensification of commercial and light industrial; and
  - xi) take appropriate steps to avoid or mitigate the negative health impacts of busy roadways on new or redeveloped residential areas.
- c) Include policies for General Urban lands that:
    - i) identify General Urban lands and their boundaries on a map generally consistent with Map 2;
    - ii) exclude new non-residential Major Trip-Generating uses, as defined in the Regional Context Statement, from those portions of General Urban lands outside of Urban Centres and Frequent Transit Development Areas and direct new non-residential Major Trip-Generating uses to Urban Centres and Frequent Transit Development Areas;
    - iii) encourage infill and intensification (e.g. row houses, townhouses, mid-rise apartments, laneway houses) in appropriate locations within walking distance of the Frequent Transit Network; and
    - iv) encourage neighbourhood-serving commercial uses.
  - d) with regards to Actions 1.2.16 and 1.2.24 c) ii), include a definition of "non-residential Major Trip-Generating uses" that includes, but is not limited to, the following uses: office or business parks, outlet shopping malls, post-secondary institutions, and large-format entertainment venues;
  - e) consider the identification of new Frequent Transit Development Areas in appropriate locations within Major Transit Growth Corridors, as part of the development of new or amended area or neighbourhood plans, or other community planning initiatives; and
  - f) consider long-term growth and transportation planning coordination with adjacent municipalities, First Nations, TransLink, and Metro Vancouver for transit corridors that run through or along two or more adjacent jurisdictions.



**TransLink will:**

**1.2.25** Develop procurement, disposition, and development plans and actions for land holdings that support the goals of the regional growth strategy and include the provision of affordable rental housing.

**1.2.26** Collaborate with member jurisdictions and other stakeholders on the expansion of the Frequent Transit Network, Major Transit Network, and new transit stations, and avoid expansion of permanent transit infrastructure into hazardous areas. Where risk is unavoidable, such as in existing settlements, use risk-mitigation or climate change adaptation strategies in the expansion of transit infrastructure.

**1.2.27** Work with member jurisdictions to support the safe and efficient movement of people, goods, and service vehicles, to, from, and within Urban Centres and Frequent Transit Development Areas (e.g. by enhancing the design and operation of the road network), where appropriate.

**1.2.28** Continue to develop walking and biking infrastructure programs that prioritize improvements in and between Urban Centres and Frequent Transit Development Areas.



**TABLE 3. GUIDELINES FOR URBAN CENTRES AND FREQUENT TRANSIT DEVELOPMENT AREAS**

This table provides an overview of the function and location of the different types of Urban Centres and FTDA's. It also includes planning guidance about the Urban Centre and FTDA attributes that members are expected to plan for and work towards over time.

CENTRE TYPE	FUNCTION	GENERAL EXPECTATIONS / ATTRIBUTES	LOCATION
<b>Urban Centre - All</b> <i>(applies to Metro Core, Surrey Metro Centre, RCCs, HG-MTCs, and MTCs)</i>	<i>Primary hubs of activity.</i> Accommodates significant regional residential and employment growth and contributes to targets. Provides a range of amenities and services. Major Road Network access. Primary locations for Major Trip-Generating Uses.	Primary focal points for concentrated growth in the region. Complete communities with a balanced mix of housing, employment, services, and amenities. High intersection densities. High quality, accessible walking, cycling, and rolling environment. Provision of transit priority measures and other transit-supportive road infrastructure and operations. Managed parking supply. Parks, green spaces, and public open spaces. The supply of affordable rental housing is protected and expanded. Industrial uses are maintained.	Locations identified on Map 2
<b>Metro Core - Vancouver</b>	<i>The Region's downtown.</i> Region-serving uses (central business district). Accommodates significant levels of regional employment and residential growth. Principal centre of business, employment, cultural, and entertainment activity for the region.	Region-serving uses. Institutional, community, cultural, and entertainment uses. Office uses. High degree of cycling connectivity and cycling network completeness. High walkability index score. Provision of transit priority measures and other transit-supportive road infrastructure and operations.	Vancouver
<b>Metro Centre - Surrey</b>	<i>Centre of activity South of the Fraser River.</i> Region-serving uses. Accommodates significant levels of regional employment and residential growth.	High degree of cycling connectivity and cycling network completeness. High walkability index score. Office uses. Provision of transit priority measures and other transit-supportive road infrastructure and operations. Institutional, community, cultural, and entertainment uses.	Surrey
<b>Regional City Centre</b>	<i>Sub-regional hub of activity.</i> Accommodates significant levels of sub-regional residential and employment growth.	Sub-region serving uses (hospital, post-secondary). Office uses. Sub-regional-scale employment, services, business and commercial activities. Major institutional, community, cultural and entertainment uses. High and medium density forms of housing (in General Urban only), including affordable housing choices. Existing frequent transit services. Provision of transit priority measures and other transit-supportive road infrastructure and operations. Minimum density of 60-350 Jobs + People/hectare.	Locations on the Major Transit Network.

<b>High Growth Municipal Town Centre</b>	<p><i>Centre of activity for one or more member jurisdictions.</i></p> <p>Accommodates significant levels of municipal employment and residential growth.</p>	<p>Municipally-serving shops, services, uses, and amenities.</p> <p>Higher density commercial uses.</p> <p>Higher density residential uses, (in General Urban only) including affordable and rental options.</p> <p>Minimum density of 60-200 Jobs + People/hectare.</p>	<p>Maximum 1,200 metres from a Major Transit Network station.</p> <p>Not in an area with known and unmitigated natural hazards.</p> <p>Locations with high regional accessibility to jobs.</p>
<b>Municipal Town Centre</b>	<p><i>Centre of activity for one or more member jurisdictions.</i></p> <p>Accommodates municipal residential and employment growth.</p>	<p>Municipal focus for community and cultural activities. Services, shops, uses, amenities, and activities oriented to the local needs of the surrounding communities. Employment, services, business and commercial activities, typically serving the municipal or local area. Institutional, community, cultural, and entertainment uses. Medium to high density forms of residential uses, including affordable options.</p> <p>Minimum density of 20-150 Jobs + People/hectare.</p>	<p>Locations on the Major Transit Network.</p>
<b>Frequent Transit Development Area (FTDA)</b>	<p><i>Location for transit-oriented development and mixed uses in alignment with the Major Transit Growth Corridors.</i></p> <p>Accommodates additional employment and residential growth. Locations for multi-unit housing including affordable and rental housing. Locations for Major Trip-Generating Uses.</p>	<p>Transit-oriented employment and / or housing growth. Supply of affordable and rental housing is protected and expanded. A range of multi-unit housing forms. Development intensity scales to the frequency and capacity of the transit service.</p> <p>Walkable and bike-friendly urban design. Managed parking supply. Transit priority measures.</p> <p>Provides appropriate noise, vibration, and air quality mitigation measures. Parks, green spaces, and public open spaces.</p> <p>Industrial uses are maintained.</p>	<p>Located in appropriate locations within the Major Transit Growth Corridors.</p> <p>The shape of an FTDA is tailored to the stop spacing distance of the transit service.</p> <p>Distance of FTDA boundaries to the transit stops are scaled to the frequency and capacity of the service provided; the greater the service capacity, the greater the radius.</p>
General Guidance on Frequent Transit Development Areas	<p><b>Corridors</b></p> <p>Linear FTDA's that support frequent transit corridors that have generally shorter stop spacing.</p> <p>Densities and uses to support bus- based frequent and rapid transit.</p>	<p>Generally linear-shaped geography along a transit corridor.</p> <p>Location for medium density housing forms, especially wood-frame construction. Location for affordable and rental housing and employment growth.</p> <p>Minimum density of 35-80 Jobs + People/hectare.</p>	<p>Located along segments of the MTGC with shorter stop spacing.</p> <p>No more than 1,000 metres from the Major Transit Growth Corridor centreline.</p> <p>Boundary radius scaled to the level of transit service capacity and frequency. 800 metre radius recommended for frequent bus.</p>
	<p><b>Station Areas</b></p> <p>Nodal FTDA's that support transit stations. Generally, located where stations are further apart.</p> <p>Accommodates significant residential and employment growth including rental and affordable housing.</p> <p>Densities and uses to support high-capacity rapid and frequent transit.</p>	<p>Generally nodal-shaped around a transit station.</p> <p>May include higher density forms supportive of higher capacity transit service. Office and employment uses.</p> <p>Additional parking management to support transit and active transportation.</p> <p>Minimum density of 60-350 Jobs + People/hectare.</p>	<p>Located along higher capacity and higher frequency transit service with wider stop spacing.</p> <p>No more than 1,000 metres from an existing Major Transit Network Station.</p> <p>Boundary radius scaled to the level of transit service capacity and frequency.</p>



**TABLE 4. URBAN CENTRE AND FREQUENT TRANSIT DEVELOPMENT AREAS TYPE RECLASSIFICATION FRAMEWORK**

This table lays out the criteria required before a new FTDA, new Urban Centre, or reclassified Urban Centre can be considered.

CENTRE TYPE	REQUIRED CRITERIA FOR A NEW URBAN CENTRE OR FTDA, OR FOR URBAN CENTRE RECLASSIFICATION	METRO 2050 AMENDMENT PROCESS
In order to become...	The area must currently meet the following criteria...	And pursue the following amendment process...
<b>Frequent Transit Development Area (FTDA)</b>	<p>Located within a Major Transit Growth Corridor (as shown on Map 5) and no more than 1,000 metres from the MTGC centreline.</p> <p>FTDA geography should be tailored to transit service level; nodal FTDAs are better suited to corridors with wider transit stop spacing, while linear FTDAs are better suited to corridors with shorter stop spacing.</p> <p>Policies supportive of street, sidewalk, and cycling network connectivity. Policies supportive of managed parking supply. Not in an area with known and unmitigated natural hazards. Official Community Plan (OCP) Land Use Map and policies supportive of infill and intensified residential and/or employment growth.</p>	Type 3 or Regional Context Statement Update
<b>Urban Centre - All</b> (applies to all Urban Centre types)	<p><i>Required for a new Urban Centre, or reclassification to any Urban Centre type:</i></p> <p>Located on the Major Transit Network. Not in a known and unmitigated natural hazard area. OCP Land Use Map and policies supportive of infill and intensified residential and employment growth.</p>	
Municipal Town Centre	<p>Meets the above criteria for Urban Centre, and:</p> <ul style="list-style-type: none"> <li>• Formerly a Frequent Transit Development Area;</li> <li>• Evidence that the area is a primary hub of activity within a member jurisdiction;</li> <li>• Minimum 60 Jobs + People / hectare; and</li> <li>• Minimum area of 40 hectares.</li> </ul>	Type 3
High Growth Municipal Town Centre	<p>Meets the above criteria for Urban Centre, and:</p> <ul style="list-style-type: none"> <li>• Formerly a Municipal Town Centre or FTDA;</li> <li>• Existing rail rapid transit service;</li> <li>• High regional accessibility (i.e. many employment nodes can be accessed by transit within a defined amount of time);</li> <li>• Not in a known and unmitigated natural hazard area;</li> <li>• Minimum 100 Jobs + People / hectare; and</li> <li>• Minimum area of 40 hectares.</li> </ul>	Type 3
Regional City Centre and Metro Centres	<p>Reclassification from any Urban Centre type to or from the “Regional City Centre” or to “Metro Centre” types is not contemplated by the regional growth strategy.</p>	

## Strategy 1.3 Develop resilient, healthy, connected, and complete communities with a range of services and amenities

Creating complete communities, especially in the region's Urban Centres, with a mix of uses and affordable services and amenities, allows residents of all ages and abilities to meet most of their daily needs by walking, rolling, or transit without leaving their neighbourhoods. This supports trip reduction, walking, healthier living, climate action, more equitable access to the key amenities that support a high quality of life, and creates resilient places with inclusion and connection.

### Metro Vancouver will:

**1.3.1** Support member jurisdictions and work with First Nations and other agencies in developing resilient, healthy, connected, and complete communities through regional strategies, research, and best practices that:

- a) promote greater local access to affordable community services and child care, healthy food, and public spaces (including regional parks and greenways);
- b) reduce greenhouse gas emissions, bolster resilience to climate change impacts and natural hazards, and improve social equity, universal accessibility, and inclusive engagement; and
- c) encourage the provision and enhancement of urban green spaces in new and established neighbourhoods.

**1.3.2** Provide technical advice, assistance, research, and data to member jurisdictions, First Nations, and other agencies to improve air quality, reduce greenhouse gas emissions, increase access to community services, and to better understand the health and social equity aspects of land use and infrastructure decisions.

**1.3.3** Collaborate with health authorities, academic institutions, First Nations, and other researchers to share best practices, research, data, and tools that can advance land use policies to:

- a) ensure neighbourhoods are designed for walking, cycling, rolling and social activities to promote positive mental and physical health;
- b) meet community social needs and priorities;

c) reduce community exposure to climate change and air quality impacts, especially communities that are disproportionately impacted; and

d) increase equitable access and exposure to public spaces through urban green space enhancement and retention opportunities.

**1.3.4** Measure and monitor access to community services and amenities, particularly in Urban Centres and Frequent Transit Development Areas.

**1.3.5** Advocate to the Federal Government and the Province to ensure that growing communities are served appropriately and in a timely manner with social amenities, health, schools and educational opportunities, to avoid inequities in service levels between communities in the region.

**1.3.6** Advocate to the Federal Government and the Province to ensure that community, arts, cultural, recreational, institutional, social services, health and education facilities funded or built by them are located in Urban Centres or areas with good access to transit.

### Member Jurisdictions will:

**1.3.7** Adopt Regional Context Statements that:

- a) support compact, mixed use, transit, walking, cycling and rolling-oriented communities;
- b) locate and support community, arts, cultural, recreational, institutional, medical/health, social service, education and child care facilities, and local serving retail uses in Urban Centres or areas with good access to transit;

c) provide and encourage public spaces and other place-making amenities and facilities (e.g. community gardens, playgrounds, gathering places, etc.) in new and established neighbourhoods, for all ages, abilities, and seasons, to support social connections and engagement.

d) respond to health and climate change-related risks by providing equitable access to:

- i) recreation facilities;
- ii) green spaces and public spaces (e.g. parks, trails, urban forests, public squares, etc.); and
- iii) safe and inviting walking, cycling, and rolling environments, including resting spaces with tree canopy coverage, for all ages and abilities;

e) support the inclusion of community gardens (at-grade, rooftop, or on balconies), grocery stores and farmers' markets to support food security, and local production, distribution and consumption of healthy food, in particular where they are easily accessible to housing and transit services;

f) consider, when preparing new neighbourhood and area plans, the mitigation of significant negative social and health impacts, such as through the use of formal health and social impact assessment methods in neighbourhood design and major infrastructure investments;

g) provide design guidance for existing and new neighbourhoods to promote social connections, universal accessibility, crime prevention through environmental design, and inclusivity while considering the impacts of these strategies on identified marginalized members of the community; and

h) consider where appropriate, opportunities to incorporate recognition of Indigenous and other cultures into the planning of Urban Centres, FTDAs, and other local centres.

#### **TransLink will:**

**1.3.8** Provide equitable and accessible levels of transit service to communities and employment areas.

**1.3.9** Continue to improve sustainable mobility options for neighbourhoods outside the Urban Centres and Frequent Transit Development Areas within the General Urban land use designation as shown on Map 2.



## Strategy 1.4 Protect Rural lands from urban development

Rural designated lands are located outside the Urban Containment Boundary and are not intended for urban forms of development. Containing growth within the Urban Containment Boundary ensures the protection of natural, rural, and agricultural areas, and the efficient and cost-effective provision of sewerage, transit, and other community services. The inherent benefits of urban containment also support reduced greenhouse gas emissions and increases opportunities for natural carbon sinks.

### Metro Vancouver will:

**1.4.1** Direct the Greater Vancouver Sewerage and Drainage District (GVS&DD) to not allow connections to regional sewerage services to lands with a Rural regional land use designation as identified on Map 2. Notwithstanding this general rule, in the exceptional circumstances specified below, the Metro Vancouver Regional District (MVRD) Board will advise the GVS&DD Board that it may consider such a connection for existing development or for new development where, in the MVRD Board's opinion, that new development is consistent with the Rural regional land use designation and where the MVRD Board determines either:

- a) that the connection to regional sewerage services is the only reasonable means of preventing or alleviating a public health or environmental contamination risk; or
- b) that the connection to regional sewerage services would have no significant impact on the strategy to protect lands with a Rural regional land use designation from urban development.

**1.4.2** Accept Regional Context Statements that protect lands with a Rural regional land use designation from urban development and that meet or work towards Action 1.4.3.

### Member Jurisdictions will:

**1.4.3** Adopt Regional Context Statements that:

- a) identify Rural lands and their boundaries on a map generally consistent with Map 2;
- b) limit development to a scale, form, and density consistent with the intent for the Rural land use designation, and that is compatible with on-site sewer servicing;
- c) specify the allowable density and form, consistent with Action 1.4.1, for land uses within the Rural regional land use designation;
- d) prioritize and support agricultural uses within the Agricultural Land Reserve, and where appropriate, support agricultural uses outside of the Agricultural Land Reserve; and
- e) support the protection, enhancement, restoration, and expansion of ecosystems identified on Map 11 to maintain ecological integrity, enable ecosystem connectivity, increase natural carbon sinks and enable adaptation to the impacts of climate change.







## GOAL 2

# Support a Sustainable Economy



## Goal 2: Support a Sustainable Economy

The regional growth strategy leverages the region's existing economic strengths to provide for a prosperous future by supporting diverse commercial and industrial sectors, employment growth, ensuring well designed regional places with an emphasis on public space and transit, and recognizing the region's role as a key provincial and national gateway. The regional growth strategy supports a sustainable economy through its regional land use designations and economic and transportation strategies and policies.

Urban Centres distributed throughout the region provide opportunities for commercial activities, services, and employment uses to be located close to where people live, and enable economic and transportation efficiencies. The design of these centres supports a strong sense of place, a public realm that promotes a positive civic image, and ensures a high quality of life through the provision of amenities and diversity of housing types. Policies discourage the dispersal of major employment and Major Trip-Generating uses outside of Urban Centres and Frequent Transit Development Areas, to support jobs in close proximity to homes and connected by sustainable forms of transportation.

Increasing demands for land for industrial activities as the population and economy grow, coupled with ongoing market pressure to convert Industrial lands to office, retail, residential, and other uses, has resulted in a critically diminished supply of Industrial land in the region. In addition to the national, provincial, and regional serving industries in Metro Vancouver, many small to medium sized industries provide for the day-to-day needs of the region's population, such as repair and servicing activities, e-commerce, manufacturing, and renovation and construction functions. Additional lands are needed for container storage, freight forwarding, warehouses, and other distribution functions that support the regional economy to provide for a sustainable and resilient supply chain system.

Meeting the needs of both a growing regional economy and an expanding international gateway for trade requires an adequate supply of serviced industrial lands, such as those identified as 'trade-oriented' lands. Preserving the region's industrial lands supports existing businesses by allowing them to expand and supports new businesses to locate in the region, all the while avoiding long transportation distances, business inefficiencies, and higher greenhouse gas emissions. In response to the vulnerability of industrial land, policies are included to protect and intensify the use of the limited supply in the region. Efforts that encourage industrial densification and intensification provide a range of benefits such as: more efficient use of lands and resources; reduced pressures on other lands; improved capacity for businesses to grow to create employment opportunities; increased job opportunities; greater clustering of co-located operations; circular economy; and a more efficient transportation system.

There are some economic activities that are not traditional industrial uses and cannot be easily accommodated or viable in Urban Centres or Frequent Transit Development Areas. The regional growth strategy provides for these activities to be accommodated in Employment areas, which are intended to complement the planned function of Urban Centres, Frequent Transit Development Areas, and Industrial lands.

Major educational and medical institutions in this region also have a vital role in the economy, as they have key linkages with many sectors, provide and support research and innovation, and are incubators for new industries.



Agriculture is an important sector of the region's economy and a critical component of the local food system. The agricultural industry is dependent on the protection and availability of Agricultural land for the production of food and other goods and services and on the regional industrial land supply for storage, processing, and distribution. Effective legislation and an economically viable agricultural sector are important ways to protect Agricultural land for future generations.

Agricultural production is vulnerable to the impacts of climate change. Projected changes in temperature, precipitation, flooding and extreme weather events will profoundly affect agriculture production. Policies focus on increased resilience and the long-term protection of land for sustainable food production, edge planning, new drainage and irrigation infrastructure, and climate change adaptation. This strategy also seeks to protect Agricultural land for local food production and supports the economic viability of the agricultural sector, while recognizing the value of ecosystem services.

Equitable growth management includes a commitment to advancing equitable and sustainable planning and land development practices that support a regional economy that is accessible and designed to benefit all people. It includes a commitment to: employment growth; effective use of industrial lands; an efficient transportation system; sustainable practices that work to enhance and protect natural resources; building resilience through climate-smart agricultural approaches; and mitigating the potential disproportionate impacts on ecosystems, communities, groups, or individuals.

#### Strategies to achieve this goal are:

- 2.1 Promote land development patterns that support a diverse regional economy and employment opportunities close to where people live
- 2.2 Protect the supply and enhance the efficient use of industrial land
- 2.3 Protect the supply of agricultural land and strengthen agricultural viability



## Strategy 2.1 Promote land development patterns that support a diverse regional economy and employment opportunities close to where people live

Economic and employment activities, such as post-secondary and medical institutions, shopping streets, retail centres, business parks, transportation terminals and associated infrastructure, complement employment activities in Urban Centres (Strategy 1.2) and industrial uses on Industrial lands (Strategy 2.2), which have different location requirements and attributes. These businesses support the region's economy and population, and rely on and have implications for the transportation network and the design of neighbourhoods. Locating jobs close to where people live and near the transit network supports the creation of complete communities (Strategy 1.3), reduces social inequities in the region, and helps to reduce energy consumption and greenhouse gas emissions through reduced vehicle travel and increased active transportation.

### Metro Vancouver will:

**2.1.1** Provide regional utility infrastructure to support the region's economic functions and to support efficient employment and settlement patterns.

**2.1.2** Work with the Federal Government, the Province, member jurisdictions, First Nations, and the private sector to advance shared economic prosperity and resilience through Invest Vancouver to attract strategic investment to the region.

**2.1.3** Work with the Federal Government, the Province, and member jurisdictions to explore:

- a) fiscal measures to reinforce the attraction of investment and employment opportunities to Urban Centres, Frequent Transit Development Areas, and lands with an Industrial or Employment regional land use designation; such employment opportunities should be consistent with the intention of the underlying regional land use designation; and
- b) fiscal reform to ensure that the property tax system supports sound land use decisions.

**2.1.4** Collaborate with the Fraser Valley and Squamish- Lillooet Regional Districts on shared initiatives related to economy, transportation, and other related matters.

**2.1.5** Accept Regional Context Statements that support economic activity and an urban form designed to be consistent with its context in: Urban Centres, Frequent Transit Development Areas, Industrial lands, Employment lands, ports and airports, and that meet or work towards Action 2.1.10.

**2.1.6** Advocate to the Federal Government, the Province, and TransLink to develop and operate transportation infrastructure that supports and connects the region's economic activities by sustainable modes of transportation in Urban Centres, Frequent Transit Development Areas, Industrial lands, Employment lands, ports and airports.

**2.1.7** Advocate that airport authorities:

- a) encourage the use of surplus airport lands for industrial activities, and where appropriate, discourage non-airport related commercial development and any expansion beyond the Industrial and Employment areas specified on Map 7;
- b) expedite the transition to energy efficient, low, and zero emission modes for goods movement; and
- c) develop strategies to adapt to climate change impacts and natural hazard risks.



**2.1.8** Advocate that the Port of Vancouver:

- a) encourage the use of surplus port lands for industrial activities, and where appropriate, discourage non-port related commercial development and any expansion beyond the Industrial and Employment lands specified on Map 7;
- b) expedite the transition to energy efficient, low, and zero emission modes for goods movement; and
- c) develop strategies to adapt to climate change impacts and natural hazard risks.

**2.1.9** Advocate that the Federal Government and the Province support existing and new industries in the region through such means as investment, procurement strategies, tax incentives, skill development, and small business loan programs.

**Member Jurisdictions will:**

**2.1.10** Adopt Regional Context Statements that:

- a) include policies to support appropriate economic activities, as well as context-appropriate built form for Urban Centres, Frequent Transit Development Areas, Industrial lands, and Employment lands;
- b) support the development and expansion of large-scale office and retail uses in Urban Centres, and lower-scale uses in Frequent Transit Development Areas through policies such as: zoning that reserves land for commercial uses, density bonus provisions to encourage office development, variable development cost charges, and/or other incentives; and
- c) discourage the development and expansion of major commercial uses outside of Urban Centres and Frequent Transit Development Areas and that discourage the development of institutional land uses outside of Urban Centres and Frequent Transit Development Areas.



## Strategy 2.2 Protect the supply and enhance the efficient use of industrial land

Industrial lands are critical to supporting a diverse, resilient economy – one that supports businesses and residents by securing land for economic development and jobs within the region, and reducing costs for commuting and the transportation of goods. In response to the vulnerability of industrial land, policies are included to protect and appropriately use the region's limited supply of Industrial and Employment lands, while also considering the future of industrial activities and work, greenhouse gas emissions, and the impacts of climate change.

### Metro Vancouver will:

**2.2.1** Monitor the supply, demand, and utilization of Industrial land with the objective of assessing whether there is sufficient capacity to meet the needs of the growing regional economy.

**2.2.2** Work with the Province, member jurisdictions, and other agencies to investigate industrial taxation rates and policies that support industrial development, efficient use of Industrial land, and industrial densification.

**2.2.3** In collaboration with member jurisdictions, develop an Implementation Guideline covering the following topics: opportunities for Industrial lands to support new growth planning initiatives, new forms of industry and technologies, urban industry and e-commerce, design of industrial forms, guidance on setting criteria for trade-oriented lands, and other policy measures.

**2.2.4** Seek input from TransLink, the Port of Vancouver, the Vancouver International Airport Authority, the Ministry of Transportation and Infrastructure, and/or the Agricultural Land Commission on any proposed Regional Context Statement or regional growth strategy amendments for Industrial and Employment lands, as appropriate.

**2.2.5** Accept Regional Context Statements that include provisions that protect and support the ongoing economic viability of industrial activities and that meet or work towards the strategies set out in Action 2.2.9.

**2.2.6** Advocate to the Federal Government and the Province to coordinate transportation infrastructure and service investments that support the efficient movement of goods and people for industrial and employment operations, and considers the Regional Goods Movement Strategy and the Regional Truck Route Network.

**2.2.7** Advocate to the Federal Government and the Province to support initiatives and infrastructure investments that:

- a) introduce more energy efficient, low carbon and zero emissions equipment operations and vehicles;
- b) reduce distances travelled by commercial vehicles;
- c) expedite the transition to energy efficient, low, and zero emission modes for goods movement; and
- d) shift freight activity out of peak congestion periods.

**2.2.8** Advocate to the Federal Government, the Province, and relevant agencies to enhance data collection and sharing related to industrial, employment, transportation, and economic matters in support of the efficient use of Industrial lands in the region.

**Member jurisdictions will:****2.2.9** Adopt Regional Context Statements that:

a) identify the Industrial and Employment lands and their boundaries on a map generally consistent with Map 7.

b) identify Trade-Oriented lands, if applicable, with a defined set of permitted uses that support inter-regional, provincial, national, and international trade (e.g. logistics, warehouses, distribution centres, transportation and intermodal terminals) and location needs (e.g. large and flat sites, proximity to highway, port, or rail infrastructure) on a map consistent with the goals in the regional growth strategy. Strata and/or small lot subdivisions on these lands should not be permitted;

c) include policies for Industrial lands that:

- i) consistently define, support, and protect industrial uses, as defined in *Metro 2050*, in municipal plans and bylaws, and ensure that non-industrial uses are not permitted;
- ii) support appropriate and related accessory uses, such as limited-scale ancillary commercial spaces, and caretaker units;
- iii) exclude uses that are not consistent with the intent of Industrial lands and not supportive of industrial activities, such as medium and large format retail uses, residential uses, and stand-alone office uses, other than ancillary uses, where deemed necessary;
- iv) encourage improved utilization and increased intensification/densification of Industrial lands for industrial activities, including the removal of any unnecessary municipal policies or regulatory barriers related to development form and density;

v) review and update parking and loading requirements to reflect changes in industrial forms and activities, ensure better integration with the surrounding character, and reflect improvements to transit service, in an effort to avoid the over-supply of parking;

vi) explore municipal industrial strategies or initiatives that support economic growth objectives with linkages to land use planning;

vii) provide infrastructure and services in support of existing and expanding industrial activities;

viii) support the unique locational and infrastructure needs of rail-oriented, waterfront, and trade-oriented industrial uses;

ix) consider the preparation of urban design guidelines for Industrial land edge planning, such as interface designs, buffering standards, or tree planting, to minimize potential land use conflicts between industrial and sensitive land uses, and to improve resilience to the impacts of climate change; and

x) do not permit strata and/or small lot subdivisions on identified Trade-Oriented lands.

d) include policies for Employment lands that:

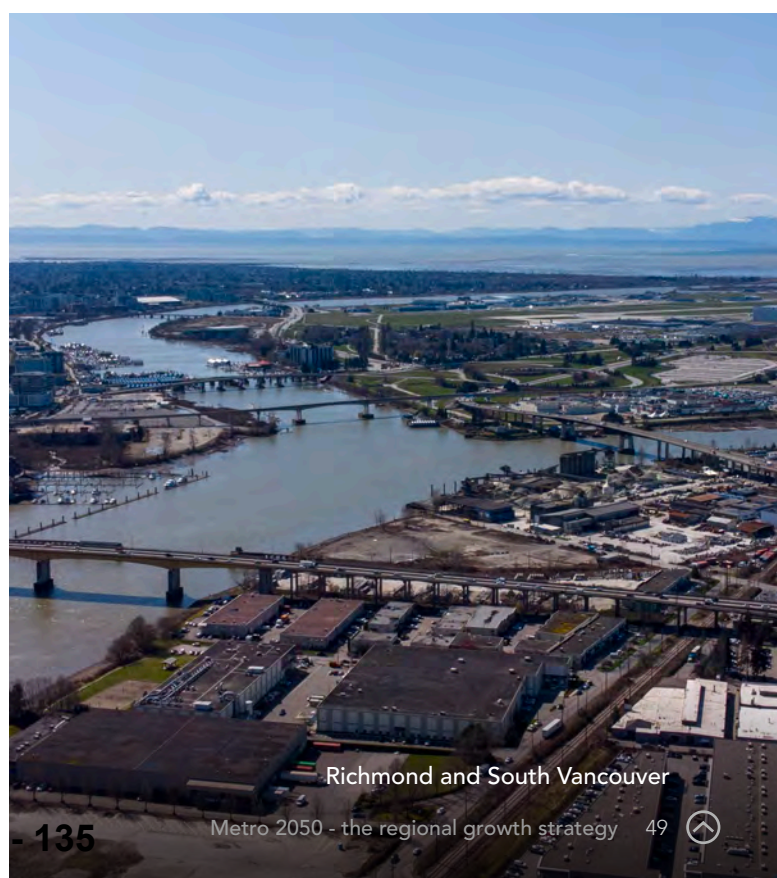
- i) support a mix of industrial, small scale commercial and office, and other related employment uses, while maintaining support for the light industrial capacity of the area, including opportunities for the potential densification/intensification of industrial activities, where appropriate;
- ii) allow large and medium format retail, where appropriate, provided that such development will not undermine the broad objectives of the regional growth strategy;



- iii) support the objective of concentrating larger-scale commercial, higher density forms of employment, and other Major Trip-Generating uses in Urban Centres, and local-scale uses in Frequent Transit Development Areas;
- iv) support higher density forms of commercial and light industrial development where Employment lands are located within Urban Centres or Frequent Transit Development Areas, and permit employment and service activities consistent with the intent of Urban Centres or Frequent Transit Development Areas, while low employment density and low transit generating uses, possibly with goods movement needs and impacts, are located elsewhere;
- v) do not permit residential uses, except for:
  - an accessory caretaker unit; or
  - limited residential uses (with an emphasis on affordable, rental units) on lands within 200 metres of a rapid transit station and located within Urban Centres or Frequent Transit Development Areas, provided that the residential uses are located only on the upper floors of buildings with commercial and light industrial uses, where appropriate and subject to the consideration of municipal objectives and local context.
- e) include policies to assist existing and new businesses in reducing their greenhouse gas emissions, maximizing energy efficiency, and mitigating impacts on ecosystems; and
- f) include policies that assist existing and new businesses to adapt to the impacts of climate change and reduce their exposure to natural hazards risks, such as those identified within the regional growth strategy (Table 5).



Delta



Richmond and South Vancouver



## Strategy 2.3 Protect the supply of agricultural land and strengthen agricultural viability

Protecting land for agricultural production is essential for the viability of the agricultural industry and a resilient region. Collaboration with the Agricultural Land Commission is necessary to address the ongoing challenges from competing residential, industrial, and commercial land use demands. Improved multi-jurisdictional collaboration that recognizes the priority to protect farm land for food production, and the importance of climate change adaptation while restricting other land uses in agricultural lands is critical. Equally important is the need to strengthen the economic viability of agricultural operations by encouraging new markets and expanding the distribution of local foods.

### Metro Vancouver will:

**2.3.1** Direct the Greater Vancouver Sewerage and Drainage District (GVS&DD) to not allow connections to regional sewerage services for lands with an Agricultural regional land use designation. Notwithstanding this general rule, in the exceptional circumstances specified below, the Metro Vancouver Regional District (MVRD) Board will advise the GVS&DD Board that it may consider such a connection for existing or for new development where, in the MVRD Board's discretion, the use is consistent with the underlying Agricultural regional land use designation and where the MVRD Board determines either:

- a) that the connection to regional sewerage services is the only reasonable means of preventing or alleviating a public health or environmental contamination risk; or
- b) that the connection to regional sewerage services would have no significant impact on the regional growth strategy goal to protect the supply of agricultural land and strengthening agricultural viability.

**2.3.2** Monitor the status of agricultural land in the region including local agriculture production and other public benefits such as the provision of ecosystem services in collaboration with the Province and the Agricultural Land Commission.

**2.3.3** Identify and pursue strategies and actions to increase actively farmed agricultural land, strengthen the economic viability of agriculture, and minimize conflicts between agriculture and other land uses, within or adjacent to agricultural land, in collaboration with member jurisdictions, the Province, and the Agricultural Land Commission.

**2.3.4** Work with the Agricultural Land Commission (ALC) to protect the region's agricultural land base and not consider amending the Agricultural or Rural regional land use designation of a site if it is still part of the Agricultural Land Reserve (ALR). However, where the ALC has provided conditional approval to exclude land from the ALR, the Metro Vancouver Board may also provide conditional approval of a regional land use designation amendment for the exclusion site, subject to the ALC exclusion conditions being met.

**2.3.5** Undertake agricultural awareness activities that promote the importance of the agricultural industry, the protection of agricultural land, and the value of local agricultural products and experiences, in partnership with other agencies and organizations.

**2.3.6** Accept Regional Context Statements that protect the region's supply of Agricultural land and strengthen agricultural viability that meet or work towards the provisions set out in Action 2.3.12.

**2.3.7** Advocate to all levels of government the necessity of agriculture impact assessments and mitigation requirements when transportation, utility, and recreational infrastructure is being planned, developed, or operated on agricultural lands.

**2.3.8** Advocate to the Province for farm property tax reform that encourages more actively farmed land and enables secure land tenure for new and established farmers.

**2.3.9** Advocate to the Province to increase agricultural producers' knowledge and adoption of innovative practices for advancing agriculture economic development, and resilience to climate change and natural hazard impacts, such as those identified in the regional growth strategy (Table 5).

**2.3.10** Advocate to the Province to provide incentives to encourage land management practices that reduce greenhouse gas emissions, improve soil health, protect natural assets, and maintain ecosystem services from agricultural land.

**2.3.11** Advocate to the Province for changes to the *Local Government Act* to require that Official Community Plans prioritize the need for agricultural land, similar to how long-term needs are considered for residential, commercial, and industrial lands.

#### **Member Jurisdictions will:**

**2.3.12** Adopt Regional Context Statements that:

- a) specify the Agricultural lands within their jurisdiction, denoting those within the Agricultural Land Reserve, on a map generally consistent with Map 8;
- b) consider policies and programs that increase markets and the distribution of local food in urban areas to strengthen the viability of agriculture and increase availability of local food for all residents;
- c) include policies that protect the supply of agricultural land and strengthen agriculture viability including those that:

- i) assign appropriate land use designations to protect agricultural land for future generations and discourage land uses on Agricultural lands that do not directly support and strengthen agricultural viability;
- ii) encourage the consolidation of small parcels and discourage the subdivision and fragmentation of agricultural land;
- iii) support climate change adaptation including:
  - monitoring storm water, flooding, and sea level rise impacts on agricultural land,
  - implementing flood construction requirements for residential uses, and
  - maintaining and improving drainage and irrigation infrastructure that support agricultural production, where appropriate and in collaboration with other governments and agencies;
- iv) protect the integrity of agricultural land by requiring edge planning along the Urban Containment Boundary and adjacent to agricultural operations through activities such as screening, physical buffers, roads, or Development Permit area requirements;
- v) demonstrate support for economic development opportunities for agricultural operations that are farm related uses, benefit from close proximity to farms, and enhance primary agricultural production as defined by the *Agricultural Land Commission Act*; and
- vi) align policies and regulations, where applicable, with the Minister's Bylaw Standards and Agricultural Land Commission legislation and regulations.

**2.3.13** In partnership with other agencies and organizations, support agricultural awareness and promote the importance of the agricultural industry, the importance of protecting agricultural land, and the value of local agricultural products and experiences.



GOAL  
3

# Protect the Environment, Address Climate Change, and Respond to Natural Hazards





## Goal 3: Protect the Environment, Address Climate Change, and Respond to Natural Hazards

Metro Vancouver has a spectacular natural environment. Many of Metro Vancouver's ecosystems have global significance, such as the Fraser River estuary, which provides both internationally-important fish habitat and key feeding and resting points for migratory birds along the Pacific Flyway. The region's forests, fields, coastal and intertidal areas, wetlands, and watercourses together are integral pieces of a habitat network for birds, fish, and other wildlife.

The diverse mountain, coastal, and river areas provide the region's residents with essential ecosystem services such as fresh water, clean air, pollination, traditional Indigenous food and medicines, fertile soil, flood control, cooling, carbon storage, and opportunities for tourism, recreation, cultural and spiritual enrichment, health and well-being (Figure 5). Climate change, land development, invasive species, and other human-induced pressures are causing ecosystem change and loss in many areas, which reduces nature's capacity to provide these life-sustaining services. If planned, designed, and built in harmony with nature, communities will be healthier and more resilient over the long-term.

The tenets of the regional growth strategy (such as the ongoing focus on urban containment and land use patterns that support sustainable transportation options and carbon storage opportunities in natural areas) are critical for the region to address climate change. This section contains a strategy and associated policies that support Metro Vancouver's commitment to reaching a carbon neutral region by the year 2050. Climate change is expected to continue to cause warmer temperatures, a reduced snowpack, increasing sea levels, and more intense and frequent drought and rainfall events in the region. An additional strategy aims to improve resilience to these climate change impacts, as well as natural hazards. Many of the region's natural hazards are, and will continue to be, worsened by a changing climate.

Addressing both greenhouse gas emissions and the impacts of climate change and natural hazards simultaneously is critical, as the challenges and solutions associated with these issues are often interlinked. Given the dynamic and rapidly changing impacts of climate change on the Metro Vancouver region, and in response to best practices research and climate science, progress towards the *Metro 2050* targets and performance measures will be regularly monitored with an aim to proposing improvements to the policies and actions in the plan.

A commitment to improving social equity includes advancing equitable climate change strategies and actions that will: intentionally consider the suite of concerns that increase community vulnerability, and acknowledge current financial, health, and social disparities that may be exacerbated by low carbon solutions and the impacts of climate change.

For thousands of years Indigenous people have lived on and stewarded their respective and shared territories developing deep and special relationships with the land and waters. Indigenous knowledge systems that have been developed over many years have the potential to inform and complement regional planning policy and practice.

### Strategies to achieve this goal are:

- 3.1 Protect and enhance Conservation and Recreation lands
- 3.2 Protect, enhance, restore, and connect ecosystems
- 3.3 Advance land use, infrastructure, and human settlement patterns that reduce energy consumption and greenhouse gas emissions, create carbon storage opportunities, and improve air quality
- 3.4 Advance land use, infrastructure, and human settlement patterns that improve resilience to climate change impacts and natural hazards



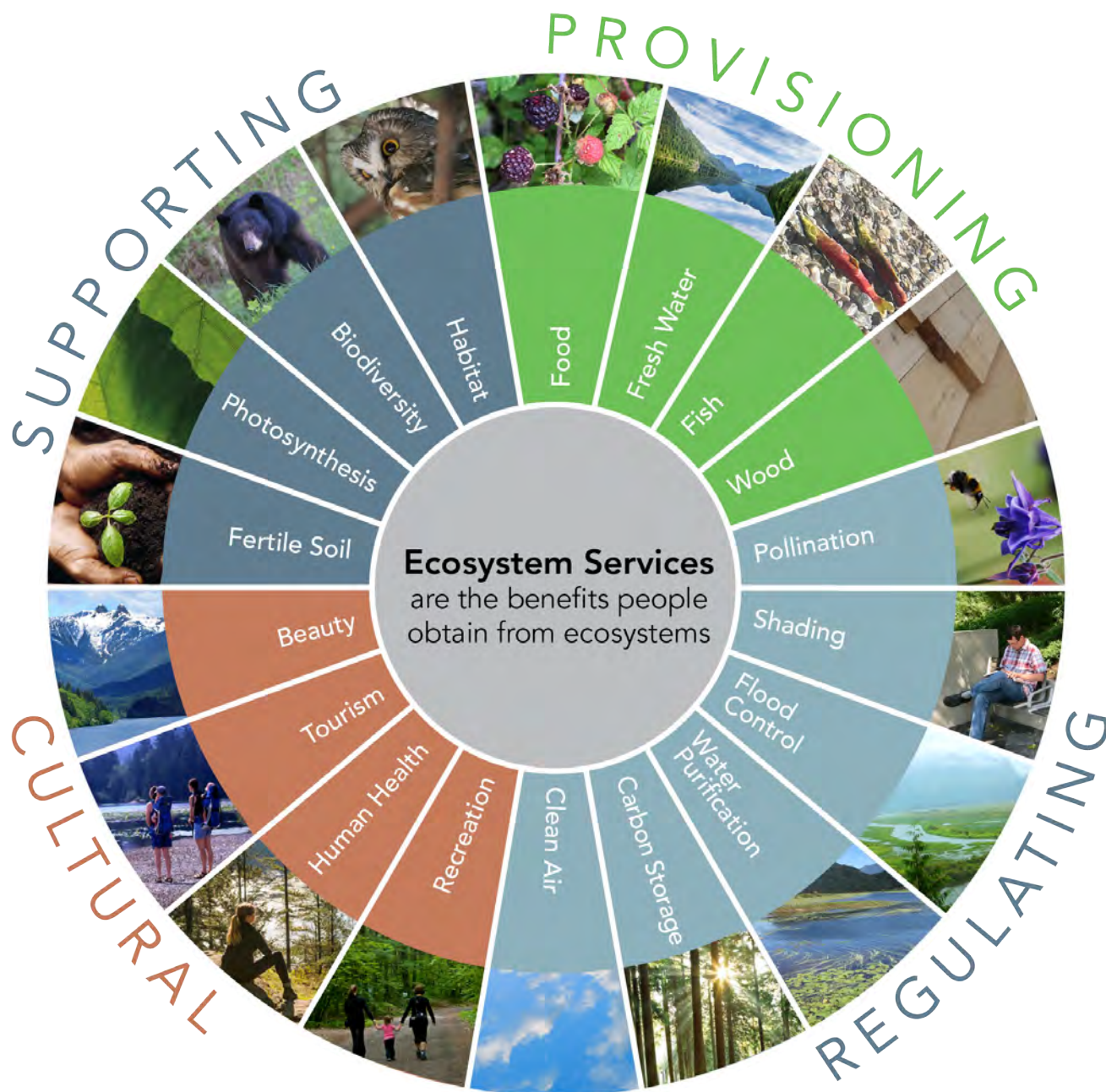


FIGURE 5. ECOSYSTEM SERVICES PROVIDED BY HEALTHY ECOSYSTEMS

## Strategy 3.1 Protect and enhance Conservation and Recreation lands

The Conservation and Recreation regional land use designation is intended to help protect significant ecological and recreation assets throughout the region. Protection and management of these assets will ensure they remain productive, resilient, and adaptable, providing vital ecosystem services that support both humans and wildlife, while also safeguarding communities from climate change and natural hazard impacts.

### Metro Vancouver will:

**3.1.1** Direct the Greater Vancouver Sewerage and Drainage District (GVS&DD) to not allow connections to regional sewerage services to lands with a Conservation and Recreation regional land use designation. Notwithstanding this general rule, in the exceptional circumstances specified below, the Metro Vancouver Regional District (MVRD) Board will advise the GVS&DD Board that it may consider such a connection for existing development or for new development where, in the MVRD Board's opinion, that new development is consistent with the underlying Conservation and Recreation regional land use designation and where the MVRD Board determines either:

- a) that the connection to regional sewerage services is the only reasonable means of preventing or alleviating a public health or environmental contamination risk; or
- b) that the connection to regional sewerage services would have no significant impact on the strategy to protect lands with a Conservation and Recreation regional land use designation.

**3.1.2** Implement the *Metro Vancouver Regional Parks Plan*, the *Regional Parks Land Acquisition 2050 Strategy*, and *Regional Greenways 2050*, and work collaboratively with member jurisdictions to identify, secure and enhance habitat and park lands, and buffer park and conservation areas from activities in adjacent areas.

**3.1.3** For the Greater Vancouver Water District and the Greater Vancouver Sewerage and Drainage District, avoid ecosystem loss and fragmentation on lands with a Conservation and Recreation regional land use designation when developing and operating infrastructure, but where unavoidable, mitigate the impacts, including ecosystem restoration and striving for no net ecosystem loss.

**3.1.4** Monitor ecosystem gains and losses on lands with a Conservation and Recreation regional land use designation and the Natural Resource Areas therein, as identified on Map 9.

**3.1.5** Accept Regional Context Statements that protect lands with a Conservation and Recreation

regional land use designation, and that meet or work towards Action 3.1.9.

**3.1.6** Advocate to the Federal Government, the Province, utility companies, and TransLink to avoid ecosystem loss and fragmentation on lands within a Conservation and Recreation regional land use designation when developing and operating utility and transportation infrastructure, but where unavoidable, to mitigate the impacts, including ecosystem restoration and striving for no net ecosystem loss.

**3.1.7** Advocate to the Province and its agencies to actively manage provincially-owned land within a Conservation and Recreation regional land use designation, and work with adjacent land owners to effectively buffer these lands, with the intent of minimizing negative impacts and enhancing ecosystem integrity and providing public recreational opportunities.

**3.1.8** Advocate to the Federal Government and the Province to:

- a) recognize the Conservation and Recreation regional land use designation and ensure that their activities within or adjacent to these lands are consistent with the long-term intent of the land use designation; and
- b) consult and collaborate with all levels of government, including First Nations, and other stakeholders in the planning and management of lands with a Conservation and Recreation regional land use designation, including during the review of future natural resource extraction projects.

#### **Member jurisdictions will:**

**3.1.9** Adopt Regional Context Statements that:

- a) identify Conservation and Recreation lands and their boundaries on a map generally consistent with Map 2;
- b) include policies that support the protection and enhancement of lands with a Conservation and Recreation land use designation, which may include the following uses:
  - i) drinking water supply areas;
  - ii) environmental conservation areas;
  - iii) wildlife management areas and ecological reserves;
  - iv) forests;
  - v) wetlands (e.g. freshwater lakes, ponds, bogs, fens, estuarine, marine, freshwater, and intertidal ecosystems);
  - vi) riparian areas (i.e. the areas and vegetation surrounding wetlands, lakes, streams, and rivers);
  - vii) ecosystems not covered above that may be vulnerable to climate change and natural hazard impacts, or that provide buffers to climate change impacts or natural hazard impacts for communities; and





viii) uses within those lands that are appropriately located, scaled, and consistent with the intent of the designation, including:

- major parks and outdoor recreation areas;
- education, research and training facilities, and associated uses that serve conservation and/or recreation users;
- commercial uses, tourism activities, and public, cultural, or community amenities;
- limited agricultural use, primarily soil-based; and
- land management activities needed to minimize vulnerability / risk to climate change impacts.

c) include policies that:

- protect the integrity of lands with a Conservation and Recreation regional land use designation from activities in adjacent areas by considering wildland interface planning, and introducing measures such as physical buffers or development permit requirements; and
- encourage the consolidation of small parcels, and discourage subdivision and fragmentation of lands with a Conservation and Recreation regional land use designation.



## Strategy 3.2 Protect, enhance, restore, and connect ecosystems

This strategy establishes a collective vision for ecosystems across the region, recognizing the scientific evidence that ‘nature needs half’ of the land base to continue functioning for the benefit of all life and support human well-being. The vision can be realized in this region by working together to protect, enhance, and restore ecosystems, strategically linking green spaces, both in and between urban and rural areas, into a region-wide network that sustains ecosystem services and movement of wildlife across the landscape. Actions to enhance tree canopy cover in urban areas will also improve community resilience by intercepting rainwater, moderating the urban heat island effect, and improving health outcomes.

### Metro Vancouver will:

**3.2.1** Implement the strategies and actions of the regional growth strategy that contribute to regional targets to:

- a) increase the area of lands protected for nature from 40% to 50% of the region’s land base by the year 2050; and
- b) increase the total regional tree canopy cover within the Urban Containment Boundary from 32% to 40% by the year 2050.

**3.2.2** Implement the Metro Vancouver *Ecological Health Framework*, including relevant actions to:

- a) collect and maintain data, including the Sensitive Ecosystem Inventory, tree canopy cover, imperviousness, and carbon storage datasets; report on gains and losses and climate change impacts on ecosystems; and share these datasets with member jurisdictions; and
- b) incorporate natural assets and ecosystem services into Metro Vancouver’s corporate planning, asset management systems and investments, and provide regionally appropriate guidance on methodologies, tools and decision-making frameworks.

**3.2.3** Manage Metro Vancouver assets and collaborate with member jurisdictions, First Nations, and other agencies to:

- a) protect, enhance, and restore ecosystems as identified on Map 11 or more detailed local ecological and cultural datasets;
- b) identify ecosystems that may be vulnerable to climate change and natural hazard impacts as part of regional multi-hazard mapping in Action 3.4.2 a);
- c) identify a regional green infrastructure network that connects ecosystems and builds on existing local networks, while maximizing resilience, biodiversity, and human health benefits; and
- d) prepare Implementation Guidelines to support a regional green infrastructure network and to assist with the protection, enhancement, and restoration of ecosystems.



**3.2.4** Work with local First Nations to:

- a) increase understanding of Indigenous ecological knowledge, and share information about environmental research, policy development, and planning best practices;
- b) find joint stewardship and restoration opportunities on Metro Vancouver sites, and expand access to sustainably cultivate and harvest plants for cultural purposes; and
- c) seek other Indigenous stewardship, research, and co-management opportunities.

**3.2.5** Accept Regional Context Statements that advance the protection, enhancement, restoration, and connection of ecosystems in a regional green infrastructure network, and that meet or work towards Action 3.2.7.

**3.2.6** Advocate to the Federal Government and the Province to:

- a) strengthen species-at-risk and ecosystem protection legislation to better protect critical habitat, and support restoration and biodiversity, in addition to convening a local government support network;
- b) support the uptake of nature-based climate change solutions, including those that protect or restore foreshore ecosystems;
- c) update and consolidate provincial invasive species legislation to better support the management of high-risk invasive species; and
- d) undertake a regional impact assessment of the Fraser River Estuary to support the management of cumulative effects from development.

**Member jurisdictions will:****3.2.7** Adopt Regional Context Statements that:

- a) identify local ecosystem protection and tree canopy cover targets, and demonstrate how these targets will contribute to the regional targets in Action 3.2.1;
- b) refer to Map 11 or more detailed local ecological and cultural datasets and include policies that:
  - i) support the protection, enhancement, and restoration of ecosystems through measures such as land acquisition, density bonusing, development permit requirements, subdivision design, conservation covenants, land trusts, and tax exemptions;
  - ii) seek to acquire, restore, enhance, and protect lands, in collaboration with adjacent member jurisdictions and other partners, that will enable ecosystem connectivity in a regional green infrastructure network;
  - iii) discourage or minimize the fragmentation of ecosystems through low impact development practices that enable ecosystem connectivity; and
  - iv) indicate how the interface between ecosystems and other land uses will be managed to maintain ecological integrity using edge planning, and measures such as physical buffers, or development permit requirements.



c) include policies that:

- i) support the consideration of natural assets and ecosystem services in land use decision-making and land management practices;
- ii) enable the retention and expansion of urban forests using various tools, such as local tree canopy cover targets, urban forest management strategies, tree regulations, development permit requirements, land acquisition, street tree planting, and reforestation or restoration policies, with consideration of resilience;
- iii) reduce the spread of invasive species by employing best practices, such as the implementation of soil removal and deposit bylaws, development permit requirements, and invasive species management plans;
- v) increase green infrastructure along the Regional Greenway Network, the Major Transit Network, community greenways, and other locations, where appropriate, and in collaboration with Metro Vancouver, TransLink, and other partners; and
- iv) support watershed and ecosystem planning, the development and implementation of Integrated Stormwater Management Plans, and water conservation objectives.

Maple Ridge

### Strategy 3.3 Advance land use, infrastructure, and human settlement patterns that reduce energy consumption and greenhouse gas emissions, create carbon storage opportunities, and improve air quality

The tenets of the regional growth strategy are crucial for meeting the region's commitment to reduce greenhouse gas emissions and to reach carbon neutrality by the year 2050. As described in other strategies in the regional growth strategy, this can be achieved in three key ways: by supporting growth and development patterns that enable sustainable transportation options; by encouraging higher-density built forms and multi-unit developments which are typically more energy efficient than lower-density alternatives; and by reducing development pressures in areas that naturally store and sequester carbon (such as conservation and agricultural lands). To supplement these important policy actions from other goal areas in the regional growth strategy, Strategy 3.3 contains the region's greenhouse gas emissions reduction targets and associated policies.

#### Metro Vancouver will:

##### 3.3.1 Implement the:

a) strategies and actions of the regional growth strategy that contribute to regional targets to reduce greenhouse gas emissions by 45% below 2010 levels by the year 2030 and to achieve a carbon neutral region by the year 2050; and

b) *Metro Vancouver Clean Air Plan, Climate 2050*, and other associated actions to help achieve the regional greenhouse gas emissions reduction targets in Action 3.3.1 a).

3.3.2 Work with the Federal Government, the Province, TransLink, member jurisdictions, First Nations, non-governmental organizations, energy utilities, the private sector, and other stakeholders, as appropriate, to:

a) monitor energy consumption, greenhouse gas emissions, and air quality related to land use, buildings, industry, agriculture, waste, transportation, and other emission sources, and consider lifecycle energy and emissions;

b) monitor and pursue opportunities to increase carbon storage in natural areas; and

c) promote best practices and develop guidelines to support local government actions that reduce energy consumption and greenhouse gas emissions, support a transition to clean, renewable energy (including electricity), create carbon storage opportunities, and improve air quality.

3.3.3 Work with TransLink, member jurisdictions, and health authorities to advocate that health impact assessments be conducted for major transportation projects and significant development projects with an aim to minimizing public exposure to traffic-related air contaminants.

3.3.4 Work with the Federal Government, the Province, and other stakeholders when conducting environmental assessments to reduce the environmental and health impacts related to regional air quality and greenhouse gas emissions.

3.3.5 Accept Regional Context Statements that advance land use, infrastructure, and settlement patterns that reduce energy consumption and greenhouse gas emissions, improve air quality, create carbon storage opportunities, and that meet or work towards Action 3.3.7.

**3.3.6** Advocate to the Federal Government and the Province to establish and support legislative and fiscal actions, that help the public and private sector maximize reductions in energy consumption and greenhouse gas emissions, and improve air quality, such as:

- a) in the building sector,
  - i) accelerating the transition of energy efficiency requirements in the *BC Building Code* to net zero energy ready levels by 2032;
  - ii) setting greenhouse gas and energy performance requirements for new and existing buildings;
  - iii) increasing incentives and financing tools for new low-carbon, zero-emissions, and resilient buildings;
  - iv) supporting large-scale building electrification;
  - v) requiring benchmarking and energy labels for new and existing buildings;
  - vi) supporting reductions in embodied emissions of buildings, and the increased use of low-carbon circular building products and processes;
  - vii) supporting programs, services and incentives for low-carbon upgrade options in rental buildings that benefit building owners and tenants;
  - viii) incenting equitable transit-oriented development through policy and funding programs; and
  - ix) supporting, where feasible and appropriate, energy recovery, renewable energy generation and zero-carbon district energy systems, and related transmission needs.
- b) in the transportation sector,
  - i) revising enabling legislation to allow regional road usage charging for the purposes of managing congestion and greenhouse gas emissions;
  - ii) supporting electric vehicle charging in new and existing buildings through requirements and programs;

- iii) continuing to increase the amount of reliable and sustainable funding available for sustainable transportation infrastructure and low emission travel modes, such as active transportation and public transit; and
- iv) continuing to advance stringent standards for on-road vehicle emissions and fuel carbon content.

#### **Member jurisdictions will:**

**3.3.7** Adopt Regional Context Statements that:

- a) identify how local land use and transportation policies will contribute to meeting the regional greenhouse gas emission reduction target of 45% below 2010 levels by the year 2030 and achieving a carbon neutral region by the year 2050;
- b) identify policies, actions, incentives, and / or strategies that reduce energy consumption and greenhouse gas emissions, create carbon storage opportunities, and improve air quality from land use, infrastructure, and settlement patterns, such as:
  - i) existing building retrofits and construction of new buildings to meet energy and greenhouse gas performance guidelines or standards (e.g. BC Energy Step Code, passive design), the electrification of building heating systems, green demolition requirements, embodied emissions policies, zero-carbon district energy systems, and energy recovery and renewable energy generation technologies, such as solar panels and geoexchange systems, and zero emission vehicle charging infrastructure; and
  - ii) community design, infrastructure, and programs that encourage transit, cycling, rolling and walking; and
- c) focus infrastructure and amenity investments in Urban Centres and Frequent Transit Development Areas, and at appropriate locations along Major Transit Growth Corridors.



**TransLink will:**

**3.3.8** Support regional air quality objectives and greenhouse gas emission reduction targets by advancing policy and infrastructure to support the aggressive transition of the ground-based vehicle fleet to zero-emissions, and by transitioning the entire transit fleet to one that utilizes low-carbon fuels.

**3.3.9** In collaboration with Metro Vancouver and member jurisdictions, establish a definition of major development proposals, which are referenced in the *South Coast British Columbia Transportation Authority Act*, to support the objective of concentrating Major Trip-Generating uses in areas well served by transit.





### Strategy 3.4 Advance land use, infrastructure, and human settlement patterns that improve resilience to climate change impacts and natural hazards

Climate change is expected to continue to impact Metro Vancouver through warmer temperatures, decreased snowpack, sea level rise, longer summer drought periods, and increased precipitation in the fall, winter, and spring. The region is also exposed to multiple natural hazards, many of which are worsened by climate change. Where and how the region accommodates growth determines the degree to which communities and infrastructure are exposed to these risks. While efforts need to be made to ensure that all populations are well-equipped to address these challenges, proactive and collaborative planning can minimize risks by encouraging growth and development in more resilient areas, where feasible, and taking measures to ensure existing communities and infrastructure are resilient to current and future risks.

**TABLE 5. MAJOR NATURAL HAZARDS AND CLIMATE CHANGE IMPACTS AFFECTING METRO VANCOUVER**

NATURAL HAZARDS	RELATED CLIMATE CHANGE IMPACTS
Earthquakes	
Tsunamis	Sea level rise
Landslides	More precipitation (fall, winter, and spring)
Floods (pluvial, coastal, riverine)	More precipitation (fall, winter, and spring) Sea level rise Decrease in snowpack
Wildfires	Longer drought periods (summer) Warmer temperatures and extreme heat events Reduced air quality
Erosion	Sea level rise More precipitation (fall, winter, and spring)
Subsidence	Sea level rise
Windstorms and other extreme weather events	Sea level rise More precipitation (fall, winter, and spring)

**Metro Vancouver will:**

**3.4.1** Incorporate climate change and natural hazard risk assessments into the planning and location of existing and future Metro Vancouver utilities, assets, operations, and other critical infrastructure.

**3.4.2** Work with the Integrated Partnership for Regional Emergency Management, the Federal Government, the Province, First Nations, TransLink, member jurisdictions, adjacent regional districts, and other stakeholders, as appropriate, to:

- a) collaboratively develop and share information and data related to hazards, risks, and vulnerabilities in the Metro Vancouver region, which may include preparing a regional multi-hazard map, and identifying and coordinating priority actions, implementation strategies, and funding mechanisms;
- b) plan for climate change impacts and natural hazard risks when extending utilities and transportation infrastructure that support development;
- c) support the integration of emergency management, utility planning, and climate change adaptation principles in land use plans, transportation plans, and growth management policies;
- d) research and promote best practices and develop guidelines to support resilience to the impacts of climate change and natural hazards as it relates to planning and development;
- e) support regional flood management approaches, such as the implementation of the Lower Mainland Flood Management Strategy; and
- f) research and share information related to the impacts of climate change and natural hazards on vulnerable populations, and focus resilience actions on equitable outcomes.

**3.4.3** Accept Regional Context Statements that advance land use, settlement patterns, transportation and utility infrastructure which improve the ability to withstand climate change impacts and minimize natural hazard risks, and that meet or work towards Actions 3.4.5, 3.4.6, 3.4.7, and 3.4.8.

**3.4.4** Advocate to the Federal Government and the Province that they:

- a) review and improve existing provincial legislation and guidelines regarding flood hazard management at the local level, encourage the adoption of local flood hazard policies and bylaws, and implement appropriate preparatory actions to address the long-term implications of sea level rise on infrastructure planning, construction, and operations;
- b) incorporate resilience considerations into building codes and standards;
- c) modernize the provincial *Emergency Program Act* and associated regulations with requirements for land use planning, and consider land use implications in the development of climate change adaptation strategies; and
- d) provide guidelines, programs, funding, and timely data and information to support regional and local planning for climate change impacts and natural hazards.

**Member jurisdictions will:****3.4.5** Adopt Regional Context Statements that:

- a) include policies that minimize risks associated with climate change and natural hazards in existing communities through tools such as heat and air quality response plans, seismic retrofit policies, and flood-proofing policies; and
- b) include policies that discourage new development in current and future hazardous areas to the extent possible through tools such as land use plans, hazard-specific Development Permit Areas, and managed retreat policies, and where development in hazardous areas is unavoidable, mitigate risks.

**3.4.6** Incorporate climate change and natural hazard risk assessments into planning and location decisions for new municipal utilities, assets, operations, and community services.

**3.4.7** Integrate emergency management, utility planning, and climate change adaptation principles when preparing land use plans, transportation plans, and growth management policies.

**3.4.8** Adopt appropriate planning standards, guidelines, and best practices related to climate change and natural hazards, such as flood hazard management guidelines and wildland urban interface fire risk reduction principles.









# GOAL 4

## Provide Diverse and Affordable Housing Choices





## Goal 4: Provide Diverse and Affordable Housing Choices

A diverse and affordable housing stock is critical to accommodating growth and supporting the region's population. Communities across Metro Vancouver are experiencing significant housing pressures paired with accelerating housing costs in the rental and ownership markets. Strong demand for rental housing is causing low rental vacancy rates and rising rental costs, and at the same time, existing affordable rental housing stock is aging and in need of maintenance and renewal.

High land and construction costs make the delivery of new rental units that are affordable to low and moderate income households challenging, particularly in proximity to transit. Lower income households earning less than 80% of the Regional Median Household Income, who make up the majority of renters in the region, are being forced to look further afield for housing that is affordable and meets their needs. Additionally, there is a shortage of permanent, affordable, and supportive housing units to meet the acute housing needs of vulnerable populations including those experiencing or at risk of homelessness.

In response to these challenges, a diverse mix of housing types and tenures that respond to an aging population, changing family and household characteristics, and a range of household incomes across the region is needed. Having housing choices means that all residents can find adequate and suitable housing that is affordable based on their household income, and that meets their unique needs and preferences. For the purpose of implementing *Metro 2050's* policies, "affordable housing" is defined as housing that is affordable to households earning up to 120% of the Regional Median Household Income. Goal 4 encourages diverse and affordable housing choices as a means to provide opportunities for residents to live in their desired community or neighbourhood, close to employment, transit, schools, parks, amenities and important social connections.

The first strategy identifies actions to promote an adequate supply of housing to meet existing and future housing needs across the housing continuum. Supporting housing policy efforts across the region through housing strategies or action plans that work towards achieving the number and type of housing units required to meet the needs identified in local housing needs reports or assessments is critical to this strategy.

The second strategy encourages policies and actions that expand rental housing supply, mitigate or limit the net loss of existing purpose-built rental and non-market housing stock, and protect renter households. The strategy also advocates for measures and incentives to stimulate the supply of below-market and market rental housing, particularly in proximity to transit.

The third strategy advocates for capital and operating funding to support the non-profit housing sector and the overall provision of permanent, affordable, and supportive housing. The strategy also requests ongoing housing and income benefits to supplement the high cost of rent in the private market. It recognizes that housing strategies and action plans must be aligned with plans to address homelessness. All levels of government have a role to play in creating opportunities for diverse housing options, and senior government funding is essential to meeting the housing needs of these populations.

A commitment to social equity prioritizes planning and decision-making processes that ensure the housing needs of the region's residents and populations that are housing insecure are met, so that everyone can access safe, quality, affordable, and climate resilient housing. Furthermore, it means intentionally seeking to prevent economic, health or access disparities in the housing market that are primarily experienced by lower income populations, renter households, and individuals experiencing or at risk of homelessness. Essential to this commitment is examining and modifying any systemic and institutional practices and policies that may limit the quality, affordability, accessibility, and equitable distribution of housing that is necessary to create a livable and resilient region for current and future generations.

**Strategies to achieve this goal are:**

- 4.1 Expand the supply and diversity of housing to meet a variety of needs
- 4.2 Protect tenants and expand, retain, and renew rental housing supply
- 4.3 Meet the housing needs of lower income households and populations experiencing or at risk of homelessness



Port Moody

## Strategy 4.1 Expand the supply and diversity of housing to meet a variety of needs

Housing diversity refers to the range of housing types and tenures required to meet the needs of households of all sizes, incomes, ages, and abilities. Expanding the supply and diversity of housing that meets a variety of needs across the housing continuum increases affordability, social equity, and resilience in the region.

### Metro Vancouver will:

**4.1.1** Assist member jurisdictions in developing housing strategies or action plans by providing analysis on regional demographics, household characteristics, and market conditions, and work with member jurisdictions to review and refine local housing priorities, policies, and housing needs reports or assessments in the context of this analysis.

**4.1.2** Monitor and report on the progress of member jurisdiction housing strategies or action plans in achieving the number and type of housing units required to meet current and anticipated housing needs, as determined in the member jurisdiction's housing needs report or assessment.

**4.1.3** Support member jurisdictions in the development and delivery of housing policies and actions by compiling, analyzing, and communicating data, preparing implementation guidelines and best practices research, and convening discussions on issues of common interest.

**4.1.4** Accept Regional Context Statements that describe how local plans, strategies, and policies will achieve diverse and affordable housing options, expand the supply and diversity of housing to meet a variety of needs along the housing continuum, and meet or work towards Actions 4.1.8 and 4.1.9.

**4.1.5** Advocate to the Province to create new enabling legislation that provides the ability for local governments to mandate affordable housing through inclusionary zoning powers.

**4.1.6** Advocate to the Province to provide funding to support member jurisdictions in the development and update of housing strategies or action plans that are aligned with housing needs reports or assessments.

**4.1.7** Advocate to the Province for expanded funding maximums and eligibility that support Treaty and other First Nations in developing housing needs reports or assessments to ensure a complete regional and provincial understanding of housing needs, and to help inform local plans, policies, and development decisions.



**Member jurisdictions will:****4.1.8** Adopt Regional Context Statements that:

- a) indicate how they will work towards meeting estimated future housing needs and demand, as determined in their housing needs report or assessment;
- b) articulate how local plans and policies will meet the need for diverse (in tenure, size, and type) and affordable housing options;
- c) identify policies and actions that contribute to the following outcomes:
  - i) increased supply of adequate, suitable, and affordable housing to meet a variety of needs along the housing continuum;
  - ii) increased supply of family-friendly, age-friendly, and accessible housing;
  - iii) increased diversity of housing tenure options, such as attainable homeownership, rental, co-op housing, rent-to-own models, and cohousing;
  - iv) increased density and supply of diverse ground-oriented and infill housing forms in low-density neighbourhoods, such as duplex, four-plex, townhouse, laneway/coach houses, and apartments, particularly in proximity to transit;
  - v) integration of land use and transportation planning such that households can reduce their combined housing and transportation costs;

- vi) increased social connectedness in multi-unit housing;
- vii) integrated housing within neighbourhood contexts and high quality urban design; and
- viii) existing and future housing stock that is low carbon and resilient to climate change impacts and natural hazards.

**4.1.9** Prepare and implement housing strategies or action plans that:

- a) are aligned with housing needs reports or assessments, and reviewed or updated every 5-10 years to ensure that housing strategies or action plans are based on recent evidence and responsive to current and future housing needs;
- b) are based on an assessment of local housing market conditions, by tenure, including assessing housing supply, demand, and affordability;
- c) identify housing priorities, based on the assessment of local housing market conditions, household incomes, changing population and household demographics, climate change and natural hazards resilience, and key categories of local housing need, including specific statements about special needs housing and the housing needs of equity-seeking groups; and
- d) identify implementation measures within their jurisdiction and financial capabilities, including actions set out in Action 4.1.8.



## Strategy 4.2 Protect tenants and expand, retain, and renew rental housing supply

Purpose-built rental housing is a critical component of the housing continuum, offering security of tenure to the many residents who cannot or choose not to purchase a home. The private rental market also forms a large part of the region's overall rental housing stock, and provides additional rental housing options such as secondary suites, laneway/coach houses, and rented condominiums. Increasing the rental housing supply, retaining existing rental housing, and renewing aging rental housing while minimizing the impacts of redevelopment and renovation on existing tenants preserves affordability and increases opportunities for everyone in the region to access an energy efficient home they can afford.

### Metro Vancouver will:

**4.2.1** Monitor the purpose-built rental housing stock in the region, and report on rental housing supply gaps by income level and number of bedrooms.

**4.2.2** Implement the *Metro Vancouver Housing 10-Year Plan* (2019) and seek opportunities for Metro Vancouver Housing to partner with member jurisdictions and others to expand affordable rental housing across the region.

**4.2.3** Set a regional target that at least 15% of newly completed housing units built within all Urban Centres and Frequent Transit Development Areas combined, by the year 2050, be affordable rental housing units. Metro Vancouver will monitor progress towards the target and review the target periodically.

**4.2.4** Accept Regional Context Statements that describe how local plans, strategies, and policies will increase rental housing supply while protecting tenants, and that meet or work towards Actions 4.2.7 and 4.2.8.

**4.2.5** Advocate to the Federal Government and the Province to provide measures and incentives to stimulate private sector investment in rental housing to help achieve the current and anticipated need for rental housing units, as determined by housing needs reports or assessments.

**4.2.6** Advocate to the Province for expanded measures to address housing speculation and vacant homes as a means of increasing long-term rental options, and bringing unoccupied housing into the secondary rental market.



**Member jurisdictions will:****4.2.7** Adopt Regional Context Statements that:

- a) indicate how they will, within their local context, contribute toward the regional target of having at least 15% of newly completed housing units built within all Urban Centres and Frequent Transit Development Areas combined, to the year 2050, be affordable rental housing units (recognizing that developing affordable rental housing units in transit-oriented locations throughout the urban area is supported);
- b) articulate how local plans and policies will mitigate impacts on renter households, particularly during redevelopment or densification of Urban Centres and Frequent Transit Development Areas;
- c) identify the use of regulatory tools that protect and preserve rental housing;
- d) identify policies and actions that contribute to the following outcomes:
  - i) increased supply of affordable rental housing in proximity to transit and on publicly-owned land;
  - ii) increased supply of market and below-market rental housing through the renewal of aging purpose-built rental housing and prevention of

net rental unit loss;

- iii) protection and renewal of existing non-market rental housing;
- iv) mitigated impacts on renter households due to renovation or redevelopment, and strengthened protections for tenants; and
- v) reduced energy use and greenhouse gas emissions from existing and future rental housing stock, while considering impacts on tenants and affordability.

**4.2.8** Prepare and implement housing strategies or action plans that:

- a) encourage the supply of new rental housing and mitigate or limit the loss of existing rental housing stock;
- b) encourage tenant protections and assistance for renter households impacted by renovation or redevelopment of existing purpose-built rental housing; and
- c) cooperate with and facilitate the activities of Metro Vancouver Housing under Action 4.2.2.





## Strategy 4.3 Meet the housing needs of lower income households and populations experiencing or at risk of homelessness

Lower income households and populations experiencing or at risk of homelessness have the most acute housing needs in the region. Through collaboration with the Federal Government and the Province, efforts to support the provision of non-market housing can ensure equitable access to housing for all. Meeting the housing needs of the most vulnerable in our communities also provides a number of co-benefits including positive health outcomes and improved social cohesion.

### Metro Vancouver will:

**4.3.1** Accept Regional Context Statements that describe how local plans, strategies, and policies will meet the specific housing needs of lower income households, including the existing housing needs of populations experiencing or at risk of homelessness, and that meet or work towards Actions 4.3.7 and 4.3.8.

**4.3.2** Collaborate with member jurisdictions, non-profit housing and homelessness services providers, and the Federal Government and the Province on coordinated actions to address regional homelessness.

**4.3.3** Advocate to the Federal Government and the Province for measures and incentives to stimulate non-market rental supply and capital and operating funding to support the construction of permanent, affordable, and supportive housing across the region.

**4.3.4** Advocate to the Federal Government and the Province to provide capital and operating funding to meet the current and anticipated housing needs of lower income households and populations experiencing or at risk of homelessness, as determined by housing needs reports or assessments.

**4.3.5** Advocate to the Federal Government and the Province for portfolio-based, long-term funding sources for non-profit housing providers that shift away from short-term, project-based funding models as a means of ensuring the sustainability of the non-profit housing sector.

**4.3.6** Advocate to the Federal Government and the Province to provide and expand ongoing rent supplements and housing benefits in a way that takes into account geographic and cost of living

considerations, and to increase the shelter portion of income assistance to ensure that lower income households and populations experiencing or at risk of homelessness can afford suitable and adequate housing.

### Member jurisdictions will:

**4.3.7** Adopt Regional Context Statements that:

a) indicate how they will collaborate with the Federal Government, the Province, and other partners, to assist in increasing the supply of permanent, affordable, and supportive housing units; and

b) identify policies and actions to partner with other levels of government and non-profit organizations in order to create pathways out of homelessness and contribute to meeting the housing and support needs of populations experiencing or at risk of homelessness.

**4.3.8** Prepare and implement housing strategies or action plans that:

a) identify opportunities to participate in programs with other levels of government to secure additional housing units to meet the housing needs of lower income households;

b) identify strategies to increase community acceptance and communicate the benefits of affordable and supportive housing development; and

c) are aligned with or integrate plans to address homelessness, and identify strategies to reduce the total number of households that are in core housing need and populations experiencing or at risk of homelessness.

GOAL  
5

# Support Sustainable Transportation Choices



North Vancouver City



## Goal 5: Support Sustainable Transportation Choices

Land uses influence travel patterns and transportation systems, in turn, affect land use and development. Achieving the goals of *Metro 2050* requires the alignment of land use and transportation strategies. Accessible and sustainable transportation choices are supported by strategies for a compact urban area, with transit-oriented development patterns that focus growth in Urban Centres, Major Transit Growth Corridors and Frequent Transit Development Areas. This transit-oriented pattern of growth helps reduce vehicle use, traffic congestion, energy consumption and greenhouse gas emissions from on-road sources while fostering transit ridership and active transportation. It provides the region's residents with resilient mobility options, a cleaner environment, and opportunities to reduce household transportation costs.

The first strategy identifies actions to increase the proportion of trips by transit, cycling, walking, and other alternatives to single occupancy vehicles. *Transport 2050*'s Major Transit Network will be critical in reinforcing *Metro 2050*'s network of Urban Centres and Frequent Transit Development Areas. *Metro 2050* aligns these locations for growth with planned transit connections to provide clearer expectations about future growth and investment. Aligning land use and transportation in this way enables a diversity of transit oriented affordable housing, shorter trips and greater access to opportunity. Careful and coordinated planning efforts will ensure that new mobility options, including micro-mobility and automated vehicles, are integrated into the region's transportation system in an equitable way that promotes reductions in both greenhouse gas emissions and traffic congestion.

The second strategy recognizes the fundamental role that the Major Road Network, Regional Truck Route Network, provincial highways, and federal transportation facilities play in shaping regional growth, moving people and goods within the region, and connecting the region with intra-provincial, national and international destinations. The strategy advocates for active management of the existing and planned capacity of the road network and the demands put upon it to minimize the need for capital-intensive roadway expansion in the future.

Further, rail and marine transportation have the potential to play a larger role in the future for goods movement, so protecting rail rights-of-way and access points to waterways today is critical to preserving transportation options in the future. This strategy also anticipates the changing nature of industry and digitalization of commerce.

Metro Vancouver works in partnership with member jurisdictions, TransLink, the Port of Vancouver, airport authorities, the Federal Government, and the Province to coordinate decision-making in support of the regional growth strategy. TransLink prepares and implements strategic transportation plans for roads, transit, active transportation, and goods movement, among other regional transportation programs. TransLink is the region's lead agency for coordinating micro-mobility, automated vehicles, and other new mobility options. TransLink is also responsible for the region's long-term transportation strategy, *Transport 2050*. *Metro 2050* and *Transport 2050* comprise the region's long-term vision for the land use and



Burnaby

transportation system. The Province prepares provincial highway and transit plans which help to guide the development of regional transportation plans. Both the Federal Government and the Province play significant roles in funding regional transit and goods movement infrastructure. Metro Vancouver advocates for reductions in transportation-related greenhouse gas emissions and common air contaminants.

A commitment to equity includes creating a more equitable land use and transportation system across the region that will enhance social cohesions and connectedness to benefit all communities; mitigate the environmental, economic, and social risks associated with goods and service movement; and ultimately, provide affordable and accessible transportation that creates quality jobs, promotes safe and inclusive communities, and focuses on results that benefit all.

**Strategies to achieve this goal are:**

- 5.1 Coordinate land use and transportation to encourage transit, multiple-occupancy vehicles, cycling and walking
- 5.2 Coordinate land use and transportation to support the safe and efficient movement of vehicles for passengers, goods, and services

## Strategy 5.1 Coordinate land use and transportation to encourage transit, multiple-occupancy vehicles, cycling and walking

The coordination of land use and transportation supports positive region building by ensuring communities are connected to sustainable transportation networks while investing in transportation improvements for existing neighbourhoods. Over time, this creates a regional growth pattern where destinations are closer together and more accessible for all, with less need to drive. The benefits of this transit-oriented growth pattern include: reduced greenhouse gas emissions; formation of complete, compact communities; more physical activity and improved health; lower transportation costs; and a more resilient economy with better access to job opportunities, diverse and affordable housing, and community amenities.

### Metro Vancouver will:

**5.1.1** Provide advice and input into TransLink's regional transportation system, planning, and demand management strategies through the provision of land use, growth management and air quality information and forecasts, and the evaluation of land use and vehicle emissions impacts.

**5.1.2** Establish the following objectives for the regional transportation system:

- a) support the regional land use framework and strategy, as set out in Strategy 1.2;
- b) reduce energy consumption and greenhouse gas emissions while improving air quality, as set out in Strategy 3.3; and
- c) ensure the safe and efficient movement of vehicles for passengers, goods, and services, as set out in Strategy 5.2.

**5.1.3** Encourage TransLink and member jurisdictions, in support of Action 5.1.2 (a), to increase transit services between Urban Centres, according to the following priorities:

- Priority 1: Major Transit Network
- Priority 2: Frequent Transit Network
- Priority 3: Local Transit Networks

**5.1.4** Collaborate with TransLink, in support of Action 5.1.2 (b), on the achievement of regional priorities to increase the share of trips made by transit, shared mobility options, cycling, walking, and rolling; and to reduce energy consumption and air emissions from on-road transportation sources. Metro Vancouver will support the development of strategic transportation plans to achieve this objective, within TransLink's mandate to plan and manage the regional transportation system.

**5.1.5** In collaboration with other levels of government, implement the Regional Greenway Network, as shown in Map 10.

**5.1.6** Collaborate with member jurisdictions and TransLink to jointly develop a regional parking strategy that:

- a) provides guidance to inform municipal parking requirements;
- b) considers local needs through customized guidance for different land use and transportation contexts; and
- c) seeks to right-size the supply of parking in the region, reduce the number of vehicles, make more efficient use of the limited land supply, and improve housing and transportation affordability.



**5.1.7** Accept Regional Context Statements that identify policies and actions that coordinate land use and transportation planning to support transit, shared mobility options, cycling, walking, and rolling; that support the transition to zero-emission vehicles; and that meet or work towards Action 5.1.14.

**5.1.8** Advocate to the Federal Government and the Province, in collaboration with TransLink and member jurisdictions, to evaluate and develop measures to mitigate the potential negative impacts on the region's Industrial, Agricultural, and Conservation and Recreation lands when planning transportation infrastructure, including roadways, railways and rapid transit systems.

**5.1.9** Advocate for the Province to work with TransLink, adjacent regional districts, and Metro Vancouver in coordinating transportation planning and infrastructure projects in the Lower Mainland.

**5.1.10** Advocate to the Federal Government and the Province to provide increased and permanent funding for expanding, upgrading, and operating:

- a) the regional transit system;
- b) the Regional Cycling Network (i.e. the Major Bikeway Network for utility cycling trips and Regional Greenway Network for recreational travel); and
- c) municipal pedestrian infrastructure.

**5.1.11** Advocate to railway companies, when developing their plans and strategies for rail corridors and facilities in the region, that they coordinate and consult with member jurisdictions, TransLink, Port of Vancouver, and Metro Vancouver to ensure that they are compatible with and support the regional transportation and land use planning goals of the regional growth strategy.

**5.1.12** Advocate to member jurisdictions to engage with impacted municipalities and First Nations when developing plans, policies, and programs related to new mobility, shared mobility, and inter-jurisdictional connectivity.

**5.1.13** Advocate to the Province and TransLink to co-locate active transportation and micro-mobility facilities with rapid transit infrastructure and include delivery of such facilities within the scope of rapid transit projects.

#### **Member jurisdictions will:**

**5.1.14** Adopt Regional Context Statements that:

- a) identify land use and transportation policies and actions to encourage a greater share of trips made by transit, shared mobility options, cycling, walking, and rolling;
- b) support the development and implementation of transportation demand management strategies, such as: parking pricing and supply measures, transit priority measures, end-of-trip facilities for active transportation and micro-mobility, and shared mobility services;
- c) manage and enhance municipal infrastructure in support of transit, multiple-occupancy vehicles, cycling, walking, and rolling;
- d) support the transition to zero-emission vehicles;
- e) support implementation of the Regional Greenway Network and Major Bikeway Network, as identified in Map 10; and
- f) support implementation of local active transportation and micro-mobility facilities that provide direct, comfortable, all ages and abilities connections to the Regional Greenway Network, Major Bikeway Network, transit services, and everyday destinations.

#### **TransLink will:**

**5.1.15** In support of coordinated land use and transportation to encourage transit, multiple occupancy vehicles, cycling, walking, and rolling:



- a) prepare and implement strategic transportation plans that support focused growth in Urban Centres and Frequent Transit Development Areas, while avoiding known unmitigated flood and other natural hazard risk areas;
- b) provide Metro Vancouver with adequate opportunity to provide input into TransLink's strategic planning and decision-making processes that would affect the achievement of the objectives and priorities set out in Action 5.1.2;
- c) establish and monitor performance measures and / or targets that support: an increased share of trips made by transit, shared mobility, zero-emission vehicles, cycling, walking, and rolling; and the associated reductions in air emissions from on-road transportation sources;
- d) prepare and implement regional transportation system and demand management strategies, such as: ridesharing programs, transportation user-based pricing, and regulation for ride-hailing services and other emerging mobility technologies;
- e) support the development of safe and comfortable cycling networks, including both the Regional Cycling Network and local infrastructure, serving Urban Centres, Frequent Transit Development Areas, and other areas of high potential for utility and/or recreational cycling;
- f) work with the Province, the Integrated Partnership for Regional Emergency Management, and member jurisdictions to evaluate the potential impacts of climate change and known unmitigated natural hazards on rapid transit alignments, station locations, and associated transportation infrastructure;
- g) explore methods to support affordable housing through existing and future revenue sources, such as: continuing the reduction or waiver of the TransLink Development Cost Charge on certain types of not-for-profit rental housing; seeking partnership opportunities with the Province and others to support delivering affordable housing; seeking commitments on the development of affordable housing policies and targets in partnership agreements required for major transportation projects; and considering the impacts of proposed projects on affordable housing when evaluating future rapid transit investments;
- h) continue developing active transportation, micro-mobility, and transit networks as a means to create redundancy in low-cost, low-emission travel options;
- i) work with the Province, member jurisdictions, and others to implement both the Regional Greenway Network and the Major Bikeway Network, as identified in Map 10; and
- j) continue to identify viable new opportunities to create and improve transit, active transportation, and micro-mobility linkages to and within First Nations communities.



## Strategy 5.2 Coordinate land use and transportation to support the safe and efficient movement of vehicles for passengers, goods, and services

Roadways, truck routes, provincial and federal highways, port terminals, rail corridors, navigable waterways, airports, transit routes, and active transportation and micro-mobility facilities play a vital role in supporting the regional economy, shaping regional growth, and connecting Metro Vancouver to other regions. Making the most of the goods movement system requires protecting industrial lands and transportation rights-of-way, minimizing community impacts, reducing greenhouse gas emissions, and seeking demand-management alternatives to roadway expansion.

### Metro Vancouver will:

**5.2.1** Support implementation of the Regional Goods Movement Strategy and continue to participate in the Greater Vancouver Urban Freight Council.

**5.2.2** Accept Regional Context Statements that identify coordinated land use and transportation policies and actions in support of the safe and efficient movement of vehicles for passengers, goods, and services; and that meet or work towards Action 5.2.6.

**5.2.3** Support the ongoing efforts of the Federal Government, the Province, and the Port of Vancouver to reduce truck traffic on local roads by exploring: the more effective use of the existing multi-modal transportation network on a 24-hour basis; expanding short-sea shipping; moving more containers by rail directly from marine container terminals to transload facilities; and enhancing co-location of import and export transload facilities.

**5.2.4** Advocate to the Province, TransLink, and neighbouring regional districts that the following elements be considered when contemplating expansion of private vehicle capacity on major roads, highways, and crossings:

- a) transportation demand management, active transportation, and micro-mobility strategies as alternatives to, or as integral with, such capacity expansion;
- b) the negative impacts on the achievement of regional greenhouse gas emission reduction targets and air quality objectives;
- c) the negative impacts on the implementation of the regional land use framework and strategy as set out in Strategy 1.2;
- d) the long-term effects of induced demand, ongoing maintenance requirements, life-cycle costs, and opportunity costs;
- e) the negative impacts on ecosystems, as identified in Map 11; and
- f) the ability of the transportation system to withstand known and unmitigated climate change impacts and natural hazards.

**5.2.5** Advocate to the Federal Government and the Province to support the safe, reliable, and efficient movement of vehicles for passengers, goods, and services through:

- a) policies and regulations to protect rail rights-of-way, truck routes, transit routes, and access points to navigable waterways;
- b) policies and regulations to protect communities and habitats by mitigating air quality impacts;
- c) local government funding programs for applied research into transportation system and demand management-related technologies, policies, and regulations to optimize the low-carbon movement of vehicles for passengers, goods, and services - in particular, to and from airports, ports, intermodal goods handling facilities, last mile delivery, and distribution centres for e-commerce;
- d) local government funding programs for survey instruments to obtain timely and comprehensive data on the travel patterns of residents, workers, and goods and service vehicles travelling inter- and intra-regionally; and
- e) local government funding programs and regulations to encourage the transition to zero-emissions options for medium- and heavy-duty vehicles.

**Member jurisdictions will:**

**5.2.6** Adopt Regional Context Statements that:

- a) identify routes on a map for the safe and efficient movement of goods and service vehicles to, from, and within Urban Centres; Frequent Transit Development Areas; Major Transit Growth Corridors; Industrial, Employment, and Agricultural lands; ports; airports; and international border crossings;
- b) identify land use and related policies and actions that support the optimization and safety of goods movement via roads, highways, railways, aviation, short sea shipping, and active transportation;
- c) support the development of local and regional transportation system management strategies, such as the provision of information to operators of goods and service vehicles for efficient travel decisions, management of traffic flow using transit priority measures, coordinated traffic signalization, and lane management;
- d) identify policies and actions that support the protection of rail rights-of-way, truck routes, and access points to navigable waterways in order to reserve the potential for goods movement;
- e) identify policies and actions to mitigate public exposure to unhealthy levels of noise, vibration, and air pollution associated with the Major Road Network, Major Transit Network, railways, truck routes, and Federal / Provincial Highways; and







f) identify policies and actions that anticipate the land and infrastructure requirements for goods movement and drayage, such as truck parking, zero-emission vehicle charging infrastructure, and e-commerce distribution centres, and mitigate any negative impacts of these uses on neighbourhoods.

**TransLink will:**

**5.2.7** Support the safe and efficient movement of vehicles for passengers, goods, and services in consideration of the regional land use framework and strategy, as set out in Strategy 1.2, by:

- a) managing and maintaining the Major Road Network and Regional Truck Route Network;
- b) implementing the Regional Goods Movement Strategy;
- c) preparing and implementing regional transportation system and demand management strategies; and
- d) continuing to identify viable new opportunities to create and improve active transportation, micro-mobility, and transit linkages between the region's Industrial and Employment lands and the regional labour force.

**5.2.8** Support the protection of rail rights-of-way, truck routes, and access points to navigable waterways to preserve the potential for goods movement, in consideration of the potential impacts on air quality, habitat, and communities.

**5.2.9** Seek to minimize negative impacts from within-and-through passenger, goods, and service vehicle movement on the environment and public health within the Lower Fraser Valley Airshed.



## F. Implementation

### 6.1 Regional Growth Strategy Implementation Framework

**6.1.1** Metro Vancouver and affected local governments will implement the regional growth strategy within a collaborative decision-making framework. This framework is based on provisions set out in the *Local Government Act* and in recognition by Metro Vancouver and affected local governments that collaborative decision-making is necessary in order to achieve the vision and goals laid out in the regional growth strategy.

The regional growth strategy has been designed so that the more regionally significant an issue, the higher the degree of regional federation involvement in decision-making, and conversely, the less regionally significant an issue, the less Metro Vancouver involvement there is. This approach is intended to provide appropriate consideration of land use planning decisions made within Metro Vancouver and member jurisdictions.

This collaborative decision-making process applies to:

- acceptance by affected local governments of the initial regional growth strategy and subsequent amendments;
- acceptance by Metro Vancouver of municipal Regional Context Statements and subsequent amendments;
- ongoing regional growth strategy and Regional Context Statement administration and procedures; and
- implementation guidelines.



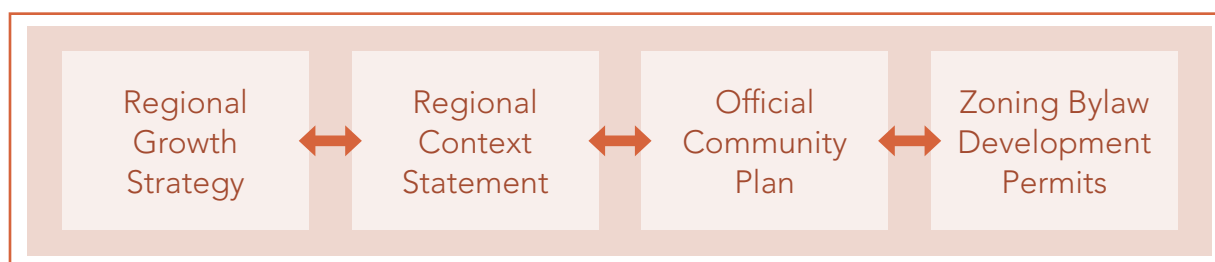
**TABLE 6. REGIONAL GROWTH STRATEGY IMPLEMENTATION FRAMEWORK\***

PRINCIPLES	EXAMPLES	PROCEDURES
Fundamental change to core goals or strategies	Amend the goals or strategies; delete an entire goal; change the amendment process	Type 1: 50% + 1 MVRD Board weighted vote and acceptance by all affected local governments
Region-wide significance for non-urban designations	Change Urban Containment Boundary or Agricultural designation	Type 2: 2/3 MVRD Board weighted vote
Region-wide significance for urban designations	Large scale Industrial area designation change	Type 3: 50% + 1 MVRD Board weighted vote
Small scale urban designation changes	Small scale Industrial land use designation change	As described under 6.2.7, Official Community Plan amendment and notification of Metro Vancouver in writing within 30 days after OCP adoption
Local planning matter with no regional significance	Rezoning consistent with Official Community Plan	Official Community Plan matters, no Regional Context Statement reference required

\*Table 6 for reference only

## 6.2 Regional Context Statements

**6.2.1** Within two years of the Metro Vancouver Board's adoption of a regional growth strategy, each member jurisdiction must prepare or update a regional context statement as part of its Official Community Plan and submit it to the MVRD Board for acceptance. A member jurisdiction will submit its Regional Context Statement to the MVRD Board for acceptance after the member jurisdiction holds its public hearing and subsequent reading relating to its Official Community Plan bylaw amendment.

**FIGURE 6. RELATIONSHIP BETWEEN THE REGIONAL GROWTH STRATEGY AND OFFICIAL COMMUNITY PLANS**

Each member jurisdiction prepares an updated Official Community Plan (OCP) and Regional Context Statement (RCS) within two years of the adoption of a new regional growth strategy or a Type 1 Amendment. The RCS sets out the relationship between the regional growth strategy and the member jurisdiction's OCP, and identifies how local actions will contribute to achieving regional growth strategy goals. Member jurisdictions must submit their RCS to the Metro Vancouver Regional District Board for acceptance.

## Contents of Regional Context Statement

**6.2.2** The Regional Context Statement must identify the relationship between an Official Community Plan and the goals, strategies, and actions identified in the regional growth strategy. If applicable, the Regional Context Statement will identify how the Official Community Plan will be made consistent with the regional growth strategy over time. Regional Context Statements that propose to add or delete Frequent Transit Development Areas must be accompanied by written comments from TransLink.

## Regional Context Statement Process

**6.2.3** If a member jurisdiction proposes an amendment to a Regional Context Statement, it must submit to Metro Vancouver a council resolution, including an accompanying report, that sets out the member jurisdiction's proposed amendment(s).

**6.2.4** If a member jurisdiction anticipates that its proposed Regional Context Statement, or amendment to its Regional Context Statement, will not be accepted by the Metro Vancouver Board because it is not generally consistent with the regional growth strategy, the member jurisdiction should submit a proposed amendment to the regional growth strategy. The procedure for amendments to the regional growth strategy is set out in section 6.4.

**6.2.5** The Metro Vancouver Board will respond within one-hundred-and-twenty (120) days of receiving a Regional Context Statement from a member jurisdiction by Council resolution, indicating whether it accepts the Regional Context Statement. If the Board does not accept a Regional Context Statement, the Board will indicate the provisions to which it objects and the reasons for its objections.

## Consistency with Regional Growth Strategy

**6.2.6** In considering acceptance of Regional Context Statements, the Metro Vancouver Board's expectation is that acceptable Regional Context Statements are generally consistent with the regional growth strategy's goals, strategies, actions and the regional land use designations depicted on Map 2. Regional Context Statements should respond to all applicable policies in the regional growth strategy, and indicate how the Official Community Plan is generally consistent (including projections, maps, and specific policy language) or how it will be made consistent over time.

## Providing for Appropriate Municipal Flexibility

**6.2.7** A member jurisdiction may include language in its Regional Context Statement that permits amendments to the municipality's Official Community Plan to adjust the boundaries of regional land use designations within the Urban Containment Boundary, as follows:

- a) the member jurisdiction may re-designate land from one (1) regional land use designation to another regional land use designation, only if the aggregate area of all proximate sites so re-designated does not exceed one (1) hectare;
- b) notwithstanding section 6.2.7 (a), for sites that are greater than one (1) hectare and less than three (3) hectares in area, the member jurisdiction may redesignate land:
  - from Industrial to General Urban regional land use designation, if the site is contiguous with an Industrial site and the developable portion of the site will be predominantly within 150 metres of an existing or approved rail rapid transit station; or

- from Industrial to Employment regional land use designation if the developable portion of the site will be predominantly within 250 metres of an existing or approved rail rapid transit station,

provided that:

- the re-designation does not impede rail, waterway, road, or highway access for industrial uses; and
- the aggregate area of all proximate sites so re-designated does not exceed three (3) hectares;

c) the aggregate area of land affected by all re-designations under section 6.2.7 (a) and (b) together cannot exceed two (2) percent of the member jurisdiction's total lands within each applicable regional land use designation as of July 29, 2011.

**6.2.8** A member jurisdiction may include language in its Regional Context Statement that permits amendments to its Official Community Plan to adjust the boundaries of Urban Centres and Frequent Transit Development Areas, provided such boundary adjustments meet the guidelines set out in Table 3 (Guidelines for Urban Centres and Frequent Transit Development Areas) of the regional growth strategy.

**6.2.9** Member jurisdictions will notify Metro Vancouver, in writing, of any and all adjustments, as permitted by sections 6.2.7 and 6.2.8, within thirty (30) days after the member jurisdiction has adopted its Official Community Plan amendment bylaw.

**6.2.10** If a member jurisdiction includes language in its Regional Context Statement that permits amendments to its Official Community Plan to adjust the boundaries of regional land use designations within the Urban Containment Boundary or the boundaries of Urban Centres and Frequent Transit Development Areas, as permitted by sections 6.2.7 and 6.2.8 respectively, the prescribed adjustments do not require a new Regional Context Statement or consideration by the Metro Vancouver Regional District (MVRD) Board. All other adjustments to regional land use designation boundaries require an amendment to the member jurisdiction's Regional Context Statement, which must be submitted to the MVRD Board for acceptance in accordance with the requirements of the *Local Government Act*.



## 6.3 Categories of Regional Growth Strategy Amendments

### Type 1 Amendments to the Regional Growth Strategy

**6.3.1** The following Type 1 amendments to the regional growth strategy require an affirmative 50%+1 weighted vote of the Metro Vancouver Regional District Board and acceptance by all affected local governments in accordance with section 436 of the *Local Government Act*:

a) the addition or deletion of regional growth strategy goals or strategies;

b) an amendment to the process for making minor amendments to the regional growth strategy, which is specified in sections 6.3.3 and 6.3.4; and

c) the matters specified in section 437 (4) of the *Local Government Act*.

**6.3.2** All amendments to the regional growth strategy other than the amendments specified in section 6.3.1 are minor amendments (Type 2 and Type 3) for the purposes of section 437 (2) of the *Local Government Act*.

### Type 2 Amendments to the Regional Growth Strategy

**6.3.3** The following Type 2 amendments require an affirmative two-thirds weighted vote of the Metro Vancouver Regional District Board:

a) amendment to the Urban Containment Boundary;

b) amendment of Agricultural or Conservation and Recreation regional land use designations, except as set out in section 6.3.4 (e), (f) and (g);

c) amendment from Rural to Industrial, Employment, or General Urban regional land use designations;

d) amendment of sites located outside the Urban Containment Boundary from Employment to a General Urban regional land use designation;

e) the addition or deletion of an Urban Centre; and

f) the addition or deletion of, or amendment to, the descriptions of the regional land use designations or actions listed under each strategy.

## Type 3 Amendments to the Regional Growth Strategy

**6.3.4** The following Type 3 amendments require an affirmative 50% + 1 weighted vote of the Metro Vancouver Regional District Board:

- a) the addition or deletion of a Frequent Transit Development Area;
- b) for sites within the Urban Containment Boundary, amendments from Industrial, Employment, or General Urban to any other such regional land use designation(s);
- c) amendment from Industrial, Employment, or General Urban to Rural, Agricultural, or Conservation and Recreation regional land use designations;
- d) amendment from Rural to Agricultural or Conservation and Recreation regional land use designation;
- e) amendment from Conservation and Recreation to Agricultural regional land use designation;
- f) for sites that are contiguous with, or within, the Urban Containment Boundary, and are not within the Agricultural Land Reserve and are not subject to the Agricultural Land Commission Act, amendment from Agricultural or Rural to Industrial regional land use designation, and associated Urban Containment Boundary adjustments;
- g) for sites that are identified as Special Study Areas on Map 12, an amendment to another regional land use designation and associated Urban Containment Boundary adjustments;
- h) removal of the Trade-Oriented Lands overlay from parcels with an Industrial regional land use designation;
- i) housekeeping amendments to figures, tables or maps, performance measures or other items related to document structure that do not alter the intent of the regional growth strategy;
- j) amendments to mapping to incorporate maps included in accepted Regional Context Statements;
- k) the reclassification of a Frequent Transit Development Area to an Urban Centre, or reclassification of an Urban Centre type to another Urban Centre type;
- l) an amendment to the Major Transit Growth Corridors; and
- m) all other amendments not identified in sections 6.3.1 or 6.3.3.



## 6.4 Procedures for Regional Growth Strategy Amendments

### Who Can Apply for an Amendment

**6.4.1** The process to initiate amendments to the regional growth strategy is by resolution of the Metro Vancouver Regional District (MVRD) Board. Member jurisdictions may, by resolution, request amendments. The MVRD Board will not give first reading to an amendment bylaw which proposes to change a regional land use designation or the Urban Containment Boundary unless or until the member jurisdiction or jurisdictions in which the subject site is located have requested that amendment or have been given the opportunity to formally comment on the proposed amendment.

### Notification and Request for Comments

**6.4.2** For all proposed amendments to the regional growth strategy the Metro Vancouver Regional District (MVRD) Board will:

- a) provide written notice of the proposed amendment to all affected local governments;
- b) provide a minimum of forty-five (45) days from the date of the notice for affected local governments, and the appropriate agencies, to respond to the proposed amendment;
- c) post notification of the proposed amendment on the Metro Vancouver website, for a minimum of forty-five (45) days from the date of the notice;
- d) if the proposed amendment is to change a site from Industrial or Employment to General Urban regional land use designation, provide written notice and a minimum of forty-five (45) days from the date of the notice for the Port of Vancouver, the Vancouver International Airport Authority, the Ministry of Transportation and Infrastructure and/or the Agricultural Land Commission, as appropriate, to respond to the proposed amendment.

### Procedures for Type 1 Amendments

**6.4.3** For Type 1 amendments to the regional growth strategy set out in section 6.3.1, the procedures set out in section 436 of the *Local Government Act* apply.

### Procedures for Type 2 Amendments

**6.4.4** For Type 2 amendments to the regional growth strategy set out in section 6.3.3, the Metro Vancouver Regional District (MVRD) Board will:

- a) consider first, second, and third reading of the amendment bylaw;
- b) provided the amendment bylaw receives an affirmative two-thirds weighted vote of the MVRD Board at first, second, and third readings, refer for comment the proposed amendment to the regional growth strategy to all affected local governments, in accordance with the requirements set out in section 6.4.2;
- c) provide public engagement opportunities that may include:
  - notification of the proposed amendments on the Metro Vancouver website;
  - requesting written comments by way of a comment form on the Metro Vancouver website;
  - opportunities for the public to appear as a delegation to the Regional Planning Committee or the MVRD Board when the amendment is being considered;
  - conveyance of comments submitted from the respective local public hearing to the MVRD Board, and
  - hosting a public information meeting (digitally or in person).

d) receive the comments from the notification and referral for comments process set out in section 6.4.2, and consider final reading and adoption of the amendment bylaw, which must receive at least a two-thirds weighted vote of the MVRD Board.

## Procedures for Type 3 Amendments

**6.4.5** For Type 3 amendments to the regional growth strategy set out in section 6.3.4, the Metro Vancouver Regional District (MVRD) Board will:

a) consider first, second, and third reading of the amendment bylaw;

b) provided the amendment bylaw receives an affirmative majority weighted vote of the MVRD Board at each of the first, second, and third readings, notify and refer for comment the proposed amendment to the regional growth strategy to all affected local governments, in accordance with the requirements set out in section 6.4.2;

c) provide public engagement opportunities that may include those listed under 6.4.4 c); and

d) consider final adoption of the amendment bylaw and, provided the amendment bylaw receives an affirmative simple majority weighted vote of the MVRD Board, adopt the amendment bylaw.

## 6.5 Coordination with First Nations

**6.5.1** Metro Vancouver will work with First Nations to facilitate the compatibility of the regional growth strategy and First Nations' planning and development initiatives.

**6.5.2** A land use plan prepared by Tsawwassen First Nation will include a statement equivalent to a Regional Context Statement as defined in the *Local Government Act*, identifying how Tsawwassen First Nation's land use plan is consistent with the regional growth strategy.



## 6.6 Coordination with TransLink

**6.6.1** Metro Vancouver will work with TransLink with the objective that the regional growth strategy and TransLink's regional transportation plans are compatible and complementary. Metro Vancouver will refer to TransLink for written comments on proposed Regional Context Statements that would impact the regional transportation system or significantly affect the demand for regional transportation services.

**6.6.2** As an affected local government, TransLink is required to consider acceptance of the regional growth strategy and any proposed Type 1 amendments, as set out in section 6.3.1.

**6.6.3** TransLink is mandated to provide a regional transportation system that is consistent and supportive of the regional growth strategy, and its associated goals, objectives, land use designations, overlays, and policies. *The South Coast British Columbia Transportation Authority Act* also requires TransLink to: review the regional growth strategy and any amendments to it and advise Metro Vancouver of the implications for the Regional Transportation Strategy, and prepare regional transportation investment plans that set out the relationships between major actions and the regional growth strategy.

## 6.7 Coordination with Other Governments and Agencies

**6.7.1** Metro Vancouver will work with the Fraser Valley Regional District, the Squamish-Lillooet Regional District, and the Islands Trust (regarding Bowen, Bowyer, and Passage Islands) to facilitate the compatibility of regional planning and growth management initiatives in Metro Vancouver and these neighbouring jurisdictions.

**6.7.2** Metro Vancouver will collaborate with the Federal Government and the Province on major investments in the regional transportation system, expansion of diverse and affordable housing options, and the location of public facilities that support the goals and strategies specified in the regional growth strategy. Metro Vancouver will seek formal Implementation Agreements with these agencies to give effect to that intent.



## 6.8 Coordination with Metro Vancouver / Greater Vancouver Boards

**6.8.1** All bylaws adopted and all works and services undertaken by Metro Vancouver Regional District, the Greater Vancouver Water District, or the Greater Vancouver Sewerage and Drainage District must be consistent with the regional growth strategy.

The Greater Vancouver Sewerage and Drainage District and the Greater Vancouver Water District will not directly or indirectly supply, agree to supply, or authorize connections that enable the supply of services to a site that is developed or proposed to be developed after the date of adoption of the regional growth strategy where the nature of that development is, in the sole judgment of the Metro Vancouver Regional District Board, inconsistent with the provisions of the regional growth strategy.

**6.8.2** For further clarity, sites within the Urban Containment Boundary that are designated General Urban, Industrial, or Employment, would be eligible for sewerage services, subject to normal Greater Vancouver Sewerage and Drainage District technical considerations, provided that the proposed development complies with the applicable policies under those designations and any such Urban Centre and Frequent Transit Development Area overlays that might apply.

**6.8.3** For lands with a Rural, Agricultural, or Conservation and Recreation regional land use designation, sections 1.1.1, 1.4.1, 2.3.1, and 3.1.1 apply regardless of whether the area is within one of the Greater Vancouver Sewerage and Drainage District's sewerage areas.

With reference to sections 1.1.1, 1.4.1, 2.3.1, and 3.1.1, in determining whether, in the circumstances, connection to regional sewerage services is the only reasonable means of preventing or alleviating a public health or environmental contamination risk, the Metro Vancouver Regional District (MVRD) Board will consider the opinion of a professional, as such term is defined in the Sewerage System Regulation pursuant to the *Public Health Act* (British Columbia), or if appropriate a qualified professional, as such term is defined in Municipal Wastewater Regulation 87/2012 pursuant to the *Environmental Management Act* (British Columbia), submitted by the member jurisdiction as to the technical and economic feasibility of installing and maintaining a private on-site sewage treatment system in accordance with all laws and regulations applicable in British Columbia. The MVRD Board may also obtain its own opinion from a professional and consider such opinion.

## 6.9 Sewerage Area Extensions

**6.9.1** Notwithstanding any other provision in the regional growth strategy, within the areas identified on Map 12 in the Township of Langley as "Rural within the Sewerage Area", which includes part of the Salmon River Uplands that is contained within the Greater Vancouver Sewerage and Drainage District's Fraser Sewerage Area, and within the area identified as "Sewerage Extension Areas", known as North Salmon River Uplands and South Fernridge, regional sewer servicing will be permitted subject only to the land uses being consistent with the applicable regional land use designation and normal Greater Vancouver Sewerage and Drainage District technical considerations.

**6.9.2** All connections to regional sewerage services approved by the Greater Vancouver Sewerage and Drainage District (GVS&DD) Board as per sections 1.1.1, 1.4.1, 2.3.1, and 3.1.1 will be contained within a sewerage area footprint boundary as determined by the Metro Vancouver Regional District (MVRD) and GVS&DD Boards. Any sewerage service connection outside of that boundary will require MVRD Board and GVS&DD Board approval.



## 6.10 Special Study Areas

**6.10.1** Special Study Areas as depicted on Map 12 identify locations where, prior to the adoption of *Metro Vancouver 2040, Shaping our Future*, a member jurisdiction had expressed an intention to alter the existing land use, and is anticipating a future regional land use designation amendment. Pending Metro Vancouver Regional District Board approval of a regional land use designation amendment, the current regional land use designation(s) applies within the Special Study Area. Amending a regional land use designation within a Special Study Area is considered a Type 3 amendment under section 6.3.4 of the regional growth strategy. This includes any

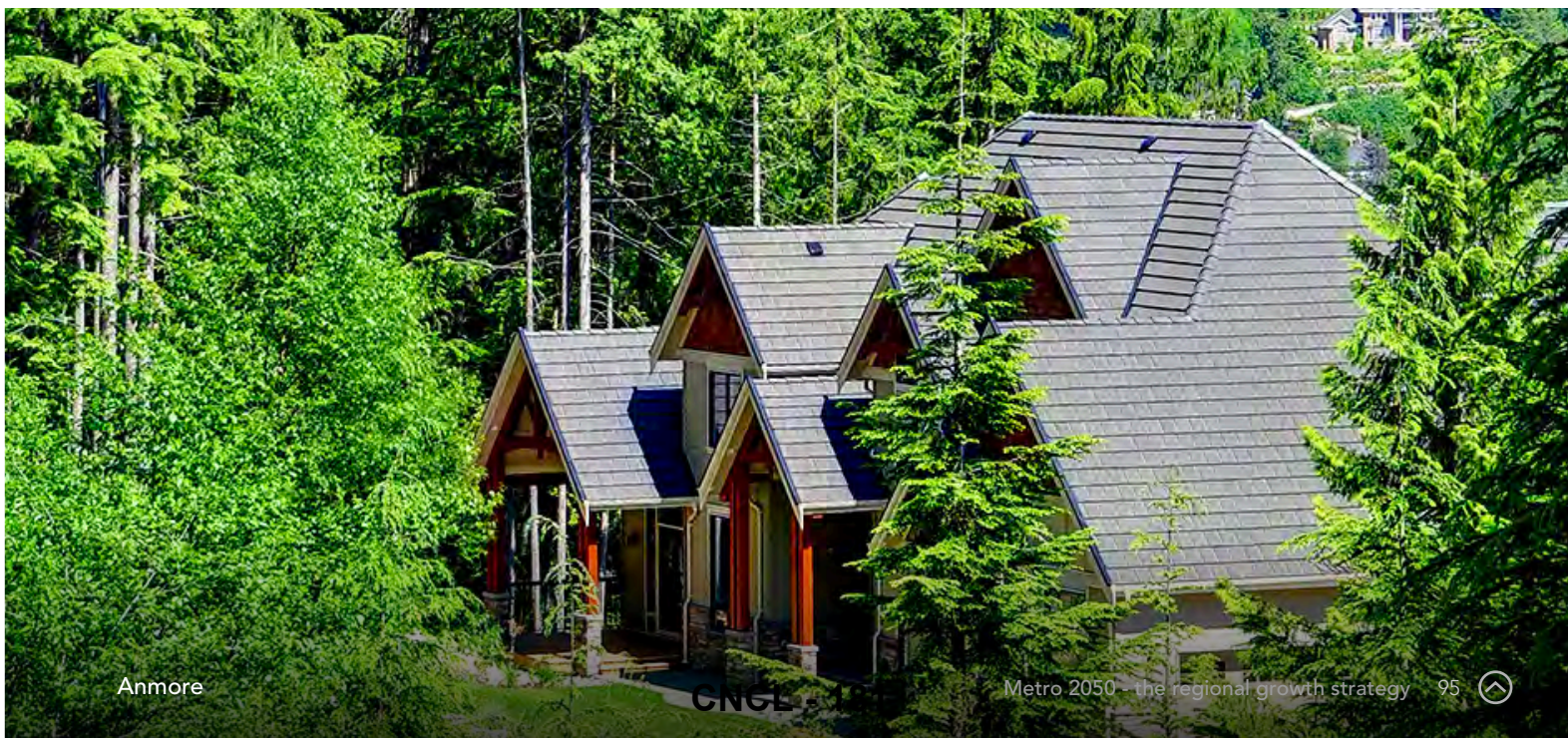
associated adjustment(s) to the Urban Containment Boundary for a Special Study Area. As part of any amendment establishing a change in regional land use designation, the Special Study Area boundaries for those amended lands will be removed from the regional growth strategy.

**6.10.2** If the Special Study Area involves lands within the Agricultural Land Reserve, the member jurisdiction is required to consult with the Agricultural Land Commission during the preparation of the planning studies prior to initiating an application to exclude the lands from the Agricultural Land Reserve.

## 6.11 Jurisdiction

**6.11.1** The regional growth strategy applies to all lands within the boundaries and jurisdiction of the Metro Vancouver Regional District.

**6.11.2** In accordance with the *Agricultural Land Commission Act*, in the event that there is an inconsistency between the regional land use designations or policies set out in the regional growth strategy and the requirements of the *Agricultural Land Commission Act* or regulations and orders made pursuant thereto, the Agricultural Land Commission requirements will prevail.



## 6.12 Regional Growth Strategy Maps

**6.12.1** The maps contained in the regional growth strategy are small scale depictions of the official regional land use designation maps and have been included for convenience purposes only. The official regional land use designation maps, the Sensitive Ecosystems Inventory map, and the Major Transit Growth Corridor map are maintained by Metro Vancouver and available for viewing on the Metro Vancouver website, and will be updated to incorporate changes to designation boundaries that result from adopted regional growth strategy amendment bylaws. TransLink owns and maintains the official Major Transit Network map on its website.

**6.12.2** Where a regional land use designation boundary does not align with a property or parcel legal boundary, the Agricultural Land Reserve boundary, a member jurisdiction Official Community Plan or zoning boundary, or a distinct geographic or natural feature, the regional land use designation boundary will be considered approximate, and the boundary depicted in the respective accepted Regional Context Statement will prevail.

**6.12.3** The boundaries of Urban Centres, Frequent Transit Development Areas, and Trade-Oriented Lands are to be defined by member jurisdictions in Official Community Plans, Neighbourhood or Area Plans, or equivalent, and shown in Regional Context Statements. Where member jurisdictions amend the boundaries of Urban Centres, Frequent Transit Development Areas, or Trade-Oriented Lands, and, in accordance with section 6.2.8, have not changed their Regional Context Statement, member jurisdictions will notify Metro Vancouver, in writing, within thirty (30) days.

**6.12.4** The boundaries for Special Study Areas depicted on Map 12 are not to be expanded nor are new areas to be created. A Type 3 amendment to Map 12 is only permitted to delete Special Study Areas and may occur after the regional growth strategy has been amended to change the regional land use designation of the Special Study Area or when a member jurisdiction decides to eliminate a Special Study Area.

## 6.13 Tables, Figures and Performance Measures

**6.13.1** Tables 1 and 2 showing growth projections and dwelling unit and employment growth targets for Metro Vancouver and member jurisdictions are included in the strategy as guidelines only. These tables are included in the regional growth strategy as a reference for use when preparing Regional Context Statements and regional planning initiatives. Metro Vancouver, in collaboration with member jurisdictions, will maintain projections to monitor growth and will propose updates to tables in accordance with the amendment process set out in section 6.3.4 following Metro Vancouver Regional District Board acceptance of Regional Context Statements or a significant change in the growth projections assumptions.

**6.13.2** The following figures and maps in the regional growth strategy are included as reference only: Tables 5 and 6; Figures 1, 2, 3, 4, 5, and 6; and Maps 1, 10, and 11.

**6.13.3** Pursuant to the *Local Government Act*, Metro Vancouver will prepare an annual report on progress in meeting the goals of the regional growth strategy through the monitoring of the performance measures identified in the Performance Measures section and in meeting other targets set out in the regional growth strategy.



## 6.14 Interpretation

**6.14.1** All terms used in the regional growth strategy that are defined in the *Local Government Act* have the meanings given to such terms in the *Local Government Act*.

**6.14.2** For terms not addressed in 6.14.1, a Glossary of Terms is provided and will be used to define terms used in *Metro 2050*.

**6.14.3** In the case of the Electoral Area A, a Regional Context Statement is not required, but the policy actions listed for member jurisdictions should be addressed in the Electoral Area A Official Community Plan, as applicable.

## 6.15 Implementation Guidelines

**6.15.1** Metro Vancouver may periodically prepare Implementation Guidelines to assist in the implementation of the regional growth strategy, to be prepared in collaboration with member jurisdictions. These guidelines should be read in conjunction with the regional growth strategy, and do not replace or supersede the content and requirements of the regional growth strategy.



# G. Performance Monitoring

Performance monitoring allows for the informed review and update of the regional growth strategy as required. Metro Vancouver will produce annual reports on implementation of the regional growth strategy and progress towards its goals using the following performance measures.

## Regional land use designations

- Total and cumulative change in hectares of land in each of the six regional land use designations

## Goal 1: Create a Compact Urban Area

### Urban Containment

- Total and cumulative change in hectares of land in the Urban Containment Boundary
- Percent of regional dwelling unit growth located within the Urban Containment Boundary
- Number and status of new regional sewerage service connection applications made for areas outside of the Urban Containment Boundary to lands with an Agricultural, Rural, or Conservation and Recreation regional land use designation
- Change in hectares of greenfield lands within the Urban Containment Boundary that have a General Urban regional land use designation

### Growth in Priority Areas

- Percent of regional dwelling unit growth located in Urban Centres, Frequent Transit Development Areas, and Major Transit Growth Corridors
- Change in "Activity Density" (as measured by people + jobs per hectare) in Urban Centres, Frequent Transit Development Areas, and Major Transit Growth Corridors

### Complete Communities and Health

- A walkability index composed of: land use mix, commercial floor area ratio, intersection density, residential density, and sidewalk completeness
- Total and change in number of community services and amenities in Urban Centres and Frequent Transit Development Areas, including, but not limited to child care and green space

## Goal 2: Support a Sustainable Economy

### Employment in Priority Areas

- Percent of regional employment growth located in Urban Centres, Frequent Transit Development Areas, and Major Transit Growth Corridors
- Total and change in employment by sector in Urban Centres, Frequent Transit Development Areas, and Major Transit Growth Corridors
- Change in office floor area within Urban Centres, Frequent Transit Development Areas, and Major Transit Growth Corridors

### Agricultural Lands

- Percent of land in the Agricultural Land Reserve that is actively farmed

### Employment Accessibility

- Average number of kilometres travelled for commute (region-wide)
- Average number of minutes travelled for commute (region-wide)
- Average trip length by transportation mode (region-wide)

### Industrial and Employment Lands

- Total and cumulative change in hectares of land designated Industrial and Employment that is developed and vacant

## Goal 3: Protect the Environment, Address Climate Change, and Respond to Natural Hazards

### Ecosystem Health

- Change in hectares of land protected for nature across the region
- Change in the percentage of regional total tree canopy cover within the Urban Containment Boundary
- Change in hectares of land identified as a Sensitive or Modified Ecosystem
- Change in hectares of identified Sensitive and Modified Ecosystems rated high quality

### Greenhouse Gas Emission Reduction

- Total and change in tonnes of regional greenhouse gas emissions related to land use, buildings, industry, agriculture, waste, transportation, and other emission sources in support of the regional target to reduce greenhouse gas emissions by 45% below 2010 levels by the year 2030 and to achieve a carbon neutral region by the year 2050
- Tonnes of carbon storage in natural areas including lands with Rural, Conservation and Recreation, and Agricultural regional land use designations



## Goal 4: Provide Diverse and Affordable Housing Choices

- Percentage of newly completed housing units built within Urban Centres and Frequent Transit Development Areas that are affordable rental housing units
- Percentage of household income spent on housing and transportation expenses across the region and by tenure and income level

## Goal 5: Support Sustainable Transportation Choices

### Travel Mode Choices

- Total and change in trips by transportation mode
- Percent of residents within walking distance of the Major Transit Network
- Total and per-capita change in the number of actively insured vehicles

### Road and Vehicle Use

- Total and per-capita change in annual vehicle kilometres travelled by transportation mode





## H. Glossary of Terms

The following terms used in the regional growth strategy are defined as follows:

**Affected Local Governments** - Metro Vancouver Regional District member jurisdictions (excluding Bowen Island Municipality), Squamish-Lillooet Regional District, Fraser Valley Regional District, and the South Coast British Columbia Transportation Authority (also known as TransLink).

**Affordable Housing** - For the purpose of *Metro 2050*, “Affordable Housing” is housing that is affordable to households earning up to 120% of the Regional Median Household Income. In Canada, a general measure of housing affordability is the shelter-cost-to-income ratio, where no more than 30% of a household’s gross income is spent on housing (including all housing-related costs like utilities).

**Air Contaminant** - Any substance that is introduced into the air that: injures or is capable of injuring the health or safety of a person; injures or is capable of injuring property or any life form; interferes or is capable of interfering with visibility; interferes or is capable of interfering with the normal conduct of business; causes or is capable of causing material physical discomfort to a person; or damages or is capable of damaging the environment.

**Carbon Neutral Region** - A region that generates no net greenhouse gas emissions. This is achieved by any greenhouse gas emissions across all economic sectors being balanced out by the removal of carbon dioxide from the atmosphere by the plants, trees, and soil of the region, or through technological means.

**Carbon Storage** - The total amount of carbon stored in ecosystems such as forests, wetlands and intertidal areas, which often takes thousands of years to accumulate. A conservative estimate of the total carbon stored in the vegetation and soils of the region’s ecosystems is 65 million tonnes. This estimate is derived from Metro Vancouver’s regional carbon storage dataset and applies to the full extents of the watersheds that supply the Metro Vancouver region’s drinking water, along with estuarine and intertidal areas.

**Climate Change Impacts** - The consequences of realized climate change risks on ecosystems, economies, infrastructure, and communities.

**Dwelling Unit** - For the purposes of *Metro 2050*, the term “Dwelling Unit” is used as a short-form for “private dwelling that is occupied by usual residents” and is measured using Census household data.

**Ecosystem Connectivity** - The physical and functional links between ecosystems that support biodiversity by allowing the movement of species within and between ecosystems. Ecosystem connectivity is achieved by conserving and maintaining a connected network of natural and urban ecosystems.

**Ecosystem Fragmentation** - The process of ecosystems being divided into smaller and isolated patches of land thereby reducing ecosystem integrity.

**Ecosystem Integrity** - The ability of an ecosystem to support diverse communities of organisms and maintain ecological processes (e.g. water, carbon, and nutrient cycling).

**Ecosystem Services** - The benefits people obtain from ecosystems. These services can be grouped into four main types: supporting, provisioning, cultural, and regulating (see Figure 5).

**Embodied Emissions** - The greenhouse gas emissions associated with the construction of goods and products, including the raw materials, manufacture, and the transport of the good or product to where it is sold.

**Green Infrastructure** - The natural, enhanced, and engineered assets that collectively provide society with ecosystem services. Natural assets (e.g. forests, wetlands, and soil), enhanced assets (e.g. urban trees, and bioswales), and engineered systems (e.g. green roofs and permeable pavement) improve resilience and mitigate negative environmental impacts from urban development, benefiting both people and ecosystems.

**Low Impact Development** - Development that works with nature to: manage stormwater quantity and quality by preserving trees and other natural features where possible; support ecosystem connectivity; minimizes impervious surfaces; and create dispersed multi-functional landscapes that minimize pollutant runoff, the need for stormwater infrastructure, and extreme flooding and heat events.

**Lower Income Households** - Households earning less than 80% of the Regional Median Household Income.

**Member Jurisdictions** - Metro Vancouver Regional District member municipalities, Tsawwassen First Nation, and Electoral Area A.

**Natural Hazards** - Naturally occurring phenomena that may cause loss of life, injury or other health impacts, property damage, social, and economic disruption or environmental degradation. Examples of natural hazards affecting the Metro Vancouver region include earthquakes, landslides, floods, and wildfires. Many natural hazards are worsened by climate change.

**Official Community Plan** - As defined by the British Columbia *Local Government Act*, or land use plan equivalent in the case of the City of Vancouver, Tsawwassen First Nation, and Electoral Area A.

**Province** - The Government of British Columbia, including its ministries and agencies.

**Regional Context Statement** - As described by the British Columbia *Local Government Act*, the linking document that demonstrates the relationship between an Official Community Plan and the regional growth strategy and, if applicable, how the Official Community Plan is to be made consistent with the regional growth strategy over time. A Regional Context Statement and the rest of the Official Community Plan must be consistent or must demonstrate how they will be made consistent over time.

**Regional Median Household Income** - The median total household income of all households living in the Metro Vancouver region based on Census data. As defined by Statistics Canada, the median divides the region's households into two equal groups: half having an income above that amount, and half having an income below that amount. It differs from the mean (or average) income.

**Resilience** - The capacity to prepare for, avoid, absorb, recover, and adapt to the effects of shocks and stresses in an efficient manner through the preservation, restoration, and adaptation of essential services and functions.

**Risk** - A combined function of the probability of a hazard occurring and the magnitude or severity of its potential consequences (i.e. injury, damage, loss of habitat etc.).

**Sensitive Ecosystem Inventory** - An inventory of the region's most ecologically important areas mapped using provincial methodology. It does not include small, young, significantly disturbed, farmed or landscaped vegetation (e.g. young forests <5 hectares, crop or fallow land, enhanced or engineered assets, backyards and street trees). The inventory includes sensitive ecosystems and modified ecosystems, as follows:

- **Sensitive Ecosystems** - are ecologically fragile, rare or at-risk ecosystems such as wetlands, forests, and riparian areas.
- **Modified Ecosystems** - include young forests (30-80 years old) and freshwater reservoirs, that have experienced some human alteration, but still provide ecosystem services and remain important for biodiversity. In many cases, modified ecosystems are essential to maintaining ecosystem connectivity in highly fragmented landscapes where sensitive ecosystems have been lost.

**Social Equity** - The promotion of fairness and the removal of systemic barriers that may cause or aggravate disparities experienced by different groups of people. This can include the many dimensions of identity, such as socioeconomic status, ethnicity, race, sex, age, disability, gender, sexuality, religion, indigeneity, class, and other equity related issues.

**Transit-Oriented** - Areas located in close proximity to transit (generally within 800 metres). Distances over 800 metres from rapid transit stations may also be considered within the context of the area.

**Transportation Demand Management** - Measures that seek to reduce the overall amount of driving, particularly for single-occupant vehicle trips, through strategies aimed at deterring driving (e.g. priced parking) or promoting alternative modes of transportation (e.g. providing free bike parking).

# I. Maps

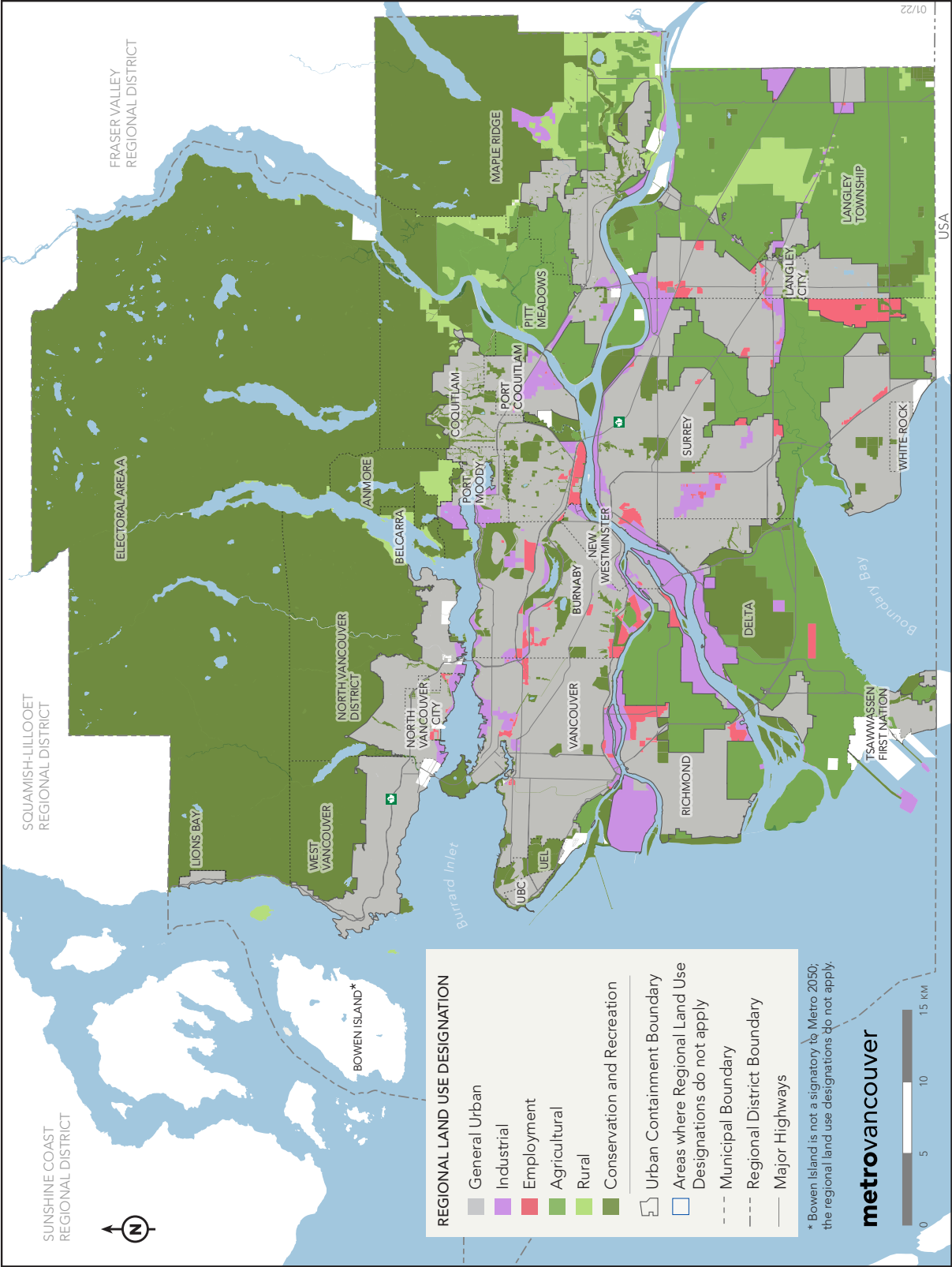
## MAP 1 Metro Vancouver Region



Map for reference only.



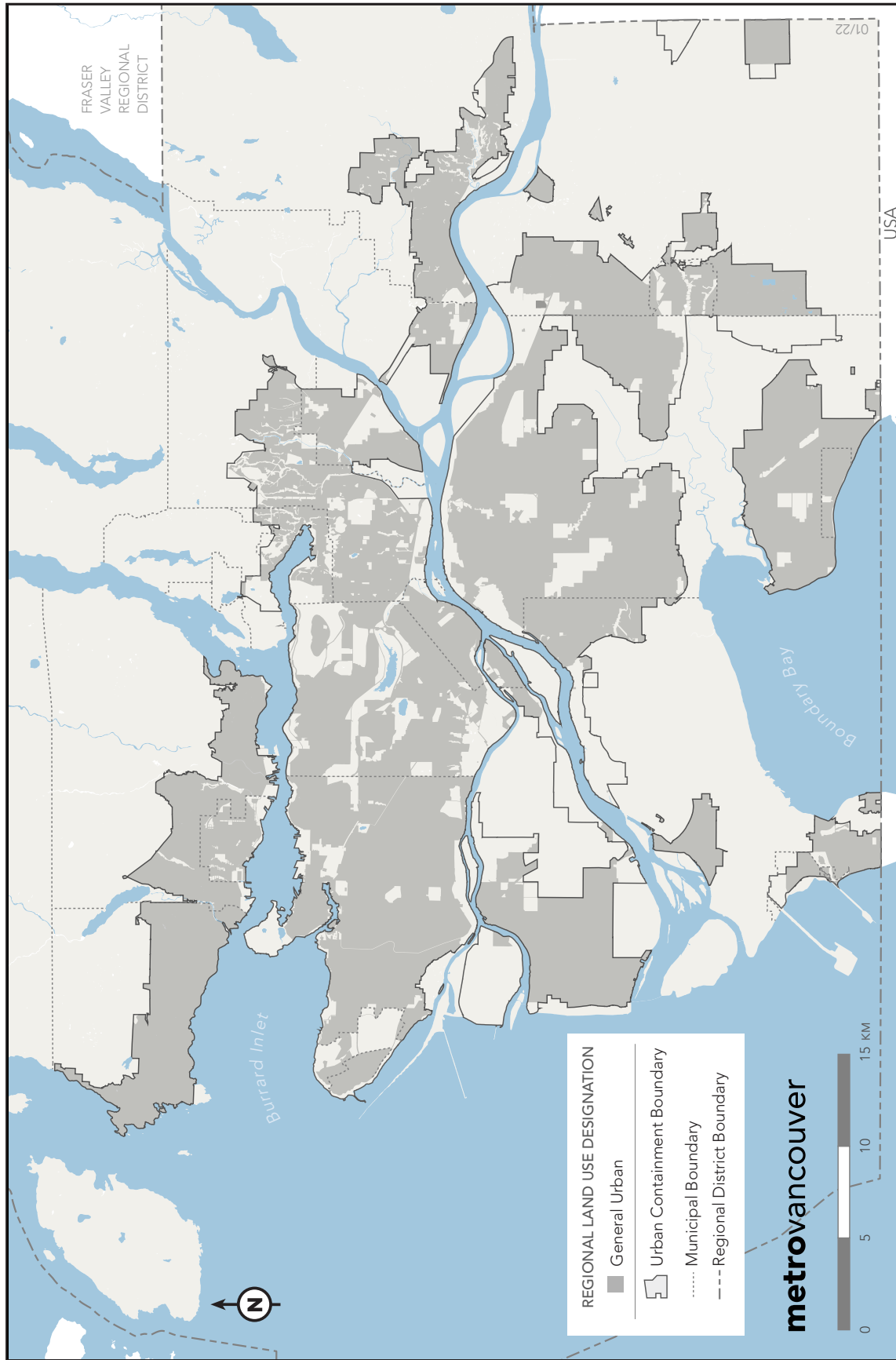
# MAP 2 Regional Land Use Designations



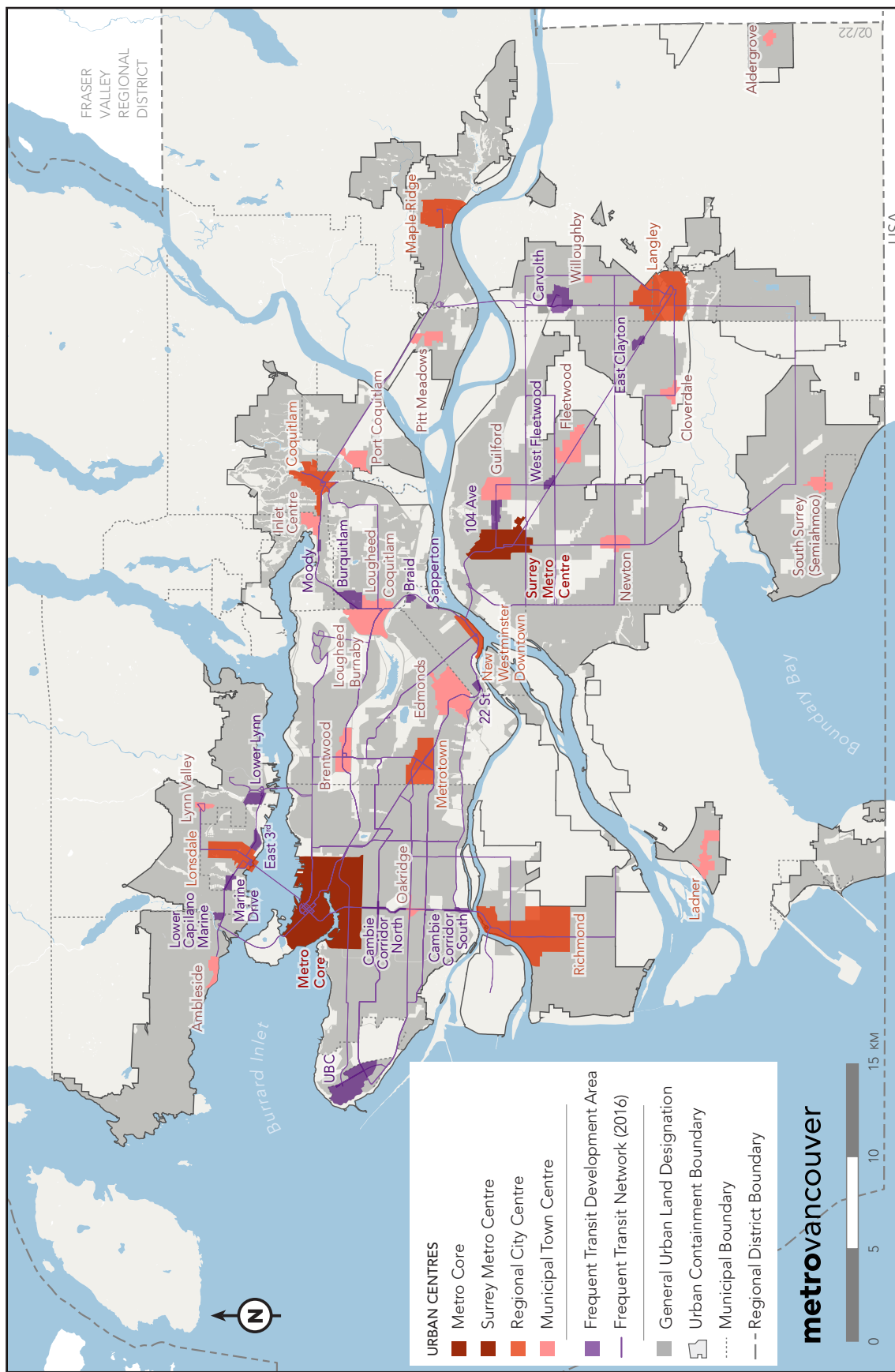
This map is a small scale representation of the Regional Land Use Designation Map that Metro Vancouver maintains as the basis for defining land-use designation boundaries. The official Regional Land Use Designation Map can be found at [metrovanvancouver.org](https://metrovanvancouver.org)



## MAP 3 Urban Containment Boundary and General Urban Lands

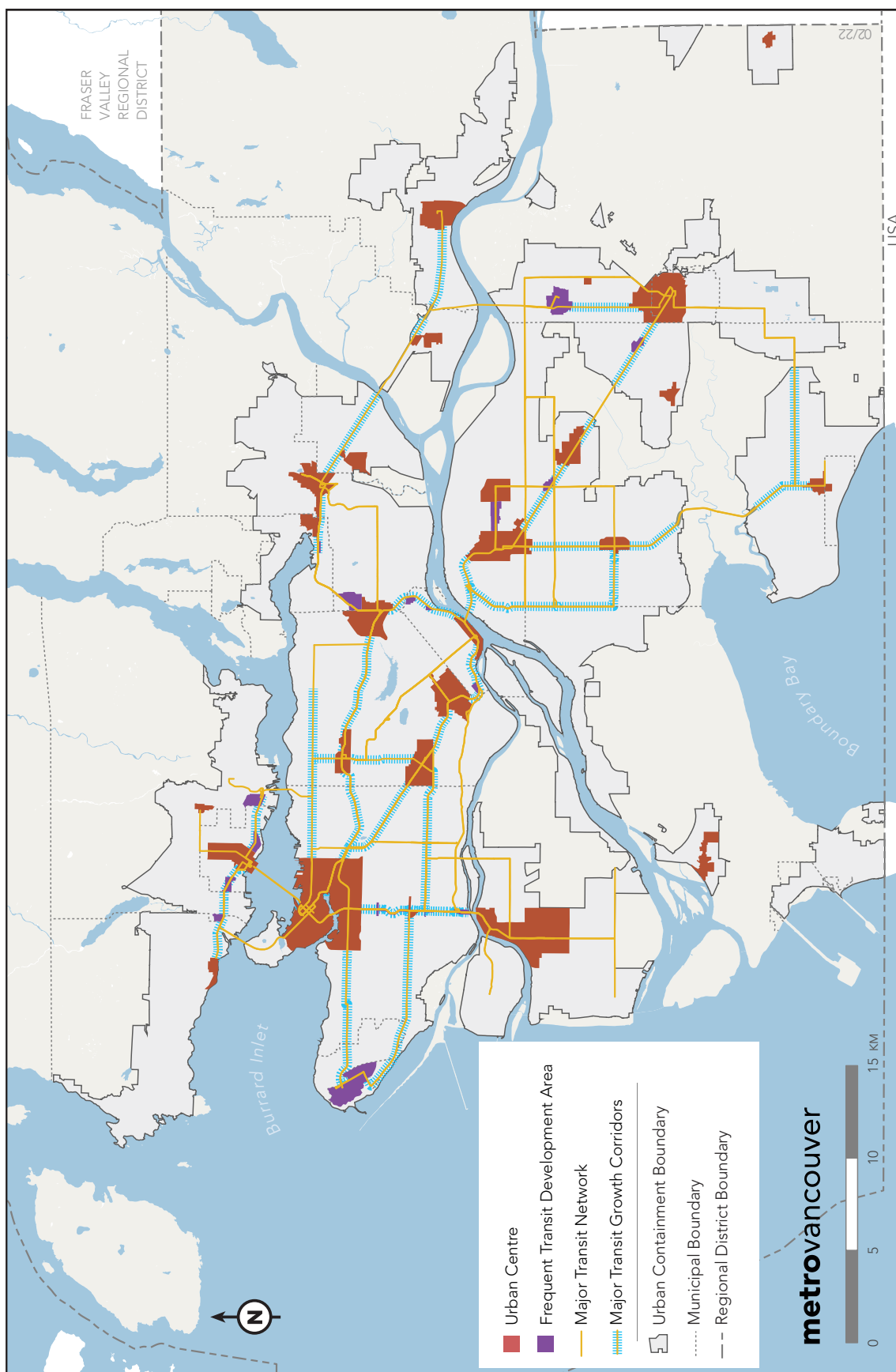


## MAP 4 Urban Centres and Frequent Transit Development Areas



Urban Centres and FTDA are overlays for structuring residential and employment growth. The boundaries are identified by member jurisdictions. Where overlays cover areas other than General Urban or Employment, the intent and policies of the underlying regional land use designations still apply.

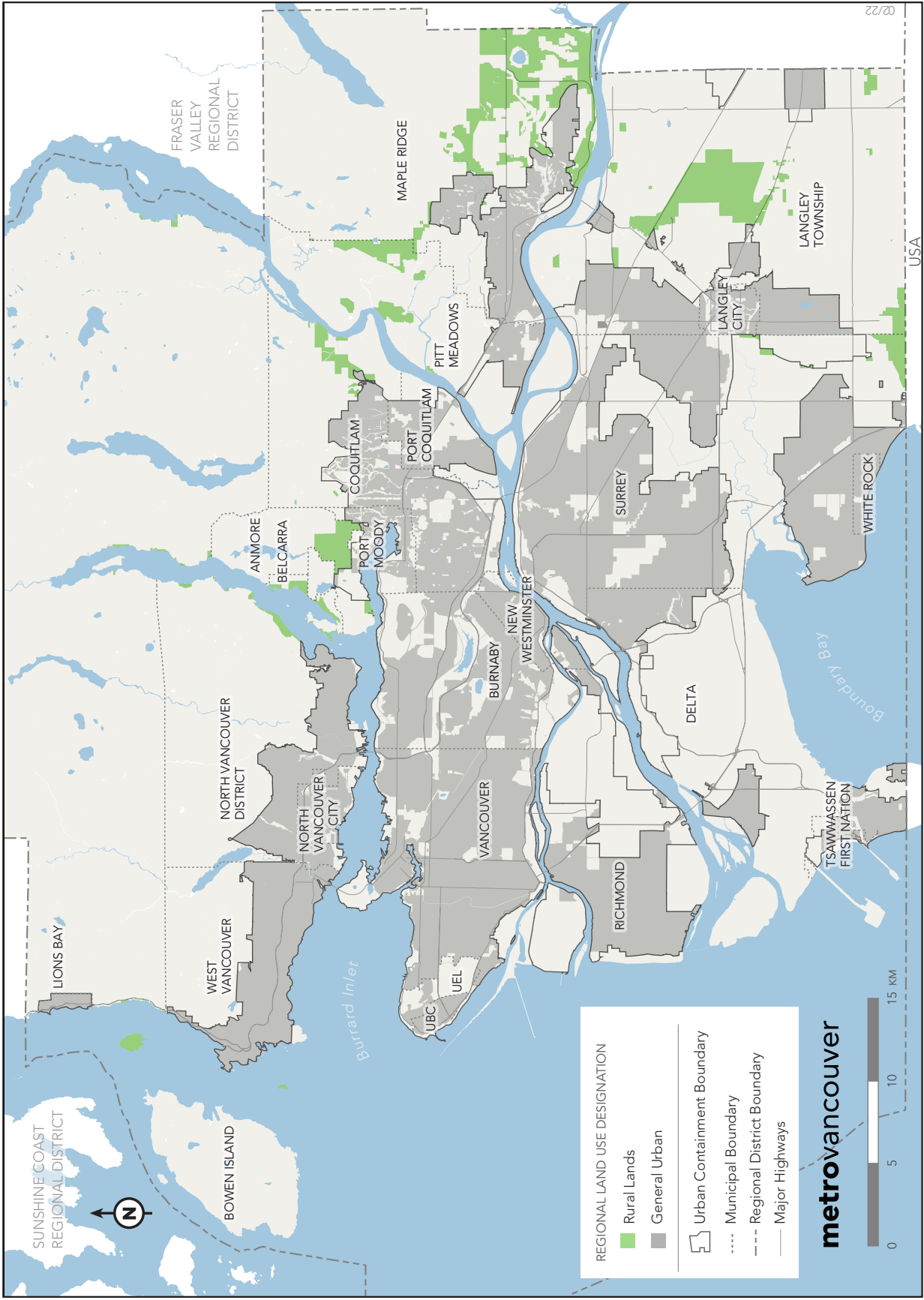
# MAP 5 Major Transit Growth Corridors and Major Transit Network



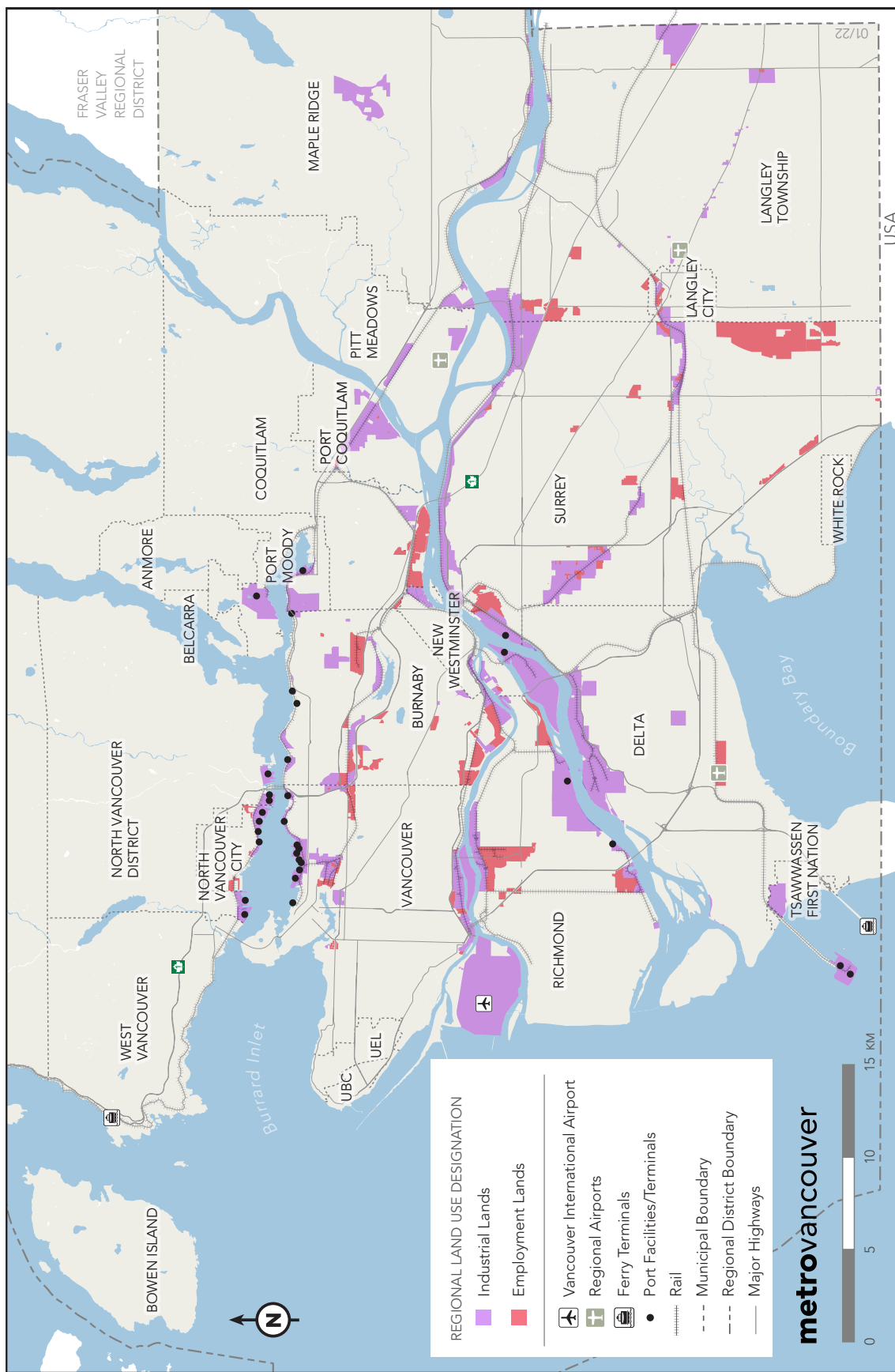
The Major Transit Growth Corridors include a buffer area of approximately 1km on either side of select segments of the Major Transit Network. Not all areas within MTGCs are appropriate for growth. The Major Transit Network is defined in Transport 2050 and is subject to periodic updates; it is shown for illustrative purposes only.



# MAP 6 Rural Lands



# MAP 7 Industrial and Employment Lands



The depicted highway network, rail lines, and port/airport transportation facilities are shown for reference only.

# MAP 8 Agricultural Lands



For the latest Agricultural Land Reserve geography, please visit the Agricultural Land Commission website.



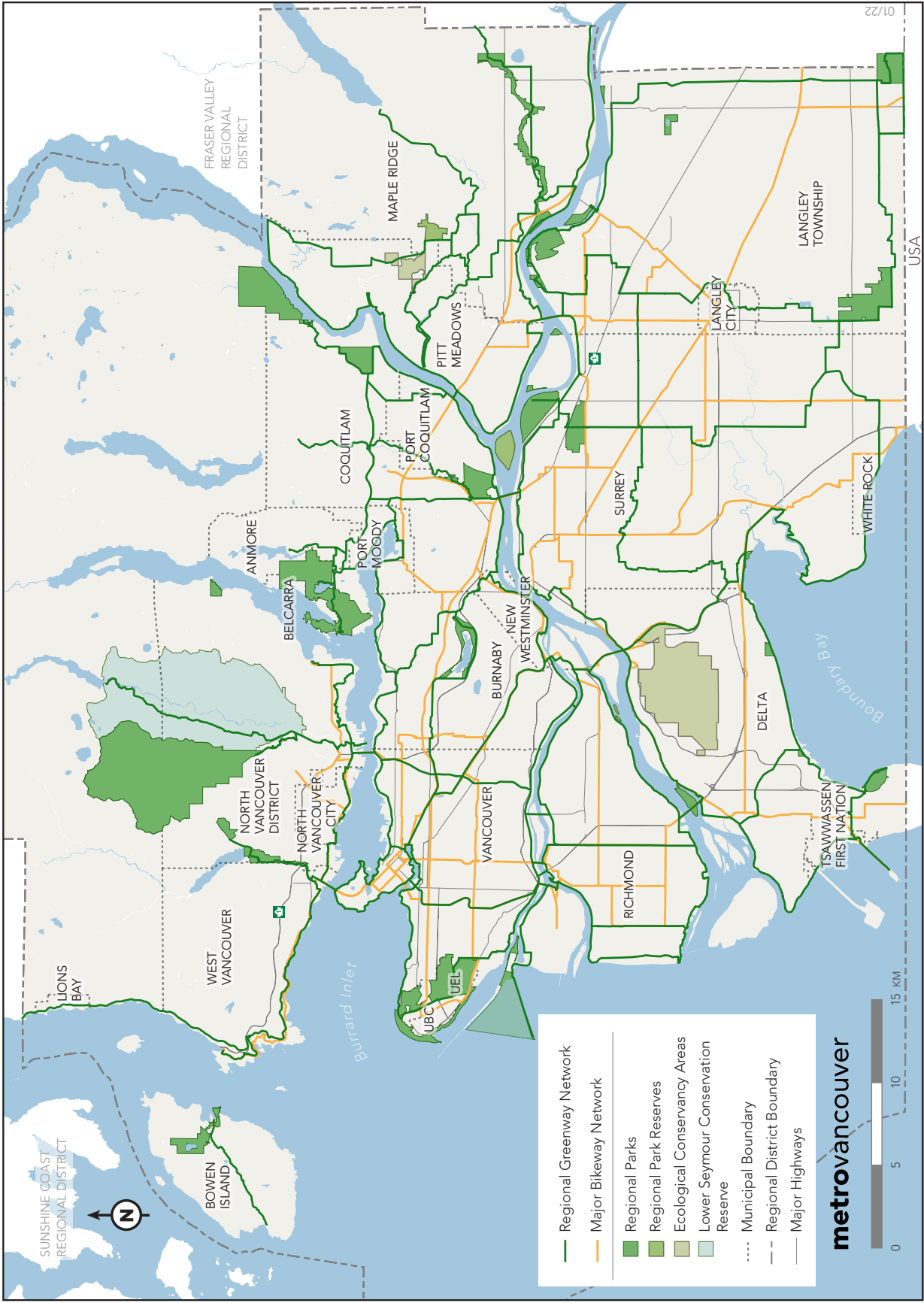
# MAP 9 Conservation and Recreation Lands



The Natural Resource Areas Overlay was collated by Metro Vancouver from several data sources including: Active managed forest tenure licenses, relevant OCPs, GVS&DD, and GWWD.

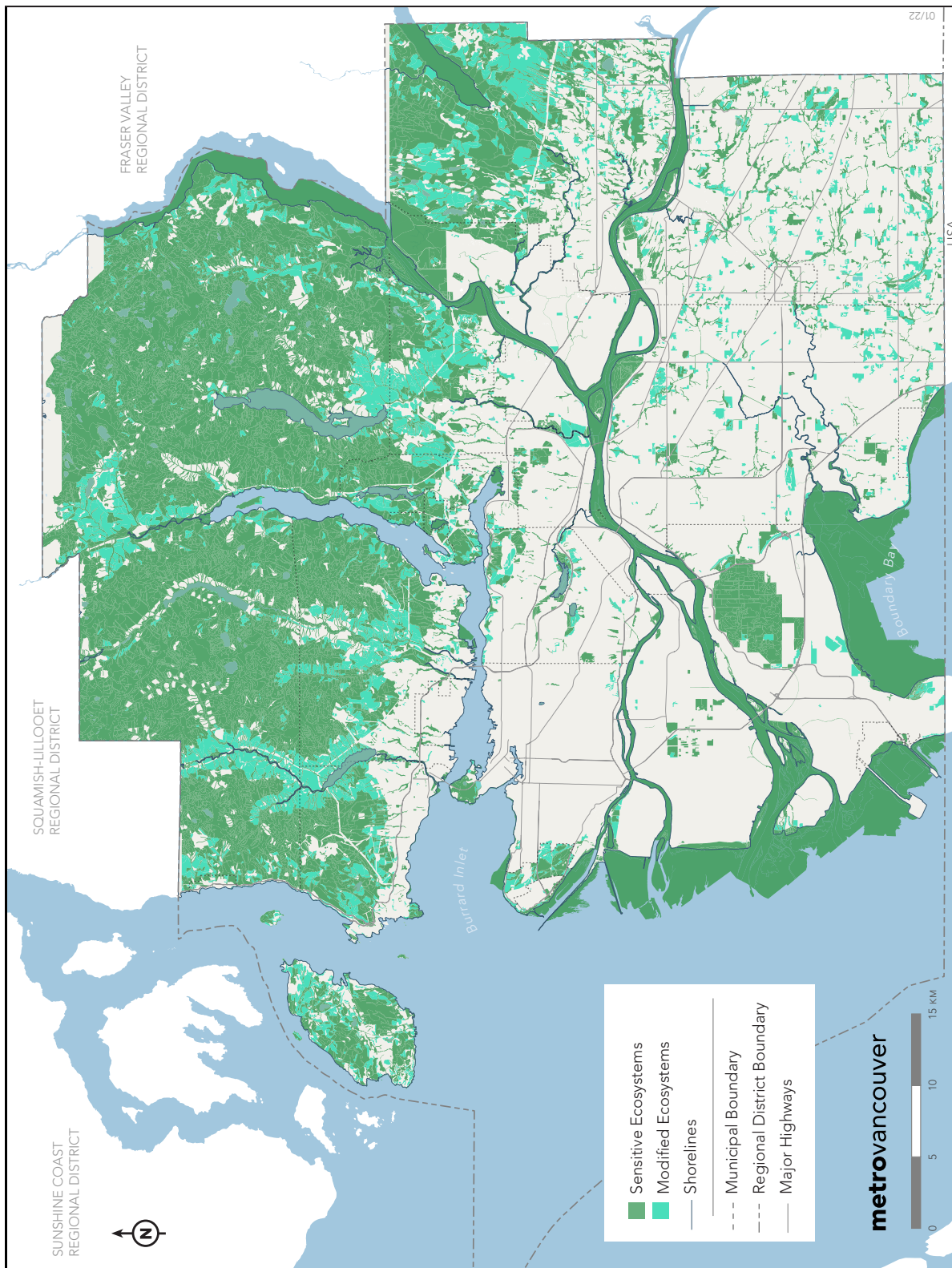


# MAP 10 Regional Greenway Network and Major Bikeway Network



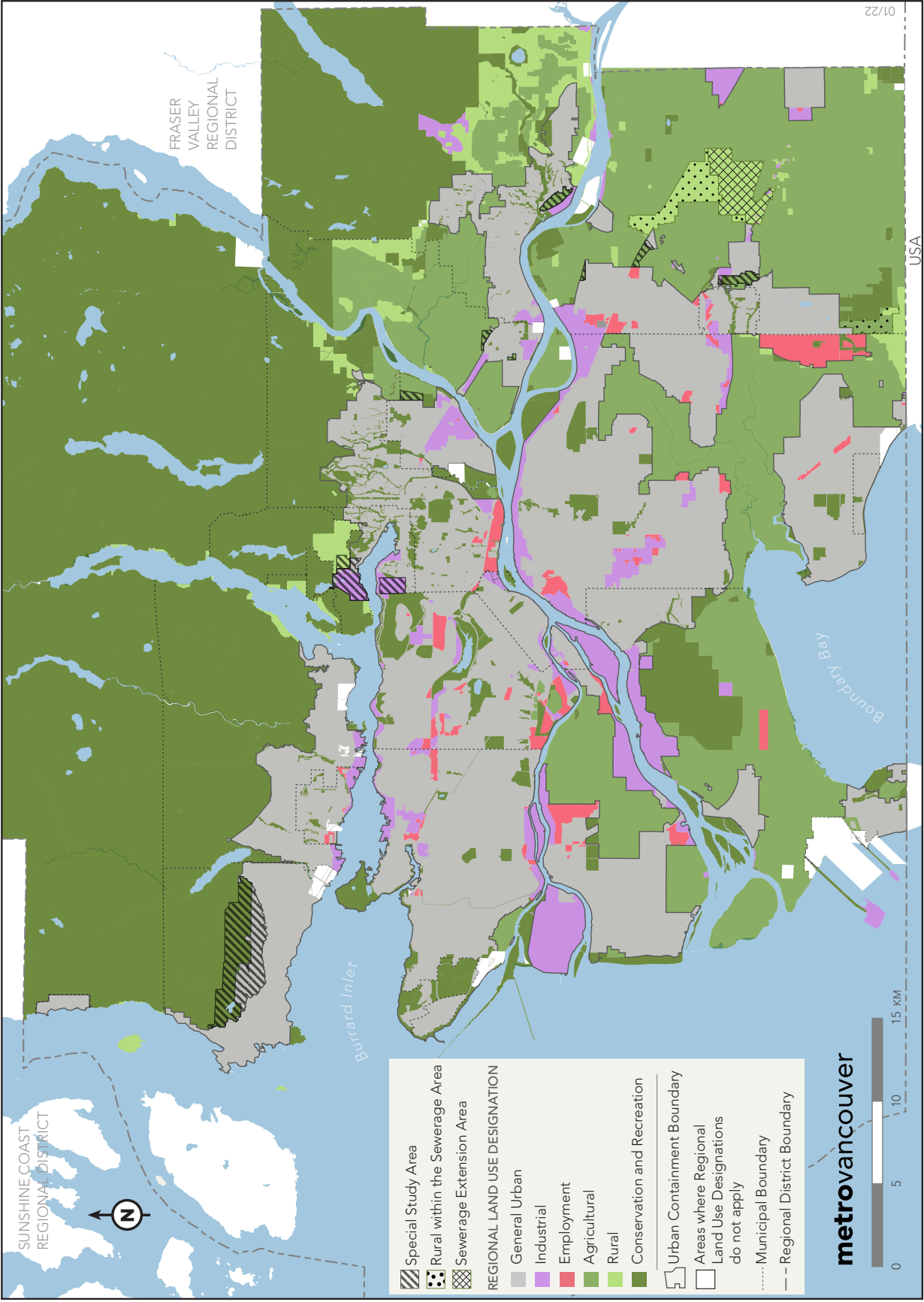
The Regional Greenway Network and Major Bikeway Network (MBN) are concepts illustrating existing and planned active transportation corridors of regional significance. The MBN is being developed through TransLink's Transport 2050 process and will be updated following the identification of a preferred MBN concept.

## MAP 11 Sensitive Ecosystem Inventory



Map for reference only and does not reflect Regional Land Use Designations. An online SEI Tool is available at [gis.metrovancouver.org/mvmaps/SEI](https://gis.metrovancouver.org/mvmaps/SEI) and downloadable from [metrovancouver.org/data](https://metrovancouver.org/data). The SEI data set is from 2014. Local ecological datasets may be more current and detailed.

# MAP 12 Special Study Areas and Sewerage Extension Areas



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**Metro 2050 Issue-Response Table to Richmond's Comments**

Section	Policy #	Comment / Request	Metro Vancouver Response	Proposed Edit
B	General	Suggested Change: The Geographic Context section highlights the socio-economic significance of our geography. Add a reference to the ecological significance of our geography including biodiversity. Reason: The lower mainland is an important global hub for wildlife and biodiversity. For example, it is an essential stop for migratory birds on the Pacific Flyway. And the Fraser River is one of the world's most significant salmon rivers. Regional growth can have important impacts on these globally significant ecosystems.	Support adding reference to the ecological significance of the region to the Geographic Context.	Add reference to the ecological significance of the region to the Geographic Context. Add: "Metro Vancouver is a globally important ecological hub. It is an essential stop for migratory birds on the Pacific Flyway, and the Fraser River is one of the world's most significant salmon rivers."
B	General	Suggested Change: Consider an up-front section like Section A: Sustainability Framework and Section B: Scope and Linkages to Other Plans in Metro 2040 to better situate the RGS within the scope of Metro Vancouver's roles. In particular, a diagram and/or table mapping the links between the RGS and other key Metro Vancouver strategies and plans would be helpful for users whose focus is not land use and transportation. Reason: Improve communication about how Metro 2050 fits with Metro's regional role as a whole.	Support adding a graphic situating Metro 2050 in with the other Metro Vancouver management plans.	Add the standard graphic depicting all of Metro Vancouver's management plans to page iv.
B	General	Suggested Change: Strengthen "Accommodating Growth..." by simplifying technical phrases and instead framing as "shaping" or "guiding" growth and density so that it creates benefits. Also consider broadening this statement so that it's not just about regional planning. "Ensuring housing for all" – consider starting the paragraph with the statement about extreme pressure, instead of placing it in the middle of the paragraph. Reason: Acknowledge local planning's influence better; make framing more impactful, and positive where appropriate; connect major points to strengthen the overall framing.	Support revising the "Accommodating Growth" section on page 5 to include mention of the "shaping growth" role of regional planning	Revise 3rd sentence in "Accommodating Growth..." to read "By carefully shaping and structuring growth and ensuring the right diversity of land uses, regional planning can..."
B	General	Suggested Change: Improving Accessibility and Mobility and Reducing Congestion: suggest change to "Strategies include investing in transit and active transportation, supporting the creation of complete and walkable communities, directing growth towards transit-oriented areas, and managing transportation demand through parking requirements, transportation user pricing, and other means."	Support revising this language.	Revise the sentence to read "Strategies include investing in transit and active transportation, supporting the creation of complete and walkable communities, directing growth towards transit-oriented areas, and managing

		Reason: "...and other means" seems weak/vague and the wording is not consistent with the typical declaratory sentences in the document.		transportation demand through parking requirements, transportation user pricing, and other <del>means</del> <u>tactics for promoting sustainable modes of transportation.</u> "
B	n/a	Strengthen discussion of social equity - Richmond supports the integration of social equity considerations into the Metro 2050 draft and believes it can be further strengthened. As drafted, Metro 2050 provides a definition of social equity as "the promotion of fairness and the removal of systematic barriers that may cause or aggravate disparities experienced by different groups of people" and goes on to provide examples, including socioeconomic status, ethnicity, race, sex, age, disability, gender, sexuality, religion, indigeneity, class, and other equity-related issues. While the draft mentions social equity in some of the strategies, it does not identify the barriers to be removed, and does not offer concrete policies to address these barriers. In addition, some of the goals and strategies contained in the document address age, income and ability, but they do not address other key equity-related issues, such as ethnicity, race, gender and indigeneity, which affect an individual's experience of life in a community and their economic potential. The document also talks about a strong sense of neighbourhood identity, social connection and community resilience, and inclusion, but does not offer tangible solutions beyond accessing housing. Finally, universal accessibility is an important element of equity in relation to the physical design of our homes, workplaces and public spaces, and should be addressed more fully. There are likely many opportunities to strengthen the social equity lens with this review in mind. Given that the scope of the regional growth strategy is primarily physical development, the most obvious opportunity to address barriers and identify solutions would be to incorporate policies for both Metro Vancouver and member jurisdictions to apply a broadly inclusive equity lens to physical planning and design. This would consider ethnicity, race, gender, age, indigeneity, disability, class and other issues and would apply to private and public spaces of all kinds. Perhaps most importantly, it would apply to the planning and design process. Rather than suggest specific changes, Richmond suggests that Metro Vancouver review	Metro 2050 will be reviewed post-adoption from the perspective of social equity, and if appropriate, amendments may be proposed or other recommendations made to enhance equity outcomes.	No changes required.

		the Metro 2050 draft holistically and consider how to further strengthen the social equity lens throughout.		
C	General	Responding to the Challenges: Metro 2050 Goals Suggested Change: The second sentence under Goal 3 could be written in a similar way to the first sentence, as a vision of the future. Reason: Stronger and more clear	Thank you for your comment.	No changes required.
D	General	Suggested Change: Change “Once defined by member jurisdictions...” to “Once they have been defined by member jurisdictions...” Reason: More clear	Support this minor wording change to provide greater clarity.	Change “Once defined by member jurisdictions...” to “Once they have been defined by member jurisdictions...”
E - Goal 1	1.3	Suggested Change: Change “Creating complete communities... allows residents to meet most of their daily needs by walking, rolling, or transit without leaving their neighbourhood.” to “Creating complete communities... allows residents of all ages and abilities to meet most of their daily needs by walking, rolling, or transit without leaving their neighbourhood.” Reason: Inclusive of the needs of people with all kinds of physical and cognitive disabilities.	Support adding "residents of all ages and abilities" to the strategy preamble.	Add "residents of all ages and abilities" to the strategy preamble.
E - Goal 1	1.1.10	Suggested Change: Consider reference to Transport 2050 and existing/future transport area plans like SWATP. Can also include transit service expanded to other land uses such as industrial employment centres and other high generator areas. Reason: Clarify TransLink’s role in planning for compact urban form.	Support a minor wording change to provide greater clarity of TransLink's role.	Change "plan for" with "support".
E - Goal 1	1.2.16	Suggested Change: This includes “government owned or affordable supportive housing developments”. Consider a specific reference to housing developments for seniors including all ages multi-unit housing with a high concentration of seniors. Reason: More clear: as there is no definition of supportive housing, a reader could think it is narrowly defined and does not include seniors’ housing.	Thank you for your comment; however this level of detail is not necessary in a strategic land use/growth plan. Supportive housing is a common term that is inclusive of senior's housing.	No changes required.
E - Goal 1	1.2.2	Suggested Change: Consider addition of other land uses (industrial, business parks, regional attractions, etc.) Reason: More complete	The intent of this policy is not to refer to land uses - Urban Centres, FTDAs, and MTGCs are not land use designations.	No changes required.



E - Goal 1	1.2.24 (b) (iii)	Suggested Change: Change to “encourage office development to locate in Urban Centres” Reason: More clear	Support revising text to read “encourage office development to locate in Urban Centres”	Revise text to read “encourage office development to locate in Urban Centres”
E - Goal 1	1.2.24 (b) and similar, e.g. 1.3.7	Suggested Change: Change language requiring municipalities to “include policies that...” to a consistent format for Regional Context Statement requirements, e.g. “identify policies and actions that ...” as used elsewhere in the draft. Reason: More consistent with the purpose of a Regional Context Statement	Support revising 1.2.24 b) and 1.37 to replace "include policies that..." with "include policies and actions that..." to make it more consistent with other Metro 2050 policy actions.	Revise 1.2.24 b) and 1.37 to replace "include policies that..." with "include policies and actions that..."
E - Goal 1	1.2.24 (d)	Suggested Change: Change to “demonstrate consistency with the definition of non-residential “Major Trip Generating Uses” used by Metro Vancouver” Reason: More consistent with purpose of a Regional Context Statement	Do not support this change because Metro Vancouver does not have a definition of Major Trip Generating Uses. It was intentionally kept more general so that it could be interpreted by the member jurisdictions in the local context.	No changes required.
E - Goal 1	1.2.24(b)(iv)	Suggested Change: In policies for Urban Centres and Frequent Transit Development Areas, include transportation demand management (TDM) and promotion of other mobility options. Reason: Support decreased demand for parking and support active transportation modes.	Support adding a reference to the desired outcome of mode shift to policy 1.2.24(b)(iv).	Add to the beginning of subsection to 1.2.24 (b)(iv) that reads "support modal shift by establishing or maintaining reduced residential and commercial parking..."
E - Goal 1	1.2.26	Suggested Change: Consider mention of consistency with member jurisdictional OCPs Reason: More clear	Mentioning OCPs is not required in this resiliency policy action. Noting that hazard lands may be identified in other types of strategies/plans as well.	No changes required.
E - Goal 1	1.2.28	Suggested Change: Change “Continue to develop walking and biking infrastructure programs that prioritize improvements in Urban Centres and Frequent Transit Development Areas.” to “Continue to develop walking and biking infrastructure programs that prioritize improvements in and between Urban Centres and Frequent Transit Development Areas.” Reason: Support regional connections via cycling networks.	Staff support the proposed wording change to include TransLink active transportation infrastructure provision to support mobility between Urban Centres and FTDA's.	Change “Continue to develop walking and biking infrastructure programs that prioritize improvements in Urban Centres and Frequent Transit Development Areas.” to “Continue to develop walking and biking infrastructure

				programs that prioritize improvements in and between Urban Centres and Frequent Transit Development Areas.”
E - Goal 1	1.3.6	Suggested Change: Include affordable housing in this list of facilities built or funded by the Federal Government or the Province. Reason: More complete	Affordable housing was clarified in policy 1.2.16	No changes required.
E - Goal 1	Preamble	Introduction, paragraph 3 Suggested Change: Change “Complete communities are walkable....live, work and play and stages of their lives.” to “Complete communities are walkable....live, work and play at all ages and stages of their lives.” Reason: Better reflect the aging population.	Support this minor wording change to better reflect aging population.	Change “Complete communities are walkable....live, work and play and stages of their lives.” to “Complete communities are walkable....live, work and play at all ages and stages of their lives.”
E - Goal 2	2.1.10, 2.2.9 (c) and similar	Suggested Change: Change language requiring municipalities to “include policies that...” to a consistent format for Regional Context Statement requirements, e.g. “identify policies and actions that ...” as used elsewhere in the draft. Reason: More consistent with the purpose of a Regional Context Statement.	Revisions will be made to ensure consistency.	Change to read “Adopt RCS that include policies and actions to”... and remove “include policies that” from a, b and c)
E - Goal 2	2.1.3 b)	Suggested Change: Consider providing examples of what may be included in “[exploring] fiscal reform to ensure that the property tax system supports sound land use decisions.” Reason: More clear, while maintaining flexibility for the intended exploration of the topic.	Lack of specificity allows greater flexibility for future work in terms of identifying possible measures and tools.	No changes required.
E - Goal 2	2.2.9 (c) (iv)	Suggested Change: Clarify “...including the removing of any outdated municipal policies or regulatory barriers related to development form and density” including replacing “outdated” with a more meaningful term. Reason: Clarify intent and meaning of this requirement. Removing some barriers is appropriate; removing all is not. The aim should be to facilitate more intense industrial development while managing urban form and relationships with adjacent (particularly non-industrial) uses.	The 'barriers' may vary by type and source. There is no intent that all policies and regulations be removed. Minor edit made to text for clarity.	Replace the word "OUTDATED" with "UNNECESSARY" and change “removing” to “removal.”
E - Goal 2	2.2.9 (c)(viii)	Suggested Change: Remove this policy to “introduce land use policies through area plans...” or make it less prescriptive. Reason: There are various ways of supporting viable unique industrial areas through objectives, policies and/or plans or strategies both within and outside an area plan.	Make edit to reflect the action could be in different form.	Add "SUCH AS" -- introduce land use policies SUCH AS through area plans for...

E - Goal 2	2.2.9 (d)(v) and (vi)	Suggested Change: Consider consolidating policies on residential uses into one point. Reason: More clear / simpler	These are separate policy points.	No changes required.
E - Goal 3	3.4	Suggested Change: Change "Climate change is expected to impact Metro Vancouver through warmer temperatures, decreased snowpack, sea level rise, longer summer drought periods, and increased precipitation in the fall, winter, and spring..." by adding "as well as extreme heat and severe air quality events resulting from increased levels of wildfires in BC and elsewhere in the Pacific Northwest." Add a sentence referencing highly vulnerable populations or situations, such as seniors in older rental housing who are vulnerable to extreme heat. Reason: Extreme heat and severe air quality events are critical and demonstrated results of climate change in the region and neither they nor their socio-economic impacts are adequately captured in the current text.	Note that extreme heat events and reduced air quality are referenced in the more detailed Table 5, in addition to wildfires. The preamble for Strategy 3.4 references climate change impacts studied in Metro Vancouver's climate change projections work at a high level (including warmer temperatures), and notes that these impacts will exacerbate existing natural hazards (such as wildfires). Note that the relationship between climate change impacts and vulnerable populations is referenced in the final paragraph of the Goal 3 preamble (p.53), and action 3.4.2. f) is a starting point to address some of these issues.	No change required.
E - Goal 3	3.1.3, 3.1.6	Make "no net loss" a minimum requirement for Conservation and Recreation lands and strive for net environmental gain. Policy 3.1.3 and Policy 3.1.6. The above policies should be further strengthened so that "no net loss" is a minimum requirement rather than something to be "strived for" - Additionally, enhancements and/or areas that are conserved should seek to contribute to network connectivity of natural hubs and corridors (current or potential future). The region should commit to this standard for its own projects and clearly advocate that others adhere to it. Metro Vancouver should define an approach that is consistent with provincial/federal frameworks for project-related ecosystem loss.	Thank you for your suggestion.	No changes required.
E - Goal 3	3.2.7	Strengthen discussion of natural assets - Draft Metro 2050 Policy 3.2.7(b)(ii) refers to "ecosystem services", which is a broad topic. The City recommends expanding this policy to	Policy action 3.2.2 b) is to integrate the consideration of ecosystem services (which	Change "ecosystem services" to "natural assets and

		include regionally-focused studies. Policy relating to ecosystem services can be further strengthened with regional assessments. Local Governments can apply the results of regionally focused studies, such as natural asset valuation, locally to support existing ecosystem service initiatives alongside with infrastructure management and planning. Natural assets are the stock of natural resources or ecosystems that are relied upon, managed, or could be managed by a government for the provision of services. Examples include removing pollutants from the air and water, protecting shorelines from damage and maintaining soil productivity. Natural assets can generally provide these services at a lower cost than an equivalent engineered solution while providing a host of other environmental and socioeconomic benefits.	natural assets provide) in decision making for Metro Vancouver, and there is a corresponding Action 3.2.7c) i) for member jurisdictions. Several member jurisdictions have already conducted or are currently conducting their own natural assets inventory and valuation work, using the foundational ecological datasets provided by Metro Vancouver.	ecosystem services" in 3.2.2b) and 3.2.7c)i)
E - Goal 3	3.3.2, 3.3.7	Capture Metro Vancouver's climate action support role - Richmond recommends strengthening Metro 2050 by adding two policies that reflect this function. The proposed wording ensures that participation by member jurisdictions in joint action would be contingent on agreement with Metro Vancouver: Policy 3.3.2 (d) [Metro Vancouver will] work in partnership with member jurisdictions to facilitate, support and/or jointly implement agreed-upon cross-jurisdictional policies and programs that reduce energy consumption and greenhouse gas emissions, improve air quality, create carbon storage opportunities, and that meet or work towards Policy 3.3.7.	The suggestion is noted, and has been forwarded to Metro Vancouver's Air Quality and Climate Change division for consideration. Action 6.1.1 in Metro Vancouver's Clean Air Plan (CAP) identifies, "Explore the adoption of service establishment bylaws to support regional climate change programs" under future directions. The implications of this direction will be considered through a separate process, but updates to the regional growth strategy can be considered in the future as necessary.	No change required.
E - Goal 3	3.3.8, 3.3.7	Capture Metro Vancouver's climate action support role - Richmond recommends strengthening Metro 2050 by adding two policies that reflect this function. The proposed wording ensures that participation by member jurisdictions in joint action would be contingent on agreement with Metro Vancouver: Policy 3.3.8 [Member jurisdictions will] work in partnership with Metro Vancouver to jointly implement agreed-upon cross-jurisdictional policies and programs that reduce energy consumption and greenhouse gas emissions, improve	The suggestion is noted, and has been forwarded to Metro Vancouver's Air Quality and Climate Change division for consideration. Action 6.1.1 in Metro Vancouver's Clean Air Plan (CAP) identifies, "Explore the adoption of service establishment bylaws	No change required.



		air quality, create carbon storage opportunities, and that meet or work towards Policy 3.3.7. Richmond notes that this function has been a core service of the Capital Regional District for close to ten years. Experience there suggests that such a service would assist member jurisdictions efforts to reduce greenhouse gases, and that coordinated program delivery should reduce total administrative costs to member jurisdictions.	to support regional climate change programs” under future directions. The implications of this direction will be considered through a separate process, but updates to the regional growth strategy can be considered in the future as necessary.	
E - Goal 3	3.4.1	Suggested Change: For this policy on planning and location of infrastructure, make it explicit that it includes proactive retrofits of existing Metro Vancouver infrastructure to provide resiliency to climate change impacts. Reason: As currently stated, the policy could be interpreted to apply only to new infrastructure projects.	Support revising action 3.4.1. to reflect that risk assessments should be carried out for both new and existing utilities, assets, operations, and infrastructure.	Edit 3.4.1. as follows: "Incorporate climate change and natural hazard risk assessments into the planning and location of <b>existing and future</b> Metro Vancouver utilities, assets, operations, and other critical infrastructure."
E - Goal 3	Table 5: Major Natural Hazards...	Suggested Change: For the listed Natural hazard “Tsunamis”, add “Storm surges and King tides”, and add “Sea level rise” in the Related climate change impact column. Reason: Storm surges and king tides, which occur far more frequently than tsunamis, are exacerbated by sea level rise.	Note that both storm surge and king tides would already be considered as qualifying as (or contributing to) a coastal flood in Table 5.	No change required.
E - Goal 4	4.1.1, 4.1.2, 4.1.9	Suggested Change: Add references to climate adaptation / resilience to policies about housing assessments, strategies or action plans. Reason: Integrate climate adaptation / resilience.	It is up to each local government to identify climate adaptation and resilience as a priority in their housing needs reports or assessments. However, a reference to climate change and resilience in Policy 4.1.9 (c) relating to housing strategies/action plans has been added.	Change 4.1.9c) to read: identify housing priorities, based on the assessment of local housing market conditions, household incomes, changing population and household demographics, <b>climate change and natural hazards resilience</b> , and key categories of local housing need, including specific statements about special needs housing and the housing needs of equity seeking groups; and
E - Goal 4	4.2.7	Suggested Change: In the list of policies and actions to identify in the Regional Context Statement, adjust (v) to include climate adaptation / resilience, or add (vi) “increased climate resilience” Reason: Integrate climate adaptation / resilience.	Thank you for your suggestion. This is captured in Policy 4.1.8c) viii.	No changes required.

E - Goal 4	Preamble	Suggested Change: Reference climate-related impacts in planning for and developing housing. Reason: Climate change mitigation and adaptation / resilience are already important for housing, including Step Code requirements and extreme heat impacts on vulnerable populations.	Thank you for your suggestion, support adding language to the preamble to more explicitly draw the connection between these inter-related objectives.	Add language (or symbols/icons) to the preambles of all Metro 2050 Goals to draw a clearer connection between interrelated topic areas.
E - Goal 5	5.1	Suggested Change: Consider use of "active transportation and micro mobility" instead of only "cycling and walking" Reason: To capture rolling modes as well as low-powered personal mobility devices such as electric kick scooters.	Support this change to capture rolling modes and emerging micromobility devices.	Replace all (16) instances of "active transportation" to "active transportation and <u>micro-mobility</u> ." Replace all (4) instances of "cycling and walking" to " <u>walking, cycling, and rolling</u> ." Replace (1) instance of "walking and cycling" to "walking, cycling, and rolling." (Commas may be needed, depending on context of sentences - e.g. if "transit" is also included.)
E - Goal 5	5.1.15(e)	Suggested Change: Rephrase "support the development of safe and comfortable regional cycling networks" Reason: 5.1.10(b) references the "Regional Cycling Network" (RCN=RGN+MBN) while the reference in 5.1.15(e) is not capitalized and is plural. Need consistency and clarity: does this mean support "local" cycling networks being developed by member jurisdictions that connect to the RCN?	This policy was meant to refer to both local cycling networks and the Regional Cycling Network. The language will be updated accordingly	Change the policy to read: "support the development of safe and comfortable <del>regional</del> cycling networks, <u>including both the Regional Cycling Network and local infrastructure</u> , serving Urban Centres, Frequent Transit Development Areas, and other areas of high potential for utility and/or recreational cycling;
E - Goal 5	5.2.5(d)	Suggested Change: Include rationale for collecting the data Reason: As has been done for other points within 5.2.5, clarify what is the purpose of the action (i.e., reason for collecting the data, how will it be used to support the strategy)	Have attempted to keep these actions as concise as possible. The rationale for the 5.2.5 sub-policies is shown at the top of 5.2.5: i.e. "to support the safe, reliable, and efficient movement of vehicles for passengers, goods, and services..."	No changes required.
E - Goal 5	5.2.6(d)	Suggested Change: Adjust wording to accommodate municipalities that do not have designated truck routes	As this policy is about reserving the potential for	No changes required.

		Reason: More flexible for municipalities that do not have designated truck routes.	goods movement (not about identifying truck routes), member jurisdictions that permit trucks on any road will, by default, be supporting this policy on a city-wide basis.	
E - Goal 5	Preamble	Suggested Change: Consider additional reference to micro mobility and Autonomous Vehicles. Reason: Current wording does not capture emerging trends in personal mobility devices and autonomous vehicles, which are reflected in the “big moves” in draft Transport 2050 material.	Support adding reference to micro mobility and AVs to ensure alignment with Transport 2050.	Add a sentence referencing micro mobility and AVs in the Goal 5 preamble.
F - Implement.		Goal 5 - Suggested Change: Add a metric for road safety. Reason: The heading is titled “Road and Vehicle Use and Safety” but neither of the listed metrics are safety-related.	Metro Vancouver currently tracks collisions as a Metro 2040 Performance Measure under the Context Measure category. However, since the metric described here is not safety-related, the words “and Safety” will be removed. Metro may continue monitoring collisions, but this need not be part of the Metro 2050 bylaw.	Delete the words “and Safety.”
H - Glossary	n/a	Suggested Change: Add Federal Government Reason: Consistent with existing listings for Province, Member Jurisdictions	Thank you for your comment.	No changes required.
H - Glossary	n/a	Suggested Change: Add Ecosystem Health Reason: Referenced frequently and also linked to Metro Vancouver Ecological Health Framework	Thank you for your comment.	No changes required.
I - Map 4	26	Suggested Change: Update Frequent Transit Network (FTN) layer (current map is 2016) Reason: Reflect FTN as of 2021	The FTN is updated by TransLink four times a year and is therefore not an appropriate mapping layer to maintain in a regional growth strategy.	No change required.
I - Map 5	n/a	Suggested Change: Replace with final Transport 2050 map Reason: Current map is a placeholder and is expected to change. Need to use final map when Transport 2050 is finalized.	Map 5 will be updated to reflect the Major Transit Network included in the final Transport 2050 map, and will continue to be amended in	Update Map 5 with the latest version.

			the future as the Major Transit Network and Major Transit Growth Corridors evolve.	
I - Map 5	n/a	Suggested Change: Consider layering the Major Transit Network on top of the Urban Centres instead of underneath. Reason: Canada Line through Richmond appears to be missing from the draft major transit network concept and draft major transit growth corridors	It is best to display the MTN underneath Urban Centres because TransLink has not yet made a georeferenced MTN layer available. This could be updated at a later date.	No change required.





**To:** Mayor and Councillors  
**From:** John Hopkins  
Director, Policy Planning

**Date:** June 22, 2022

**File:**

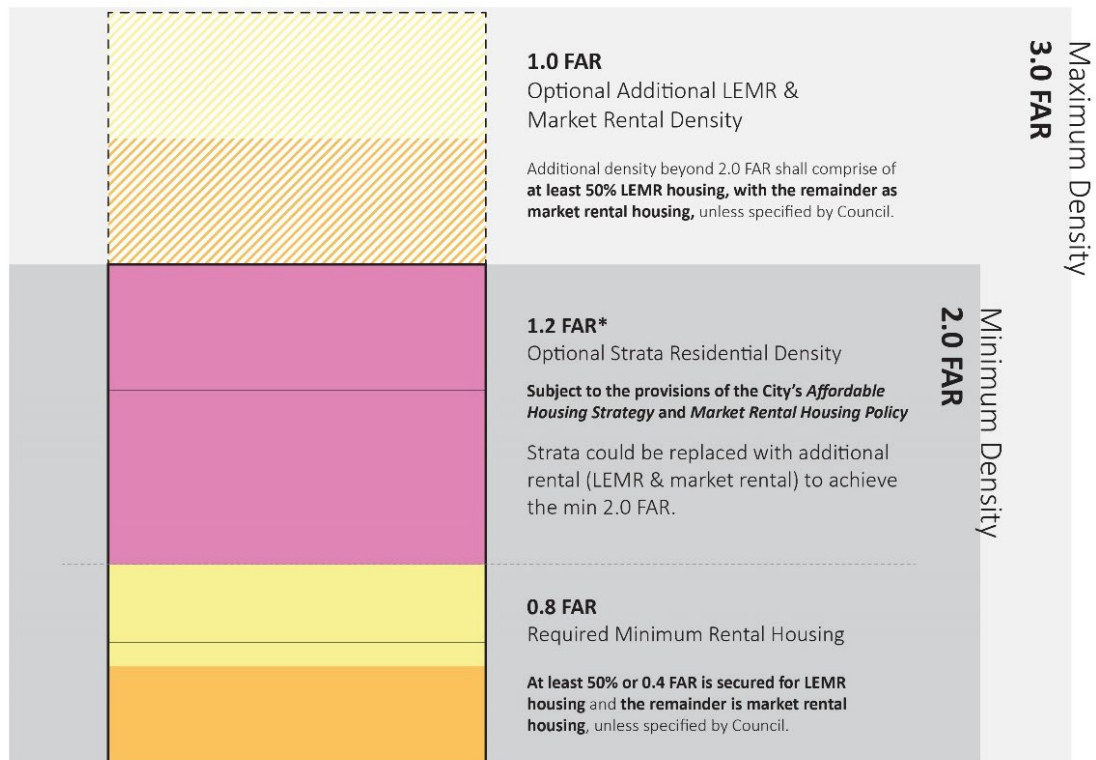
**Re: Referral Response: Spires Road Area Proposed Rental Tenure & Density Increases - Density & Tenure Graphic**

This memorandum is intended to provide supplementary information for the report titled “Referral Response: Spires Road Area Proposed Rental Tenure & Density Increases” from the Director, Policy Planning, which was presented to Planning Committee on June 21, 2022.

The purpose of the memorandum is to provide Council with a visual graphic of the Proposed Spires Road Rental Tenure Policy to illustrate the tenure and density mix outlined in the proposed policy.

**Proposed Spires Road Rental Tenure Policy Graphic**

June 20, 2022



\* The 1.2 FAR is in line with the existing entitlement under the high density townhouse designation for the area in the current CCAP.

As shown on the above graphic, the proposed policy approach introduces a minimum 2.0 FAR for the Spires Road area provided that:

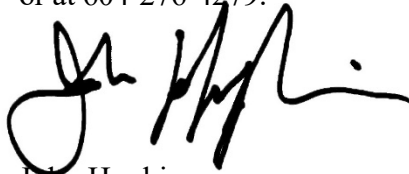
- the maximum residential strata is 1.2 FAR subject to the provisions of the City's Affordable Housing Strategy and Market Rental Housing Policy. The 1.2 FAR for strata is in line with the existing entailment under the high density townhouse designation for the area in the current City Centre Area Plan; and
- the minimum rental housing secured is 0.8 FAR with the condition that at least 50% is secured for LEMR housing and the remainder is market rental housing, unless specified by Council to have a different mix of market rental and affordable rental geared towards specific income limits.

The proposed policy also permits densities up to a maximum of 3.0 FAR provided that the density beyond 2.0 FAR is comprised of at least 50% LEMR housing with the remainder as market rental housing, unless specified by Council to have a different mix of market rental and affordable rental geared towards specific income limits.

### **Pilot Project & Monitoring**

The Proposed Spires Road Rental Tenure Policy is being initiated early in the process of updating the Official Community Plan. As a result, the proposed policy is intended to serve as a pilot project for the affordable housing component of the OCP targeted update. If approved by Council, staff will monitor the implementation of the policy and report back to Council one year after its adoption.

If you have any questions related to this memorandum, please contact me at [jhopkins@richmond.ca](mailto:jhopkins@richmond.ca) or at 604-276-4279.



John Hopkins  
Director, Policy Planning

JH:cas



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<b>To:</b>	Planning Committee	<b>Date:</b>	June 3, 2022
<b>From:</b>	John Hopkins Director, Policy Planning	<b>File:</b>	08-4045-20-20/2022-Vol01
<b>Re:</b>	<b>Referral Response: Spires Road Area Proposed Rental Tenure &amp; Density Increases</b>		

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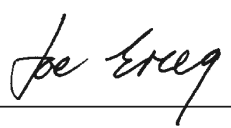

**Staff Recommendation**

1. That Richmond Official Community Plan Bylaw 7100, Amendment Bylaw 10190, which proposes to amend Schedule 2.10 (City Centre Area Plan) by:
  - designating the area bounded by Westminster Hwy, Garden City Road, Cook Road and Cooney Road as “Urban Centre T5” and “Sub-Area B2 Mixed Use – Mid-Rise Residential & Limited Commercial”; and
  - establishing a rental tenure overlay and supporting policies, which outline density increases associated with secured rental tenure for properties in and adjacent to Spires Road, as described in the attached report titled “Referral Response: Spires Road Area Proposed Rental Tenure & Density Increases”;be introduced and given first reading;
2. That Richmond Official Community Plan Bylaw 7100, Amendment Bylaw 10190, having been considered in conjunction with:
  - the City’s Financial Plan and Capital Program;
  - the Greater Vancouver Regional District Solid Waste and Liquid Waste Management Plans;is hereby found to be consistent with said program and plans, in accordance with Section 477(3)(a) of the *Local Government Act*.
3. That Richmond Official Community Plan Bylaw 7100, Amendment Bylaw 10190, having been considered in accordance with OCP Bylaw Preparation Consultation Policy 5043, is hereby found not to require further consultation.
4. That instream rezoning applications that are received prior to adoption of Richmond Official Community Plan Bylaw 7100, Amendment Bylaw 10190, may be exempt from the Spires Road Area Market Rental Policy provided the application achieves first reading within one year of the amendment bylaw being adopted and final adoption and issuance of a Development Permit within one year following the associated Public Hearing.
5. That staff report back to Council regarding key findings related to the implementation of updates to the City Centre Area Plan for the Spires Road area after the policy provisions are in place for one year.

6. That staff be directed, on an interim basis, to consider development applications within the Arterial Road Land Use Policy that would allow higher densities provided that all of the additional density is used for rental housing, and that this interim measure becomes a foundation for the overall policy review of the Arterial Road Land Use Policy as part of the Official Community Plan targeted review to secure more rental along designated Arterial Road, in particular near Neighbourhood Service Centres and frequent transit routes.



John Hopkins  
Director, Policy Planning  
(604-276-4279)

REPORT CONCURRENCE		
<b>ROUTED TO:</b>	<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>
Affordable Housing	<input checked="" type="checkbox"/>	
Engineering	<input checked="" type="checkbox"/>	
Development Applications	<input checked="" type="checkbox"/>	
Transportation	<input checked="" type="checkbox"/>	
<b>SENIOR STAFF REPORT REVIEW</b>	<b>INITIALS:</b> 	<b>APPROVED BY CAO</b>



## Staff Report

### Origin

The following referral motion was carried at the October 20, 2021 Planning Committee meeting:

- *That staff examine a combination of all density scenarios in the staff report on Spires Road (Option 5) of the aforementioned, including consideration of prescribing the component of development in terms of market condos, market rental and income controlled rental for higher density development, and that staff undertake neighborhood consultation on all of these options and bring back to Committee.*

This report responds to the October 20, 2021 referral above by proposing a rental tenure policy and supporting amendments to the City Centre Area Plan (CCAP) for the Spires Road area that dramatically increases the provision of rental housing in the Spires Road area above the Low End Market Rental (LEMR) program and Official Community Plan's Market Rental Housing Policy. The proposed approach can be summarized as follows:

- Introduce a minimum 2.0 Floor Area Ratio (FAR) for the Spires Road area provided that:
  - the maximum residential strata is 1.2 FAR subject to the provisions of the City's Affordable Housing Strategy and Market Rental Housing Policy; and
  - the minimum rental housing secured is 0.8 FAR with the condition that at least 50% is secured for LEMR housing and the remainder is market rental housing, unless specified by Council to have a different mix of market rental and affordable rental geared towards specific income limits; and
- Permit densities up to a maximum of 3.0 FAR provided that the density beyond 2.0 FAR is comprised of at least 50% LEMR housing with the remainder as market rental housing, unless specified by Council to have a different mix of market rental and affordable rental geared towards specific income limits.

This report supports Council's Strategic Plan 2018-2022 Strategy #6 Strategic and Well-Planned Growth:

*6.1 Ensure an effective OCP and ensure development aligns with it.*

*6.5 Ensure diverse housing options are available and accessible across the housing continuum.*

## Background & Context

### Background

A targeted review of the Official Community Plan (OCP) is underway and includes exploring creative solutions and utilizing new tools to improve housing supply and affordability in Richmond. While a systematic work plan has been endorsed by Council, where feasible, staff are bringing forward policy options for Council's consideration in advance of the targeted OCP review timeline.

Consistent with this approach, affordable housing policies for the Spires Road area proposed in this report are being brought forward, and are consistent with the two key objectives for the OCP housing affordability update: fostering housing affordability through innovation and promoting affordable living.

### Context

The Spires Road area is located in the northeast portion of Brighthouse Village in City Centre (Attachment 1) and is currently designated “General Urban T4” in the City Centre Area Plan (CCAP). This designation is to permit High-Density Townhouse use in the Sub-Area Guidelines (Sub-Area B.1) of the CCAP. As a result, the area is currently in the process of transitioning from a predominately single-family neighbourhood to a neighbourhood of High-Density Townhouses.

Over the last several years, Council has approved four development applications for High-Density Townhouses in the Spires Road area. Attachment 2 shows the location of the four development projects, in addition to a newly received development application for High-Density Townhouses. The status of these projects are as follows:

File Numbers	Status
RZ 17-766525 / DP 18-829140	Approved by Council in October 2019 and is under construction
RZ 17-790301 / DP 19-875938	Approved by Council in July 2021
RZ 18-818420 / DP 21- 932383	Rezoning Bylaw at 3 <sup>rd</sup> Reading and DP application in circulation
RZ 19-870807 / DP 22-013081	Rezoning Bylaw at 3 <sup>rd</sup> Reading and DP application in circulation
RZ 22-012904	Rezoning application in circulation

As part of a November 2, 2020 referral, General Purposes Committee directed staff to undertake an assessment of the density proposed in the CCAP for the Spires Road area. In response, a report titled “Referral Response: Spires Road Area (City Centre Area Plan)” from the Director, Policy Planning, was presented to the Planning Committee on October 20, 2021. The report provided an assessment of four density scenarios for the area:

1. Low-Rise Residential - High-Density Townhouses (current land use designation);
2. Mid-Rise Residential - 4-Storey Apartments;
3. Mid-Rise Residential - 6-Storey Apartments; and
4. High-Rise Residential.

In response to the report, Planning Committee passed the October 20, 2021 referral noted in the Origin section of this report, requesting a further review of density tied to rental tenure in the Spires Road Area.

### **Analysis**

#### Proposed Spires Road Rental Tenure Policy

The preparation of the Proposed Spires Road Rental Tenure Policy included a variety of technical and data inputs:

1. **Land Use and Density Analysis:** This was included as part of a report titled “Referral Response: Spires Road Area (City Centre Area Plan)” from the Director, Policy Planning, which was presented to the Planning Committee on October 20, 2021. The analysis examined the impacts of four density scenarios for the Spires Road area from the perspectives of neighbourhood character, the provision and capacity of utilities; as well as transportation considerations related to traffic flow, internal road capacity, access/egress to/from the area, parking and loading.
2. **Housing Needs Report:** Richmond’s Housing Needs Report, which was endorsed by Council in December 2021, monitors key trends related to housing in the community. The report identifies a strong demand for market rental, in particular affordable rental, within the city.
3. **Economic Feasibility Analysis:** An analysis prepared by an experienced economic development consultant, G.P. Rollo & Associates, reviewed several density and tenure mixes in order to assess what is financially feasible in the Spires Road area. Along with density and tenure, the analysis considered construction methods (wood frame vs concrete) as well as land values. Under current economic conditions, as shown in Attachment 3, the analysis found that low rise wood frame apartments had the most economic resiliency to absorb increased components of rental housing, whether that be market rental or low end market rental (LEMR) housing.
4. **Public Consultation:** As part of this density and tenure review, staff consulted Spires Road area property owners and residents. One hundred and sixty two letters were mailed out seeking feedback on increasing the density, and the introduction of rental and non-market housing in the area (Attachment 4). Thirteen property owners (representing 17 properties, including 16 single family dwellings and one duplex, see Attachment 5) provided written feedback to the City. In summary, representatives from 16 properties in the area support the proposal to increase density and allow for mid/high rise development. There appears to be a general understanding that rental and affordable housing will accompany higher densities; however, a few respondents cautioned about the overconcentration of one form of housing over another. A consultation summary is presented in Attachment 6.

The proposed Spires Road Rental Tenure Policy pulls together key findings of the above noted inputs, and outlines a density and tenure structure to address the October 20, 2021 referral.

The proposed policy permits a mix of building forms (low-, mid-, high-rise) at higher densities than what is currently permitted under the CCAP for the Spires Road area, while facilitating a mix of strata and rental units.

The components of the proposed Spires Road Rental Tenure Policy include:

1.	Minimum Overall Density	2.0 FAR	Required
2.	Strata Residential	1.2 FAR (subject to the provisions of the City's Affordable Housing Strategy and Market Rental Housing Policy)	Optional
3.	Minimum Rental Housing	0.8 FAR (with the condition that at least 50%, or 0.4 FAR, is secured for LEMR housing and the remainder is market rental housing, unless specified by Council)	Required
4.	Maximum Density	3.0 FAR provided that strata is no more than 1.2 FAR (subject to the provisions of the City's Affordable Housing Strategy and Market Rental Housing Policy) and the remainder FAR is rental.	Optional
5.	Additional market rental & LEMR	The additional density beyond 2.0 FAR shall comprise of at least 50% LEMR housing with the remainder as market rental housing, unless specified by Council)	Optional

The primary intention of the proposed policy is to dramatically increase the number of rental units within the Spires Road area by increasing residential density. As noted above, under current economic conditions, the financial feasibility analysis found that low rise wood frame apartments had the most economic resiliency to absorb increased components of rental housing, whether that be market rental or LEMR. Based on these findings, a minimum residential density of 2.0 FAR is proposed. Of this minimum 2.0 FAR, 0.8 FAR is proposed to be designated for rental housing with the objective of achieving an even split between LEMR & market rental units. As securing rental housing is a primary objective of the City, the proposed policy builds in the flexibility of considering other income controlled rental unit mixes on a case-by-case basis.

The financial feasibility analysis also found that under current market conditions the provision of strata units supported the creation of rental units. To support the creation of rental units, a maximum 1.2 FAR for strata (including the City's Affordable Housing Strategy and Market Rental Housing Policy) is included in the proposed policy. The provision of strata units is optional, and can be substituted with additional rental units on a case-by-case basis. This could result in in a 100% rental development.

For projects that create less than 60 strata units, cash-in-lieu would be collected as part of the LEMR contribution. For projects that have more than 60 strata units, there would the standard



15% LEMR floor area and 15% market rental floor area, with additional rental be secured through higher densities.

To be responsive to the provision of rental housing in the community, and to changing market conditions, the proposed Spires Road rental tenure policy would permit an additional 1.0 FAR beyond the minimum required of 2.0 FAR for the provision of additional market rental and LEMR units up to a maximum of 3.0 FAR for the Spires Road area. For this additional 1.0 FAR, the objective is to have an even split between market rental and LEMR units. The economic analysis does indicate that the financial feasibility could be challenging if the building were to be concrete construction rather than wood frame. As a result, Council would have the opportunity to consider, on a case-by-case basis, a different mix of market rental and income controlled units.

All market rental units noted above would be secured through residential rental tenure zoning (secured in perpetuity through a legal agreement), and market rental units would not be subject to rental rates or household income thresholds.

### Density & Tenure Options

Staff has undertaken a review of density and tenure in the Spires Road area. Based on the lessons learned from this review, coupled with the fact that the area has started to transition to a neighbourhood of High-Density Townhouses, two options are presented for Council's consideration:

#### ***Option 1 – Proposed Spires Road Rental Tenure Policy (Recommended)***

Merits of this approach include:

- Substantially increasing rental opportunities (market and LEMR) in the Spires Road area, by securing 40% to 70% of the total floor area for rental housing within a residential development.
- Increasing density in the area would increase the residential population in proximity to the Richmond-Brighouse Canada Line station by potentially 1000 residents over High-Density Townhouse developments.
- Providing opportunities for a mix of low-, mid-, and high-rise building forms at varying densities in proximity to the Richmond-Brighouse Canada Line station.
- Opportunities for parking reductions for secured market rental in close proximity to the Canada Line.

To further support the provision of affordable housing in the City Centre, residential developments comprising of 100% market rental would be encouraged as outlined above. In addition, to address transportation impacts associated with the higher densities, these impacts can be evaluated during the rezoning process for each development project. Council is also considering OCP bylaw amendments that could reduce parking requirements by 50% for rental units, or further, on a case-by-case basis.

As density (FAR) could vary throughout the area, Option 1 would produce an estimated 1600-2100 units that would be home to an estimated population of 3400-4200 residents.

### ***Spires Road Area Boundary Expansion***

The Spires Road area currently consists of single-family homes and a few duplexes, along with some recent development sites for High-Density Townhouses. Adjacent to the area, on properties along Cook Road, Cooney Road and Westminster Highway, there are a number of multi-family developments (up to four storeys including the parking structure) and a 10-storey building located at the corner of Cooney Road and Westminster Highway.

The entire neighbourhood bounded by Garden City Road, Cook Road, Cooney Road and Westminster Highway is designated for High-Density Townhouse uses under the CCAP, except for the southeast corner of Cooney Road and Westminster Highway, which is designated for Mid-Rise Residential (4-8 storeys). A CCAP Land Use Designations Map for the immediate area is presented as Attachment 7.

If Council moves forward with Option 1, staff recommend that the “Urban Centre T5” designation allowing for Mid-Rise Residential (4-8 storeys) be expanded to the entire neighbourhood bounded by Garden City Road, Cook Road, Cooney Road and Westminster Highway. This land use designation would be consistent with the land use designation for properties located across Garden City Road to the east and properties located across Cooney Road to the west (except for the area by the southwest corner of Cooney Road and Westminster Highway, which is designated for High-Rise Residential). This land use designation would also serve as an appropriate land use transition (massing and scale) between the High-Rise Residential allowed to the northwest of the neighborhood and the High-Density Townhouse allowed to the south of the neighbourhood.

If Council moves forward with Option 1, to expedite the process for the delivery of affordable housing in the Spires Road area, bylaw amendments to the CCAP are proposed below.

Should Council choose not to proceed with Option 1, a second option provides direction to maintain the existing designation.

### ***Option 2 – Maintain High-Density Townhouse/General Urban T4 Designation***

Merits of this approach include:

- the High-Density Townhouse building form allows for smaller scale developments, which provides opportunities for additional public walkways to be developed throughout the neighbourhood;
- High-Density Townhouses would allow for more flexibility in site planning than other higher density housing typologies (due to the large building footprints/parking requirements of mid- and high-rise developments), potentially facilitating more tree preservation opportunities;
- the existing lot and block configuration, and landownership pattern more readily accommodate High-Density Townhouse developments; and,
- significantly larger private outdoor space is required for High-Density Townhouse developments than other higher density housing typologies, which make it well suited to provide housing for families.

Maintaining the High-Density Townhouse designation would produce an estimated 700-800 units that would accommodate an estimated 2000-2400 residents. A full assessment of the pros, cons, and feasibility of High-Density Townhouse development in the Spires Road area is provided in a report titled “Referral Response: Spires Road Area (City Centre Area Plan)” from the Director, Policy Planning, which was presented to the Planning Committee on October 20, 2021.

If Council moves forward with Option 2, the City would continue to process development applications for High-Density Townhouses in the Spires Road area. In addition, to support the provision of affordable housing in City Centre, apartment building forms would continue to be considered, on a case-by-case basis, in the Spires Road area, where additional density is for rental housing and is tied to income thresholds. A recent example of this type of approval is the 149 purpose-built market rental housing units at 8108 Lansdowne Road (formerly 5500 No. 3 Road). These units are secured in perpetuity with a market rental agreement registered on Title. Rental rate and household income restrictions are subject to the BC Housing’s Housing Hub Provincial Rental Supply Program

To address form and character issues raised regarding recent High-Density Townhouse development applications (e.g., pitched roofs), staff would also bring forward Special Precinct Development Permit Guidelines for the area for Council consideration. Staff would require direction from Planning Committee to bring the associated bylaws forward if Option 2 were preferred.

#### Proposed Bylaw Amendments to the City Centre Area Plan

In response to Council’s prioritization of affordable housing, staff have prepared bylaw amendments as part of the recommended Option 1 to allow an increase in density provided that it is tied to rental housing. The proposed Amendment Bylaw 10190 includes an overlay and supporting policies that prioritize affordable housing in the Spires Road area.

The proposed bylaw amendments have been structured to give Council the ability to consider adjustments to the density and tenures outlined above, on a case-by-case basis, in order to further advance affordable housing objectives in the Spires Road area.

To further support the delivery of affordable housing, Amendment Bylaw 10190 also:

1. defines the Spires Road Area as the area generally bounded by Westminster Hwy., Garden City Road, Cook Road and Cooney Road, and excluding 6180 Cooney Road (as this site has already been redeveloped around 10 year ago under the current CCAP); and
2. designates the Spires Road Area as “Urban Centre T5” and “Sub-Area B2 Mixed Use – Mid-Rise Residential & Limited Commercial”.

The “Urban Centre T5” land use designation would allow for multi-family developments within the Brighthouse Village. Specific density and development requirements for future development proposals within the Spires Road area are proposed to be added to the Detailed Transect Description for the Brighthouse Village. The minimum residential density of 2.0 FAR would include a base density of 0.6 FAR, an Affordable Housing Bonus of 0.6 FAR, and a market

rental component no less than 0.8 FAR. All additional density, where applicable, would be for residential rental tenure housing only.

As higher density and different forms of housing (i.e., low-, mid-, and high-rise) are proposed for the Spires Road Area, design guidelines under “Sub-Area B2 Mixed Use – Mid-Rise Residential & Limited Commercial” would be more appropriate for this neighbourhood. Sub-Area B2 is intended primarily for medium- density, mid-rise (4-8 storeys) housing up to 2.0 FAR and 25 m building height. For developments with permitted density exceeding 2.0 FAR, they may be considered under “Sub-Area B3 – High-Rise Residential, Commercial & Mixed Use”. A text amendment to the Sub-Area B2 guidelines is also being proposed to reflect this. Staff also propose to add new provisions in the implementation section and definition section of the CCAP to clarify that no rezoning will be supported in the Spires Road area unless rental housing is provided and secured with residential rental tenure zoning. The proposed additions to the CCAP would also ensure that additional density would result in a community benefit to the satisfaction of the City and the scale, form, and character of development are complementary to that intended for neighbouring properties under the Area Plan.

#### Provisions for instream applications

In-stream applications are recommended to be grandfathered as follows:

- For development projects with associated rezoning bylaws that have received third reading prior to the date of Council adoption of Bylaw 10190, the developments would be subject to the former land use designation and sub-area guidelines at Development Permit stage; and
- For in-stream rezoning applications that have not received third reading prior to the date of Council adoption of Bylaw 10190, the associated developments will be subject to the former land use designation and sub-area guidelines if the rezoning bylaw is granted first reading by Council within one (1) year of Council adoption of Bylaw 10190, and final adoption and issuance of a Development Permit within one year following the associated Public Hearing.

For applications that are unable to receive final adoption within one year following public hearing, a report would be brought forward for consideration by Council. The report would provide the following options:

- Allow additional time for the project to be completed based on circumstances that have affected the timeline for a project that has been actively working to advance and achieve final adoption of the rezoning bylaw and issuance of the Development Permit; or
- Rescind third reading of the rezoning bylaw and require the project to be redesigned to include the required market rental housing.

#### Consultation

Attachment 8 includes a summary of consultation with respect to the *Local Government Act* and the City’s OCP Bylaw Preparation Consultation Policy No. 5043 requirements. Should Planning Committee endorse the amendment bylaws, the bylaws will be forwarded to the next open Council meeting for consideration by City Council. Should Council grant first reading to the proposed amendments to the City Centre Area Plan, further to the protocol of a Public Hearing



(i.e., item to be published in the *Richmond News* and on the City website in advance of the Public Hearing), a Public Hearing notice will also be forwarded to all owners and residents of properties affected by the proposed amendments (Attachment 9).

### Arterial Road Land Use Policy

With the recent interest in securing more rental housing through increased density along the City's arterial roads, staff recommend, on an interim basis, to consider development applications within the Arterial Road Land Use Policy that would allow higher densities provided that all of the additional density is used for rental housing, preferably a mix of affordable rental and market rental. This interim measure would then become a foundation for the overall policy review of the Arterial Road Land Use Policy as part of the OCP targeted review to secure more rental along designated Arterial Road, in particular near Neighbourhood Service Centres and frequent transit routes. Considerations will need to be made to OCP land use designations, density minimums and maximums, building and site design guidelines, and adjacency to single-family neighbourhoods. Further, public and stakeholder consultation would be required. A revised policy framework, with appropriate bylaw amendments, would be brought forward to Council at a later date as part of the OCP review.

### **Financial Impact**

None

### **Conclusion**

This report responds to the October 20, 2021 referral by proposing a rental tenure policy and supporting amendments to the City Centre Area Plan (CCAP) for the Spires Road area that dramatically increases the provision of rental housing in the Spires Road area above the LEMR program and OCP's Market Rental Housing Policy. The proposed approach can be summarized as follows:

- Introduce a minimum 2.0 Floor Area Ratio (FAR) for the Spires Road area provided that:
  - the maximum residential strata is 1.2 FAR subject to the provisions of the City's Affordable Housing Strategy and Market Rental Housing Policy; and
  - the minimum rental housing secured is 0.8 FAR with the condition that at least 50% is secured for LEMR housing and the remainder is market rental housing, unless specified by Council to have a different mix of market rental and affordable rental geared towards specific income limits; and
- Permit densities up to a maximum of 3.0 FAR provided that the density beyond 2.0 FAR is comprised of at least 50% LEMR housing with the remainder as market rental housing, unless specified by Council to have a different mix of market rental and affordable rental geared towards specific income limits.

To minimize risks and unintended outcomes associated with implementation (e.g., impacts of inflation and higher interest rates, appreciative decline in development activity, etc.), staff recommend that implementation of the Spires Road Rental Tenure Policy be monitored and that staff report back to Council regarding key findings after the proposed bylaw amendments are in

place for one year. It is recommended that Richmond Official Community Plan Bylaw 7100, Amendment Bylaw 10190, be introduced and given first reading.

A handwritten signature in black ink that reads "Steve Gauley". The signature is written in a cursive, slightly slanted style.

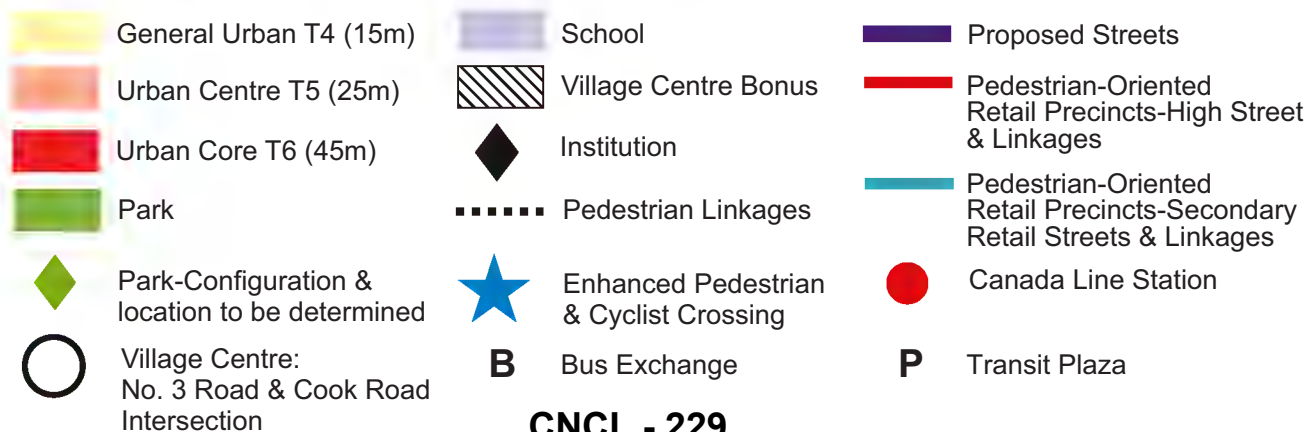
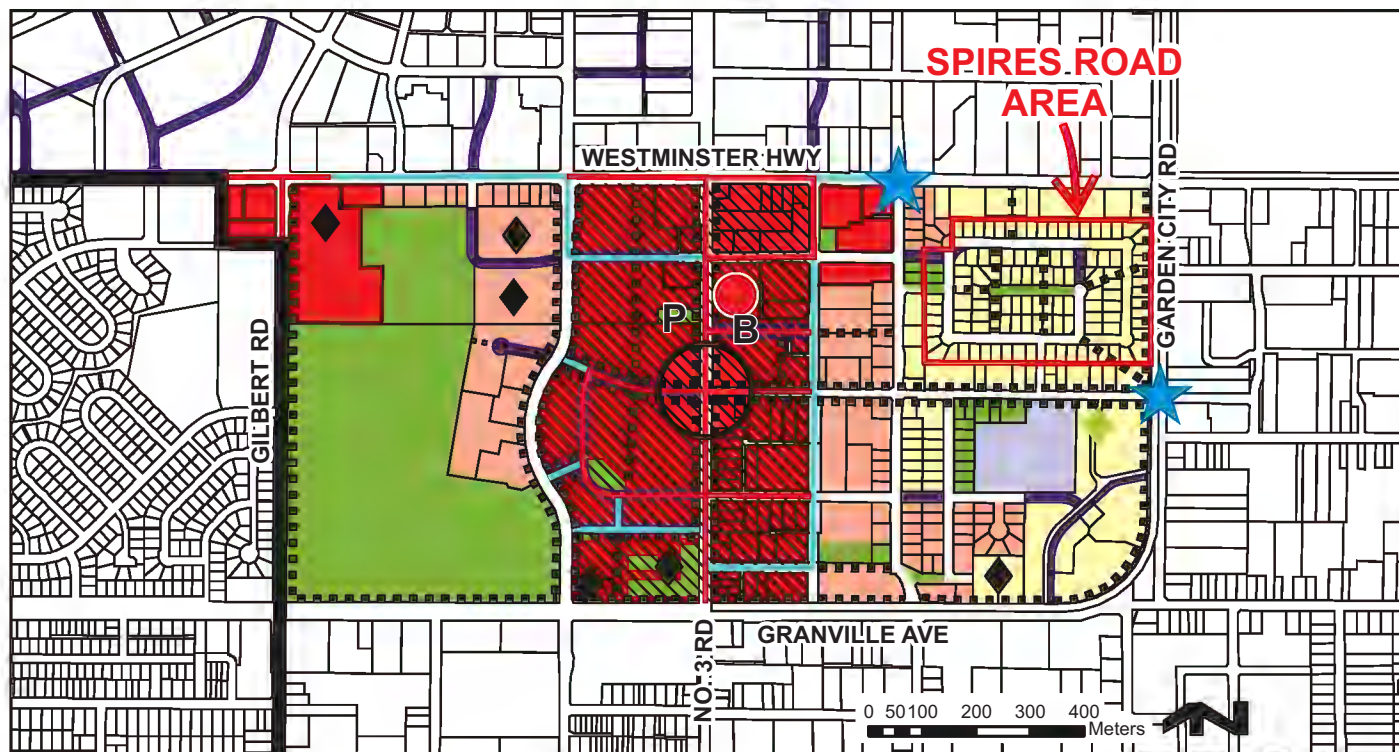
Steve Gauley  
Program Manager, Policy Planning  
(604-276-4164)

SG:cas

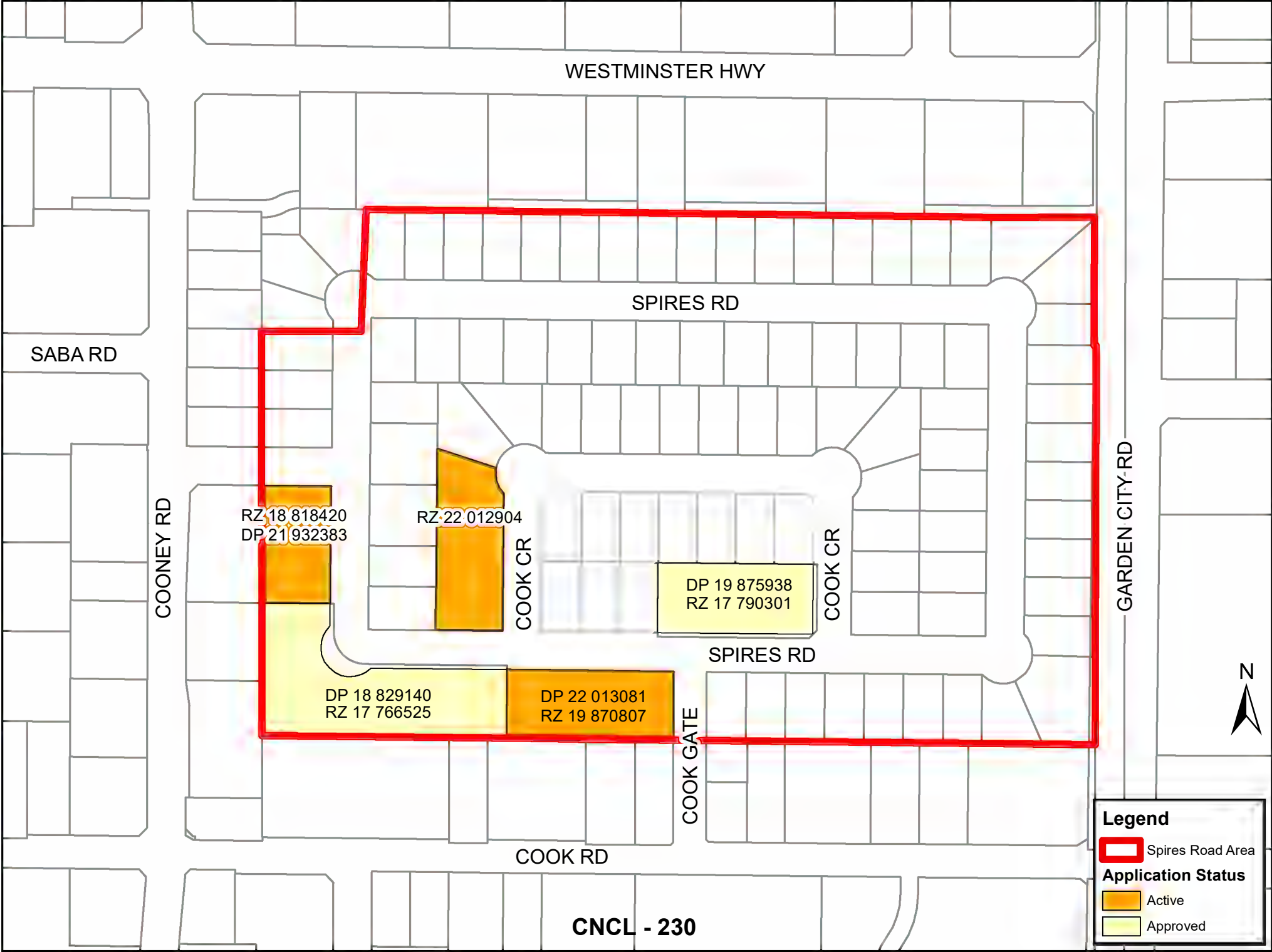
Attachments:

- Attachment 1: Specific Land Use Plan Brighthouse Village (2031) – Spires Road Area
- Attachment 2: Active and Approved High Density Townhouse Applications – Spires Road Area
- Attachment 3: Economic Feasibility Analysis – Executive Summary
- Attachment 4: Sample Consultation letter
- Attachment 5: Consultation Feedback – Map
- Attachment 6: Consultation Feedback – Summary
- Attachment 7: CCAP Sub-Area Land Use Designations – Spires Road and Surrounding Area
- Attachment 8: OCP Consultation Policy & Summary of Consultation with Key Stakeholders
- Attachment 9: Notification Area Map

# Specific Land Use Map: Brighthouse Village (2031)



Active and Approved High Density Townhouse Applications - Spires Road Area





June 6, 2022

**Re: Richmond Spire Road Area Financial Analysis Executive Summary**

G. P. Rollo & Associates (GPRA) was retained to prepare a financial analysis to evaluate the financial feasibility of a potential policy to provide incentives for developers to include market rental and income controlled rental units in all new residential developments in the Spires Road Area. GPRA has the following to report:

- Townhouses don't have the ability to remain financially feasible while increasing the portions of rental in the project. A variety of factors play into this, including lower rents being required for larger unit sizes to remain affordable, and the fact that increased density over 1.2 FAR likely necessitates a switch to apartments;
- Low rise wood frame apartments had the most economic resiliency to absorb increased components of rental housing, whether that be market rental, HILs rental, or LEMR;
- Concrete mid-rise apartments demonstrate little ability to absorb increased requirements for any rental;
- All 100% rental scenarios that include a mix of non-market units generally would require a subsidy of some sort for a developer to undertake such a project;
- A number of density and tenure mixes were assessed to determine what is financially feasible in the Spires Road area
- Through this, it was determined that 60% strata (1.2 FAR)/20% market rental (0.4 FAR)/20% Richmond's LEMR (0.4 FAR) rate would be feasible at a density of 2.0 FAR provided that construction is wood frame.;
- If the density increases beyond 2.0 FAR while the strata proportion (1.2 FAR) remains the same, the project will become less financially feasible as the project would likely switch to concrete construction;
- Parking reductions for rental components will help, but the cost for parking for low rise projects is a relatively small part of the overall cost but may help as part of a slate of tools to make rental housing more feasible. In the mid-rise form similar principles hold true regarding the ratio of costs for parking to the overall unit cost, but here the greater gap is between the cost of construction overall compared to rents that can be achieved.
- Generally if developers are expected to pay for non-market units a value similar to LEMR units the minimum rent they could charge would be around LEMR rates, or a blended average of \$1.81 per square foot in order to break even while servicing their debt.
- The lowest rents a non-profit housing operator could offer would be roughly \$1.05 per square foot per month, but this would require units be provided free of charge.

January 26, 2022  
File: 08-4105-20-AMANDA #/2021-Vol 01

Planning and Development Division  
Policy Planning  
Fax: 604-276-4052

Dear Owner/Resident:

**Re: Consultation regarding future re-development in the Spires Road Area**

The purpose of this letter is to inform you of a planning study that the City of Richmond is undertaking in your neighbourhood and to provide you with an opportunity to provide input.

**Background**

The Spires Road Area (Attachment 1) is currently identified in the City Centre Area Plan (CCAP) as an area intended to transition from a predominately single-family neighbourhood to a neighbourhood of urban-style townhouses with dedicated parking structures. The maximum density allowed under this land use designation is 1.2 FAR<sup>1</sup>. Inline with this vision, over the last several years, two urban-style townhouse developments have been approved in the area and are currently being developed.

Due to the neighbourhood's close proximity to the Brighthouse Skytrain Station, and to provide more affordable housing options in Richmond, Council's Planning Committee has directed City Planning staff to study the feasibility of providing more multiple family housing in the form of low rise and high rise apartments in the Spires Road Area. Higher densities would only be considered where there would be income controlled rental housing and/or non-market housing as part of the proposal.

**Approach**

Staff are preparing to update the CCAP in order to:

- develop a policy to provide incentives for new residential developments in the Spires Road Area to include market rental, income controlled rental, and non-market housing/social housing units;
- consider allowing higher densities (for examples, low-rise or high-rise residential buildings instead of townhouses only) in the Spires Road Area for projects that provide non-market housing and/or income controlled rental housing units;

<sup>1</sup> Floor Area Ratio (FAR) is the ratio of the building's floor area to the size of lot/parcel that the building is located on. For example, if a 1,000 square foot building stands on a 1,000 square foot of land, the floor area ratio is 1.0.

THIS IS AN IMPORTANT NOTICE. PLEASE  
HAVE SOMEONE TRANSLATE IT FOR YOU.

這通告很重要，請找人為您翻譯解說。  
这通告很重要，请找人为您翻译解说。

INFORMATION IMPORTANTE:  
TRADUISEZ S'IL VOUS PLAÎT.

ਇਹ ਇੱਕ ਜ਼ਰੂਰੀ ਸੂਚਨਾ ਹੈ। ਕਿਰਪਾ ਕਰਕੇ ਕਿਸੇ  
ਤੋਂ ਇਸ ਦਾ ਆਪਣੇ ਲਈ ਅਨੁਵਾਦ ਕਰਵਾਉ।

- update the road circulation network within the Spires Road Area to accommodate the additional density, if required; and to enhance pedestrian connectivity; and
- include a set of Special Precinct Development Permit Guidelines to establish a consistent neighbourhood character within the Spires Road Area.

### **What this means to you**

As a property owner and resident in this area, your opinion is important to us. Your participation in this consultation process will assist the Planning and Development Department in accurately reflecting your views when making a recommendation to Council on the future of your neighbourhood.

City Planners are seeking all stakeholder comments to be submitted prior to **Thursday, February 10, 2022.**

Please kindly submit your written comments, including suggestions and concerns for future developments in the Spires Road Area:

- by email to [elee@richmond.ca](mailto:elee@richmond.ca)
- by mail to Edwin Lee, Planner 2 at 6911 No. 3 Road, Richmond, V6Y 2C1.

If you have any specific questions or require clarification on this consultation process, please feel free to contact the undersigned directly at 604-276-4121.

### **Process**

Upon completion of this consultation process, City Planners will report back to Planning Committee with further recommendations. If Planning Committee and Council wish to advance the proposed updates to the CCAP for the Spires Road Area, a Public Hearing would be required in accordance with the *BC Local Government Act*.

At the Public Hearing, all persons who believe that their interest in property is affected by the proposed bylaw will be given an opportunity to be heard or to present written submissions. A notice for a future Public Hearing will be mailed to the owners and residents in the Spires Road Area, and placed in the local newspaper.

### **Additional Information**

If you have concerns related to current construction activities in the Spires Road Area, please be advised that:

- The City's Noise Regulation Bylaw 8856 regulates construction noise, including demolition. Provided the day is not a Sunday or Statutory holiday, construction noise not exceeding 85 decibels "dBA" is permitted Monday to Friday from 7 a.m. to 8 p.m. and Saturdays from 10 a.m. to 8 p.m.
- The City's Unsightly Premises Regulation Bylaw 7162 contains requirements for proper clean-up of properties.
- Tree Protection Bylaw 8057 regulates the removal and retention of trees 20 cm in diameter or greater located on private property

- For urgent matters such as water and sewer problems, road obstructions, downed trees or other problems, please contact Public Works at 604-270-8721.
- For construction activity noise, dispersion of rodents during construction, health hazards related to air and water or sewage disposal problems, please contact Vancouver Coastal Health – Richmond Health Services at 604-233-3147 or RCMP non-emergency line (after hours) at 604-278-1212.
- For building permit enquiries, construction vibration, neighbouring fencing and property line encroachment, and tree protection during construction, please contact Building Approvals at 604-276-4285, or Tree Protection at 604-247-4684, or City Street Trees at 604-244-1208.
- For unsightly or excessive accumulation of construction debris, and parking enquiries at construction site, please contact Community Bylaws at 604-276-4345.
- For soil on roadway or sidewalk, pollution impact on drainage ditches or storm sewers, please contact Engineering at 604-276-4289.

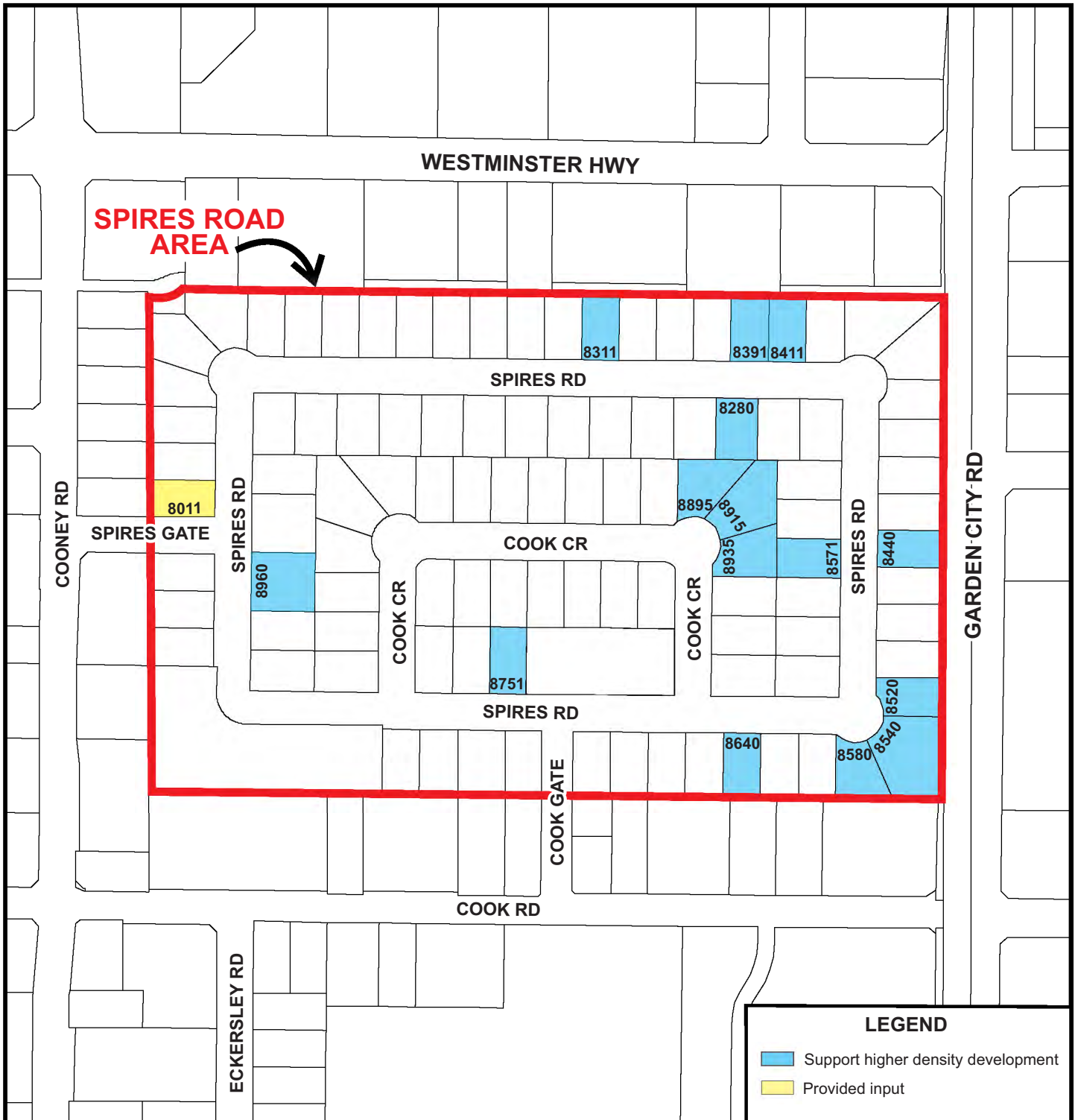
Yours truly,



Edwin Lee  
*Planner 2*  
City of Richmond

EL:cas





## Consultation - Higher Density in the Spires Road Area

Original Date: 05/24/22

Revision Date:

Note: Dimensions are in METRES

## **Consultation Feedback – Summary (Spires Road)**

**Letters sent out:** 162 letters mailed out

**Response Rate:** 13 property owners (representing 17 properties/including 16 single family dwellings and one duplex)

### **Summary of Consultation Feedback:**

- 1 comment on the “overabundance of income controlled rentals and non-market housing/social housing units could negatively impact property values”.
- 1 comment on the fact that an overabundance of non-market housing may cause the neighbourhood to deteriorate if adequate social support services are not available.
- 1 suggestion that non-market or affordable housing should not be mixed with strata or market rental units in the same building; they should be provided in a stand-alone building.
- 1 disagreement with higher density being linked to non-market housing; affordable housing for family who are not qualified for subsidized housing should be provided instead.
- 1 request that the city find a way to provide more “more affordable”/starter-home units for ownership.
- 1 concern with potential on-street parking shortage caused by new developments and higher density.
- 1 request to keep the existing road network and not to close the eastern section of Spires Road as per the current area plan.
- 1 suggestion that the City should stop issuing building permits for new single family construction in the area to avoid further delaying higher density developments.
- 1 recommendation to maximize building footprint on the ground and provide outdoor spaces on the top of the podium or building instead.
- 2 comments that it takes so long for the City to review the area plan and allow for higher density.

There were also 3 comments related to parking, which were forwarded to Transportation and Community Bylaws for response:

- 2 comments related to the fact that construction parking is destroying the lawn area within the city boulevard and leaving a mess.
- 1 comment on the lack of enforcement on parking restrictions in the area.

# CCAP Land Use Designations Map - Spires Road and Surrounding Area



- Spires Road Area
- Sub Area B1 - High Density Townhouses 1.2 FAR 15m Max Height
- Sub Area B2 - Mid-Rise Residential (4-8 storeys) 2.0 FAR 25 m Max Height
- Sub Area B3 - High Rise Residential 3.0 FAR 45 m Max Height
- Sub Area B4 - High-Rise Commercial & Mixed Use 4.0 FAR 45 m Max Height
- Park
- School
- Proposed Streets

### *OCP Consultation Policy*

Staff have reviewed the proposed OCP amendments, with respect to the *Local Government Act* and the City's OCP Bylaw Preparation Consultation Policy No. 5043 requirements and recommend that this report does not require referral to external stakeholders. The table below clarifies this recommendation as it relates to the proposed OCP amendment.

<b>Stakeholder</b>	<b>Referral Comment (No Referral necessary)</b>
Agricultural Land Commission (ALC)	No referral necessary because the Land Reserve is not affected.
Richmond School Board	Will be referred to the Board of Education of School District No. 38 (Richmond) for comment and response by July 18, 2022.
The Board of Metro Vancouver	No referral necessary because the Regional District is not affected.
The Councils of adjacent Municipalities	No referral necessary because adjacent municipalities are not affected.
First Nations (e.g. Sto:lo, Tsawwassen, Musqueam)	No referral necessary because First Nations are not affected.
TransLink	No referral necessary because the proposed amendments will not result in significant road network changes.
Port Authorities (Vancouver Port Authority and Steveston Harbour Authority)	No referral necessary because the Port is not affected.
Vancouver International Airport Authority (VIAA) (Federal Government Agency)	No referral necessary because the proposed amendments do not affect Transport Canada's maximum permitted building height or the OCP Aircraft Noise Sensitive Development (ANSO) Policy.
Richmond Coastal Health Authority	No referral necessary because the Health Authority is not affected.
Community Groups and Neighbours	A Public Hearing notice will be sent to all owners and residents in the Spires Road area to comment on the proposed OCP amendment at a Public Hearing.
All relevant Federal and Provincial Government Agencies	No referral necessary because Federal and Provincial Government Agencies are not affected.







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**Richmond Official Community Plan Bylaw 7100  
Amendment Bylaw 10190**

The Council of the City of Richmond, in open meeting assembled, enacts as follows:

1. Richmond Official Community Plan Bylaw 7100, Schedule 2.10 (City Centre Area Plan), is amended by:
  - a) On page 3-3, in the Development Permit Sub-Area Key Map, extending “B2 Mixed Use – Mid-Rise Residential & Limited Commercial” to include the area bounded by Westminster Highway, Garden City Road, Cook Road and Cooney Road and identified as “Urban Centre T5 (25m)” and “Spires Road Area” on “Schedule A attached to and forming part of Bylaw 10190”;
  - b) On page 3-44, in Section 3.2.5 Sub-Area B.1, removing the area bounded by Westminster Highway, Garden City Road, Cook Road and Cooney Road from “Sub-Area B.1 Mixed Use – Low-Rise Residential & Limited Commercial”;
  - c) On page 3-46, in Section 3.2.6 Sub-Area B.2, designating the area bounded by Westminster Highway, Garden City Road, Cook Road and Cooney Road and identified as “Urban Centre T5 (25m)” and “Spires Road Area” on “Schedule A attached to and forming part of Bylaw 10190” as “Sub-Area B2 Mixed Use – Mid-Rise Residential & Limited Commercial” and “Spires Road Area”;
  - d) On page 3-46, in Section 3.2.6 Sub-Area B.2, repealing the following reference to the boundary in the map legend:

**“Capstan Station Bonus**

Development sites for which net density is permitted to exceed 2.0 FAR in the Capstan Station Bonus area may be considered under 3.2.7 Sub-Area B.3.”; and

Replacing it with:

**“Capstan Station Bonus and Spires Road Area**

Development sites in these areas for which net density is permitted to exceed 2.0 FAR may be considered under 3.2.7 Sub-Area B.3.”

- e) On page 4-3, inserting policy 4.1.m) as follows:

**“Residential Rental Tenure – Spires Road Area**

No rezoning of development sites will be supported in the Spires Road Area (Brighthouse Village) unless the owner provides rental housing on the

development site, secured with residential rental tenure zoning, as determined to the satisfaction of the City.”

- f) On the “Generalized Land Use Map (2031)”, designating the area bounded by Westminster Highway, Garden City Road, Cook Road and Cooney Road and identified as “Urban Centre T5 (25m)” and “Spires Road Area” on “Schedule A attached to and forming part of Bylaw 10190” as “Urban Centre T5” and “Spires Road Area”;
- g) In the Land Use Maps section of the bylaw, inserting “Overlay Boundary – Rental Housing Area Map (2031)” as shown in “Schedule B attached to and forming part of Bylaw 10190”.
- h) Replacing the Specific Land Use Map: Brighthouse Village (2031) with “Schedule A attached to and forming part of Bylaw 10190”;
- i) Repealing the existing text in the “Specific Land Use Map: Brighthouse Village – Detailed Transect Descriptions” with regard to “Maximum Average Net Development Site Density” for “Urban Centre T5 (25m)” and replacing it with the following:

- For Non-Residential Uses: 2.0.

- For Residential and Mixed Uses including Residential:

- Within the Spires Road Area: 2.0 minimum comprising:

- a) base: 1.2, subject to the provisions of the City’s Affordable Housing Strategy and Market Rental Housing Policy, except as specifically provided for in the Spires Road Area; and
- b) residential rental tenure housing: 0.8, provided that at least 50% is secured for low end market rental housing and the balance is market rental housing, unless otherwise approved by Council.

- Elsewhere:

- a) base: 1.2;
- b) Affordable Housing Bonus: 0.8.

Additional density, where applicable:

- Institution: To be determined on a site specific basis via City development application processes.
- Specifically for 6331 and 6351 Cooney Road: 2.67.
- Spires Road Area rental tenure housing bonus: 1.0, provided that at least 50% is secured for low end market rental housing and the balance is market rental housing, unless otherwise approved by Council.”

- j) On page A-1, inserting into Appendix 1 – Definition, under the sub-heading Overlays, the following:

**“Spires Road Area**

An area that:

- comprises the Spires Road Area (Brighthouse Village);
- requires a minimum density of 2.0 FAR comprising:

- a) base: 1.2, subject to the provisions of the City's Affordable Housing Strategy and Market Rental Housing Policy, except that the OCP Market Rental Housing Policy density bonus shall not apply.
    - b) residential rental tenure housing: 0.8, provided that at least 50% is secured for low end market rental housing and the balance is market rental housing, unless otherwise approved by Council.
  - on a site specific basis via City development application processes, may provide for additional density for residential rental tenure housing only, provided that the following conditions apply:
    - a) the maximum additional density shall not exceed 1.0 FAR;
    - b) the maximum total density on the net development site shall not exceed 3.0 FAR;
    - c) at least 50% of the additional density is constructed as low end market rental housing and the balance is constructed as market rental housing, unless otherwise approved by Council;
    - d) the additional density shall result in a community benefit to the satisfaction of the City;
    - e) the scale, form, and character of development shall be complementary to that intended for neighbouring properties under the Area Plan to the satisfaction of the City; and
    - f) the minimum net development site size is 4,000 m<sup>2</sup> (1.0 ac)."
  - k) Making various text and graphic amendments to accommodate the identified bylaw amendments and to ensure consistency with the Generalized Land Use Map (2031) and Specific Land Use map: Brighthouse Village (2031), as amended.
2. This Bylaw may be cited as **"Richmond Official Community Plan Bylaw 7100, Amendment Bylaw 10190"**.

FIRST READING

PUBLIC HEARING

SECOND READING

THIRD READING

ADOPTED

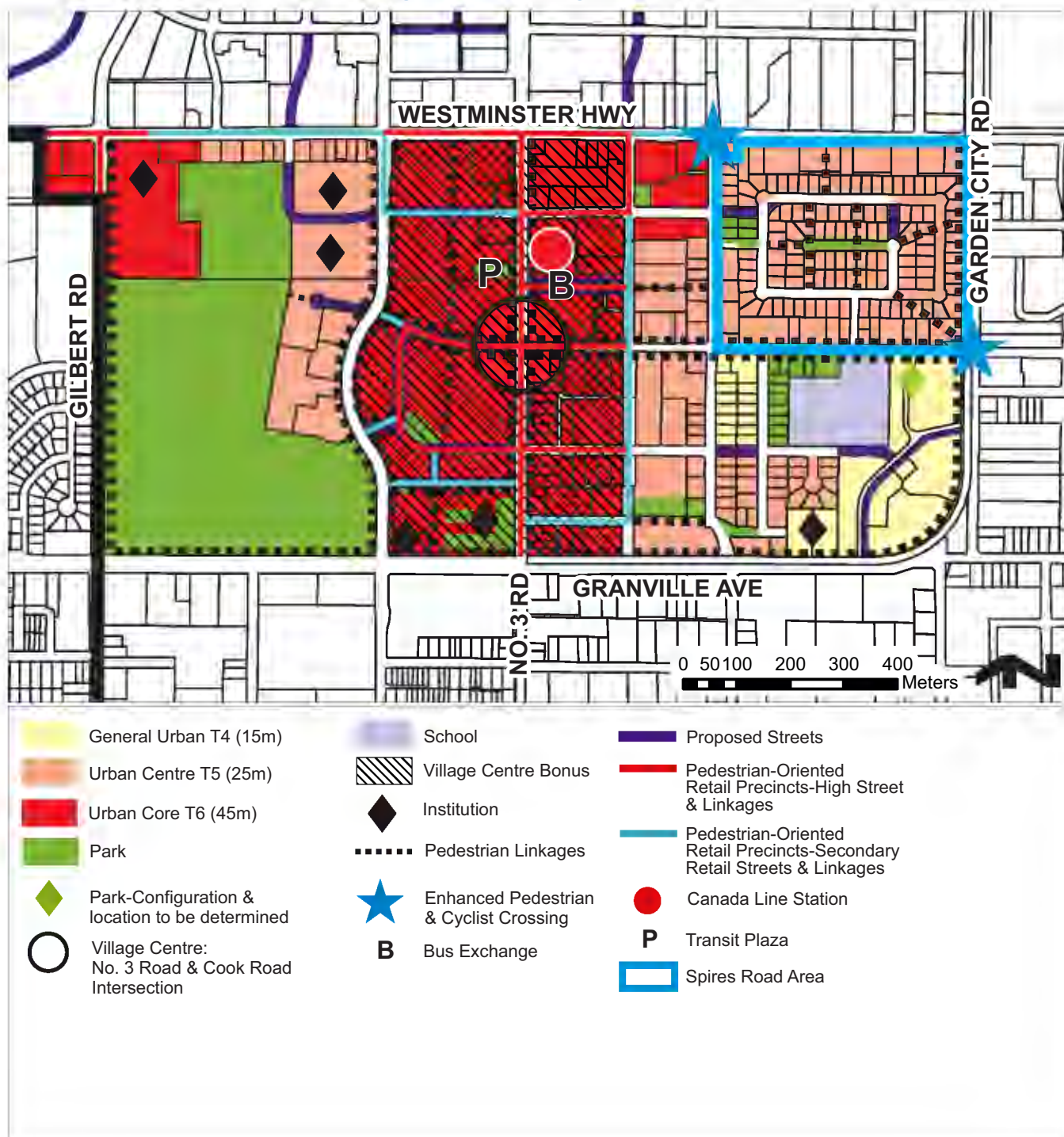
_____	CITY OF RICHMOND
_____	
_____	APPROVED by SG
_____	APPROVED by Manager or Solicitor
_____	
_____	

\_\_\_\_\_  
MAYOR

\_\_\_\_\_  
CORPORATE OFFICER



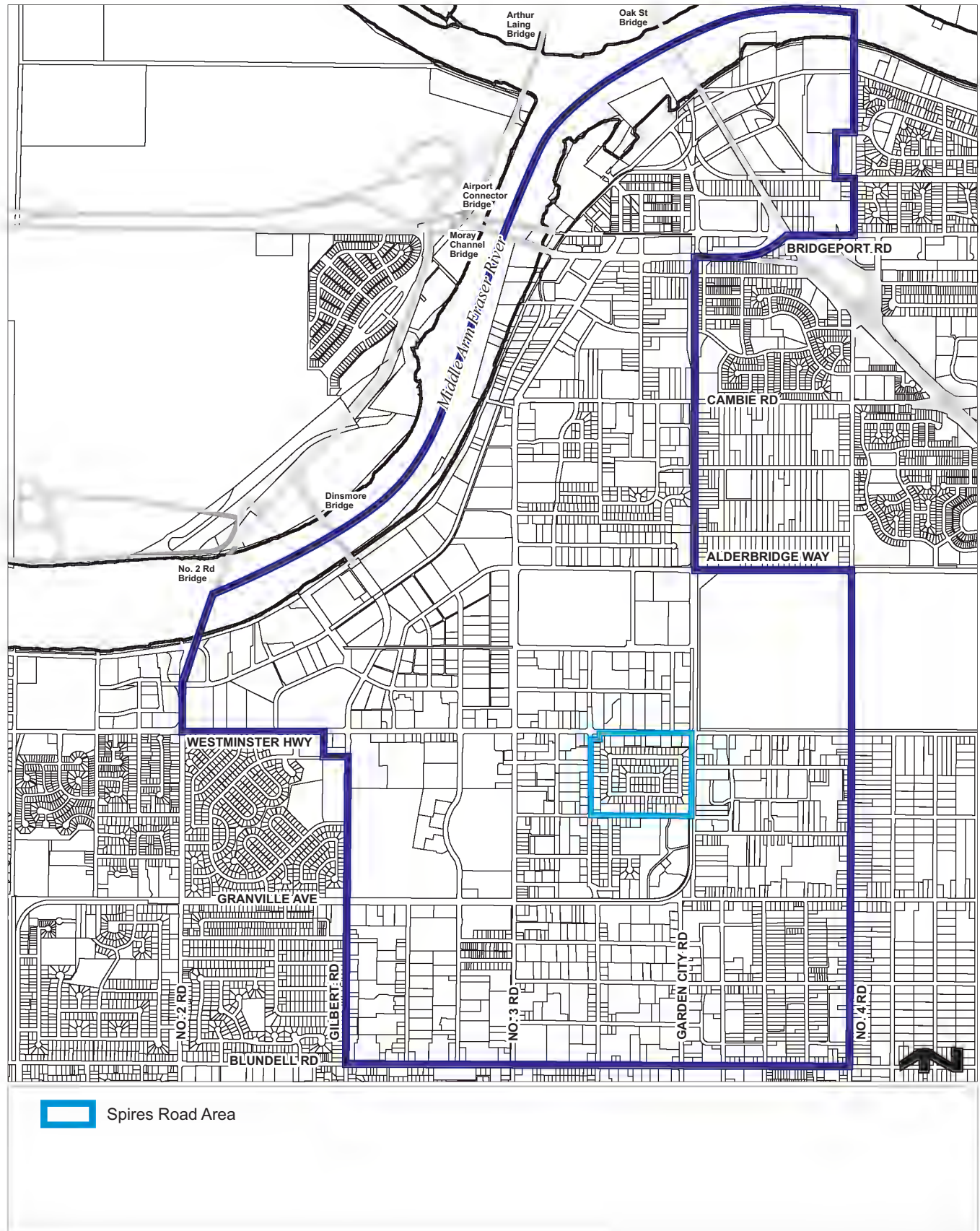
## Specific Land Use Map: Brighthouse Village (2031)



Bylaw 10020  
2019/05/21

Maximum building height may be subject to established Airport Zoning Regulations in certain areas.

## Overlay Boundary – Rental Housing Area Map (2031)





# City of Richmond

## Report to Committee

**To:** Public Works and Transportation Committee

**Date:** May 6, 2022

**From:** Lloyd Bie, P.Eng.  
Director, Transportation

**File:** 01-0150-20-  
THIG1/2022-Vol 01

**Re:** **Ministry of Transportation and Infrastructure Application to National Trade Corridors Fund**

### Staff Recommendation

That the City provide a letter of support for the Ministry of Transportation and Infrastructure's submission of the Moray Bridge Area Integrated Planning Study for consideration of cost-share funding from the Government of Canada's National Trade Corridors Fund, as described in the report titled "Ministry of Transportation and Infrastructure Application to National Trade Corridors Fund" dated May 6, 2022 from the Director, Transportation.

Lloyd Bie, P.Eng.  
Director, Transportation  
(604-276-4131)

REPORT CONCURRENCE		
<b>ROUTED TO:</b>	<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>
Intergovernmental Relations & Protocol Unit	<input checked="" type="checkbox"/>	
Economic Development	<input checked="" type="checkbox"/>	
Parks Services	<input checked="" type="checkbox"/>	
Engineering	<input checked="" type="checkbox"/>	
Policy Planning	<input checked="" type="checkbox"/>	
<b>SENIOR STAFF REPORT REVIEW</b>	<b>INITIALS:</b> 	<b>APPROVED BY CAO</b> 

## Staff Report

### Origin

The Government of Canada's National Trade Corridors Fund is a merit-based program designed to support studies and strategic infrastructure projects that help to address transportation bottlenecks, vulnerabilities and congestion along Canada's trade corridors. The \$4.2 billion in funding is spread over 11 years ending on March 31, 2028.

As part of the two-phase application process, the Ministry of Transportation and Infrastructure (the Ministry) submitted an Expression of Interest (EOI) to Transport Canada in March 2022 for the Moray Bridge Area Integrated Planning Study (the Study). The Study will assess options and strategies to improve road access between Sea Island and Highway 99 primarily along the corridors of Bridgeport Road and Sea Island Way, which in this area are under the jurisdiction of the Ministry. As the roads are located in Richmond, the City will be an active participant in the Study as well as the Vancouver Airport Authority (VAA).

Transport Canada has approved the EOI and the next phase is the submission of a more detailed Comprehensive Project Proposal by June 30, 2022. To strengthen the application, the Ministry is requesting a letter of support from the City.

This report supports Council's Strategic Plan 2018-2022 Strategy #5 Sound Financial Management:

*Accountable, transparent, and responsible financial management that supports the needs of the community into the future.*

*5.4 Work cooperatively and respectfully with all levels of government and stakeholders while advocating for the best interests of Richmond.*

This report supports Council's Strategic Plan 2018-2022 Strategy #7 A Supported Economic Sector:

*Facilitate diversified economic growth through innovative and sustainable policies, practices and partnerships.*

*7.1 Demonstrate leadership through strategic partnerships, collaborations and exploring innovative and emerging economic practices and technical advancements.*

### Analysis

#### Study Overview

The Ministry of Transportation and Infrastructure will be conducting the Moray Bridge Area Integrated Planning Study and is requesting the City's participation. The impetus for the Study is the ageing Moray Channel Bridge owned by the Ministry, which was built in 1957 and has reached the end of its useful life. Opening the swing bridge for marine traffic results in



congestion and delays for eastbound road users and adds travel time to just-in-time cargo deliveries. Malfunctioning of the swing bridge equipment further undermines travel time reliability with adverse impacts to multi-modal traffic flow and goods movement. The bridge also has inadequate headroom for dike raising to address projected sea level rise as a result of climate change.

Together with the westbound Airport Connector Bridge, both bridges connect into a complex road network on both sides of the river. The City Centre Area Plan and the YVR 2037 Master Plan envision increased densification of land use in the vicinity of the bridgeheads. These developments have the potential to increase stress on the surrounding transportation and trade networks and impact the reliability and efficiency of goods and people movement.

Bridge replacement should not be undertaken in isolation and provides an opportunity for road reconfiguration and traffic management. A comprehensive transportation network study is needed to fully understand the impacts to the surrounding transportation network caused by the future land uses. The Study will assist the Ministry, the City and VAA to integrate the planning of infrastructure investments with current and future land use development to support the movement of people and goods and develop compact, complete, connected and resilient communities.

The approximate Study area is bounded by Highway 99 on the east, Grant McConachie Way on the west, River Road to the north, and Cambie Road to the south (Figure 1).

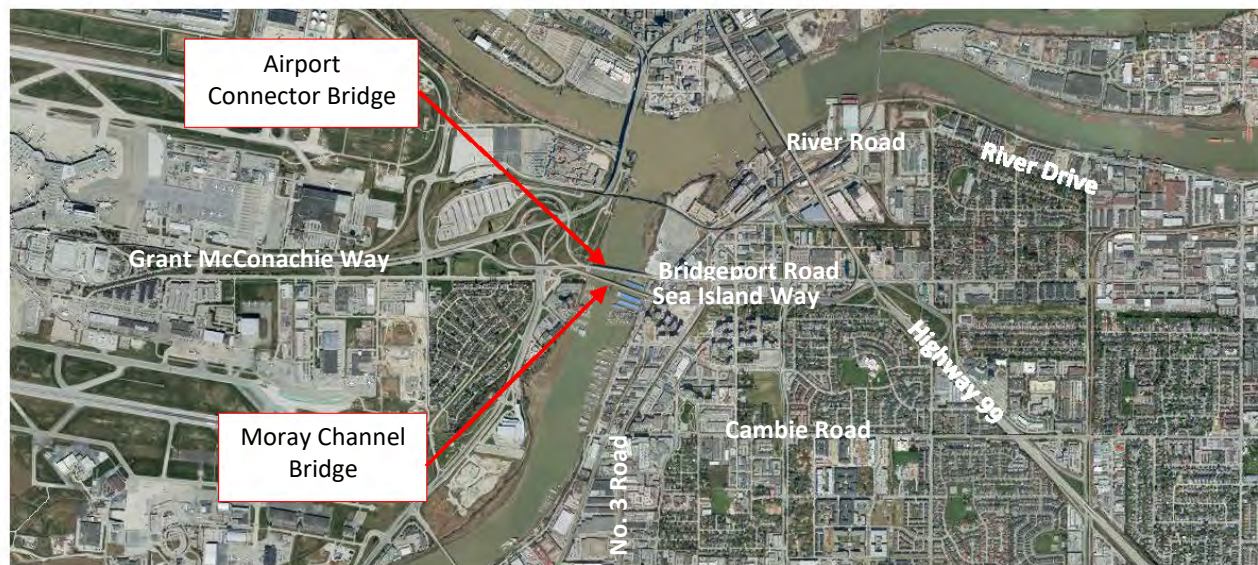


Figure 1: Study Area

### Study Objectives

Supported by technical analysis, the Study will inform infrastructure planning, transportation investments and land development to enable integrated provincial, municipal and airport planning. The following project stages are planned:

- Assess existing and future conditions
- Develop performance metrics and an evaluation framework

- Develop options and strategies
- Identify how potential improvements can inform current and future transportation investments and land use development
- Identify the implications to existing and future planning for the area

Focus areas of the Study are improving goods movement/trade networks, sustainable transportation options (active transportation, transit), climate action, and resiliency. Preferred options and strategies will leverage transportation investments to deliver shared benefits including: strengthening the trade network; economic growth and innovation; complete, compact and sustainable development; livability; climate resiliency and GHG reductions. Ultimately, the Study will provide a strong technical and engineering foundation to inform a Ministry business case for infrastructure investments.

#### Opportunity to Advance City Objectives

The collaborative Study provides an opportunity for the City to work with partner agencies to develop mutually beneficial outcomes that complement and advance City objectives in the area. Key opportunities include:

- *Road Network*: Potential improvements to enhance road safety and optimize traffic operations such as selected road widening, intersection modifications, turning and access upgrades and transit improvements.
- *Flood Protection*: The future replacement of the Moray Channel Bridge to enable dike upgrades and raising in the vicinity of both bridges in accordance with the approved Dike Master Plan Phase 2 (North Dike from Terra Nova to No. 6 Road) and Phase 5 (Sea Island, Mitchell Island and Richmond Island).
- *Middle Arm Greenway*: Dike raising also provides an opportunity to provide a new segment of the Middle Arm Greenway under the approaches of the bridges on Lulu Island as well upgrade the existing multi-use path under the approaches of the bridges on Sea Island.
- *Active Transportation Network*: Potential improvements to increase connectivity between Oak Street Bridge and YVR and to address the current barriers that Sea Island Way and Bridgeport Road present for the north-south travel of pedestrians and cyclists.
- *Area Development*: Consideration of infrastructure investments to support developments in the Study area, particularly large-scale proposals such as Duck Island and ongoing activity in Capstan Village.

#### Next Steps

The Ministry will submit the Comprehensive Project Proposal by June 30, 2022 and anticipates learning the outcome of the application by early fall 2022. If successful, the Fund will provide 50% cost-share funding. If not successful, the Ministry will still proceed with the Study but likely with a reduced scope. The Ministry anticipates that the Study will be completed by the end of 2023.

## **Financial Impact**

None. Impacts of the Study to the City are limited to in-kind resources of staff time, technical input and the provision of data.

## **Conclusion**

The Ministry of Transportation and Infrastructure will be conducting the Moray Bridge Area Integrated Planning Study and is requesting the City's participation. The study uses the required replacement of the ageing Moray Channel Bridge as a catalyst for a comprehensive transportation network study to better integrate transportation and land use planning in the area. The City's participation in the Study can help leverage opportunities to advance City priorities. Staff recommend that the City provide a letter of support for the Ministry's application to the Government of Canada's National Trade Corridors Fund for consideration of cost-share funding for the Study.



Fred Lin, P. Eng., PTOE  
Senior Transportation Engineer  
(604-247-4627)



Joan Caravan  
Transportation Planner  
(604-276-4035)

FL:jc



# City of Richmond

## Report to Committee

**To:** Public Works and Transportation Committee

**Date:** May 17, 2022

**From:** Milton Chan, P.Eng.  
Director, Engineering

**File:** 10-6000-01/2022-Vol  
01

**Re:** **Municipal Access Agreement with CIK Telecom Inc.**

### Staff Recommendation

That the Chief Administrative Officer and the General Manager, Engineering & Public Works be authorized to negotiate and execute, on behalf of the City, a Municipal Access Agreement between the City and CIK Telecom Inc. as outlined in the staff report titled, "Municipal Access Agreement with CIK Telecom Inc.", dated May 17, 2022 from the Director, Engineering.

Milton Chan, P.Eng.  
Director, Engineering  
(604-276-4377)

REPORT CONCURRENCE		
<b>ROUTED TO:</b>	<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>
Law	<input checked="" type="checkbox"/>	
<b>SENIOR STAFF REPORT REVIEW</b>	<b>INITIALS:</b>	<b>APPROVED BY CAO</b>

## Staff Report

### Origin

A Municipal Access Agreement (“MAA”) is required for third party utility owners, such as CIK Telecom Inc., to install telecommunication infrastructure and equipment within dedicated highways, streets, roads, road allowances, lanes and bridges under the City’s jurisdiction (collectively, the “Service Corridors”).

CIK Telecom has requested that a new MAA be negotiated with the City. Staff have prepared a draft MAA based on the City’s current MAA template for the purposes of negotiation with CIK Telecom. The new agreement will reflect updated regulations around telecommunication MAA’s. Staff will also negotiate to protect the City’s interests to the fullest possible extent.

This report supports the following strategies in Council’s Strategic Plan 2018-2022:

#### Strategy #4 An Active and Thriving Richmond:

*An active and thriving community characterized by diverse social and wellness programs, services and spaces that foster health and well-being for all.*

*4.2 Ensure infrastructure meets changing community needs, current trends and best practices.*

#### Strategy #5 Sound Financial Management:

*Accountable, transparent, and responsible financial management that supports the needs of the community into the future.*

*5.4 Work cooperatively and respectfully with all levels of government and stakeholders while advocating for the best interests of Richmond.*

#### Strategy #7 A Supported Economic Sector:

*Facilitate diversified economic growth through innovative and sustainable policies, practices and partnerships.*

*7.1 Demonstrate leadership through strategic partnerships, collaborations and exploring innovative and emerging economic practices and technical advancements.*

### Analysis

CIK Telecom is a federally regulated telecommunications carrier providing telecommunications services in Canada. CIK Telecom is proposing to install telecommunications infrastructure and equipment within the City of Richmond’s Service Corridors. Typical type of infrastructure and equipment expected includes underground ducting, manholes, and junction boxes. CIK Telecom is required to seek the City’s consent to use the Service Corridors, which staff recommend to be formalized through an MAA.



The City has MAA's with all telecommunications carriers who use the City's Service Corridors. The proposed CIK Telecom Municipal Access Agreement will protect the City's interests and establishes the roles and responsibilities of both parties. The proposed agreement with CIK Telecom will:

- Specify locations where the agreement will be applicable (i.e. the Service Corridors);
- Specify required consent for constructing, maintaining, operating, repairing and removing CIK Telecom's equipment, and define the scope of the City's consent;
- Require CIK Telecom to pay causal costs to the City to compensate the City for additional effort and materials spent working around a private utility installation while maintaining or constructing public infrastructure;
- Define the conditions for CIK Telecom to carry out work;
- Enable the City to have access to information about CIK Telecom equipment;
- Specify cost allocations for CIK Telecom equipment to be relocated as a result of any municipal and third party projects;
- Minimize the City's liability due to CIK Telecom's work or equipment;
- Permit shallow inlay fibre installations;
- Define fees (e.g. lost productivity costs, permitting and inspection costs, and pavement degradation) with annual increases to reflect CPI;
- Require CIK Telecom to assume environmental liability for any hazardous substances that they bring to or cause to be brought to the Service Corridors;
- Identify the insurance requirements CIK Telecom would be required to maintain; and
- Include mutual indemnity clauses.

Under the current legislative framework, if CIK Telecom wishes to install 5G antennas on any City infrastructure, they would be required to enter into a separate agreement with the City, beyond the proposed MAA.

### Financial Impact

None.

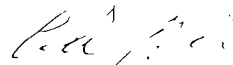
### Conclusion

A Municipal Access Agreement between the City and CIK Telecom will allow the City to better manage and regulate the installation and presence of CIK Telecom equipment within the City's Service Corridors. The terms and conditions of the proposed agreement provide cost recovery for the City and protect the City's interests.



Jason Ho, P.Eng.  
Manager, Engineering Planning  
(604-244-1281)

JH:cjr



Carlos J. Rocha, ASCT  
Supervisor - Design Services  
(604-276-4025)



# City of Richmond

## Report to Committee

**To:** Public Works and Transportation Committee      **Date:** May 18, 2022  
**From:** Milton Chan, P.Eng.  
Director, Engineering      **File:** 10-6060-03-01/2022-  
Vol 01  
**Re:** **Federation of Canadian Municipalities Municipal Asset Management Program  
Grant Funding Application – Sanitary Pump Station Condition Assessments**

### Staff Recommendation

1. That the City's grant application for the Sanitary Pump Station Condition Assessments project to the Federation of Canadian Municipalities Municipal Asset Management Program be endorsed; and
2. That the Chief Administrative Officer and General Manager, Engineering and Public Works, be authorized to negotiate and execute funding agreements with the Federation of Canadian Municipalities for the Sanitary Pump Station Condition Assessments project should it be approved for funding, and that the Consolidated 5 Year Financial Plan (2022-2026) be amended accordingly.

Milton Chan, P.Eng.  
Director, Engineering  
(604-276-4377)

REPORT CONCURRENCE		
<b>ROUTED TO:</b> Intergovernmental Relations Finance Sewerage & Drainage	<b>CONCURRENCE</b> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<b>CONCURRENCE OF GENERAL MANAGER</b>  _____
<b>SENIOR STAFF REPORT REVIEW</b>	<b>INITIALS:</b> 	<b>APPROVED BY CAO</b>  _____

## Staff Report

### Origin

The Federation of Canadian Municipalities (FCM) Municipal Asset Management Program provides a grant opportunity to support Canadian municipalities and communities in strengthening their asset management practices. This report responds to this grant opportunity.

This report supports the following strategies within Council's Strategic Plan 2018-2022:

Strategy #1 A Safe and Resilient City:

*Enhance and protect the safety and well-being of Richmond.*

*1.2 Future-proof and maintain city infrastructure to keep the community safe.*

Strategy #5 Sound Financial Management:

*Accountable, transparent, and responsible financial management that supports the needs of the community into the future.*

*5.1 Maintain a strong and robust financial position.*

*5.4 Work cooperatively and respectfully with all levels of government and stakeholders while advocating for the best interests of Richmond.*

### Analysis

The City owns, operates, and maintains 153 sanitary pump stations to provide sanitary sewer service to residents and businesses. The Sanitary Pump Station Condition Assessment project, which was approved by Council as part of the 2021 Capital Budget, includes reviewing and updating asset component inventories and condition information in order to determine rehabilitation, replacement, and long-term funding requirements and make informed infrastructure decisions based on stronger asset management practices. Condition assessments were completed for 50 pump stations in 2021 (Phase 1), and this project would complete the remaining 103 pump stations in the City (Phase 2).

The City issued a Request for Proposal for the Sanitary Pump Station Condition Assessments in April 2022 for Phase 2. The City received proposals from several proponents and are currently evaluating the proposals prior to the project award.

The FCM Municipal Asset Management Program provides a grant opportunity to support Canadian municipalities and communities in strengthening their asset management practices. Staff have confirmed the Sanitary Pump Station Condition Assessments would meet the eligibility criteria for this grant funding opportunity.

The deadline for grant funding applications is October 31, 2022, subject to funding availability. The application guidelines require a Council resolution supporting any submissions for funding under this program. Therefore, staff are requesting Council's endorsement for a grant funding application to be submitted to the FCM Municipal Asset Management Program.

### Financial Impact

The FCM Municipal Asset Management Program will fund up to 80% of total eligible costs, to a maximum of \$50,000, for individual applications submitted by municipal governments with a population above 1,000.

The City will contribute funds from the existing approved 2021 Capital Budget for costs exceeding the amount funded by the grant. The existing approved 2021 Capital Budget has sufficient funding for the City's portion of this study. If the grant funding application is successful, these funds will be used to offset the previously approved City funding and the Consolidated 5 Year Financial Plan (2022-2026) will be amended accordingly.

Table 1 below presents the estimated project costs.

**Table 1. Estimated Project Costs**

<b>Funding Source</b>	<b>Estimated Project Costs</b>
FCM Municipal Asset Management Program: 80% of total eligible project costs, up to a maximum of \$50,000.	\$50,000
2021 Capital Budget CS00053 for Sanitary Pump Station Assessment, Rehabilitation, and Upgrades	\$190,000
<b>Total Project Costs</b>	<b>\$240,000</b>

### Conclusion

The FCM Municipal Asset Management Program have requested grant funding applications from Canadian municipalities and communities for projects which will strengthen their asset management practices. Staff recommend that an application for the Sanitary Pump Station Condition Assessments project be endorsed for grant funding.



Jason Ho, P.Eng.  
Manager, Engineering Planning  
(604-244-1281)



Stephenie Wong, P.Eng.  
Project Manager  
(604-204-8516)

JH:sw



# City of Richmond

## Report to Committee

**To:** Public Works and Transportation Committee

**Date:** May 16, 2022

**From:** Suzanne Bycraft  
Director, Public Works Operations

**File:** 10-6000-01/2022-Vol  
01




**Re:** 2021 Annual Water Quality Report

### Staff Recommendation

1. That the annual report titled, "2021 Annual Water Quality Report" dated May 16, 2022, from the Director, Public Works Operations, be endorsed.
2. That the annual report titled, "2021 Annual Water Quality Report" dated May 16, 2022, be made available to the community on the City's website and through various communication tools including social media channels and as part of community outreach initiatives.

Suzanne Bycraft  
Director, Public Works Operations  
(604-233-3338)

Att. 2

REPORT CONCURRENCE	
CONCURRENCE OF GENERAL MANAGER 	
SENIOR STAFF REPORT REVIEW	INITIALS: 
APPROVED BY CAO 	



## Staff Report

### Origin

In 2001, the Province of British Columbia enacted the Drinking Water Protection Act, which gave authority to the Minister of Health to implement and enforce standards for water supply systems in British Columbia. In May 2003, regulations to be implemented under the Drinking Water Protection Act were adopted by the legislature as the Drinking Water Protection Regulation. These Acts were updated on April 29, 2014 under Bill 18 – 2014: the Water Sustainability Act. These regulations are designed to ensure the safe supply of drinking water.

This report presents the City's "2021 Annual Water Quality Report" (the Report), which enables the City to meet its obligations for public reporting to comply with applicable requirements in accordance with these regulations. The City was able to ensure the safe and adequate supply of essential water services throughout 2021. A summary of the Report is presented as Attachment 1, with the full report included as Attachment 2.

This report supports Council's Strategic Plan 2018-2022 Strategy #1 A Safe and Resilient City:

*1.1 Enhance safety services and strategies to meet community needs.*

*1.2 Future-proof and maintain city infrastructure to keep the community safe.*

This report supports Council's Strategic Plan 2018-2022 Strategy #2 A Sustainable and Environmentally Conscious City:

*2.2 Policies and practices support Richmond's sustainability goals.*

This report supports Council's Strategic Plan 2018-2022 Strategy #4 An Active and Thriving Richmond:

*4.2 Ensure infrastructure meets changing community needs, current trends and best practices.*

This report supports Council's Strategic Plan 2018-2022 Strategy #8 An Engaged and Informed Community:

*8.2 Ensure citizens are well-informed with timely, accurate and easily accessible communication using a variety of methods and tools.*

### Analysis

The Drinking Water Protection Regulation requires water purveyors in BC to possess an operating permit, which confirms the Drinking Water Officer for the area has approved the water supply. Vancouver Coastal Health is responsible for the placement and function of the Drinking Water Officer, who has the authority to monitor water purveyors to ensure they are providing safe drinking water through compliance with the British Columbia Drinking Water Protection Regulation, and any other conditions of the operating permit.

Under the Regulation, the City of Richmond is required to:

- Develop and maintain a process to notify the Drinking Water Officer and the Medical Health Officer of situations or conditions that could render unsafe drinking water;
- Implement and maintain a plan for collecting, shipping and analyzing water samples that adequately represent all areas within the City, in compliance with the direction set by the Drinking Water Officer; and
- Implement and maintain a plan for reporting results to the Drinking Water Officer and to water users.

Richmond thrives on its ability to provide water to residents and businesses, and water for fire protection services. To ensure a consistent supply, the capital watermain replacement program is a proactive approach to avoiding breaks and has proven to be a reliable and valuable tool in water distribution management. In 2021, Public Works staff attended to 17 watermain breaks without compromising the integrity of the water distribution system. Repairs for a single watermain break can amount to \$100,000, damage to private properties and service disruptions to businesses and residents. As such, a proactive replacement and maintenance program is essential to minimizing costs and ensuring minimal to no disruptions in water quality and supply.

Highlights of the Report include:

- Richmond residents enjoyed high-quality, safe and reliable drinking water.
- 2,051 water samples were collected to ensure water quality and each passed with exceptional results.
- Test results confirm high-quality water and demonstrate continuous improvement.
- Richmond's 36 water fountains found on dikes and in parks provided potable water to the public while promoting tap water consumption as an alternative to bottled water.

In addition to these highlights, safety measures and response procedures were continued in compliance with COVID-19 protocols that helped ensure staff were confident in their own safety and could perform their duties and responsibilities without compromise during the pandemic.

These and many other initiatives are detailed in the Report.

#### Proposed Communication

Subject to Council's approval, the Report will be posted on the City's website and made available through various communication tools including social media channels and as part of community outreach activities.

#### **Financial Impact**

None.

## **Conclusion**

The Report outlines the methods in which the City manages its water system to ensure compliance with applicable provincial requirements under the Drinking Water Protection Act. In 2021, the City's water quality met and exceeded the required standards to ensure residents enjoyed high quality, reliable and safe drinking water.

This report will be reviewed and endorsed by the Medical Health Officer of Vancouver Coastal Health Authority as part of the City's reporting obligations.



Bryan Shepherd  
Manager, Waterworks  
(604-233-3334)

BS:nh

- Att. 1: 2021 Annual Water Quality Report Summary  
2: 2021 Annual Water Quality Report

# 2021 Annual Water Quality Report Summary

In 2021, Richmond residents enjoyed high-quality, safe and reliable drinking water. The Annual Water Quality Report identifies rigorous measures taken to protect the City's water supply and demonstrates testing results from water sampling with full transparency in accordance with regulatory requirements.

*Richmond is dedicated to promoting the value of municipal tap water, maximizing opportunities for use of tap water in municipal facilities and developing strategies for making tap water the "water of choice" in our community.*

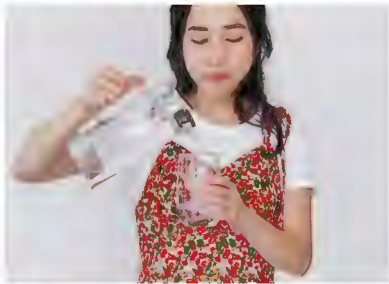


## How does Richmond provide high-quality tap water?

- By testing all 40 water quality sites on a regular basis.
- By continuous preventative maintenance and monitoring.
- By providing the water system with the highest degree of care to ensure high-quality drinking water is free from any harmful bacteria or toxins.
- By proactive watermain replacement and maintenance projects.

## 2021 Results

- Provided 34.1 million cubic metres of the highest quality drinking water to over 227,146 Richmond residents.
- Conducted 2,051 microbiological tests from 40 test locations.
- Maintained 12 pressure reducing valve (PRV) stations.
- Repaired 17 watermain breaks without compromising the integrity of the water distribution system while maintaining positive pressure.
- Discovered and repaired 125 non-visible underground leaks through Richmond's leak detection program. Noise loggers were used to measure sound frequencies in the targeted pipe allowing any leaks to be heard and recorded.
- Provided service to Richmond's 5,076 fire hydrants to ensure water supply during an emergency.
- Repaired 210 service connections.
- Installed 3,855 metres of new capital watermain.
- Installed 205 water services for new developments.



## Multi-Barrier Approach

Richmond recognizes that in order to provide the highest quality water, several methods must be used to ensure its superiority—hence the "Multi-Barrier Approach".

The "Multi-Barrier Approach" includes:

- Disinfection of the water at the source.
- Water quality monitoring capabilities at eight pressure reducing valve (PRV) stations.
- Weekly microbiological testing at 40 test locations.
- Maintenance practices that are of the highest standard.
- System operators that are certified by BC's Environmental Operators Certification Program (EOCP).

## Heterotrophic Plate Count (HPC)

- The HPC count indicates the presence of nutrients that could facilitate the growth of harmful bacteria such as E.coli.
- By reducing the HPC levels, the possibility of bacteriological re-growth is essentially reduced.
- The minimal positive chlorine residual in our water also disinfects and eliminates harmful substances within our distribution system.

## Summary

Richmond residents will continue to enjoy fresh, high-quality drinking water. It is without a doubt that the City of Richmond consistently excels at providing tap water of excellent quality and reliability.



# City of Richmond 2021 Annual Water Quality Report





*Richmond is dedicated to promoting the value of municipal tap water, maximizing opportunities for use of tap water in municipal facilities and developing strategies for making tap water the “water of choice” in our community.*

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## Executive Summary

The purpose of this report is to fulfill the requirements set out in the British Columbia Drinking Water Protection Act (BCDWPA) by giving an overview of the water distribution system, describing the maintenance conducted, detailing some of the unique features of the system and providing the results of Richmond's water quality testing program.

Test results confirm high-quality water and demonstrate continuous improvement. Richmond's water system is provided with the highest degree of care to ensure that quality drinking water remains free of any harmful bacteria or toxins. Utility funding contributes to proactive watermain replacement and maintenance projects that will ensure the overall health of the system well into the future.

In 2021, the City of Richmond's Water Services staff undertook the following:

- Provided 34.1 million cubic metres of the highest quality drinking water to over 227,146 Richmond residents.
- Conducted 2,051 microbiological tests from 40 test locations.
- Maintained 12 pressure reducing valve (PRV) stations.
- Repaired 17 watermain breaks without compromising the integrity of the water distribution system while maintaining positive pressure.
- Discovered and repaired 125 non-visible underground leaks through Richmond's leak detection program. Noise loggers were used to measure sound frequencies in the targeted pipe allowing any leaks to be heard and recorded.
- Provided service to Richmond's 5,076 fire hydrants to ensure water is available during an emergency.
- Repaired 210 service connections.
- Installed 3,855 metres of new capital watermain.
- Installed 205 water services for new developments.

The City of Richmond's Water Services section takes its role as a water purveyor very seriously and is proud to be the guardian of such a precious resource on behalf of the community.









## Introduction

In 2002, the City of Richmond implemented a Drinking Water Quality Monitoring Program. This program was developed with advice from Vancouver Coastal Health and is in accordance with the British Columbia Drinking Water Protection Act (BCDWPA), the Water Quality Monitoring and Reporting Plan for Metro Vancouver and the Guidelines for Canadian Drinking Water Quality (GCDWQ).

Vancouver Coastal Health requires the City of Richmond to provide an annual water quality report in order for Richmond to maintain its operating permit. It provides important information about Richmond's water distribution system and water quality.

The conditions set out in the British Columbia Drinking Water Protection Act (BCDWPA) require all water systems in BC be classified as a Level I through IV facility. Richmond's system is classified as a Level III facility, therefore all staff are responsible for possessing a valid Level I to Level III Equipment Operators Certification Program (EOCP) certificate. To obtain and maintain a level of certification, staff successfully complete the required training. This ensures staff are able to respond appropriately and immediately to problems prior to becoming a risk to health or property.

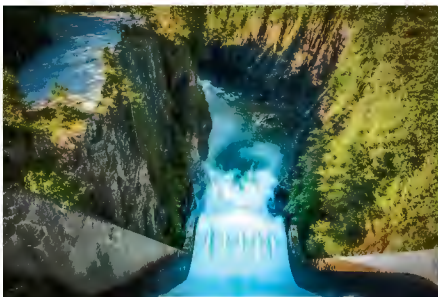
As a water purveyor, Richmond complies with provincial and federal legislations: the British Columbia Drinking Water Protection Act (BCDWPA), the British Columbia Drinking Water Protection Regulations (BCDWPR) and the Guidelines for Canadian Drinking Water Quality (GCDWQ). Under these legislations, the City of Richmond is required to:

- Develop a process to notify the Drinking Water Officer and the Medical Health Officer of any condition that could render unsafe drinking water.
- Implement a sampling program that adequately represents all areas within the City.
- Meet the requirements of the British Columbia Drinking Water Protection Act (BCDWPA) and ensure test results are immediately available to the Medical Health Officer.
- Receive an annual construction permit for the construction, installation and extension of the water distribution system.
- Ensure that the City's water distribution system is classified under the criteria for the Environmental Operators Certification Program (EOCP) and that Water Services staff are certified to the same level as the distribution system.
- Produce an annual report detailing the results of the City's water quality monitoring program.



*In Metro Vancouver, 40% of water use is indoors:*

- Toilets 24%
- Showers 20%
- Faucets 19%
- Washers 17%
- Leaks 12%
- Other 4%
- Baths 3%
- Dishwashers 1%



**Capilano Reservoir**

*Photo Credit: Metro Vancouver*



**Seymour Reservoir**

*Photo Credit: Metro Vancouver*

## **Metro Vancouver Water District**

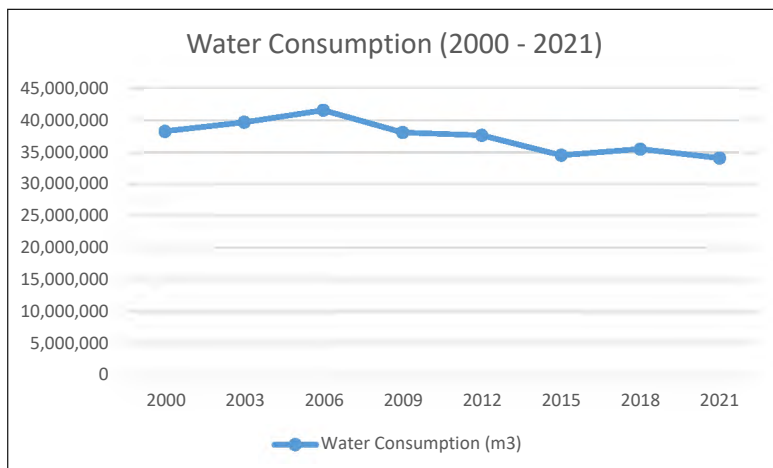
In 2021, the City of Richmond purchased 34.1 million cubic metres of drinking water from the Metro Vancouver Water District. In 2020, 33.2 million cubic metres of drinking water was purchased. Contributing factors for the increase in water consumption include a rise in Richmond's population, multiple heat waves and an unprecedented heat dome.

Three watersheds supply regional water: Capilano Reservoir, Seymour Reservoir and Coquitlam Reservoir. The Capilano and Seymour Reservoirs supply two thirds of the water for the region. The Coquitlam Reservoir supplies the remaining third. Richmond receives the majority of its water from the Capilano and Seymour Reservoirs.

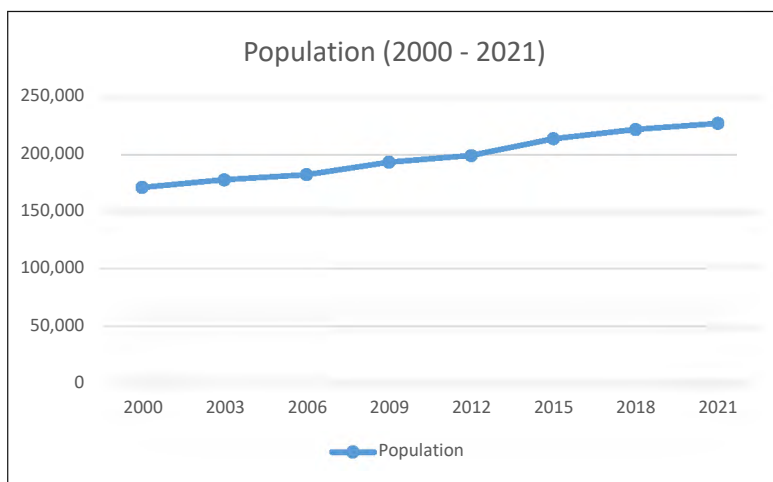


**Metro Vancouver Watershed Map**

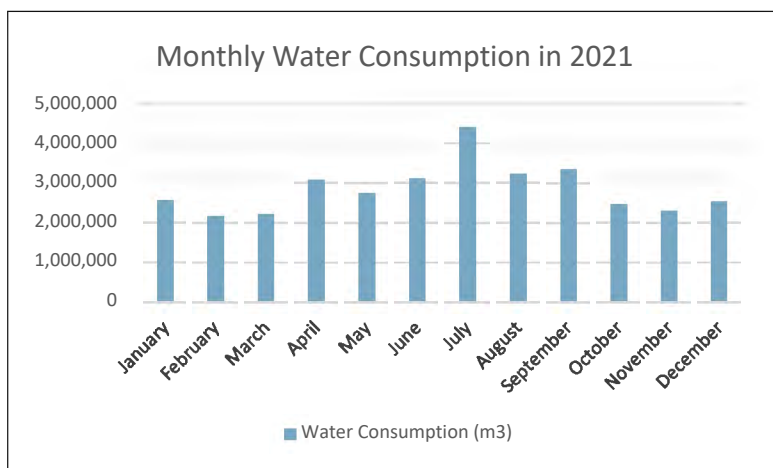
Water from these reservoirs can be directed through a series of valves and transmission watermain to any city or municipality within the Metro Vancouver region. Source water is provided directly from the watersheds by Metro Vancouver and is tested for a number of microbiological, chemical and physical parameters. There are two drinking water treatment facilities, Seymour-Capilano Filtration Plant (SCFP) and Coquitlam Water Treatment Plant (CWTP). The SCFP is the largest filtration plant in Canada and has the capacity to filter and disinfect up to 1.8 billion litres of water per day. Water is carried from the Capilano watershed to the SCFP by two underground tunnels, called the "Twin Tunnels", over seven kilometers long and 3.8 metres in diameter so that water is treated at one facility. The CWTP has the capacity to treat 370 million litres of water per day.



The City's annual consumption has decreased 11% since 2000 due to conservation programs and initiatives including the City's successful water metering program that was introduced in 2003.



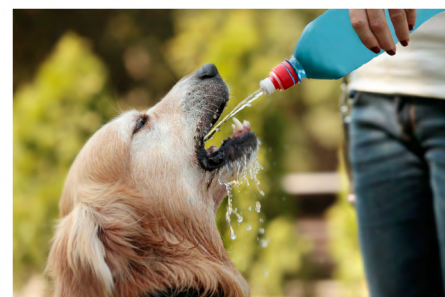
The City's water consumption has decreased despite a 32% growth in population since 2000. This is a result of Richmond's robust water conservation programs and initiatives in addition to residents' awareness and commitment.



In 2021, Richmond's annual water consumption was 34.1 million cubic meters. Water consumption is typically its highest in summer months, peaking in July.



*A family of four washes about 300 loads of laundry per year. Run full loads of laundry. A full load uses less water than two half loads.*



*Shorten your shower by two minutes. Reducing your shower by two minutes can save 460 litres of water in one month.*


## Water Distribution System Overview

The City of Richmond's 636 km water distribution system begins at 12 separate connection points along Metro Vancouver's transmission mains. At each connection point there is a City-owned pressure reducing valve (PRV) chamber. The City's responsibility for water quality begins at this chamber and ends at the residential or commercial property line.


### Pressure Reducing Valve Stations

The Water Services section maintains 12 pressure reducing valve (PRV) stations throughout Richmond. PRV stations decrease the pressure of Metro Vancouver's water feed to one that is manageable for Richmond's water distribution system. The stations are connected to a supervisory control and data acquisition (SCADA) system that provides information to the Works Yard such as water pressure, quality and volume. This allows for certified Water Services staff to react to problems quickly and effectively 24 hours a day, seven days a week.

It is estimated that most municipalities in North America lose anywhere from 12% to 15% of their potable water to undiscovered, underground leakage. The Water Loss Management Program allows City Engineering and Water Services staff to determine the total amount of water consumed through normal operational programs and metered single-family residential, multi-family residential and commercial use. Combining this information with known City-wide water usage and estimated water use from watermain flushing, parks and median irrigation, and Richmond Fire Rescue usage, staff can better understand, track and manage water loss throughout the distribution system.



*A family of four washes about 300 loads of laundry per year. Run full loads of laundry. A full load uses less water than two half loads.*



*About 60% of our water use is outdoors, and in the summer months our daily water use can increase by 50% due to lawn watering and increased outdoor use.*



Inside a PRV

### Service Renewals

The City's service renewals program aims to prevent breaks and leaks by continuously upgrading and replacing older water services from the watermain to the property line. This preventative maintenance construction occurs throughout the year and requires minimal restoration. In 2021, 72 service renewals were completed.

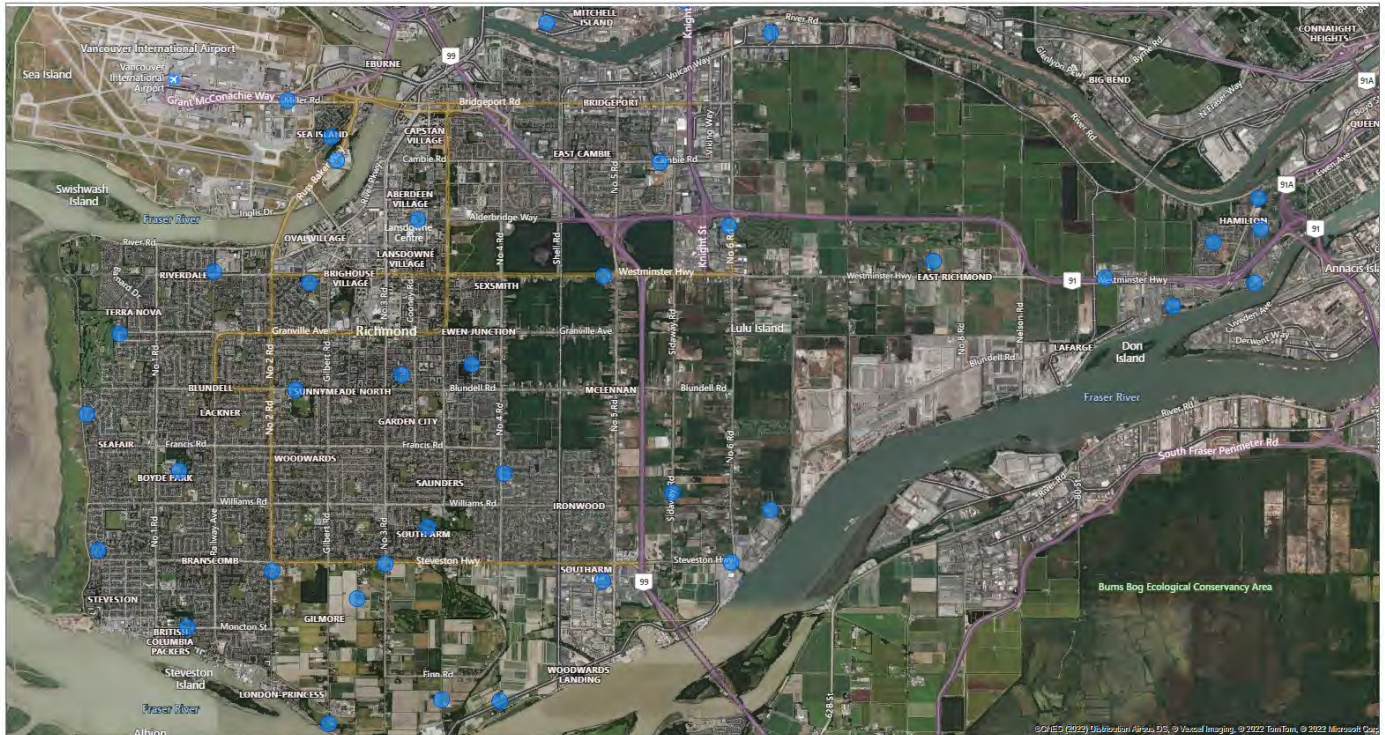


## Water Quality Monitoring

In 2021, the City of Richmond collected water samples on a weekly basis at 40 dedicated sampling sites. These sites are strategically located throughout the City to provide a suitable representation of the City's water quality across the distribution network. In 2021, 2,051 water samples were collected by Water Services staff and sent for analysis at Metro Vancouver laboratories. These sample results were reviewed by Vancouver Coastal Health Authority to ensure the drinking water met the standards outlined in the British Columbia Drinking Water Protection Regulations (BCDWPR).



*Use a soaker hose to water deeply at the root, reducing water runoff.*



Sampling stations in Richmond

## Bacteriological Tests

The City of Richmond and Metro Vancouver conduct bacteriological tests for total coliform, fecal coliform and heterotrophic plate counts (HPC). The presence of these organisms in drinking water indicates that the water may be contaminated and may contain potentially harmful bacteria, viruses or parasites.

## Multi-Barrier Approach

Richmond recognizes that in order to provide the highest quality water, several methods must be used to ensure its superiority.

The “Multi-Barrier Approach” includes:

- Disinfection of the water at the source.
- Water quality monitoring capabilities at eight PRV sites.
- Weekly microbiological testing at 40 sites throughout Richmond.





*Vegetables love the warm water stored in rain barrels, and you'll save treated drinking water.*



*Dual-flush toilets give the option of a water-saving half flush.*



*Group plants with similar watering needs to avoid overwatering those that don't require much water.*

- System operators that are certified by BC's Environmental Operators Certification Program (EOCP).
- Maintenance practices that are of the highest standard.

### **Total Coliforms**

Total coliform bacteria reproduce in water, soil or digestive systems of animals. The presence of total coliforms indicates water may have been contaminated and that the disinfection process is inadequate.

Testing for total coliforms should be carried out in all drinking water systems. The number, frequency and location of samples for total coliform testing will vary according to the type and size of the system and jurisdictional requirements. Provincial standards state that no sample contain more than 10 total coliforms per 100 ml, and that 90% of samples must have zero coliform bacteria in a sample over a 30-day period.

### **Fecal Coliforms**

Fecal coliforms are present in large numbers in the feces and intestinal tracts of humans and other warm-blooded animals, and can enter water bodies from human and animal waste. They are key indicators of sewerage contamination. Due to diseases and parasites, which are spread through sewerage, provincial standards state there can be no detectable fecal coliforms per 100 ml sample.

### **Heterotrophic Plate Count**

Heterotrophic plate count (HPC) tests measure aerobic heterotrophic bacteria. This test indicates the presence of nutrients that could facilitate the growth of harmful bacteria such as E.coli, and determines changes in water quality during treatment and distribution. HPC tests indicate the onset of bacterial re-growth within the distribution system commonly due to stagnant water contained in dead-end and low-flow water mains. By reducing the HPC levels, the possibility of bacteriological re-growth is essentially reduced because the pipes are an inhospitable environment for bacteria to grow. The minimal amount of positive chlorine residual disinfects and eliminates harmful substances within our distribution system. In 2021, none of the 2,051 water samples exceeded regulated levels for HPC's at 500 CFU/mls and appropriate measures were taken. Only three of the 2,051 water samples exceeded 90 CFU/mls.

### **Flushing**

Water Services successfully executed the annual flushing program. This important maintenance practice ensures high-quality tap water by moving water through the pipes and eliminating stagnant water at dead-ends through fire hydrants. By doing so, the pipes are cleared and the risk of high HPC levels which lead to bacteria re-growth is significantly reduced. Additionally, regular weekly and annually dead-end flushing is performed.

### Failed samples

The City's standard response to a failed water sample is:

- Re-sample.
- Flush the watermain extensively.
- Re-sample.
- Isolate the watermain to one feed until test results confirm compliance with the British Columbia Drinking Water Protection Regulations (BCDWPR).



*An average garden hose delivers around 45 litres of water each minute. Install a shut-off nozzle on your hose so it runs only when in use.*



*Move planter boxes into the shade so they won't dry out.*

Taking a sample



Taking a sample



*Turn off the tap when brushing your teeth. The two minutes, twice a day saves close to 700 litres of drinking water per month.*



*Use a broom instead of a hose. Sweep driveways, decks, patios and sidewalks with a broom instead of using a hose. That 15-minute job could use 675 litres of water.*

## Physical Parameters

Water in Richmond's distribution system is tested for the physical parameters of turbidity and temperature at the same time as bacteriological testing. Information is also collected on the taste and odour of Richmond's water by actively tracking water quality complaints.

### Turbidity

Metro Vancouver is responsible for the quality of Richmond's source water. Turbidity is a measure of water clarity and cloudiness. Turbidity is measured in Nephelometric Turbidity Units (NTU). The guideline for turbidity should not exceed 5 NTUs in a distribution system providing that source water protection, monitoring, and water treatment requirements are met including increased levels of residual chlorine. Turbidity is a concern because increased turbidity compromises the drinking water disinfection process. In 2021, seven samples out of 2,051 had turbidity levels that exceeded 1 NTU and of those, one exceeded 5 NTUs.

In general, sites with elevated turbidity are located in sections of the distribution network where there is low demand on the water system or where dead-end water mains exist. The increase may be attributed to sediment disturbance in the distribution system. If a sample indicates a turbidity level greater than 5 NTUs in the distribution system, affected water mains in the test area are flushed and re-tested until a satisfactory result is obtained.

### Temperature

High temperatures in the distribution system can affect the residual level of chlorine and can contribute to bacterial re-growth. Typically, the temperature of drinking water in the distribution system rises during summer months. Although there were no customer complaints regarding Richmond's water temperature, samples exceeded the aesthetic guideline of 15°C 292 times out of 2,051 with the highest temperature recorded as 21°C. The vast majority of these elevated temperatures were recorded during the summer months and "heat wave" events.



Recording temperature



### Taste and Odour

Taste and odour are only monitored in response to customer complaints. Records indicate that eight complaints were received regarding taste and ten complaints were received regarding odour in 2021. These complaints generally relate to high levels of residual chlorine in that part of the system at that particular time. Residents who complained about taste or odour problems were advised to flush their internal system. If the problem was not resolved, Water Services staff were dispatched to the location until a satisfactory result was obtained and verified through laboratory analysis.

### Chemical Parameters

Testing is done for the following chemical parameters: chlorine residual, trihalomethanes (THM), haloacetic acids (HAA), and pH (Appendix 4). Periodic testing is also performed to determine heavy metals levels in the water system (Appendix 5).

### Chlorine Residual

Chlorine residual is a measurement of the disinfecting agent remaining in the distribution system at the point of delivery to the customer. Ensuring proper levels of chlorine in the distribution system is essential in protecting Richmond's water supply from bacteriological contamination or re-growth. In recent years, the City has made great progress in improving chlorine residuals by implementing various flushing programs.



Testing the sample

### Disinfection By-Products

Disinfection by-products are potentially harmful compounds produced by the reaction of a water disinfectant (such as chlorine or ozone) with naturally occurring organic matter in water. Two common chlorination



*Instead of running the tap until the water cools, keep a pitcher of cold drinking water on standby in the fridge.*

*Put leaves and bark mulch around shrubs and trees to hold in moisture. Mulch can preserve moisture by reducing soil temperature and slowing evaporation.*

*Save the water from rinsing fruit and vegetables and use to water house or garden plants.*



*An hour of lawn watering uses as much water as 25 toilet flushes, five loads of laundry and five dishwasher loads combined.*



*Know how to turn off your property's water. If a pipe breaks in your house, this could save thousands of litres of water and prevent further damage to your home.*



*Walk around your property to look for spongy ground or pooling where leaking pipes might be hidden. If detected, call a plumber.*

by-products are Trihalomethanes (THMs) and Haloacetic Acids (HAAs). In drinking water, THMs can enter the human body via multiple routes of exposure. These include ingestion by consuming water and inhalation and skin absorption from showering and bathing. Under the Guidelines for Canadian Drinking Water Quality (GCDWQ), the maximum acceptable concentration (IMAC) for THMs is 100 parts per billion (ppb). The 100 ppb level for THMs is based on an annual average of samples taken quarterly. High levels on a particular day are not of concern unless they are consistently high over a period of time. Typically, THM levels will be highest in the summer and lowest in the winter months. Likewise, under the GCDWD, the maximum acceptable concentration (IMAC) for HAAs is 80 parts per billion (ppb). The City utilizes the Metro Vancouver laboratory to perform quarterly tests for HAAs and THMs. These were carried out at representative sampling sites in accordance with a joint Metro Vancouver/Richmond monitoring plan. In 2021, all results were within acceptable levels as defined in the GCDWQ (Appendix 4).

### **The pH Value**

The measurement of acidity is known as pH. A pH below 7.0 is considered acidic, above 7.0 is considered basic, with 7.0 being neutral. It is recognized that acidic water will accelerate the corrosion of metal pipes, often causing blue-green staining in household fixtures.

The Seymour-Capilano filtration plant includes pH adjustment and corrosion control in its treatment processes. It is expected that the pH of drinking water will rise in the coming years as the filtration plant reaches its full potential. As natural acidity in water corrodes metal pipes over time, this will extend the lifespan of water plumbing systems and enhance water quality.

### **Metals**

The City's water quality program also includes testing for metals, such as copper, iron, lead, and zinc. All results were within or below GCDWQ limits in 2021 (Appendix 5).





## Notifications

Under the Drinking Water Protection Act, the Metro Vancouver laboratory must immediately inform the City of Richmond, the Drinking Water Officer and the Medical Health Officer if a water supply system result fails to meet established guidelines. Immediate action and precautions are taken and notifications are given. If any threats are made to the water supply, the Drinking Water Officer must be notified immediately.

Water safety situations such as chemical or biological contamination, turbidity over 5 NTU, disinfection failure, loss of pressure due to high demand, or a watermain break where there is suspected contamination, would be considered an emergency and immediate action would be taken. The Drinking Water Officer and Medical Health Officer would be notified immediately (Appendix 6).

Water quality advisories are issued to the general public when necessary. Similarly, if there is construction or a service being done that will affect the quality of the drinking water, a notification will be issued to the affected residents.



*Mow grass to a height of 5–6 cm to keep roots shaded and better able to hold water.*



*Set a timer as a reminder to turn off your sprinkler.*



*Trees, shrubs, and flowers may be watered one day per week in the morning when using a sprinkler, or any time when hand watered or using drip irrigation. Edible plants are exempt from the regulations.*



Emergency treatment trailer exterior

## Mobile Emergency Response Unit

Water Services staff are trained to operate the mobile emergency water treatment trailer for use during a major emergency where Richmond's water is contaminated. All components in contact with the treated water are compliant with the Guidelines for Canadian Drinking Water Quality (GCDWQ). The treatment trailer is capable of filtering approximately 60 litres per minute. Cartridges reduce turbidity, activated carbon improves taste and odour and UV units disinfect the water. Additionally, sodium hypochlorite is added to provide a second source of disinfection and chlorine provides residual disinfection in the water. This trailer was designed with the consideration of various factors such as extreme weather events. It is maintained and tested by Water Services staff to ensure that the water is safe to provide Richmond residents in an emergency.



*An hour a week of sprinkling or rain is all you need for a healthy lawn with a strong root system.*



*Leave grass clippings on your lawn after mowing. Leaving clippings to decompose reduces evaporation, allowing you to water your lawn less.*



Emergency treatment trailer interior

## Water Conservation

### Water Conservation Programs

The City of Richmond continues to succeed in reducing annual water consumption despite a growing population by implementing corporate and community-wide initiatives. These include water metering, pressure management, leak reduction and detection programs and toilet rebate program.

### Water Metering Programs

Water metering plays a significant role in the City's water management program as it promotes water conservation and charges residents for their water usage in a fair and equitable way. Approximately 83% of the City's water usage is currently metered.

In Richmond, 100% of single-family residential homes are metered as the universal single-family water meter program was completed in 2017. Additionally, 100% of ICI (industrial, commercial and institutional) properties are metered.

The volunteer multi-family water meter program allows residents to pay for the actual amount of water they use, rather than being billed on the flat-rate system. Currently, 51% of multi-family complexes in Richmond, including all new developments, are metered.



Residential water meter



*Choose plants that love dry heat. Embrace the dry heat by planting tomatoes, basil, beans, melon, eggplant and more in your garden.*



*Correctly position your sprinkler so it waters lawns and plants.*





*Weed regularly, before weeds can establish roots that compete for nutrients and water.*



*Don't let the water run when washing dishes. Fill one basin with water for washing and another for rinsing.*



*Check for leaks in your garden hose. Small leaks or a loose coupling can quickly add up to a lot of wasted water.*

### Pressure Management Program

The City of Richmond reduces water pressure by 10 PSI from October to May, causing the system pressure to change from 90 PSI to 80 PSI. The purpose of this practice is to reduce the volume of leakage during a lower demand period and extend the life of our water infrastructure. During summer months, a timer-based system lowers the pressure from 90 PSI to 80 PSI from 1:00 to 5:00am. A decrease in nighttime flows and leakage have been observed since the inception of this program.



Metro Vancouver water connection to PRV station

### Leak Reduction Program

The leak reduction program identifies single-family properties with continuous leaks and educates the homeowner about the leak and significantly reduces overall private property leakage.

### Leak Detection Program

The leak detection program discovers non-visible underground leaks within the City's distribution system. Noise loggers are used to measure sound frequencies in the targeted pipe allowing any leaks to be heard and recorded.

### Toilet Rebate Program

The City of Richmond's Toilet Rebate Program provides a utility account rebate of \$100 to homeowners who install a low-flush toilet. Single and multi-family homeowners are eligible to apply for a lifetime maximum of two rebates per property. Industrial, commercial and other non-residential properties are not eligible at this time. This program encourages homeowners to replace older, high-volume toilets with low-flush toilets to conserve water and to reduce costs. In 2021, there were 563 rebates submitted.

### Rain Barrels

Rain barrels are excellent outdoor water-saving devices that collect and store rainwater from rooftops for lawn and garden use. Rainwater is a great water source for lawns, plants and gardens. For water metered households, using rainwater will reduce the amount of tap water used for your garden therefore decreasing the utility bill.

Rain barrels are available for purchase at the City's Recycling Depot by Richmond residents only. Installation instructions are included. In 2021, 139 rain barrels were sold.

SYSTEM rain barrel features:

- Unique shape and neutral color suitable for any home and garden.
- 208 litre (55 gallon) capacity.
- Mosquito mesh keeps out bugs and leaves.
- BPA-free.
- Made from recycled content.
- UV stabilizer is added to resist deterioration from sunlight.
- Overflow hose can be linked to another SYSTEM or can be directed away from the house.

### Metro Vancouver Lawn Watering Regulations

To help manage the high demand for drinking water during the hot and dry summer months, Metro Vancouver imposed stage one lawn watering regulations from May 1 to October 15, 2020.



*Drop a teaspoon of food colouring into your toilet tank. If the colour appears in the bowl after 15 minutes, you've got a leak. Many leaks can be fixed by replacing the worn-out flapper valve.*



*Choose plant species native to our region. They are better suited to our climate and can often thrive on rainfall alone.*



Rain barrel







*Water regulations are in effect from May 1 – October 15. They help manage demand for drinking water during the summer, periods of water shortages, and in emergencies.*



*Pre-rinsing dishes uses a lot of water and isn't necessary with today's dishwashers. Just wipe remaining food into the compost.*

## Community Outreach

### Tap Water Initiative

Metro Vancouver's tap water campaign is an initiative to encourage tap water consumption by the public and highlight public drinking fountains so that the public can refill water bottles or simply get a drink of high-quality water. The City of Richmond is dedicated to promoting the value of tap water, maximizing opportunities for use of tap water in facilities and developing strategies for making tap water the water of choice.

To support this initiative, Richmond's Water Services section is proud to maintain portable drinking units that are used at numerous community events to provide the public with potable tap water and to promote tap water usage as an alternative to bottled water consumption. Samples are tested upon installation ensuring good quality water for the public to enjoy. In 2021, portable drinking fountains were installed at eight community events.

The 35 water fountains found on Richmond's dikes and in parks are maintained by Water Services. They are tested and inspected ensuring accessible and high-quality drinking water. They must be turned off in winter months to prevent freezing and costly damage and are turned back on in the spring for the public to enjoy. An auto-flushing unit was installed on one of the longer service pipes connected to a fountain, to ensure water quality and maintain an accurate chlorine residual.

### Building Awareness

The Water Services team engages the community in various ways, including during a watermain installation project. The full article is available at: [www.richmond.ca/services/rdws/about.htm](http://www.richmond.ca/services/rdws/about.htm)

#### Community Connections: Pipelines Are Really About People

There's a lot more to replacing water pipes than you'd think. It turns out, pipes are really about people. People who enjoy safe, reliable water. People in the community who share an interest in the project and the people on the City of Richmond Public Works crew who put people first.

*"Putting water pipes in the ground and hooking them up to homes is just part of what goes on when the City upgrades its watermain infrastructure," says Jason Butler, a water crew supervisor on a recent project in Springfield. "It's an opportunity to raise awareness about the City's investment and why it's important."*

As crews work to install new pipes in the community, they focus on more than just the task at hand. They recognize (and emphasize) the importance of safe, reliable water, and the critical need to support a sustainable water supply to protect this limited and highly valuable resource. They take pride in their work, and they keep the bigger picture in mind: the people who connect to the system.

Communication is key. In addition to sending a letter to affected residents, the crew takes it a step further to connect in person with

people in the area. On the Springfield project, Butler looked for opportunities to engage with residents and raise awareness about water infrastructure and why it is important. He chats with people walking by the work site, and he spoke to the principal at a nearby school to invite classes to drop by to see the work underway. About five classes took him up on his offer, and Butler not only talked to them about the work underway, he used it as an opportunity to teach them about water conservation.

*"I explain the water cycle, how much water there is on earth, and how little of it is water we can drink," says Butler. "It's a lot of work to get the water we enjoy daily, and I ask them to do their part to conserve water, like turning the water off while brushing their teeth."*

Butler's crew also puts people first by assessing how their work will affect residents. One example is when he noticed that the place the surveyors had marked for a hydrant would displace a recently planted apple tree, Butler approached the property owner and asked if it would okay to shift it over a bit to save the tree.

*"The resident's son was there and was very worried about the apple tree being hurt by the hydrant, so they were happy to see it moved," says Butler. "We want to make the area better than when we got there, so we look for ways to do that beyond the project itself, like fixing sidewalks and helping residents."*

Ultimately, what they do is truly public works. They don't just connect pipes, they connect with people. And the end result is about more than just safe, reliable drinking water. It's about building community.



Water fountain





*Even with an efficient washer, one load a day uses 340 litres over a week.*



*One broken sprinkler head can waste thousands of litres of drinking water by “watering” the sidewalk or driveway instead of the grass.*

## Conclusion

In 2021, Richmond residents enjoyed high-quality drinking water. From the protected watersheds to the local taps, both Metro Vancouver and the City of Richmond focus immensely on safe and exceptionally high-quality drinking water.

Test results confirm our commitment to provide high-quality water and demonstrate continuous improvement. Richmond's water system is operated and maintained to the highest degree of care to ensure that high-quality drinking water is free from bacteria or toxins. The City of Richmond's Water Services section takes its role as a water purveyor very seriously and is proud to be the guardian of such a precious resource.

Water Services staff continue to employ best management practices in the operation and maintenance of the water system. Certified by the Equipment Operators Certification Program (EOCP), staff meet all requirements of the British Columbia Drinking Water Protection Act (BCDWPA) and are well equipped to operate and maintain all aspects of the water system from the source to the property line.

The City values the strong working relationship with Vancouver Coastal Health and acknowledges them as important partners in maintaining high-quality drinking water throughout Richmond.

Sincerely,

Bryan Shepherd  
Manager, Water Services  
City of Richmond  
604-233-3334  
[bshepherd@richmond.ca](mailto:bshepherd@richmond.ca)

## **Appendices**

APPENDIX 1: References

APPENDIX 2: Water Sampling Sites

APPENDIX 3: 2021 Water Quality Results

APPENDIX 4: 2021 THM and HAA Test Results

APPENDIX 5: 2021 Metal and Vinyl Chloride Testing Results

APPENDIX 6: Specific Emergency Response Plans

## APPENDIX 1: REFERENCES

1. Government of Canada – Canadian Drinking Water Guidelines  
[www.hc-sc.gc.ca/ewh-semt/water-eau/drink-potab/index\\_e.html](http://www.hc-sc.gc.ca/ewh-semt/water-eau/drink-potab/index_e.html)
2. BC Drinking Water Protection Act (2020)  
[www.bclaws.ca/civix/document/id/complete/statreg/01009\\_01](http://www.bclaws.ca/civix/document/id/complete/statreg/01009_01)
3. BC Laws – Schedule A Water Quality Standard for Potable Water  
[www.bclaws.ca/EPLibraries/bclaws\\_new/document/ID/freeside/200\\_2003#ScheduleA](http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/200_2003#ScheduleA)
4. Government of British Columbia – Source Drinking Water Quality Guidelines  
[www2.gov.bc.ca/assets/gov/environment/air-land-water/water/waterquality/water-quality-guidelines/approved-wqgs/drinking-water-and-recreation/source\\_drinking\\_water\\_quality\\_guidelines\\_bcenv.pdf](http://www2.gov.bc.ca/assets/gov/environment/air-land-water/water/waterquality/water-quality-guidelines/approved-wqgs/drinking-water-and-recreation/source_drinking_water_quality_guidelines_bcenv.pdf)
5. Government of British Columbia – Legislation – Drinking Water Protection Act  
[www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-quality/drinking-water-quality/legislation](http://www2.gov.bc.ca/gov/content/environment/air-land-water/water/water-quality/drinking-water-quality/legislation)
6. Metro Vancouver – Coquitlam UV Disinfection Project  
[www.metrovancouver.org/services/water/WaterPublications/CUV-FactSheetUpdate.pdf](http://www.metrovancouver.org/services/water/WaterPublications/CUV-FactSheetUpdate.pdf)
7. Metro Vancouver – Drinking Water Facilities  
[www.metrovancouver.org/services/water/quality-facilities/facilities-processes/drinking-water-treatment-facilities/Pages/default.aspx](http://www.metrovancouver.org/services/water/quality-facilities/facilities-processes/drinking-water-treatment-facilities/Pages/default.aspx)
8. Metro Vancouver – Seymour-Capilano Filtration Project  
[www.metrovancouver.org/services/water/WaterPublications/SCFiltrPlant2010.pdf](http://www.metrovancouver.org/services/water/WaterPublications/SCFiltrPlant2010.pdf)
9. Metro Vancouver – Water Services  
[www.metrovancouver.org/services/water/Pages/default.aspx](http://www.metrovancouver.org/services/water/Pages/default.aspx)
10. Metro Vancouver – We Love Water  
[www.metrovancouver.org/welovewater/Pages/default.aspx](http://www.metrovancouver.org/welovewater/Pages/default.aspx)
11. City of Richmond – Infor Public Sector (IPS)  
Asset management program
12. City of Richmond – Hot Facts  
[www.richmond.ca/\\_\\_shared/assets/Population\\_Hot\\_Facts6248.pdf](http://www.richmond.ca/__shared/assets/Population_Hot_Facts6248.pdf)
13. City of Richmond – Richmond GVWD Water Consumption  
Document No. 555456 / Master Data
14. City of Richmond – Water Sampling Station Map  
[\\city.richmond.bc.ca\RICHMOND\GIS DATA-ALL LOCATIONS\Engineering Planning\Shared\Water Works\Water Sampling Station\mxd\water\\_sampling\\_stations\\_11x17.mxd](http://city.richmond.bc.ca/RICHMOND\GIS DATA-ALL LOCATIONS\Engineering Planning\Shared\Water Works\Water Sampling Station\mxd\water_sampling_stations_11x17.mxd)
15. City of Richmond – Engineering – Benchmarking Statistics – Underground Utilities Inventory–  
Drainage and Sanitary and Water  
Document No. 2236678



## APPENDIX 2: WATER SAMPLING SITES

	Sampling Station Number	Water Sampling Sites
Monday	RMD-250	6071 Azure Road
	RMD-251	5951 McCallan Road
	RMD-252	9751 Pendleton Road
	RMD-253	11051 No 3 Road
	RMD-254	5300 No. 3 Road
	RMD-255	6000 Blk. Miller Road
	RMD-256	1000 Blk. McDonald Road
	RMD-269	14951 Triangle Road
	RMD-270	8200 Jones Road
	RMD-271	3800 Cessna Drive
	RMD-272	751 Catalina Crescent
	RMD-273	Opp. 8331 Fairfax Place
	RMD-274	10920 Springwood Court
Wednesday	RMD-257	6640 Blundell Road
	RMD-258	7000 Blk. Dyke Road
	RMD-259	10020 Amethyst Avenue
	RMD-260	11111 Horseshoe Way
	RMD-261	9911 Sidaway Road
	RMD-262	13799 Commerce Pkwy
	RMD-263	12560 Cambie Road
	RMD-264	13100 Mitchell Road
	RMD-266	9380 General Currie Road
	RMD-268	13800 No. 3 Road
	RMD-277	Opp. 11280 Twigg Place
	RMD-278	6651 Fraserwood Place
	RMD-279	Opp. 20371 Westminster Highway

	Sampling Station Number	Water Sampling Sites
Friday	RMD-202	1500 Valemont Way
	RMD-203	23260 Westminster Highway
	RMD-204	3180 Granville Avenue
	RMD-205	13851 Steveston Highway
	RMD-206	4251 Moncton Street
	RMD-208	13200 No. 4 Road
	RMD-212	Opp. 8600 Ryan Road
	RMD-214	11720 Westminster Highway
	RMD-216	11080 No. 2 Road
	RMD-267	17240 Fedoruk Road
	RMD-249	23000 Block Dyke Road
	RMD-275	5180 Smith Crescent
	RMD-276	22271 Cochrane Drive
	RMD-280	11500 McKenzie Road

## APPENDIX 3: 2021 WATER QUALITY RESULTS

Sample Type	Sample Name	Description	Sampled Date	Total Coliform (MPN/100mL)	E. coli (MPN/100mL)	Temperature (°C)	Total Coliform (CFU/100mL)	E. coli (CFU/100mL)	HPC (CFU/mL)	Turbidity (NTU)
GRAB	RMD-264	13100 Mitchell Rd.	2021-02-10 12:45	-	-	4	<1	<1	<2	0.1
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-02-10 13:00	-	-	4	<1	<1	<2	0.1
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-02-10 13:50	-	-	4	<1	<1	<2	0.2
GRAB	RMD-261	9911 Sidaway Rd.	2021-02-10 14:10	-	-	4	<1	<1	<2	0.11
GRAB	RMD-263	12560 Cambie Rd.	2021-02-17 12:30	-	-	4	<1	<1	4	0.11
GRAB	RMD-264	13100 Mitchell Rd.	2021-02-17 12:45	-	-	4	<1	<1	2	0.17
GRAB	RMD-257	6640 Blundell Rd.	2021-02-17 15:45	-	-	4	<1	<1	4	0.27
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-02-24 13:45	-	-	4	<1	<1	<2	0.11
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-03-03 13:50	-	-	4	<1	<1	<2	0.12
GRAB	RMD-269	14951 Triangle Rd.	2021-03-01 13:50	-	-	4.4	<1	<1	<2	0.1
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-03-01 15:00	-	-	4.8	<1	<1	<2	0.29
GRAB	RMD-203	23260 Westminster Hwy.	2021-03-11 11:10	-	-	4.9	<1	<1	<2	0.08
GRAB	RMD-204	3180 Granville Ave.	2021-01-08 07:30	-	-	5	<1	<1	<2	0.11
GRAB	RMD-202	1500 Valemont Way	2021-01-08 09:20	-	-	5	<1	<1	<2	0.13
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-01-11 15:00	-	-	5	<1	<1	<2	0.18
GRAB	RMD-264	13100 Mitchell Rd.	2021-01-13 13:00	-	-	5	<1	<1	<2	0.12
GRAB	RMD-251	5951McCallan Rd.	2021-01-25 12:30	-	-	5	<1	<1	<2	0.24
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-01-25 14:55	-	-	5	<1	<1	2	0.14
GRAB	RMD-262	13799 Commerce Pkwy.	2021-01-27 13:20	-	-	5	<1	<1	<2	0.16
GRAB	RMD-261	9911 Sidaway Rd.	2021-01-27 14:10	-	-	5	<1	<1	<2	0.12
GRAB	RMD-260	11111 Horseshoe Way	2021-01-27 14:25	-	-	5	<1	<1	<2	0.19
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-01-28 08:35	-	-	5	<1	<1	<2	0.1
GRAB	RMD-275	5180 Smith Cres.	2021-01-28 10:50	-	-	5	<1	<1	<2	0.12
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-02-08 14:40	-	-	5	<1	<1	<2	0.17
GRAB	RMD-263	12560 Cambie Rd.	2021-02-10 12:30	-	-	5	<1	<1	<2	0.13
GRAB	RMD-262	13799 Commerce Pkwy.	2021-02-10 13:15	-	-	5	<1	<1	<2	0.14
GRAB	RMD-278	6651 Fraserwood Place	2021-02-10 13:35	-	-	5	<1	<1	<2	0.2
GRAB	RMD-260	11111 Horseshoe Way	2021-02-10 14:25	-	-	5	<1	<1	<2	0.13
GRAB	RMD-259	10020 Amethyst Ave.	2021-02-10 14:40	-	-	5	<1	<1	<2	0.11
GRAB	RMD-266	9380 General Currie Rd.	2021-02-10 14:55	-	-	5	<1	<1	<2	0.12
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-02-10 15:15	-	-	5	<1	<1	<2	0.17
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-02-10 15:30	-	-	5	<1	<1	2	0.09
GRAB	RMD-257	6640 Blundell Rd.	2021-02-10 15:45	-	-	5	<1	<1	<2	0.11
GRAB	RMD-208	13200 No. 4 Rd.	2021-02-11 08:45	-	-	5	<1	<1	<2	0.12
GRAB	RMD-214	11720 Westminster Hwy.	2021-02-11 09:15	-	-	5	<1	<1	<2	0.16
GRAB	RMD-252	9751 Pendleton Rd.	2021-02-16 13:00	-	-	5	<1	<1	2	0.15
GRAB	RMD-269	14951 Triangle Rd.	2021-02-16 13:55	-	-	5	<1	<1	<2	0.13
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-02-16 14:45	-	-	5	<1	<1	<2	0.12
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-02-16 15:00	-	-	5	<1	<1	<2	0.12
GRAB	RMD-271	3800 Cessna Drive	2021-02-16 15:15	-	-	5	<1	<1	<2	0.1
GRAB	RMD-272	751 Catalina Cres.	2021-02-16 15:30	-	-	5	<1	<1	<2	0.12
GRAB	RMD-250	6071 Azure Rd.	2021-02-16 15:45	-	-	5	<1	<1	<2	0.09
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-02-17 13:00	-	-	5	<1	<1	<2	0.17
GRAB	RMD-262	13799 Commerce Pkwy.	2021-02-17 13:15	-	-	5	<1	<1	<2	0.1
GRAB	RMD-278	6651 Fraserwood Place	2021-02-17 13:30	-	-	5	<1	<1	4	0.14
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-02-17 13:45	-	-	5	<1	<1	<2	0.1
GRAB	RMD-261	9911 Sidaway Rd.	2021-02-17 14:10	-	-	5	<1	<1	<2	0.09
GRAB	RMD-260	11111 Horseshoe Way	2021-02-17 14:25	-	-	5	<1	<1	2	0.15
GRAB	RMD-259	10020 Amethyst Ave.	2021-02-17 14:40	-	-	5	<1	<1	<2	0.1
GRAB	RMD-266	9380 General Currie Rd.	2021-02-17 14:55	-	-	5	<1	<1	<2	0.1
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-02-17 15:30	-	-	5	<1	<1	<2	0.09
GRAB	RMD-206	4251 Moncton St.	2021-02-19 07:45	-	-	5	<1	<1	<2	0.1
GRAB	RMD-216	11080 No. 2 Rd.	2021-02-19 08:00	-	-	5	<1	<1	<2	0.1
GRAB	RMD-214	11720 Westminster Hwy.	2021-02-19 09:45	-	-	5	<1	<1	<2	0.12
GRAB	RMD-251	5951McCallan Rd.	2021-02-22 12:30	-	-	5	<1	<1	<2	0.12
GRAB	RMD-274	10920 Springwood Court	2021-02-22 13:15	-	-	5	<1	<1	<2	0.14
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-02-22 14:55	-	-	5	<1	<1	<2	0.18
GRAB	RMD-272	751 Catalina Cres.	2021-02-22 15:30	-	-	5	<1	<1	<2	0.18
GRAB	RMD-250	6071 Azure Rd.	2021-02-22 15:45	-	-	5	<1	<1	<2	0.14
GRAB	RMD-263	12560 Cambie Rd.	2021-02-24 12:30	-	-	5	<1	<1	<2	0.13
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-02-24 12:45	-	-	5	<1	<1	<2	0.24
GRAB	RMD-264	13100 Mitchell Rd.	2021-02-24 13:00	-	-	5	<1	<1	<2	0.14
GRAB	RMD-262	13799 Commerce Pkwy.	2021-02-24 13:15	-	-	5	<1	<1	<2	0.13
GRAB	RMD-278	6651 Fraserwood Place	2021-02-24 13:30	-	-	5	<1	<1	<2	0.12
GRAB	RMD-261	9911 Sidaway Rd.	2021-02-24 14:00	-	-	5	<1	<1	<2	0.13
GRAB	RMD-260	11111 Horseshoe Way	2021-02-24 14:15	-	-	5	<1	<1	<2	0.13
GRAB	RMD-259	10020 Amethyst Ave.	2021-02-24 14:30	-	-	5	<1	<1	<2	0.12
GRAB	RMD-266	9380 General Currie Rd.	2021-02-24 14:45	-	-	5	<1	<1	<2	0.16
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-02-24 15:00	-	-	5	<1	<1	<2	0.14
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-02-24 15:15	-	-	5	<1	<1	<2	0.11
GRAB	RMD-257	6640 Blundell Rd.	2021-02-24 15:30	-	-	5	<1	<1	<2	0.13
GRAB	RMD-272	751 Catalina Cres.	2021-03-01 15:30	-	-	5	<1	<1	<2	0.19
GRAB	RMD-263	12560 Cambie Rd.	2021-03-03 12:30	-	-	5	<1	<1	<2	0.19
GRAB	RMD-257	6640 Blundell Rd.	2021-03-03 15:45	-	-	5	<1	<1	<2	0.22
GRAB	RMD-206	4251 Moncton St.	2021-03-05 09:05	-	-	5	<1	<1	<2	0.27
GRAB	RMD-208	13200 No. 4 Rd.	2021-03-05 10:10	-	-	5	<1	<1	<2	0.18
GRAB	RMD-205	13851 Steveston Hwy.	2021-03-05 10:36	-	-	5	<1	<1	<2	0.16
GRAB	RMD-214	11720 Westminster Hwy.	2021-03-05 11:05	-	-	5	<1	<1	<2	0.17
GRAB	RMD-276	22271 Cochrane Drive	2021-03-05 11:45	-	-	5	<1	<1	<2	0.17
GRAB	RMD-203	23260 Westminster Hwy.	2021-03-05 12:10	-	-	5	<1	<1	<2	0.16
GRAB	RMD-269	14951 Triangle Rd.	2021-03-08 13:55	-	-	5	<1	<1	<2	0.15
GRAB	RMD-263	12560 Cambie Rd.	2021-03-10 12:30	-	-	5	<1	<1	<2	0.11
GRAB	RMD-260	11111 Horseshoe Way	2021-03-10 14:25	-	-	5	<1	<1	<2	0.89
GRAB	RMD-214	11720 Westminster Hwy.	2021-03-19 09:50	-	-	5	<1	<1	<2	0.1
GRAB	RMD-257	6640 Blundell Rd.	2021-12-29 07:30	-	-	5	<1	<1	NA	0.11
GRAB	RMD-266	9380 General Currie Rd.	2021-12-29 09:30	-	-	5	<1	<1	NA	0.12
GRAB	RMD-214	11720 Westminster Hwy.	2021-03-11 09:40	-	-	5.1	<1	<1	2	0.12
GRAB	RMD-251	5951McCallan Rd.	2021-03-08 12:30	-	-	5.2	<1	<1	<2	0.16
GRAB	RMD-270	8200 Jones Rd.	2021-03-08 14:15	-	-	5.2	<1	<1	<2	0.17
GRAB	RMD-251	5951McCallan Rd.	2021-03-01 12:30	-	-	5.3	<1	<1	<2	0.18
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-03-01 14:45	-	-	5.4	<1	<1	<2	0.19
GRAB	RMD-205	13851 Steveston Hwy.	2021-03-11 09:00	-	-	5.4	<1	<1	<2	0.1
GRAB	RMD-269	14951 Triangle Rd.	2021-03-15 13:50	-	-	5.4	<1	<1	<2	0.19
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-03-15 15:00	-	-	5.4	<1	<1	<2	0.17
GRAB	RMD-276	22271 Cochrane Drive	2021-03-11 10:35	-	-	5.5	<1	<1	<2	0.1
GRAB	RMD-251	5951McCallan Rd.	2021-03-15 12:30	-	-	5.5	<1	<1	<2	0.23
GRAB	RMD-251	5951McCallan Rd.	2021-02-01 12:30	-	-	5.6	<1	<1	<2	0.09
GRAB	RMD-250	6071 Azure Rd.	2021-03-01 15:45	-	-	5.7	<1	<1	<2	0.2
GRAB	RMD-206	4251 Moncton St.	2021-03-11 07:45	-	-	5.7	<1	<1	2	0.37
GRAB	RMD-208	13200 No. 4 Rd.	2021-03-11 08:45	-	-	5.7	<1	<1	<2	0.5

Sample Type	Sample Name	Description	Sampled Date	Total Coliform (MPN/100mL)	E. coli (MPN/100mL)	Temperature (°C)	Total Coliform (CFU/100mL)	E. coli (CFU/100mL)	HPC (CFU/mL)	Turbidity (NTU)
GRAB	RMD-272	751 Catalina Cres.	2021-03-15 15:30	-	-	5.7	<1	<1	<2	0.13
GRAB	RMD-275	5180 Smith Cres.	2021-03-11 10:50	-	-	5.8	<1	<1	<2	0.14
GRAB	RMD-269	14951 Triangle Rd.	2021-02-01 13:50	-	-	5.9	<1	<1	<2	0.17
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-03-08 15:00	-	-	5.9	<1	<1	<2	0.19
GRAB	RMD-271	3800 Cessna Drive	2021-03-15 15:15	-	-	5.9	<1	<1	<2	0.34
GRAB	RMD-251	5951 McCallan Rd.	2021-01-04 12:30	-	-	6	<1	<1	2	0.13
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-01-04 14:55	-	-	6	<1	<1	<2	0.15
GRAB	RMD-272	751 Catalina Cres.	2021-01-04 15:25	-	-	6	<1	<1	<2	0.12
GRAB	RMD-263	12560 Cambie Rd.	2021-01-06 12:30	-	-	6	<1	<1	<2	0.14
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-01-06 12:45	<1	<1	6	-	-	<2	13
GRAB	RMD-264	13100 Mitchell Rd.	2021-01-06 13:00	-	-	6	<1	<1	2	2.9
GRAB	RMD-262	13799 Commerce Pkwy.	2021-01-06 13:15	-	-	6	<1	<1	<2	0.13
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-01-06 13:50	-	-	6	<1	<1	<2	0.12
GRAB	RMD-266	9380 General Currie Rd.	2021-01-06 14:55	-	-	6	<1	<1	<2	0.14
GRAB	RMD-206	4251 Moncton St.	2021-01-08 07:45	-	-	6	<1	<1	<2	0.1
GRAB	RMD-216	11080 No. 2 Rd.	2021-01-08 08:00	-	-	6	<1	<1	<2	0.11
GRAB	RMD-280	11500 McKenzie Rd.	2021-01-08 08:15	-	-	6	<1	<1	<2	0.11
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-01-08 08:30	-	-	6	<1	<1	<2	0.11
GRAB	RMD-208	13200 No. 4 Rd.	2021-01-08 08:45	-	-	6	<1	<1	<2	0.12
GRAB	RMD-205	13851 Steveston Hwy.	2021-01-08 09:00	-	-	6	<1	<1	<2	0.12
GRAB	RMD-214	11720 Westminster Hwy.	2021-01-08 09:35	-	-	6	<1	<1	<2	0.12
GRAB	RMD-267	17240 Fedoruk	2021-01-08 09:50	-	-	6	<1	<1	<2	0.12
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-01-08 10:10	-	-	6	<1	<1	<2	0.19
GRAB	RMD-276	22271 Cochrane Drive	2021-01-08 10:25	-	-	6	<1	<1	<2	0.1
GRAB	RMD-275	5180 Smith Cres.	2021-01-08 10:45	-	-	6	<1	<1	<2	0.12
GRAB	RMD-203	23260 Westminster Hwy.	2021-01-08 11:00	-	-	6	<1	<1	<2	0.11
GRAB	RMD-251	5951 McCallan Rd.	2021-01-11 12:30	-	-	6	<1	<1	<2	0.12
GRAB	RMD-253	11051 No 3 Rd.	2021-01-11 13:35	-	-	6	<1	<1	<2	0.1
GRAB	RMD-269	14951 Triangle Rd.	2021-01-11 13:50	-	-	6	<1	<1	<2	0.1
GRAB	RMD-270	8200 Jones Rd.	2021-01-11 14:10	-	-	6	<1	<1	<2	0.1
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-01-11 14:45	-	-	6	<1	<1	<2	0.24
GRAB	RMD-271	3800 Cessna Drive	2021-01-11 15:15	-	-	6	<1	<1	<2	0.17
GRAB	RMD-272	751 Catalina Cres.	2021-01-11 15:30	-	-	6	<1	<1	<2	0.16
GRAB	RMD-250	6071 Azure Rd.	2021-01-11 15:45	-	-	6	<1	<1	<2	0.32
GRAB	RMD-263	12560 Cambie Rd.	2021-01-13 12:30	-	-	6	<1	<1	<2	0.2
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-01-13 12:45	-	-	6	<1	<1	<2	0.32
GRAB	RMD-262	13799 Commerce Pkwy.	2021-01-13 13:15	-	-	6	<1	<1	<2	0.12
GRAB	RMD-278	6651 Fraserwood Place	2021-01-13 13:35	-	-	6	<1	<1	<2	0.13
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-01-13 13:45	-	-	6	<1	<1	<2	0.18
GRAB	RMD-261	9911 Sidaway Rd.	2021-01-13 13:55	-	-	6	<1	<1	<2	0.12
GRAB	RMD-260	11111 Horseshoe Way	2021-01-13 14:10	-	-	6	<1	<1	4	0.49
GRAB	RMD-259	10020 Amethyst Ave.	2021-01-13 14:25	-	-	6	<1	<1	<2	0.12
GRAB	RMD-266	9380 General Currie Rd.	2021-01-13 14:40	-	-	6	<1	<1	<2	0.13
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-01-13 15:00	-	-	6	<1	<1	2	0.12
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-01-13 15:25	-	-	6	<1	<1	<2	0.2
GRAB	RMD-257	6640 Blundell Rd.	2021-01-13 15:45	-	-	6	<1	<1	<2	0.17
GRAB	RMD-204	3180 Granville Ave.	2021-01-14 07:30	-	-	6	<1	<1	<2	0.13
GRAB	RMD-206	4251 Moncton St.	2021-01-14 07:45	-	-	6	<1	<1	<2	0.14
GRAB	RMD-216	11080 No. 2 Rd.	2021-01-14 08:00	-	-	6	<1	<1	<2	0.17
GRAB	RMD-203	23260 Westminster Hwy.	2021-01-14 10:50	-	-	6	<1	<1	<2	0.16
GRAB	RMD-269	14951 Triangle Rd.	2021-01-18 13:50	-	-	6	<1	<1	<2	0.15
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-01-18 14:55	-	-	6	<1	<1	<2	0.16
GRAB	RMD-272	751 Catalina Cres.	2021-01-18 15:10	-	-	6	<1	<1	<2	0.11
GRAB	RMD-250	6071 Azure Rd.	2021-01-18 15:40	-	-	6	<1	<1	<2	0.1
GRAB	RMD-263	12560 Cambie Rd.	2021-01-20 12:30	-	-	6	<1	<1	<2	0.1
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-01-20 12:45	-	-	6	<1	<1	<2	0.22
GRAB	RMD-264	13100 Mitchell Rd.	2021-01-20 13:00	-	-	6	<1	<1	<2	0.13
GRAB	RMD-266	9380 General Currie Rd.	2021-01-20 14:55	-	-	6	<1	<1	<2	0.1
GRAB	RMD-257	6640 Blundell Rd.	2021-01-20 15:40	-	-	6	<1	<1	<2	0.09
GRAB	RMD-205	13851 Steveston Hwy.	2021-01-22 09:00	-	-	6	<1	<1	<2	0.12
GRAB	RMD-214	11720 Westminster Hwy.	2021-01-22 09:15	-	-	6	<1	<1	<2	0.11
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-01-25 12:45	-	-	6	<1	<1	<2	0.11
GRAB	RMD-252	9751 Pendleton Rd.	2021-01-25 13:00	-	-	6	<1	<1	<2	0.12
GRAB	RMD-274	10920 Springwood Court	2021-01-25 13:15	-	-	6	<1	<1	<2	0.12
GRAB	RMD-253	11051 No 3 Rd.	2021-01-25 13:30	-	-	6	<1	<1	<2	0.14
GRAB	RMD-269	14951 Triangle Rd.	2021-01-25 13:50	-	-	6	<1	<1	<2	0.17
GRAB	RMD-270	8200 Jones Rd.	2021-01-25 14:10	-	-	6	<1	<1	<2	0.1
GRAB	RMD-254	5300 No. 3 Rd.	2021-01-25 14:25	-	-	6	<1	<1	<2	0.1
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-01-25 14:40	-	-	6	<1	<1	<2	0.1
GRAB	RMD-271	3800 Cessna Drive	2021-01-25 15:10	-	-	6	<1	<1	<2	0.11
GRAB	RMD-272	751 Catalina Cres.	2021-01-25 15:25	-	-	6	<1	<1	<2	0.12
GRAB	RMD-250	6071 Azure Rd.	2021-01-25 15:45	-	-	6	<1	<1	<2	0.11
GRAB	RMD-263	12560 Cambie Rd.	2021-01-27 12:30	-	-	6	<1	<1	<2	0.13
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-01-27 12:45	-	-	6	<1	<1	<2	0.58
GRAB	RMD-264	13100 Mitchell Rd.	2021-01-27 13:00	-	-	6	<1	<1	<2	0.12
GRAB	RMD-278	6651 Fraserwood Place	2021-01-27 13:35	-	-	6	<1	<1	<2	0.17
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-01-27 13:50	-	-	6	<1	<1	<2	0.13
GRAB	RMD-259	10020 Amethyst Ave.	2021-01-27 14:40	-	-	6	<1	<1	<2	0.12
GRAB	RMD-266	9380 General Currie Rd.	2021-01-27 14:55	-	-	6	<1	<1	<2	0.12
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-01-27 15:15	-	-	6	<1	<1	<2	0.13
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-01-27 15:30	-	-	6	<1	<1	<2	0.11
GRAB	RMD-204	3180 Granville Ave.	2021-01-28 07:30	-	-	6	<1	<1	<2	0.11
GRAB	RMD-206	4251 Moncton St.	2021-01-28 07:45	-	-	6	<1	<1	4	0.77
GRAB	RMD-216	11080 No. 2 Rd.	2021-01-28 08:00	-	-	6	<1	<1	<2	0.16
GRAB	RMD-280	11500 McKenzie Rd.	2021-01-28 08:20	-	-	6	<1	<1	<2	0.14
GRAB	RMD-208	13200 No. 4 Rd.	2021-01-28 08:50	-	-	6	<1	<1	<2	0.1
GRAB	RMD-205	13851 Steveston Hwy.	2021-01-28 09:10	-	-	6	<1	<1	<2	0.12
GRAB	RMD-202	1500 Valemont Way	2021-01-28 09:25	-	-	6	<1	<1	<2	0.11
GRAB	RMD-214	11720 Westminster Hwy.	2021-01-28 09:45	-	-	6	<1	<1	<2	0.11
GRAB	RMD-267	17240 Fedoruk	2021-01-28 10:00	-	-	6	<1	<1	<2	0.12
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-01-28 10:15	-	-	6	<1	<1	<2	0.13
GRAB	RMD-276	22271 Cochrane Drive	2021-01-28 10:35	-	-	6	<1	<1	<2	0.14
GRAB	RMD-203	23260 Westminster Hwy.	2021-01-28 11:00	-	-	6	<1	<1	<2	0.08
GRAB	RMD-263	12560 Cambie Rd.	2021-02-03 12:30	-	-	6	<1	<1	<2	0.14
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-02-03 12:45	-	-	6	<1	<1	<2	0.16
GRAB	RMD-264	13100 Mitchell Rd.	2021-02-03 13:00	-	-	6	<1	<1	<2	0.11
GRAB	RMD-262	13799 Commerce Pkwy.	2021-02-03 13:15	-	-	6	<1	<1	<2	0.19
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-02-03 13:50	-	-	6	<1	<1	<2	0.21
GRAB	RMD-261	9911 Sidaway Rd.	2021-02-03 14:10	-	-	6	<1	<1	<2	0.12
GRAB	RMD-260	11111 Horseshoe Way	2021-02-03 14:25	-	-	6	<1	<1	<2	0.18

Sample Type	Sample Name	Description	Sampled Date	Total Coliform (MPN/100mL)	E. coli (MPN/100mL)	Temperature (°C)	Total Coliform (CFU/100mL)	E. coli (CFU/100mL)	HPC (CFU/mL)	Turbidity (NTU)
GRAB	RMD-259	10020 Amethyst Ave.	2021-02-03 14:40	-	-	6	<1	<1	<2	0.26
GRAB	RMD-266	9380 General Currie Rd.	2021-02-03 14:55	-	-	6	<1	<1	<2	0.12
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-02-03 15:15	-	-	6	<1	<1	<2	0.12
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-02-03 15:30	-	-	6	<1	<1	<2	0.11
GRAB	RMD-257	6640 Blundell Rd.	2021-02-03 15:45	-	-	6	<1	<1	<2	0.11
GRAB	RMD-206	4251 Moncton St.	2021-02-05 08:00	-	-	6	<1	<1	<2	0.28
GRAB	RMD-208	13200 No. 4 Rd.	2021-02-05 09:00	-	-	6	<1	<1	<2	0.12
GRAB	RMD-205	13851 Steveston Hwy.	2021-02-05 09:15	-	-	6	<1	<1	<2	0.14
GRAB	RMD-214	11720 Westminster Hwy.	2021-02-05 09:50	-	-	6	<1	<1	<2	0.1
GRAB	RMD-203	23260 Westminster Hwy.	2021-02-05 11:10	-	-	6	<1	<1	2	0.12
GRAB	RMD-251	5951 McCallan Rd.	2021-02-08 12:30	-	-	6	<1	<1	<2	0.1
GRAB	RMD-269	14951 Triangle Rd.	2021-02-08 13:55	-	-	6	<1	<1	<2	0.12
GRAB	RMD-271	3800 Cessna Drive	2021-02-08 15:10	-	-	6	<1	<1	<2	0.11
GRAB	RMD-250	6071 Azure Rd.	2021-02-08 15:25	-	-	6	<1	<1	<2	0.1
GRAB	RMD-204	3180 Granville Ave.	2021-02-11 07:30	-	-	6	<1	<1	<2	0.12
GRAB	RMD-206	4251 Moncton St.	2021-02-11 07:45	-	-	6	<1	<1	<2	0.13
GRAB	RMD-216	11080 No. 2 Rd.	2021-02-11 08:00	-	-	6	<1	<1	LA	0.13
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-02-11 08:30	-	-	6	<1	<1	<2	0.11
GRAB	RMD-205	13851 Steveston Hwy.	2021-02-11 09:00	-	-	6	<1	<1	<2	0.21
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-02-11 10:10	-	-	6	<1	<1	<2	0.2
GRAB	RMD-276	22271 Cochrane Drive	2021-02-11 10:25	-	-	6	<1	<1	<2	0.2
GRAB	RMD-275	5180 Smith Cres.	2021-02-11 10:40	-	-	6	<1	<1	<2	0.18
GRAB	RMD-203	23260 Westminster Hwy.	2021-02-11 10:55	-	-	6	<1	<1	<2	0.24
GRAB	RMD-251	5951 McCallan Rd.	2021-02-16 12:30	-	-	6	<1	<1	<2	0.29
GRAB	RMD-274	10920 Springwood Court	2021-02-16 13:15	-	-	6	<1	<1	<2	0.31
GRAB	RMD-253	11051 No 3 Rd.	2021-02-16 13:30	-	-	6	<1	<1	<2	0.09
GRAB	RMD-270	8200 Jones Rd.	2021-02-16 14:15	-	-	6	<1	<1	<2	0.13
GRAB	RMD-254	5300 No. 3 Rd.	2021-02-16 14:30	-	-	6	<1	<1	<2	0.12
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-02-17 15:15	-	-	6	<1	<1	<2	0.1
GRAB	RMD-204	3180 Granville Ave.	2021-02-19 07:30	-	-	6	<1	<1	<2	0.12
GRAB	RMD-280	11500 McKenzie Rd.	2021-02-19 08:15	-	-	6	<1	<1	<2	0.11
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-02-19 08:30	-	-	6	<1	<1	<2	0.1
GRAB	RMD-208	13200 No. 4 Rd.	2021-02-19 08:45	-	-	6	<1	<1	<2	0.1
GRAB	RMD-205	13851 Steveston Hwy.	2021-02-19 09:00	-	-	6	<1	<1	<2	0.1
GRAB	RMD-202	1500 Valemont Way	2021-02-19 09:25	-	-	6	<1	<1	<2	0.12
GRAB	RMD-267	17240 Fedoruk	2021-02-19 10:00	-	-	6	<1	<1	<2	0.09
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-02-19 10:15	-	-	6	<1	<1	<2	0.1
GRAB	RMD-276	22271 Cochrane Drive	2021-02-19 10:45	-	-	6	<1	<1	<2	0.1
GRAB	RMD-203	23260 Westminster Hwy.	2021-02-19 11:00	-	-	6	<1	<1	<2	0.09
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-02-22 12:45	-	-	6	<1	<1	<2	0.17
GRAB	RMD-252	9751 Pendleton Rd.	2021-02-22 13:00	-	-	6	<1	<1	<2	0.16
GRAB	RMD-253	11051 No 3 Rd.	2021-02-22 13:35	-	-	6	<1	<1	<2	0.2
GRAB	RMD-269	14951 Triangle Rd.	2021-02-22 13:50	-	-	6	<1	<1	<2	0.2
GRAB	RMD-254	5300 No. 3 Rd.	2021-02-22 14:25	-	-	6	<1	<1	<2	0.23
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-02-22 14:40	-	-	6	<1	<1	<2	0.13
GRAB	RMD-271	3800 Cessna Drive	2021-02-22 15:15	-	-	6	<1	<1	<2	0.11
GRAB	RMD-204	3180 Granville Ave.	2021-02-25 07:30	-	-	6	<1	<1	<2	0.13
GRAB	RMD-206	4251 Moncton St.	2021-02-25 07:45	-	-	6	<1	<1	<2	0.14
GRAB	RMD-216	11080 No. 2 Rd.	2021-02-25 08:00	-	-	6	<1	<1	<2	0.12
GRAB	RMD-208	13200 No. 4 Rd.	2021-02-25 08:50	-	-	6	<1	<1	<2	0.1
GRAB	RMD-214	11720 Westminster Hwy.	2021-02-25 09:45	-	-	6	<1	<1	<2	0.12
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-02-25 10:15	-	-	6	<1	<1	<2	0.23
GRAB	RMD-276	22271 Cochrane Drive	2021-02-25 10:30	-	-	6	<1	<1	<2	0.15
GRAB	RMD-275	5180 Smith Cres.	2021-02-25 10:45	-	-	6	<1	<1	<2	0.16
GRAB	RMD-203	23260 Westminster Hwy.	2021-02-25 11:00	-	-	6	<1	<1	<2	0.2
GRAB	RMD-252	9751 Pendleton Rd.	2021-03-01 13:00	-	-	6	<1	<1	<2	1.2
GRAB	RMD-264	13100 Mitchell Rd.	2021-03-03 12:45	-	-	6	<1	<1	<2	0.16
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-03-03 13:00	-	-	6	<1	<1	<2	0.24
GRAB	RMD-262	13799 Commerce Pkwy.	2021-03-03 13:15	-	-	6	<1	<1	<2	0.12
GRAB	RMD-278	6651 Fraserwood Place	2021-03-03 13:35	-	-	6	<1	<1	<2	0.13
GRAB	RMD-261	9911 Sidaway Rd.	2021-03-03 14:10	-	-	6	<1	<1	<2	0.22
GRAB	RMD-260	11111 Horseshoe Way	2021-03-03 14:25	-	-	6	<1	<1	2	0.26
GRAB	RMD-259	10020 Amethyst Ave.	2021-03-03 14:40	-	-	6	<1	<1	<2	0.19
GRAB	RMD-266	9380 General Currie Rd.	2021-03-03 14:55	-	-	6	<1	<1	<2	0.23
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-03-03 15:15	-	-	6	<1	<1	<2	0.17
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-03-03 15:30	-	-	6	<1	<1	<2	0.18
GRAB	RMD-204	3180 Granville Ave.	2021-03-05 08:40	-	-	6	<1	<1	<2	0.22
GRAB	RMD-216	11080 No. 2 Rd.	2021-03-05 09:20	-	-	6	<1	<1	<2	0.18
GRAB	RMD-280	11500 McKenzie Rd.	2021-03-05 09:40	-	-	6	<1	<1	<2	0.17
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-03-05 09:55	-	-	6	<1	<1	<2	0.21
GRAB	RMD-202	1500 Valemont Way	2021-03-05 10:50	-	-	6	<1	<1	<2	0.74
GRAB	RMD-267	17240 Fedoruk	2021-03-05 11:15	-	-	6	<1	<1	<2	0.18
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-03-05 11:30	-	-	6	<1	<1	<2	0.21
GRAB	RMD-275	5180 Smith Cres.	2021-03-05 11:55	-	-	6	<1	<1	<2	0.16
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-03-10 12:45	-	-	6	<1	<1	<2	0.16
GRAB	RMD-264	13100 Mitchell Rd.	2021-03-10 13:00	-	-	6	<1	<1	<2	0.15
GRAB	RMD-262	13799 Commerce Pkwy.	2021-03-10 13:15	-	-	6	<1	<1	<2	0.11
GRAB	RMD-278	6651 Fraserwood Place	2021-03-10 13:35	-	-	6	<1	<1	<2	0.09
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-03-10 13:50	-	-	6	<1	<1	<2	0.11
GRAB	RMD-261	9911 Sidaway Rd.	2021-03-10 14:10	-	-	6	<1	<1	<2	0.13
GRAB	RMD-259	10020 Amethyst Ave.	2021-03-10 14:40	-	-	6	<1	<1	<2	0.13
GRAB	RMD-266	9380 General Currie Rd.	2021-03-10 14:55	-	-	6	<1	<1	<2	0.12
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-03-10 15:10	-	-	6	<1	<1	<2	0.12
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-03-10 15:25	-	-	6	<1	<1	<2	0.15
GRAB	RMD-257	6640 Blundell Rd.	2021-03-10 15:45	-	-	6	<1	<1	2	0.1
GRAB	RMD-216	11080 No. 2 Rd.	2021-03-11 08:00	-	-	6	<1	<1	2	0.13
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-03-17 13:00	-	-	6	<1	<1	<2	0.14
GRAB	RMD-264	13100 Mitchell Rd.	2021-03-17 13:15	-	-	6	<1	<1	<2	0.12
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-03-17 14:00	-	-	6	<1	<1	<2	0.15
GRAB	RMD-261	9911 Sidaway Rd.	2021-03-17 14:20	-	-	6	<1	<1	<2	0.1
GRAB	RMD-260	11111 Horseshoe Way	2021-03-17 14:28	-	-	6	<1	<1	<2	0.09
GRAB	RMD-259	10020 Amethyst Ave.	2021-03-17 14:48	-	-	6	<1	<1	<2	0.11
GRAB	RMD-266	9380 General Currie Rd.	2021-03-17 15:00	-	-	6	<1	<1	<2	0.09
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-03-17 15:20	-	-	6	<1	<1	<2	0.13
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-03-17 15:30	-	-	6	<1	<1	<2	0.08
GRAB	RMD-257	6640 Blundell Rd.	2021-03-17 15:47	-	-	6	<1	<1	<2	0.09
GRAB	RMD-263	12560 Cambie Rd.	2021-03-17 23:00	-	-	6	<1	<1	<2	0.11
GRAB	RMD-206	4251 Moncton St.	2021-03-19 07:45	-	-	6	<1	<1	<2	0.09
GRAB	RMD-216	11080 No. 2 Rd.	2021-03-19 08:00	-	-	6	<1	<1	<2	0.12
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-03-19 08:35	-	-	6	<1	<1	<2	0.1



Sample Type	Sample Name	Description	Sampled Date	Total Coliform (MPN/100mL)	E. coli (MPN/100mL)	Temperature (°C)	Total Coliform (CFU/100mL)	E. coli (CFU/100mL)	HPC (CFU/mL)	Turbidity (NTU)
GRAB	RMD-208	13200 No. 4 Rd.	2021-03-19 08:55	-	-	6	<1	<1	<2	0.09
GRAB	RMD-205	13851 Steveston Hwy.	2021-03-19 09:15	-	-	6	<1	<1	<2	0.14
GRAB	RMD-202	1500 Valemont Way	2021-03-19 09:35	-	-	6	<1	<1	<2	0.15
GRAB	RMD-267	17240 Fedoruk	2021-03-19 10:10	-	-	6	<1	<1	<2	0.13
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-03-19 10:25	-	-	6	<1	<1	<2	0.16
GRAB	RMD-276	22271 Cochrane Drive	2021-03-19 10:40	-	-	6	<1	<1	<2	0.19
GRAB	RMD-203	23260 Westminster Hwy.	2021-03-19 11:10	-	-	6	<1	<1	<2	0.21
GRAB	RMD-251	5951 McCallan Rd.	2021-03-22 12:30	-	-	6	<1	<1	<2	0.15
GRAB	RMD-269	14951 Triangle Rd.	2021-03-22 13:30	-	-	6	<1	<1	<2	0.14
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-03-22 14:30	-	-	6	<1	<1	<2	0.16
GRAB	RMD-272	751 Catalina Cres.	2021-03-22 14:50	-	-	6	<1	<1	<2	0.17
GRAB	RMD-263	12560 Cambie Rd.	2021-03-24 12:40	-	-	6	<1	<1	<2	0.25
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-03-24 12:55	-	-	6	<1	<1	<2	0.1
GRAB	RMD-264	13100 Mitchell Rd.	2021-03-24 13:05	-	-	6	<1	<1	<2	0.11
GRAB	RMD-278	6651 Fraserwood Place	2021-03-24 13:35	-	-	6	<1	<1	<2	0.13
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-03-24 13:45	-	-	6	<1	<1	<2	0.09
GRAB	RMD-261	9911 Sidaway Rd.	2021-03-24 14:05	-	-	6	<1	<1	<2	0.09
GRAB	RMD-260	11111 Horseshoe Way	2021-03-24 14:20	-	-	6	<1	<1	<2	0.11
GRAB	RMD-266	9380 General Currie Rd.	2021-03-24 14:50	-	-	6	<1	<1	<2	0.1
GRAB	RMD-257	6640 Blundell Rd.	2021-03-24 15:50	-	-	6	<1	<1	<2	0.09
GRAB	RMD-206	4251 Moncton St.	2021-03-25 08:25	-	-	6	<1	<1	<2	0.11
GRAB	RMD-208	13200 No. 4 Rd.	2021-03-25 09:15	-	-	6	<1	<1	<2	0.1
GRAB	RMD-205	13851 Steveston Hwy.	2021-03-25 09:35	-	-	6	<1	<1	<2	0.1
GRAB	RMD-214	11720 Westminster Hwy.	2021-03-25 09:55	-	-	6	<1	<1	<2	0.1
GRAB	RMD-202	1500 Valemont Way	2021-03-25 10:20	-	-	6	<1	<1	<2	0.11
GRAB	RMD-276	22271 Cochrane Drive	2021-03-25 11:05	-	-	6	<1	<1	<2	0.09
GRAB	RMD-203	23260 Westminster Hwy.	2021-03-25 11:25	-	-	6	<1	<1	<2	0.08
GRAB	RMD-251	5951 McCallan Rd.	2021-03-29 12:30	-	-	6	<1	<1	<2	0.11
GRAB	RMD-269	14951 Triangle Rd.	2021-03-29 13:50	-	-	6	<1	<1	<2	0.09
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-03-31 13:50	-	-	6	<1	<1	<2	0.08
GRAB	RMD-266	9380 General Currie Rd.	2021-03-31 14:55	-	-	6	<1	<1	<2	0.12
GRAB	RMD-257	6640 Blundell Rd.	2021-03-31 15:45	-	-	6	<1	<1	<2	0.11
GRAB	RMD-251	5951 McCallan Rd.	2021-04-06 12:30	-	-	6	<1	<1	<2	0.12
GRAB	RMD-260	11111 Horseshoe Way	2021-04-07 14:15	-	-	6	<1	<1	<2	0.09
GRAB	RMD-259	10020 Amethyst Ave.	2021-04-07 15:05	-	-	6	<1	<1	<2	0.17
GRAB	RMD-266	9380 General Currie Rd.	2021-04-07 15:20	-	-	6	<1	<1	<2	0.11
GRAB	RMD-257	6640 Blundell Rd.	2021-04-07 15:40	-	-	6	<1	<1	<2	0.1
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-12-02 07:45	-	-	6	<1	<1	<2	0.11
GRAB	RMD-205	13851 Steveston Hwy.	2021-12-16 09:00	-	-	6	<1	<1	<2	0.12
GRAB	RMD-202	1500 Valemont Way	2021-12-16 09:25	-	-	6	<1	<1	<2	0.11
GRAB	RMD-203	23260 Westminster Hwy.	2021-12-16 11:00	-	-	6	<1	<1	<2	0.14
GRAB	RMD-263	12560 Cambie Rd.	2021-12-22 07:30	-	-	6	<1	<1	NA	0.12
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-12-22 09:05	-	-	6	<1	<1	NA	0.48
GRAB	RMD-260	11111 Horseshoe Way	2021-12-22 09:40	-	-	6	<1	<1	NA	0.1
GRAB	RMD-266	9380 General Currie Rd.	2021-12-22 10:10	-	-	6	<1	<1	NA	0.11
GRAB	RMD-216	11080 No. 2 Rd.	2021-12-23 08:00	-	-	6	<1	<1	NA	0.13
GRAB	RMD-208	13200 No. 4 Rd.	2021-12-23 09:00	-	-	6	<1	<1	NA	0.13
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-12-29 07:45	-	-	6	<1	<1	NA	0.17
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-12-29 08:00	-	-	6	<1	<1	NA	0.14
GRAB	RMD-271	3800 Cessna Drive	2021-12-29 08:00	-	-	6	<1	<1	NA	0.1
GRAB	RMD-263	12560 Cambie Rd.	2021-12-29 09:25	-	-	6	<1	<1	NA	0.19
GRAB	RMD-264	13100 Mitchell Rd.	2021-12-29 09:40	-	-	6	<1	<1	NA	0.11
GRAB	RMD-262	13799 Commerce Pkwy.	2021-12-29 10:10	-	-	6	<1	<1	NA	0.11
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-12-29 10:25	-	-	6	<1	<1	NA	0.17
GRAB	RMD-251	5951 McCallan Rd.	2021-01-18 12:30	-	-	6.1	<1	<1	<2	0.09
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-02-01 12:45	-	-	6.1	<1	<1	<2	0.11
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-02-01 15:00	-	-	6.1	<1	<1	<2	0.19
GRAB	RMD-270	8200 Jones Rd.	2021-03-01 14:15	-	-	6.1	<1	<1	2	0.22
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-03-08 14:45	-	-	6.1	<1	<1	<2	0.18
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-03-11 10:20	-	-	6.1	<1	<1	<2	0.16
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-02-01 14:45	-	-	6.2	<1	<1	NA	0.1
GRAB	RMD-253	11051 No 3 Rd.	2021-03-01 13:30	-	-	6.2	<1	<1	<2	0.19
GRAB	RMD-271	3800 Cessna Drive	2021-03-01 15:15	-	-	6.2	<1	<1	<2	0.14
GRAB	RMD-250	6071 Azure Rd.	2021-03-08 15:45	-	-	6.2	<1	<1	<2	0.15
GRAB	RMD-250	6071 Azure Rd.	2021-02-01 15:45	-	-	6.3	<1	<1	<2	0.1
GRAB	RMD-272	751 Catalina Cres.	2021-03-08 15:30	-	-	6.3	<1	<1	2	0.21
GRAB	RMD-204	3180 Granville Ave.	2021-03-11 07:30	-	-	6.3	<1	<1	<2	0.2
GRAB	RMD-270	8200 Jones Rd.	2021-02-01 14:15	-	-	6.4	<1	<1	<2	0.11
GRAB	RMD-254	5300 No. 3 Rd.	2021-03-01 14:30	-	-	6.4	<1	<1	<2	0.16
GRAB	RMD-267	17240 Fedoruk	2021-03-11 10:05	-	-	6.4	<1	<1	<2	0.1
GRAB	RMD-254	5300 No. 3 Rd.	2021-02-01 14:30	-	-	6.5	<1	<1	<2	0.11
GRAB	RMD-272	751 Catalina Cres.	2021-02-01 15:30	-	-	6.5	<1	<1	<2	0.19
GRAB	RMD-252	9751 Pendleton Rd.	2021-03-08 13:00	-	-	6.5	<1	<1	<2	0.15
GRAB	RMD-250	6071 Azure Rd.	2021-03-15 15:45	-	-	6.5	<1	<1	<2	0.19
GRAB	RMD-253	11051 No 3 Rd.	2021-02-01 13:30	-	-	6.6	<1	<1	<2	0.11
GRAB	RMD-271	3800 Cessna Drive	2021-02-01 15:15	-	-	6.6	<1	<1	<2	0.19
GRAB	RMD-253	11051 No 3 Rd.	2021-03-08 13:30	-	-	6.6	<1	<1	<2	0.14
GRAB	RMD-271	3800 Cessna Drive	2021-03-08 15:15	-	-	6.6	<1	<1	<2	0.18
GRAB	RMD-280	11500 McKenzie Rd.	2021-03-11 08:15	-	-	6.6	<1	<1	<2	0.16
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-03-15 14:45	-	-	6.6	<1	<1	<2	0.13
GRAB	RMD-252	9751 Pendleton Rd.	2021-02-01 13:00	-	-	6.7	<1	<1	<2	0.11
GRAB	RMD-270	8200 Jones Rd.	2021-03-15 14:15	-	-	6.7	<1	<1	<2	0.12
GRAB	RMD-274	10920 Springwood Court	2021-03-01 13:15	-	-	6.8	<1	<1	<2	1.1
GRAB	RMD-252	9751 Pendleton Rd.	2021-03-15 13:00	-	-	6.8	<1	<1	<2	0.1
GRAB	RMD-254	5300 No. 3 Rd.	2021-03-08 14:30	-	-	6.9	<1	<1	<2	0.19
GRAB	RMD-252	9751 Pendleton Rd.	2021-01-04 13:00	-	-	7	<1	<1	2	0.14
GRAB	RMD-274	10920 Springwood Court	2021-01-04 13:15	-	-	7	<1	<1	<2	0.11
GRAB	RMD-253	11051 No 3 Rd.	2021-01-04 13:30	-	-	7	<1	<1	<2	0.1
GRAB	RMD-269	14951 Triangle Rd.	2021-01-04 13:50	-	-	7	<1	<1	<2	0.16
GRAB	RMD-270	8200 Jones Rd.	2021-01-04 14:10	-	-	7	<1	<1	<2	0.12
GRAB	RMD-254	5300 No. 3 Rd.	2021-01-04 14:25	-	-	7	<1	<1	<2	0.11
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-01-04 14:40	-	-	7	<1	<1	<2	0.09
GRAB	RMD-271	3800 Cessna Drive	2021-01-04 15:10	-	-	7	<1	<1	<2	0.1
GRAB	RMD-250	6071 Azure Rd.	2021-01-04 15:45	-	-	7	<1	<1	<2	0.13
GRAB	RMD-278	6651 Fraserwood Place	2021-01-06 13:35	-	-	7	<1	<1	<2	0.13
GRAB	RMD-261	9911 Sidaway Rd.	2021-01-06 14:10	-	-	7	<1	<1	<2	0.11
GRAB	RMD-260	11111 Horseshoe Way	2021-01-06 14:25	-	-	7	<1	<1	<2	0.11
GRAB	RMD-259	10020 Amethyst Ave.	2021-01-06 14:40	-	-	7	<1	<1	<2	0.12
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-01-06 15:15	-	-	7	<1	<1	<2	0.11
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-01-06 15:30	-	-	7	<1	<1	<2	0.09

Sample Type	Sample Name	Description	Sample Date	Total Coliform (MPN/100mL)	E. coli (MPN/100mL)	Temperature (°C)	Total Coliform (CFU/100mL)	E. coli (CFU/100mL)	HPC (CFU/mL)	Turbidity (NTU)
GRAB	RMD-257	6640 Blundell Rd.	2021-01-06 15:45	-	-	7	<1	<1	<2	0.11
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-01-11 12:45	-	-	7	<1	<1	<2	0.19
GRAB	RMD-252	9751 Pendleton Rd.	2021-01-11 13:00	-	-	7	<1	<1	<2	0.1
GRAB	RMD-274	10920 Springwood Court	2021-01-11 13:15	-	-	7	<1	<1	32	0.26
GRAB	RMD-254	5300 No. 3 Rd.	2021-01-11 14:25	-	-	7	<1	<1	<2	0.12
GRAB	RMD-280	11500 McKenzie Rd.	2021-01-14 08:15	-	-	7	<1	<1	<2	0.17
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-01-14 08:30	-	-	7	<1	<1	<2	0.13
GRAB	RMD-208	13200 No. 4 Rd.	2021-01-14 08:45	-	-	7	<1	<1	<2	0.11
GRAB	RMD-205	13851 Steveston Hwy.	2021-01-14 09:00	-	-	7	<1	<1	<2	0.18
GRAB	RMD-202	1500 Valemont Way	2021-01-14 09:20	-	-	7	<1	<1	<2	0.14
GRAB	RMD-214	11720 Westminster Hwy.	2021-01-14 09:40	-	-	7	<1	<1	2	0.14
GRAB	RMD-267	17240 Fedoruk	2021-01-14 09:55	-	-	7	<1	<1	<2	0.13
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-01-14 10:10	-	-	7	<1	<1	<2	0.17
GRAB	RMD-276	22271 Cochrane Drive	2021-01-14 10:20	-	-	7	<1	<1	<2	0.18
GRAB	RMD-275	5180 Smith Cres.	2021-01-14 10:35	-	-	7	<1	<1	<2	0.13
GRAB	RMD-274	10920 Springwood Court	2021-01-18 13:15	-	-	7	<1	<1	<2	0.43
GRAB	RMD-253	11051 No. 3 Rd.	2021-01-18 13:30	-	-	7	<1	<1	<2	0.09
GRAB	RMD-270	8200 Jones Rd.	2021-01-18 14:10	-	-	7	<1	<1	2	0.16
GRAB	RMD-254	5300 No. 3 Rd.	2021-01-18 14:25	-	-	7	<1	<1	<2	1.1
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-01-18 14:40	-	-	7	<1	<1	<2	0.1
GRAB	RMD-271	3800 Cessna Drive	2021-01-18 15:25	-	-	7	<1	<1	<2	0.09
GRAB	RMD-262	13799 Commerce Pkwy.	2021-01-20 13:15	-	-	7	<1	<1	<2	0.12
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-01-20 13:35	-	-	7	<1	<1	<2	0.09
GRAB	RMD-278	6651 Fraserwood Place	2021-01-20 13:50	-	-	7	<1	<1	<2	0.11
GRAB	RMD-261	9911 Sidaway Rd.	2021-01-20 14:10	-	-	7	<1	<1	<2	0.11
GRAB	RMD-260	11111 Horseshoe Way	2021-01-20 14:25	-	-	7	<1	<1	<2	0.1
GRAB	RMD-259	10020 Amethyst Ave.	2021-01-20 14:40	-	-	7	<1	<1	<2	0.19
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-01-20 15:10	-	-	7	<1	<1	<2	0.11
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-01-20 15:25	-	-	7	<1	<1	<2	0.13
GRAB	RMD-204	3180 Granville Ave.	2021-01-22 07:30	-	-	7	<1	<1	<2	0.1
GRAB	RMD-206	4251 Moncton St.	2021-01-22 07:45	-	-	7	<1	<1	<2	0.1
GRAB	RMD-216	11080 No. 2 Rd.	2021-01-22 08:00	-	-	7	<1	<1	<2	0.11
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-01-22 08:30	-	-	7	<1	<1	<2	0.12
GRAB	RMD-208	13200 No. 4 Rd.	2021-01-22 08:45	-	-	7	<1	<1	<2	0.1
GRAB	RMD-202	1500 Valemont Way	2021-01-22 09:35	-	-	7	<1	<1	<2	0.11
GRAB	RMD-267	17240 Fedoruk	2021-01-22 09:55	-	-	7	<1	<1	2	0.1
GRAB	RMD-276	22271 Cochrane Drive	2021-01-22 10:20	-	-	7	<1	<1	<2	0.11
GRAB	RMD-257	6640 Blundell Rd.	2021-01-27 15:45	-	-	7	<1	<1	<2	0.11
GRAB	RMD-278	6651 Fraserwood Place	2021-02-03 13:35	-	-	7	<1	<1	<2	0.38
GRAB	RMD-204	3180 Granville Ave.	2021-02-05 07:45	-	-	7	<1	<1	<2	0.11
GRAB	RMD-216	11080 No. 2 Rd.	2021-02-05 08:15	-	-	7	<1	<1	2	0.16
GRAB	RMD-280	11500 McKenzie Rd.	2021-02-05 08:30	-	-	7	<1	<1	<2	0.16
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-02-05 08:45	-	-	7	<1	<1	<2	0.13
GRAB	RMD-202	1500 Valemont Way	2021-02-05 09:35	-	-	7	<1	<1	<2	0.12
GRAB	RMD-267	17240 Fedoruk	2021-02-05 10:05	-	-	7	<1	<1	<2	0.13
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-02-05 10:20	-	-	7	<1	<1	<2	0.18
GRAB	RMD-276	22271 Cochrane Drive	2021-02-05 10:40	-	-	7	<1	<1	<2	0.17
GRAB	RMD-275	5180 Smith Cres.	2021-02-05 10:55	-	-	7	<1	<1	<2	0.18
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-02-08 12:45	-	-	7	<1	<1	<2	0.1
GRAB	RMD-252	9751 Pendleton Rd.	2021-02-08 13:00	-	-	7	<1	<1	<2	0.1
GRAB	RMD-253	11051 No. 3 Rd.	2021-02-08 13:35	-	-	7	<1	<1	<2	0.1
GRAB	RMD-270	8200 Jones Rd.	2021-02-08 14:10	-	-	7	<1	<1	<2	0.1
GRAB	RMD-254	5300 No. 3 Rd.	2021-02-08 14:25	-	-	7	<1	<1	<2	0.11
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-02-08 14:25	-	-	7	<1	<1	<2	0.1
GRAB	RMD-272	751 Catalina Cres.	2021-02-08 14:55	-	-	7	<1	<1	<2	0.12
GRAB	RMD-280	11500 McKenzie Rd.	2021-02-11 08:15	-	-	7	<1	<1	<2	0.14
GRAB	RMD-202	1500 Valemont Way	2021-02-11 09:35	-	-	7	<1	<1	<2	0.11
GRAB	RMD-267	17240 Fedoruk	2021-02-11 09:55	-	-	7	<1	<1	<2	0.21
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-02-16 12:45	-	-	7	<1	<1	<2	0.11
GRAB	RMD-275	5180 Smith Cres.	2021-02-19 10:30	-	-	7	<1	<1	<2	0.11
GRAB	RMD-270	8200 Jones Rd.	2021-02-22 14:05	-	-	7	<1	<1	<2	0.21
GRAB	RMD-280	11500 McKenzie Rd.	2021-02-25 08:15	-	-	7	<1	<1	<2	0.12
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-02-25 08:30	-	-	7	<1	<1	<2	0.12
GRAB	RMD-205	13851 Steveston Hwy.	2021-02-25 09:10	-	-	7	<1	<1	<2	0.11
GRAB	RMD-202	1500 Valemont Way	2021-02-25 09:30	-	-	7	<1	<1	<2	0.11
GRAB	RMD-267	17240 Fedoruk	2021-02-25 10:00	-	-	7	<1	<1	<2	0.11
GRAB	RMD-202	1500 Valemont Way	2021-03-11 09:20	-	-	7	<1	<1	<2	0.16
GRAB	RMD-262	13799 Commerce Pkwy.	2021-03-17 13:30	-	-	7	<1	<1	<2	0.12
GRAB	RMD-278	6651 Fraserwood Place	2021-03-17 13:50	-	-	7	<1	<1	<2	0.13
GRAB	RMD-280	11500 McKenzie Rd.	2021-03-19 08:20	-	-	7	<1	<1	<2	0.77
GRAB	RMD-275	5180 Smith Cres.	2021-03-19 10:55	-	-	7	<1	<1	<2	0.19
GRAB	RMD-252	9751 Pendleton Rd.	2021-03-22 12:55	-	-	7	<1	<1	<2	0.13
GRAB	RMD-270	8200 Jones Rd.	2021-03-22 13:45	-	-	7	<1	<1	<2	0.12
GRAB	RMD-254	5300 No. 3 Rd.	2021-03-22 13:55	-	-	7	<1	<1	<2	0.12
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-03-22 14:20	-	-	7	<1	<1	<2	0.13
GRAB	RMD-271	3800 Cessna Drive	2021-03-22 14:40	-	-	7	<1	<1	2	0.13
GRAB	RMD-250	6071 Azure Rd.	2021-03-22 15:15	-	-	7	<1	<1	<2	0.14
GRAB	RMD-262	13799 Commerce Pkwy.	2021-03-24 13:20	-	-	7	<1	<1	<2	0.1
GRAB	RMD-259	10020 Amethyst Ave.	2021-03-24 14:35	-	-	7	<1	<1	<2	0.09
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-03-24 15:10	-	-	7	<1	<1	<2	0.11
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-03-24 15:30	-	-	7	<1	<1	<2	0.09
GRAB	RMD-204	3180 Granville Ave.	2021-03-25 08:10	-	-	7	<1	<1	<2	0.12
GRAB	RMD-216	11080 No. 2 Rd.	2021-03-25 08:40	-	-	7	<1	<1	<2	0.09
GRAB	RMD-280	11500 McKenzie Rd.	2021-03-25 08:50	-	-	7	<1	<1	<2	0.18
GRAB	RMD-267	17240 Fedoruk	2021-03-25 10:35	-	-	7	<1	<1	<2	0.09
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-03-25 10:50	-	-	7	<1	<1	<2	0.12
GRAB	RMD-275	5180 Smith Cres.	2021-03-25 11:15	-	-	7	<1	<1	<2	0.11
GRAB	RMD-252	9751 Pendleton Rd.	2021-03-29 13:00	-	-	7	<1	<1	<2	0.12
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-03-29 13:00	-	-	7	<1	<1	<2	0.21
GRAB	RMD-270	8200 Jones Rd.	2021-03-29 14:10	-	-	7	<1	<1	<2	0.11
GRAB	RMD-254	5300 No. 3 Rd.	2021-03-29 14:25	-	-	7	<1	<1	<2	0.11
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-03-29 14:45	-	-	7	<1	<1	<2	0.14
GRAB	RMD-271	3800 Cessna Drive	2021-03-29 15:15	-	-	7	<1	<1	<2	0.11
GRAB	RMD-272	751 Catalina Cres.	2021-03-29 15:30	-	-	7	<1	<1	<2	0.21
GRAB	RMD-250	6071 Azure Rd.	2021-03-29 15:50	-	-	7	<1	<1	60	0.12
GRAB	RMD-263	12560 Cambie Rd.	2021-03-31 12:30	-	-	7	<1	<1	<2	0.12
GRAB	RMD-264	13100 Mitchell Rd.	2021-03-31 12:45	-	-	7	<1	<1	<2	0.11
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-03-31 13:00	-	-	7	<1	<1	<2	0.15
GRAB	RMD-262	13799 Commerce Pkwy.	2021-03-31 13:15	-	-	7	<1	<1	<2	0.1
GRAB	RMD-261	9911 Sidaway Rd.	2021-03-31 14:10	-	-	7	<1	<1	<2	0.13

Sample Type	Sample Name	Description	Sampled Date	Total Coliform (MPN/100mL)	E. coli (MPN/100mL)	Temperature (°C)	Total Coliform (CFU/100mL)	E. coli (CFU/100mL)	HPC (CFU/mL)	Turbidity (NTU)
GRAB	RMD-260	11111 Horseshoe Way	2021-03-31 14:25	-	-	7	<1	<1	<2	0.13
GRAB	RMD-259	10020 Amethyst Ave.	2021-03-31 14:40	-	-	7	<1	<1	<2	0.12
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-03-31 15:30	-	-	7	<1	<1	<2	0.12
GRAB	RMD-204	3180 Granville Ave.	2021-04-01 07:30	-	-	7	<1	<1	<2	0.16
GRAB	RMD-206	4251 Moncton St.	2021-04-01 07:45	-	-	7	<1	<1	<2	0.11
GRAB	RMD-216	11080 No. 2 Rd.	2021-04-01 08:00	-	-	7	<1	<1	<2	0.11
GRAB	RMD-280	11500 McKenzie Rd.	2021-04-01 08:15	-	-	7	<1	<1	<2	0.32
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-04-01 08:30	-	-	7	<1	<1	<2	0.11
GRAB	RMD-208	13200 No. 4 Rd.	2021-04-01 08:45	-	-	7	<1	<1	<2	0.1
GRAB	RMD-205	13851 Steveston Hwy.	2021-04-01 09:00	-	-	7	<1	<1	<2	0.09
GRAB	RMD-214	11720 Westminster Hwy.	2021-04-01 09:10	-	-	7	<1	<1	<2	0.1
GRAB	RMD-202	1500 Valemont Way	2021-04-01 09:20	-	-	7	<1	<1	<2	0.1
GRAB	RMD-267	17240 Fedoruk	2021-04-01 10:00	-	-	7	<1	<1	<2	0.1
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-04-01 10:15	-	-	7	<1	<1	<2	0.18
GRAB	RMD-276	22271 Cochrane Drive	2021-04-01 10:30	-	-	7	<1	<1	<2	0.09
GRAB	RMD-275	5180 Smith Cres.	2021-04-01 10:45	-	-	7	<1	<1	<2	0.1
GRAB	RMD-203	23260 Westminster Hwy.	2021-04-01 11:00	-	-	7	<1	<1	<2	0.1
GRAB	RMD-274	10920 Springwood Court	2021-04-06 13:15	-	-	7	<1	<1	<2	0.14
GRAB	RMD-253	11051 No 3 Rd.	2021-04-06 13:30	-	-	7	<1	<1	<2	0.12
GRAB	RMD-269	14951 Triangle Rd.	2021-04-06 13:50	-	-	7	<1	<1	<2	0.24
GRAB	RMD-270	8200 Jones Rd.	2021-04-06 14:10	-	-	7	<1	<1	<2	0.11
GRAB	RMD-254	5300 No. 3 Rd.	2021-04-06 14:25	-	-	7	<1	<1	<2	0.17
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-04-06 14:40	-	-	7	<1	<1	<2	0.14
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-04-06 14:55	-	-	7	<1	<1	<2	0.16
GRAB	RMD-271	3800 Cessna Drive	2021-04-06 15:10	-	-	7	<1	<1	<2	0.34
GRAB	RMD-272	751 Catalina Cres.	2021-04-06 15:25	-	-	7	<1	<1	<2	0.13
GRAB	RMD-250	6071 Azure Rd.	2021-04-06 15:45	-	-	7	<1	<1	<2	0.15
GRAB	RMD-263	12560 Cambie Rd.	2021-04-07 12:30	-	-	7	<1	<1	<2	0.11
GRAB	RMD-262	13799 Commerce Pkwy.	2021-04-07 13:15	-	-	7	<1	<1	<2	0.1
GRAB	RMD-278	6651 Fraserwood Place	2021-04-07 13:30	-	-	7	<1	<1	<2	0.2
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-04-07 13:45	-	-	7	<1	<1	<2	0.57
GRAB	RMD-261	9911 Sidaway Rd.	2021-04-07 14:00	-	-	7	<1	<1	<2	0.1
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-04-07 14:35	-	-	7	<1	<1	<2	0.11
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-04-07 14:50	-	-	7	<1	<1	<2	0.12
GRAB	RMD-206	4251 Moncton St.	2021-04-08 07:45	-	-	7	<1	<1	<2	0.09
GRAB	RMD-216	11080 No. 2 Rd.	2021-04-08 08:00	-	-	7	<1	<1	<2	0.15
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-04-08 08:30	-	-	7	<1	<1	<2	0.13
GRAB	RMD-208	13200 No. 4 Rd.	2021-04-08 08:45	-	-	7	<1	<1	<2	0.09
GRAB	RMD-205	13851 Steveston Hwy.	2021-04-08 09:05	-	-	7	<1	<1	<2	0.14
GRAB	RMD-214	11720 Westminster Hwy.	2021-04-08 09:40	-	-	7	<1	<1	<2	0.11
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-04-08 10:15	-	-	7	<1	<1	<2	0.16
GRAB	RMD-251	5951 McCallan Rd.	2021-04-12 12:30	-	-	7	<1	<1	<2	0.19
GRAB	RMD-252	9751 Pendleton Rd.	2021-04-12 13:00	-	-	7	<1	<1	<2	0.13
GRAB	RMD-274	10920 Springwood Court	2021-04-12 13:15	-	-	7	<1	<1	<2	0.15
GRAB	RMD-253	11051 No 3 Rd.	2021-04-12 13:30	-	-	7	<1	<1	<2	0.1
GRAB	RMD-269	14951 Triangle Rd.	2021-04-12 13:50	-	-	7	<1	<1	2	0.09
GRAB	RMD-270	8200 Jones Rd.	2021-04-12 14:10	-	-	7	<1	<1	<2	0.13
GRAB	RMD-254	5300 No. 3 Rd.	2021-04-12 14:25	-	-	7	<1	<1	<2	0.14
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-04-12 14:55	-	-	7	<1	<1	<2	0.31
GRAB	RMD-271	3800 Cessna Drive	2021-04-12 15:10	-	-	7	<1	<1	2	0.09
GRAB	RMD-272	751 Catalina Cres.	2021-04-12 15:25	-	-	7	<1	<1	<2	0.26
GRAB	RMD-250	6071 Azure Rd.	2021-04-12 15:45	-	-	7	<1	<1	<2	0.35
GRAB	RMD-263	12560 Cambie Rd.	2021-04-14 12:10	-	-	7	<1	<1	<2	0.26
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-04-14 13:55	-	-	7	<1	<1	<2	0.43
GRAB	RMD-257	6640 Blundell Rd.	2021-04-14 15:50	-	-	7	<1	<1	<2	0.28
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-11-24 13:50	-	-	7	<1	<1	<2	0.11
GRAB	RMD-253	11051 No 3 Rd.	2021-11-29 13:30	-	-	7	<1	<1	<2	0.12
GRAB	RMD-269	14951 Triangle Rd.	2021-11-29 13:50	-	-	7	<1	<1	<2	0.11
GRAB	RMD-257	6640 Blundell Rd.	2021-12-02 07:30	-	-	7	<1	<1	<2	0.48
GRAB	RMD-269	14951 Triangle Rd.	2021-12-06 13:55	-	-	7	<1	<1	<2	0.15
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-12-06 15:00	-	-	7	<1	<1	<2	0.16
GRAB	RMD-272	751 Catalina Cres.	2021-12-06 15:30	-	-	7	<1	<1	<2	0.16
GRAB	RMD-260	11111 Horseshoe Way	2021-12-08 14:30	-	-	7	<1	<1	<2	0.17
GRAB	RMD-266	9380 General Currie Rd.	2021-12-08 15:00	-	-	7	<1	<1	<2	0.12
GRAB	RMD-205	13851 Steveston Hwy.	2021-12-10 09:40	-	-	7	<1	<1	<2	0.18
GRAB	RMD-214	11720 Westminster Hwy.	2021-12-10 10:35	-	-	7	<1	<1	<2	0.15
GRAB	RMD-203	23260 Westminster Hwy.	2021-12-10 11:50	-	-	7	<1	<1	2	0.62
GRAB	RMD-251	5951 McCallan Rd.	2021-12-13 12:30	-	-	7	<1	<1	<2	0.2
GRAB	RMD-253	11051 No 3 Rd.	2021-12-13 13:30	-	-	7	<1	<1	<2	0.34
GRAB	RMD-269	14951 Triangle Rd.	2021-12-13 13:50	-	-	7	<1	<1	<2	0.11
GRAB	RMD-270	8200 Jones Rd.	2021-12-13 14:15	-	-	7	<1	<1	<2	0.11
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-12-13 15:00	-	-	7	<1	<1	<2	0.16
GRAB	RMD-272	751 Catalina Cres.	2021-12-13 15:30	-	-	7	<1	<1	<2	0.15
GRAB	RMD-263	12560 Cambie Rd.	2021-12-15 12:30	-	-	7	<1	<1	<2	0.12
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-12-15 14:05	-	-	7	<1	<1	<2	0.1
GRAB	RMD-261	9911 Sidaway Rd.	2021-12-15 14:20	-	-	7	<1	<1	<2	0.1
GRAB	RMD-260	11111 Horseshoe Way	2021-12-15 14:35	-	-	7	<1	<1	<2	0.14
GRAB	RMD-206	4251 Moncton St.	2021-12-16 07:45	-	-	7	<1	<1	<2	0.13
GRAB	RMD-216	11080 No. 2 Rd.	2021-12-16 08:00	-	-	7	<1	<1	<2	0.14
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-12-16 08:30	-	-	7	<1	<1	<2	0.11
GRAB	RMD-208	13200 No. 4 Rd.	2021-12-16 08:45	-	-	7	<1	<1	<2	0.14
GRAB	RMD-214	11720 Westminster Hwy.	2021-12-16 09:45	-	-	7	<1	<1	<2	0.17
GRAB	RMD-267	17240 Fedoruk	2021-12-16 10:00	-	-	7	<1	<1	<2	0.1
GRAB	RMD-276	22271 Cochrane Drive	2021-12-16 10:30	-	-	7	<1	<1	<2	0.15
GRAB	RMD-251	5951 McCallan Rd.	2021-12-20 12:30	-	-	7	<1	<1	NA	0.1
GRAB	RMD-252	9751 Pendleton Rd.	2021-12-20 13:00	-	-	7	<1	<1	NA	0.11
GRAB	RMD-274	10920 Springwood Court	2021-12-20 13:15	-	-	7	<1	<1	NA	0.12
GRAB	RMD-253	11051 No 3 Rd.	2021-12-20 13:30	-	-	7	<1	<1	NA	0.1
GRAB	RMD-270	8200 Jones Rd.	2021-12-20 14:10	-	-	7	<1	<1	NA	0.11
GRAB	RMD-254	5300 No. 3 Rd.	2021-12-20 14:25	-	-	7	<1	<1	NA	0.15
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-12-20 14:55	-	-	7	<1	<1	NA	0.16
GRAB	RMD-271	3800 Cessna Drive	2021-12-20 15:10	-	-	7	<1	<1	NA	0.12
GRAB	RMD-272	751 Catalina Cres.	2021-12-20 15:25	-	-	7	<1	<1	NA	0.15
GRAB	RMD-250	6071 Azure Rd.	2021-12-20 15:45	-	-	7	<1	<1	NA	0.15
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-12-22 07:50	-	-	7	<1	<1	NA	0.12
GRAB	RMD-264	13100 Mitchell Rd.	2021-12-22 08:10	-	-	7	<1	<1	NA	0.14
GRAB	RMD-262	13799 Commerce Pkwy.	2021-12-22 08:30	-	-	7	<1	<1	NA	0.1
GRAB	RMD-278	6651 Fraserwood Place	2021-12-22 08:50	-	-	7	<1	<1	NA	0.63
GRAB	RMD-261	9911 Sidaway Rd.	2021-12-22 09:25	-	-	7	<1	<1	NA	0.1
GRAB	RMD-259	10020 Amethyst Ave.	2021-12-22 09:55	-	-	7	<1	<1	NA	0.11

Sample Type	Sample Name	Description	Sample Date	Total Coliform (MPN/100mL)	E. coli (MPN/100mL)	Temperature (°C)	Total Coliform (CFU/100mL)	E. coli (CFU/100mL)	HPC (CFU/mL)	Turbidity (NTU)
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-12-22 10:30	-	-	7	<1	<1	NA	0.1
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-12-22 10:50	-	-	7	<1	<1	NA	0.15
GRAB	RMD-257	6640 Blundell Rd.	2021-12-22 11:10	-	-	7	<1	<1	NA	0.14
GRAB	RMD-204	3180 Granville Ave.	2021-12-23 07:30	-	-	7	<1	<1	NA	0.12
GRAB	RMD-206	4251 Moncton St.	2021-12-23 07:45	-	-	7	<1	<1	NA	0.17
GRAB	RMD-280	11500 McKenzie Rd.	2021-12-23 08:20	-	-	7	<1	<1	NA	0.11
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-12-23 08:40	-	-	7	<1	<1	NA	0.12
GRAB	RMD-202	1500 Valemont Way	2021-12-23 09:20	-	-	7	<1	<1	NA	0.18
GRAB	RMD-205	13851 Steveston Hwy.	2021-12-23 09:20	-	-	7	<1	<1	NA	0.15
GRAB	RMD-214	11720 Westminster Hwy.	2021-12-23 09:40	-	-	7	<1	<1	NA	0.15
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-12-23 10:20	-	-	7	<1	<1	NA	0.19
GRAB	RMD-267	17240 Fedoruk	2021-12-23 10:40	-	-	7	<1	<1	NA	0.13
GRAB	RMD-276	22271 Cochrane Drive	2021-12-23 11:00	-	-	7	<1	<1	NA	0.14
GRAB	RMD-275	5180 Smith Cres.	2021-12-23 11:15	-	-	7	<1	<1	NA	0.12
GRAB	RMD-203	23260 Westminster Hwy.	2021-12-23 11:30	-	-	7	<1	<1	NA	0.15
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-12-29 07:45	-	-	7	<1	<1	NA	0.17
GRAB	RMD-259	10020 Amethyst Ave.	2021-12-29 08:15	-	-	7	<1	<1	NA	0.13
GRAB	RMD-272	751 Catalina Cres.	2021-12-29 08:15	-	-	7	<1	<1	NA	0.26
GRAB	RMD-261	9911 Sidaway Rd.	2021-12-29 08:45	-	-	7	<1	<1	NA	0.2
GRAB	RMD-260	11111 Horseshoe Way	2021-12-29 09:00	-	-	7	<1	<1	NA	0.11
GRAB	RMD-252	9751 Pendleton Rd.	2021-12-29 09:15	-	-	7	<1	<1	NA	0.13
GRAB	RMD-253	11051 No 3 Rd.	2021-12-29 09:45	-	-	7	<1	<1	NA	0.26
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-12-29 09:55	-	-	7	<1	<1	NA	0.26
GRAB	RMD-270	8200 Jones Rd.	2021-12-29 10:30	-	-	7	<1	<1	NA	0.21
GRAB	RMD-278	6651 Fraserwood Place	2021-12-29 10:40	-	-	7	<1	<1	NA	0.1
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-03-01 12:45	-	-	7.1	<1	<1	<2	0.2
GRAB	RMD-274	10920 Springwood Court	2021-03-08 13:15	-	-	7.1	<1	<1	<2	0.37
GRAB	RMD-252	9751 Pendleton Rd.	2021-01-18 13:00	-	-	7.2	<1	<1	<2	0.18
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-03-11 09:30	-	-	7.2	<1	<1	<2	0.14
GRAB	RMD-254	5300 No. 3 Rd.	2021-03-15 14:30	-	-	7.2	<1	<1	<2	0.14
GRAB	RMD-264	13100 Mitchell Rd.	2021-04-07 12:45	-	-	7.2	<1	<1	<2	0.11
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-04-07 13:00	-	-	7.2	<1	<1	<2	0.17
GRAB	RMD-274	10920 Springwood Court	2021-02-01 13:15	-	-	7.3	<1	<1	<2	0.13
GRAB	RMD-253	11051 No 3 Rd.	2021-03-15 13:30	-	-	7.3	<1	<1	<2	0.14
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-03-08 12:45	-	-	7.5	<1	<1	<2	0.15
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-01-04 12:45	-	-	8	<1	<1	<2	0.16
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-01-18 12:45	-	-	8	<1	<1	<2	0.12
GRAB	RMD-280	11500 McKenzie Rd.	2021-01-22 08:15	-	-	8	<1	<1	<2	0.1
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-01-22 10:10	-	-	8	<1	<1	<2	0.11
GRAB	RMD-275	5180 Smith Cres.	2021-01-22 10:40	-	-	8	<1	<1	<2	0.16
GRAB	RMD-203	23260 Westminster Hwy.	2021-01-22 10:55	-	-	8	<1	<1	<2	0.12
GRAB	RMD-274	10920 Springwood Court	2021-02-08 13:15	-	-	8	<1	<1	<2	0.11
GRAB	RMD-204	3180 Granville Ave.	2021-03-19 07:30	-	-	8	<1	<1	<2	0.09
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-03-22 12:45	-	-	8	<1	<1	<2	0.12
GRAB	RMD-274	10920 Springwood Court	2021-03-22 13:00	-	-	8	<1	<1	<2	0.09
GRAB	RMD-253	11051 No 3 Rd.	2021-03-22 13:15	-	-	8	<1	<1	<2	0.13
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-03-25 09:00	-	-	8	<1	<1	<2	0.09
GRAB	RMD-253	11051 No 3 Rd.	2021-03-29 13:35	-	-	8	<1	<1	<2	0.1
GRAB	RMD-278	6651 Fraserwood Place	2021-03-31 13:35	-	-	8	<1	<1	<2	0.11
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-03-31 15:15	-	-	8	<1	<1	<2	0.12
GRAB	RMD-252	9751 Pendleton Rd.	2021-04-06 13:00	-	-	8	<1	<1	<2	0.12
GRAB	RMD-204	3180 Granville Ave.	2021-04-08 07:30	-	-	8	<1	<1	<2	0.09
GRAB	RMD-280	11500 McKenzie Rd.	2021-04-08 08:15	-	-	8	<1	<1	<2	0.23
GRAB	RMD-202	1500 Valemont Way	2021-04-08 09:25	-	-	8	<1	<1	<2	0.21
GRAB	RMD-267	17240 Fedoruk	2021-04-08 10:00	-	-	8	<1	<1	<2	0.1
GRAB	RMD-276	22271 Cochrane Drive	2021-04-08 10:30	-	-	8	<1	<1	<2	0.11
GRAB	RMD-275	5180 Smith Cres.	2021-04-08 10:45	-	-	8	<1	<1	<2	0.14
GRAB	RMD-203	23260 Westminster Hwy.	2021-04-08 11:00	-	-	8	<1	<1	<2	0.11
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-04-12 14:40	-	-	8	<1	<1	<2	0.1
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-04-14 12:30	-	-	8	<1	<1	<2	0.34
GRAB	RMD-264	13100 Mitchell Rd.	2021-04-14 12:40	-	-	8	<1	<1	<2	0.2
GRAB	RMD-262	13799 Commerce Pkwy.	2021-04-14 13:30	-	-	8	<1	<1	<2	0.23
GRAB	RMD-278	6651 Fraserwood Place	2021-04-14 13:45	-	-	8	<1	<1	<2	0.64
GRAB	RMD-261	9911 Sidaway Rd.	2021-04-14 14:20	-	-	8	<1	<1	<2	0.16
GRAB	RMD-260	11111 Horseshoe Way	2021-04-14 14:35	-	-	8	<1	<1	<2	0.27
GRAB	RMD-259	10020 Amethyst Ave.	2021-04-14 14:45	-	-	8	<1	<1	<2	1.3
GRAB	RMD-266	9380 General Currie Rd.	2021-04-14 15:00	-	-	8	<1	<1	<2	0.27
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-04-14 15:15	-	-	8	<1	<1	<2	0.28
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-04-14 15:30	-	-	8	<1	<1	<2	0.24
GRAB	RMD-206	4251 Moncton St.	2021-04-16 07:48	-	-	8	<1	<1	<2	0.24
GRAB	RMD-280	11500 McKenzie Rd.	2021-04-16 08:10	-	-	8	<1	<1	<2	0.61
GRAB	RMD-208	13200 No. 4 Rd.	2021-04-16 08:35	-	-	8	<1	<1	<2	0.17
GRAB	RMD-202	1500 Valemont Way	2021-04-16 08:45	-	-	8	<1	<1	<2	0.19
GRAB	RMD-205	13851 Steveston Hwy.	2021-04-16 09:10	-	-	8	<1	<1	<2	0.15
GRAB	RMD-214	11720 Westminster Hwy.	2021-04-16 09:22	-	-	8	<1	<1	<2	0.24
GRAB	RMD-276	22271 Cochrane Drive	2021-04-16 10:25	-	-	8	<1	<1	<2	0.22
GRAB	RMD-275	5180 Smith Cres.	2021-04-16 10:35	-	-	8	<1	<1	<2	0.14
GRAB	RMD-203	23260 Westminster Hwy.	2021-04-16 10:45	-	-	8	<1	<1	<2	0.16
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-04-21 13:55	-	-	8	<1	<1	2	0.27
GRAB	RMD-260	11111 Horseshoe Way	2021-04-21 14:30	-	-	8	<1	<1	<2	0.25
GRAB	RMD-257	6640 Blundell Rd.	2021-04-21 15:45	-	-	8	<1	<1	<2	0.2
GRAB	RMD-214	11720 Westminster Hwy.	2021-04-22 09:30	-	-	8	<1	<1	<2	0.21
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-04-28 13:50	-	-	8	<1	<1	<2	0.11
GRAB	RMD-260	11111 Horseshoe Way	2021-04-28 14:25	-	-	8	<1	<1	<2	0.24
GRAB	RMD-257	6640 Blundell Rd.	2021-04-28 15:45	-	-	8	<1	<1	<2	0.16
GRAB	RMD-251	5951 McCallan Rd.	2021-05-03 12:30	-	-	8	<1	<1	<2	0.42
GRAB	RMD-214	11720 Westminster Hwy.	2021-05-14 10:15	-	-	8	<1	<1	<2	0.18
GRAB	RMD-267	17240 Fedoruk	2021-05-14 10:35	-	-	8	<1	<1	<2	0.16
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-11-15 15:00	-	-	8	<1	<1	<2	0.17
GRAB	RMD-251	5951 McCallan Rd.	2021-11-22 12:30	-	-	8	<1	<1	<2	0.12
GRAB	RMD-263	12560 Cambie Rd.	2021-11-24 12:30	-	-	8	<1	<1	<2	0.12
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-11-24 12:45	-	-	8	<1	<1	<2	0.12
GRAB	RMD-264	13100 Mitchell Rd.	2021-11-24 13:00	-	-	8	<1	<1	4	0.12
GRAB	RMD-262	13799 Commerce Pkwy.	2021-11-24 13:20	-	-	8	<1	<1	<2	0.27
GRAB	RMD-261	9911 Sidaway Rd.	2021-11-24 14:05	-	-	8	<1	<1	<2	0.18
GRAB	RMD-260	11111 Horseshoe Way	2021-11-24 14:20	-	-	8	<1	<1	<2	0.11
GRAB	RMD-266	9380 General Currie Rd.	2021-11-24 14:50	-	-	8	<1	<1	<2	0.12
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-11-24 15:10	-	-	8	<1	<1	<2	0.1
GRAB	RMD-257	6640 Blundell Rd.	2021-11-24 15:40	-	-	8	<1	<1	<2	0.13
GRAB	RMD-206	4251 Moncton St.	2021-11-26 07:45	-	-	8	<1	<1	<2	0.13

Sample Type	Sample Name	Description	Sample Date	Total Coliform (MPN/100mL)	E. coli (MPN/100mL)	Temperature (°C)	Total Coliform (CFU/100mL)	E. coli (CFU/100mL)	HPC (CFU/mL)	Turbidity (NTU)
GRAB	RMD-216	11080 No. 2 Rd.	2021-11-26 08:00	-	-	8	<1	<1	<2	0.12
GRAB	RMD-208	13200 No. 4 Rd.	2021-11-26 08:45	-	-	8	<1	<1	<2	0.15
GRAB	RMD-205	13851 Steveston Hwy.	2021-11-26 09:00	-	-	8	<1	<1	<2	0.16
GRAB	RMD-214	11720 Westminster Hwy.	2021-11-26 09:35	-	-	8	<1	<1	<2	0.13
GRAB	RMD-251	5951 McCallan Rd.	2021-11-29 12:30	-	-	8	<1	<1	<2	0.12
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-11-29 14:45	-	-	8	<1	<1	<2	0.13
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-11-29 15:00	-	-	8	<1	<1	<2	0.12
GRAB	RMD-204	3180 Granville Ave.	2021-12-02 07:30	-	-	8	<1	<1	<2	0.18
GRAB	RMD-206	4251 Moncton St.	2021-12-02 07:45	-	-	8	<1	<1	<2	0.12
GRAB	RMD-216	11080 No. 2 Rd.	2021-12-02 08:00	-	-	8	<1	<1	<2	0.26
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-12-02 08:00	-	-	8	<1	<1	<2	0.2
GRAB	RMD-280	11500 McKenzie Rd.	2021-12-02 08:15	-	-	8	<1	<1	<2	0.29
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-12-02 08:30	-	-	8	<1	<1	<2	0.18
GRAB	RMD-208	13200 No. 4 Rd.	2021-12-02 08:45	-	-	8	<1	<1	<2	0.32
GRAB	RMD-205	13851 Steveston Hwy.	2021-12-02 09:00	-	-	8	<1	<1	<2	0.3
GRAB	RMD-260	11111 Horseshoe Way	2021-12-02 09:05	-	-	8	<1	<1	<2	0.24
GRAB	RMD-202	1500 Valemont Way	2021-12-02 09:20	-	-	8	<1	<1	<2	0.14
GRAB	RMD-263	12560 Cambie Rd.	2021-12-02 09:30	-	-	8	<1	<1	<2	0.29
GRAB	RMD-214	11720 Westminster Hwy.	2021-12-02 09:35	-	-	8	<1	<1	<2	0.58
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-12-02 10:45	-	-	8	<1	<1	<2	0.14
GRAB	RMD-203	23260 Westminster Hwy.	2021-12-02 11:00	-	-	8	<1	<1	<2	0.17
GRAB	RMD-251	5951 McCallan Rd.	2021-12-06 12:30	-	-	8	<1	<1	<2	0.16
GRAB	RMD-252	9751 Pendleton Rd.	2021-12-06 13:00	-	-	8	<1	<1	<2	0.17
GRAB	RMD-274	10920 Springwood Court	2021-12-06 13:15	-	-	8	<1	<1	<2	0.13
GRAB	RMD-253	11051 No 3 Rd.	2021-12-06 13:35	-	-	8	<1	<1	<2	0.16
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-12-06 14:45	-	-	8	<1	<1	<2	0.15
GRAB	RMD-271	3800 Cessna Drive	2021-12-06 15:15	-	-	8	<1	<1	18	0.16
GRAB	RMD-250	6071 Azure Rd.	2021-12-06 15:45	-	-	8	<1	<1	<2	0.16
GRAB	RMD-263	12560 Cambie Rd.	2021-12-08 12:30	-	-	8	<1	<1	<2	0.12
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-12-08 12:50	-	-	8	<1	<1	<2	0.2
GRAB	RMD-264	13100 Mitchell Rd.	2021-12-08 13:05	-	-	8	<1	<1	<2	0.12
GRAB	RMD-262	13799 Commerce Pkwy.	2021-12-08 13:25	-	-	8	<1	<1	<2	0.12
GRAB	RMD-278	6651 Fraserwood Place	2021-12-08 13:45	-	-	8	<1	<1	<2	0.13
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-12-08 14:00	-	-	8	<1	<1	<2	0.13
GRAB	RMD-261	9911 Sidaway Rd.	2021-12-08 14:15	-	-	8	<1	<1	<2	0.14
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-12-08 15:15	-	-	8	<1	<1	<2	0.13
GRAB	RMD-257	6640 Blundell Rd.	2021-12-08 15:45	-	-	8	<1	<1	<2	0.11
GRAB	RMD-204	3180 Granville Ave.	2021-12-10 07:30	-	-	8	<1	<1	<2	0.31
GRAB	RMD-206	4251 Moncton St.	2021-12-10 08:10	-	-	8	<1	<1	<2	0.16
GRAB	RMD-216	11080 No. 2 Rd.	2021-12-10 08:25	-	-	8	<1	<1	<2	0.15
GRAB	RMD-280	11500 McKenzie Rd.	2021-12-10 08:40	-	-	8	<1	<1	<2	0.14
GRAB	RMD-208	13200 No. 4 Rd.	2021-12-10 09:25	-	-	8	<1	<1	<2	0.12
GRAB	RMD-267	17240 Fedoruk	2021-12-10 10:50	-	-	8	<1	<1	<2	0.15
GRAB	RMD-276	22271 Cochrane Drive	2021-12-10 11:20	-	-	8	<1	<1	<2	0.17
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-12-13 12:45	-	-	8	<1	<1	2	0.13
GRAB	RMD-252	9751 Pendleton Rd.	2021-12-13 13:00	-	-	8	<1	<1	<2	0.22
GRAB	RMD-274	10920 Springwood Court	2021-12-13 13:15	-	-	8	<1	<1	<2	0.11
GRAB	RMD-254	5300 No. 3 Rd.	2021-12-13 14:30	-	-	8	<1	<1	2	0.11
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-12-13 14:45	-	-	8	<1	<1	<2	0.12
GRAB	RMD-271	3800 Cessna Drive	2021-12-13 15:15	-	-	8	<1	<1	<2	0.23
GRAB	RMD-250	6071 Azure Rd.	2021-12-13 15:45	-	-	8	<1	<1	<2	0.36
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-12-15 12:50	-	-	8	<1	<1	<2	0.26
GRAB	RMD-264	13100 Mitchell Rd.	2021-12-15 13:10	-	-	8	<1	<1	<2	0.13
GRAB	RMD-262	13799 Commerce Pkwy.	2021-12-15 13:30	-	-	8	<1	<1	<2	0.15
GRAB	RMD-278	6651 Fraserwood Place	2021-12-15 13:50	-	-	8	<1	<1	<2	0.11
GRAB	RMD-259	10020 Amethyst Ave.	2021-12-15 14:50	-	-	8	<1	<1	10	0.12
GRAB	RMD-266	9380 General Currie Rd.	2021-12-15 15:05	-	-	8	<1	<1	<2	0.12
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-12-15 15:20	-	-	8	<1	<1	<2	0.11
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-12-15 15:40	-	-	8	<1	<1	<2	0.16
GRAB	RMD-257	6640 Blundell Rd.	2021-12-15 15:55	-	-	8	<1	<1	<2	0.12
GRAB	RMD-204	3180 Granville Ave.	2021-12-16 07:30	-	-	8	<1	<1	<2	0.11
GRAB	RMD-280	11500 McKenzie Rd.	2021-12-16 08:15	-	-	8	<1	<1	<2	0.18
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-12-16 10:15	-	-	8	<1	<1	<2	0.19
GRAB	RMD-275	5180 Smith Cres.	2021-12-16 10:45	-	-	8	<1	<1	<2	0.12
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-12-20 12:45	-	-	8	<1	<1	NA	0.12
GRAB	RMD-269	14951 Triangle Rd.	2021-12-20 13:50	-	-	8	<1	<1	NA	0.15
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-12-20 14:40	-	-	8	<1	<1	NA	0.11
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-12-29 09:00	-	-	8	<1	<1	NA	0.11
GRAB	RMD-274	10920 Springwood Court	2021-12-29 09:30	-	-	8	<1	<1	NA	0.16
GRAB	RMD-254	5300 No. 3 Rd.	2021-12-29 10:45	-	-	8	<1	<1	NA	0.26
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-04-19 15:00	-	-	8.1	<1	<1	<2	0.26
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-03-15 12:45	-	-	8.2	<1	<1	<2	0.16
GRAB	RMD-251	5951 McCallan Rd.	2021-04-19 12:30	-	-	8.2	<1	<1	<2	0.3
GRAB	RMD-272	751 Catalina Cres.	2021-04-19 15:30	-	-	8.2	<1	<1	<2	0.43
GRAB	RMD-274	10920 Springwood Court	2021-03-15 13:15	-	-	8.4	<1	<1	<2	0.12
GRAB	RMD-250	6071 Azure Rd.	2021-04-19 15:45	-	-	8.4	<1	<1	<2	0.19
GRAB	RMD-269	14951 Triangle Rd.	2021-04-19 13:50	-	-	8.5	<1	<1	2	0.16
GRAB	RMD-270	8200 Jones Rd.	2021-04-19 14:15	-	-	8.8	<1	<1	<2	0.22
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-03-29 12:45	-	-	9	<1	<1	<2	0.15
GRAB	RMD-274	10920 Springwood Court	2021-03-29 13:15	-	-	9	<1	<1	<2	0.11
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-04-06 12:45	-	-	9	<1	<1	<2	0.13
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-04-12 12:45	-	-	9	<1	<1	<2	0.11
GRAB	RMD-204	3180 Granville Ave.	2021-04-16 07:35	-	-	9	<1	<1	<2	0.2
GRAB	RMD-216	11080 No. 2 Rd.	2021-04-16 08:00	-	-	9	<1	<1	<2	0.2
GRAB	RMD-267	17240 Fedoruk	2021-04-16 10:00	-	-	9	<1	<1	<2	0.17
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-04-16 10:15	-	-	9	<1	<1	<2	0.16
GRAB	RMD-264	13100 Mitchell Rd.	2021-04-21 12:45	-	-	9	<1	<1	<2	0.3
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-04-21 13:00	-	-	9	<1	<1	<2	0.44
GRAB	RMD-262	13799 Commerce Pkwy.	2021-04-21 13:15	-	-	9	<1	<1	4	0.14
GRAB	RMD-278	6651 Fraserwood Place	2021-04-21 13:35	-	-	9	<1	<1	<2	0.15
GRAB	RMD-261	9911 Sidaway Rd.	2021-04-21 14:15	-	-	9	<1	<1	2	0.12
GRAB	RMD-259	10020 Amethyst Ave.	2021-04-21 14:45	-	-	9	<1	<1	2	0.17
GRAB	RMD-266	9380 General Currie Rd.	2021-04-21 15:00	-	-	9	<1	<1	<2	0.2
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-04-21 15:15	-	-	9	<1	<1	<2	0.13
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-04-21 15:30	-	-	9	<1	<1	<2	0.17
GRAB	RMD-204	3180 Granville Ave.	2021-04-22 08:05	-	-	9	<1	<1	<2	0.16
GRAB	RMD-206	4251 Moncton St.	2021-04-22 08:20	-	-	9	<1	<1	<2	0.44
GRAB	RMD-216	11080 No. 2 Rd.	2021-04-22 08:35	-	-	9	<1	<1	<2	0.14
GRAB	RMD-280	11500 McKenzie Rd.	2021-04-22 08:45	-	-	9	<1	<1	<2	0.58
GRAB	RMD-208	13200 No. 4 Rd.	2021-04-22 09:10	-	-	9	<1	<1	<2	0.15



Sample Type	Sample Name	Description	Sample Date	Total Coliform (MPN/100mL)	E. coli (MPN/100mL)	Temperature (°C)	Total Coliform (CFU/100mL)	E. coli (CFU/100mL)	HPC (CFU/mL)	Turbidity (NTU)
GRAB	RMD-205	13851 Steveston Hwy.	2021-04-22 09:30	-	-	9	<1	<1	<2	0.12
GRAB	RMD-202	1500 Valemont Way	2021-04-22 10:05	-	-	9	<1	<1	<2	0.17
GRAB	RMD-203	23260 Westminster Hwy.	2021-04-22 11:15	-	-	9	<1	<1	<2	0.17
GRAB	RMD-263	12560 Cambie Rd.	2021-04-28 12:30	-	-	9	<1	<1	<2	0.23
GRAB	RMD-264	13100 Mitchell Rd.	2021-04-28 12:45	-	-	9	<1	<1	<2	0.2
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-04-28 13:00	-	-	9	<1	<1	<2	0.24
GRAB	RMD-266	9380 General Currie Rd.	2021-04-28 14:55	-	-	9	<1	<1	<2	0.2
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-04-28 15:30	-	-	9	<1	<1	2	0.15
GRAB	RMD-206	4251 Moncton St.	2021-04-30 07:45	-	-	9	<1	<1	<2	0.71
GRAB	RMD-216	11080 No. 2 Rd.	2021-04-30 08:00	-	-	9	<1	<1	<2	0.16
GRAB	RMD-280	11500 McKenzie Rd.	2021-04-30 08:15	-	-	9	<1	<1	<2	0.98
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-04-30 08:30	-	-	9	<1	<1	<2	0.11
GRAB	RMD-208	13200 No. 4 Rd.	2021-04-30 08:45	-	-	9	<1	<1	<2	0.09
GRAB	RMD-205	13851 Steveston Hwy.	2021-04-30 09:00	-	-	9	<1	<1	<2	0.14
GRAB	RMD-202	1500 Valemont Way	2021-04-30 09:20	-	-	9	<1	<1	<2	0.12
GRAB	RMD-214	11720 Westminster Hwy.	2021-04-30 09:40	-	-	9	<1	<1	<2	0.11
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-05-03 14:55	-	-	9	<1	<1	<2	0.33
GRAB	RMD-263	12560 Cambie Rd.	2021-05-05 12:15	-	-	9	<1	<1	<2	0.12
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-05-05 12:30	-	-	9	<1	<1	<2	0.19
GRAB	RMD-264	13100 Mitchell Rd.	2021-05-05 12:42	-	-	9	<1	<1	2	0.15
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-05-05 13:30	-	-	9	<1	<1	<2	0.1
GRAB	RMD-260	11111 Horseshoe Way	2021-05-05 14:05	-	-	9	<1	<1	<2	0.15
GRAB	RMD-259	10020 Amethyst Ave.	2021-05-05 14:35	-	-	9	<1	<1	<2	0.14
GRAB	RMD-266	9380 General Currie Rd.	2021-05-05 14:45	-	-	9	<1	<1	<2	0.14
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-05-05 15:00	-	-	9	<1	<1	<2	0.15
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-05-05 15:15	-	-	9	<1	<1	2	0.14
GRAB	RMD-257	6640 Blundell Rd.	2021-05-05 15:45	-	-	9	<1	<1	<2	0.13
GRAB	RMD-204	3180 Granville Ave.	2021-05-06 08:10	-	-	9	<1	<1	<2	0.22
GRAB	RMD-206	4251 Moncton St.	2021-05-06 08:25	-	-	9	<1	<1	<2	0.19
GRAB	RMD-216	11080 No. 2 Rd.	2021-05-06 08:40	-	-	9	<1	<1	<2	0.14
GRAB	RMD-208	13200 No. 4 Rd.	2021-05-06 09:25	-	-	9	<1	<1	<2	0.18
GRAB	RMD-205	13851 Steveston Hwy.	2021-05-06 09:40	-	-	9	<1	<1	2	0.13
GRAB	RMD-214	11720 Westminster Hwy.	2021-05-06 10:00	-	-	9	<1	<1	<2	0.16
GRAB	RMD-251	5951 McCallan Rd.	2021-05-10 12:30	-	-	9	<1	<1	<2	0.26
GRAB	RMD-263	12560 Cambie Rd.	2021-05-12 12:20	-	-	9	<1	<1	<2	0.16
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-05-12 13:40	-	-	9	<1	<1	<2	0.17
GRAB	RMD-260	11111 Horseshoe Way	2021-05-12 14:28	-	-	9	<1	<1	<2	0.13
GRAB	RMD-259	10020 Amethyst Ave.	2021-05-12 14:40	-	-	9	<1	<1	<2	0.43
GRAB	RMD-266	9380 General Currie Rd.	2021-05-12 14:50	-	-	9	<1	<1	<2	0.15
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-05-12 15:10	-	-	9	<1	<1	<2	0.17
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-05-12 15:20	-	-	9	<1	<1	<2	0.11
GRAB	RMD-257	6640 Blundell Rd.	2021-05-12 15:55	-	-	9	<1	<1	<2	0.16
GRAB	RMD-205	13851 Steveston Hwy.	2021-05-14 09:40	-	-	9	<1	<1	<2	0.19
GRAB	RMD-276	22271 Cochrane Drive	2021-05-14 11:05	-	-	9	<1	<1	<2	0.19
GRAB	RMD-275	5180 Smith Cres.	2021-05-14 11:20	-	-	9	<1	<1	<2	0.15
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-05-19 13:45	-	-	9	<1	<1	<2	0.19
GRAB	RMD-260	11111 Horseshoe Way	2021-05-19 14:35	-	-	9	<1	<1	<2	0.15
GRAB	RMD-257	6640 Blundell Rd.	2021-05-19 15:55	-	-	9	<1	<1	<2	0.2
GRAB	RMD-214	11720 Westminster Hwy.	2021-05-20 09:40	-	-	9	<1	<1	<2	0.11
GRAB	RMD-251	5951 McCallan Rd.	2021-11-01 12:30	-	-	9	<1	<1	2	0.12
GRAB	RMD-253	11051 No 3 Rd.	2021-11-01 13:30	-	-	9	<1	<1	<2	0.13
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-11-01 14:55	-	-	9	<1	<1	4	0.16
GRAB	RMD-272	751 Catalina Cres.	2021-11-01 15:30	-	-	9	<1	<1	6	0.13
GRAB	RMD-203	23260 Westminster Hwy.	2021-11-04 11:00	-	-	9	<1	<1	4	0.15
GRAB	RMD-251	5951 McCallan Rd.	2021-11-08 12:30	-	-	9	<1	<1	310	0.1
GRAB	RMD-269	14951 Triangle Rd.	2021-11-08 14:00	-	-	9	<1	<1	4	0.24
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-11-08 15:15	-	-	9	<1	<1	<2	0.17
GRAB	RMD-272	751 Catalina Cres.	2021-11-08 15:45	-	-	9	<1	<1	<2	0.15
GRAB	RMD-250	6071 Azure Rd.	2021-11-08 16:00	-	-	9	<1	<1	<2	0.1
GRAB	RMD-263	12560 Cambie Rd.	2021-11-09 12:30	-	-	9	<1	<1	<2	0.12
GRAB	RMD-262	13799 Commerce Pkwy.	2021-11-09 13:20	-	-	9	<1	<1	<2	0.12
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-11-09 13:50	-	-	9	<1	<1	<2	0.15
GRAB	RMD-205	13851 Steveston Hwy.	2021-11-12 08:00	-	-	9	<1	<1	<2	0.14
GRAB	RMD-280	11500 McKenzie Rd.	2021-11-12 08:20	-	-	9	<1	<1	<2	0.15
GRAB	RMD-208	13200 No. 4 Rd.	2021-11-12 09:00	-	-	9	<1	<1	<2	0.15
GRAB	RMD-214	11720 Westminster Hwy.	2021-11-12 10:00	-	-	9	<1	<1	<2	0.13
GRAB	RMD-251	5951 McCallan Rd.	2021-11-15 12:30	-	-	9	<1	<1	<2	0.16
GRAB	RMD-253	11051 No 3 Rd.	2021-11-15 13:35	-	-	9	<1	<1	6	0.12
GRAB	RMD-269	14951 Triangle Rd.	2021-11-15 13:55	-	-	9	<1	<1	<2	0.11
GRAB	RMD-270	8200 Jones Rd.	2021-11-15 14:15	-	-	9	<1	<1	<2	0.11
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-11-15 14:45	-	-	9	<1	<1	<2	0.16
GRAB	RMD-271	3800 Cessna Drive	2021-11-15 15:15	-	-	9	<1	<1	2	0.14
GRAB	RMD-272	751 Catalina Cres.	2021-11-15 15:30	-	-	9	<1	<1	<2	0.13
GRAB	RMD-250	6071 Azure Rd.	2021-11-15 15:50	-	-	9	<1	<1	<2	0.15
GRAB	RMD-263	12560 Cambie Rd.	2021-11-17 12:30	-	-	9	<1	<1	<2	0.12
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-11-17 12:45	-	-	9	<1	<1	<2	0.14
GRAB	RMD-264	13100 Mitchell Rd.	2021-11-17 13:00	-	-	9	<1	<1	<2	0.11
GRAB	RMD-262	13799 Commerce Pkwy.	2021-11-17 13:15	-	-	9	<1	<1	<2	0.14
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-11-17 13:50	-	-	9	<1	<1	<2	0.14
GRAB	RMD-259	10020 Amethyst Ave.	2021-11-17 14:25	-	-	9	<1	<1	4	0.13
GRAB	RMD-260	11111 Horseshoe Way	2021-11-17 14:40	-	-	9	<1	<1	<2	0.1
GRAB	RMD-266	9380 General Currie Rd.	2021-11-17 14:55	-	-	9	<1	<1	<2	0.13
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-11-17 15:10	-	-	9	<1	<1	<2	0.11
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-11-17 15:25	-	-	9	<1	<1	<2	0.13
GRAB	RMD-257	6640 Blundell Rd.	2021-11-17 15:45	-	-	9	<1	<1	<2	0.13
GRAB	RMD-204	3180 Granville Ave.	2021-11-18 07:30	-	-	9	<1	<1	10	0.14
GRAB	RMD-206	4251 Moncton St.	2021-11-18 07:45	-	-	9	<1	<1	<2	0.11
GRAB	RMD-216	11080 No. 2 Rd.	2021-11-18 08:00	-	-	9	<1	<1	<2	0.12
GRAB	RMD-280	11500 McKenzie Rd.	2021-11-18 08:15	-	-	9	<1	<1	<2	0.13
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-11-18 08:30	-	-	9	<1	<1	2	0.11
GRAB	RMD-208	13200 No. 4 Rd.	2021-11-18 08:50	-	-	9	<1	<1	<2	0.12
GRAB	RMD-205	13851 Steveston Hwy.	2021-11-18 09:10	-	-	9	<1	<1	<2	0.11
GRAB	RMD-202	1500 Valemont Way	2021-11-18 09:30	-	-	9	<1	<1	<2	0.11
GRAB	RMD-214	11720 Westminster Hwy.	2021-11-18 09:50	-	-	9	<1	<1	<2	0.12
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-11-18 10:30	-	-	9	<1	<1	<2	0.26
GRAB	RMD-276	22271 Cochrane Drive	2021-11-18 10:50	-	-	9	<1	<1	<2	0.14
GRAB	RMD-275	5180 Smith Cres.	2021-11-18 11:05	-	-	9	<1	<1	<2	0.13
GRAB	RMD-203	23260 Westminster Hwy.	2021-11-18 11:20	-	-	9	<1	<1	<2	0.1
GRAB	RMD-252	9751 Pendleton Rd.	2021-11-22 13:00	-	-	9	<1	<1	<2	0.12
GRAB	RMD-270	8200 Jones Rd.	2021-11-22 14:15	-	-	9	<1	<1	2	0.12

Sample Type	Sample Name	Description	Sample Date	Total Coliform (MPN/100mL)	E. coli (MPN/100mL)	Temperature (°C)	Total Coliform (CFU/100mL)	E. coli (CFU/100mL)	HPC (CFU/mL)	Turbidity (NTU)
GRAB	RMD-278	6651 Fraserwood Place	2021-11-24 13:35	-	-	9	<1	<1	<2	0.23
GRAB	RMD-259	10020 Amethyst Ave.	2021-11-24 14:35	-	-	9	<1	<1	<2	0.12
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-11-24 15:25	-	-	9	<1	<1	<2	0.13
GRAB	RMD-204	3180 Granville Ave.	2021-11-26 07:30	-	-	9	<1	<1	<2	0.12
GRAB	RMD-280	11500 McKenzie Rd.	2021-11-26 08:15	-	-	9	<1	<1	<2	0.14
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-11-26 08:30	-	-	9	<1	<1	<2	0.13
GRAB	RMD-202	1500 Valemont Way	2021-11-26 09:20	-	-	9	<1	<1	<2	0.13
GRAB	RMD-267	17240 Fedoruk	2021-11-26 09:50	-	-	9	<1	<1	<2	0.13
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-11-26 10:10	-	-	9	<1	<1	<2	0.22
GRAB	RMD-276	22271 Cochrane Drive	2021-11-26 10:25	-	-	9	<1	<1	2	0.14
GRAB	RMD-275	5180 Smith Cres.	2021-11-26 10:45	-	-	9	<1	<1	<2	0.14
GRAB	RMD-203	23260 Westminster Hwy.	2021-11-26 11:00	-	-	9	<1	<1	<2	0.13
GRAB	RMD-252	9751 Pendleton Rd.	2021-11-29 13:00	-	-	9	<1	<1	<2	0.11
GRAB	RMD-270	8200 Jones Rd.	2021-11-29 14:10	-	-	9	<1	<1	<2	0.13
GRAB	RMD-254	5300 No. 3 Rd.	2021-11-29 14:30	-	-	9	<1	<1	<2	0.12
GRAB	RMD-271	3800 Cessna Drive	2021-11-29 15:15	-	-	9	<1	<1	<2	0.14
GRAB	RMD-272	751 Catalina Cres.	2021-11-29 15:30	-	-	9	<1	<1	<2	0.12
GRAB	RMD-250	6071 Azure Rd.	2021-11-29 15:50	-	-	9	<1	<1	<2	0.12
GRAB	RMD-259	10020 Amethyst Ave.	2021-12-02 08:15	-	-	9	<1	<1	6	0.18
GRAB	RMD-266	9380 General Currie Rd.	2021-12-02 08:30	-	-	9	<1	<1	<2	0.24
GRAB	RMD-261	9911 Sidaway Rd.	2021-12-02 08:50	-	-	9	<1	<1	<2	0.12
GRAB	RMD-264	13100 Mitchell Rd.	2021-12-02 09:45	-	-	9	<1	<1	4	0.36
GRAB	RMD-267	17240 Fedoruk	2021-12-02 09:50	-	-	9	<1	<1	<2	0.18
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-12-02 10:00	-	-	9	<1	<1	<2	0.15
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-12-02 10:10	-	-	9	<1	<1	<2	0.21
GRAB	RMD-262	13799 Commerce Pkwy.	2021-12-02 10:15	-	-	9	<1	<1	<2	0.14
GRAB	RMD-276	22271 Cochrane Drive	2021-12-02 10:25	-	-	9	<1	<1	<2	0.25
GRAB	RMD-275	5180 Smith Cres.	2021-12-02 10:45	-	-	9	<1	<1	<2	0.22
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-12-06 12:45	-	-	9	<1	<1	2	0.16
GRAB	RMD-270	8200 Jones Rd.	2021-12-06 14:15	-	-	9	<1	<1	2	0.13
GRAB	RMD-254	5300 No. 3 Rd.	2021-12-06 14:30	-	-	9	<1	<1	<2	0.12
GRAB	RMD-259	10020 Amethyst Ave.	2021-12-08 14:45	-	-	9	<1	<1	<2	0.14
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-12-08 15:30	-	-	9	<1	<1	<2	0.2
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-12-10 08:55	-	-	9	<1	<1	<2	0.12
GRAB	RMD-202	1500 Valemont Way	2021-12-10 10:05	-	-	9	<1	<1	<2	0.34
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-12-10 11:05	-	-	9	<1	<1	6	0.15
GRAB	RMD-275	5180 Smith Cres.	2021-12-10 11:35	-	-	9	<1	<1	<2	0.3
GRAB	RMD-271	3800 Cessna Drive	2021-04-19 15:15	-	-	9.2	<1	<1	<2	0.19
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-04-19 14:45	-	-	9.4	<1	<1	<2	0.28
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-04-16 08:20	-	-	10	<1	<1	<2	0.18
GRAB	RMD-263	12560 Cambie Rd.	2021-04-21 12:30	-	-	10	<1	<1	2	0.23
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-04-22 08:55	-	-	10	<1	<1	2	0.13
GRAB	RMD-267	17240 Fedoruk	2021-04-22 10:20	-	-	10	<1	<1	<2	0.11
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-04-22 10:40	-	-	10	<1	<1	<2	0.13
GRAB	RMD-276	22271 Cochrane Drive	2021-04-22 10:55	-	-	10	<1	<1	<2	0.11
GRAB	RMD-275	5180 Smith Cres.	2021-04-22 11:05	-	-	10	<1	<1	<2	0.13
GRAB	RMD-262	13799 Commerce Pkwy.	2021-04-28 13:15	-	-	10	<1	<1	<2	0.12
GRAB	RMD-278	6651 Fraserwood Place	2021-04-28 13:35	-	-	10	<1	<1	<2	0.12
GRAB	RMD-261	9911 Sidaway Rd.	2021-04-28 14:10	-	-	10	<1	<1	<2	0.09
GRAB	RMD-259	10020 Amethyst Ave.	2021-04-28 14:40	-	-	10	<1	<1	<2	0.19
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-04-28 15:15	-	-	10	<1	<1	<2	0.16
GRAB	RMD-204	3180 Granville Ave.	2021-04-30 07:30	-	-	10	<1	<1	<2	0.17
GRAB	RMD-267	17240 Fedoruk	2021-04-30 10:00	-	-	10	<1	<1	<2	0.06
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-04-30 10:15	-	-	10	<1	<1	<2	1.1
GRAB	RMD-276	22271 Cochrane Drive	2021-04-30 10:30	-	-	10	<1	<1	<2	0.07
GRAB	RMD-275	5180 Smith Cres.	2021-04-30 10:45	-	-	10	<1	<1	<2	0.07
GRAB	RMD-203	23260 Westminster Hwy.	2021-04-30 11:00	-	-	10	<1	<1	<2	0.07
GRAB	RMD-252	9751 Pendleton Rd.	2021-05-03 13:00	-	-	10	<1	<1	2	0.18
GRAB	RMD-274	10920 Springwood Court	2021-05-03 13:15	-	-	10	<1	<1	<2	0.25
GRAB	RMD-253	11051 No 3 Rd.	2021-05-03 13:30	-	-	10	<1	<1	<2	0.12
GRAB	RMD-269	14951 Triangle Rd.	2021-05-03 13:50	-	-	10	<1	<1	<2	0.18
GRAB	RMD-270	8200 Jones Rd.	2021-05-03 14:10	-	-	10	<1	<1	<2	0.33
GRAB	RMD-254	5300 No. 3 Rd.	2021-05-03 14:25	-	-	10	<1	<1	<2	0.21
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-05-03 14:40	-	-	10	<1	<1	<2	0.14
GRAB	RMD-271	3800 Cessna Drive	2021-05-03 15:10	-	-	10	<1	<1	<2	0.41
GRAB	RMD-272	751 Catalina Cres.	2021-05-03 15:25	-	-	10	<1	<1	<2	0.18
GRAB	RMD-250	6071 Azure Rd.	2021-05-03 15:45	-	-	10	<1	<1	2	0.18
GRAB	RMD-262	13799 Commerce Pkwy.	2021-05-05 13:00	-	-	10	<1	<1	<2	0.14
GRAB	RMD-278	6651 Fraserwood Place	2021-05-05 13:15	-	-	10	<1	<1	<2	0.1
GRAB	RMD-261	9911 Sidaway Rd.	2021-05-05 13:50	-	-	10	<1	<1	<2	0.18
GRAB	RMD-280	11500 McKenzie Rd.	2021-05-06 08:50	-	-	10	<1	<1	2	0.13
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-05-06 09:00	-	-	10	<1	<1	<2	0.25
GRAB	RMD-202	1500 Valemont Way	2021-05-06 10:15	-	-	10	<1	<1	<2	0.13
GRAB	RMD-267	17240 Fedoruk	2021-05-06 10:35	-	-	10	<1	<1	2	0.2
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-05-06 10:50	-	-	10	<1	<1	<2	0.14
GRAB	RMD-276	22271 Cochrane Drive	2021-05-06 11:10	-	-	10	<1	<1	<2	0.09
GRAB	RMD-275	5180 Smith Cres.	2021-05-06 11:20	-	-	10	<1	<1	2	0.13
GRAB	RMD-203	23260 Westminster Hwy.	2021-05-06 11:30	-	-	10	<1	<1	<2	0.12
GRAB	RMD-274	10920 Springwood Court	2021-05-10 13:15	-	-	10	<1	<1	<2	0.21
GRAB	RMD-253	11051 No 3 Rd.	2021-05-10 13:30	-	-	10	<1	<1	<2	0.11
GRAB	RMD-269	14951 Triangle Rd.	2021-05-10 13:50	-	-	10	<1	<1	<2	0.16
GRAB	RMD-270	8200 Jones Rd.	2021-05-10 14:15	-	-	10	<1	<1	<2	0.14
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-05-10 15:00	-	-	10	<1	<1	<2	0.15
GRAB	RMD-271	3800 Cessna Drive	2021-05-10 15:15	-	-	10	<1	<1	<2	0.11
GRAB	RMD-272	751 Catalina Cres.	2021-05-10 15:30	-	-	10	<1	<1	<2	0.12
GRAB	RMD-250	6071 Azure Rd.	2021-05-10 15:45	-	-	10	<1	<1	<2	0.16
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-05-12 12:45	-	-	10	<1	<1	<2	0.15
GRAB	RMD-264	13100 Mitchell Rd.	2021-05-12 12:50	-	-	10	<1	<1	<2	0.14
GRAB	RMD-262	13799 Commerce Pkwy.	2021-05-12 13:15	-	-	10	<1	<1	<2	0.11
GRAB	RMD-278	6651 Fraserwood Place	2021-05-12 13:30	-	-	10	<1	<1	<2	0.14
GRAB	RMD-261	9911 Sidaway Rd.	2021-05-12 14:00	-	-	10	<1	<1	<2	0.13
GRAB	RMD-204	3180 Granville Ave.	2021-05-14 08:00	-	-	10	<1	<1	<2	0.16
GRAB	RMD-206	4251 Moncton St.	2021-05-14 08:20	-	-	10	<1	<1	<2	0.24
GRAB	RMD-216	11080 No. 2 Rd.	2021-05-14 08:35	-	-	10	<1	<1	<2	0.14
GRAB	RMD-280	11500 McKenzie Rd.	2021-05-14 08:50	-	-	10	<1	<1	<2	0.16
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-05-14 09:05	-	-	10	<1	<1	<2	0.2
GRAB	RMD-202	1500 Valemont Way	2021-05-14 10:00	-	-	10	<1	<1	2	0.32
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-05-14 10:50	-	-	10	<1	<1	<2	0.25
GRAB	RMD-203	23260 Westminster Hwy.	2021-05-14 11:35	-	-	10	<1	<1	<2	0.28
GRAB	RMD-251	5951 McCallan Rd.	2021-05-17 12:30	-	-	10	<1	<1	<2	0.18

Sample Type	Sample Name	Description	Sample Date	Total Coliform (MPN/100mL)	E. coli (MPN/100mL)	Temperature (°C)	Total Coliform (CFU/100mL)	E. coli (CFU/100mL)	HPC (CFU/mL)	Turbidity (NTU)
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-05-17 15:00	-	-	10	<1	<1	<2	0.2
GRAB	RMD-272	751 Catalina Cres.	2021-05-17 15:30	-	-	10	<1	<1	<2	0.17
GRAB	RMD-250	6071 Azure Rd.	2021-05-17 15:45	-	-	10	<1	<1	<2	0.16
GRAB	RMD-263	12560 Cambie Rd.	2021-05-19 12:35	-	-	10	<1	<1	<2	0.15
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-05-19 12:50	-	-	10	<1	<1	<2	0.25
GRAB	RMD-264	13100 Mitchell Rd.	2021-05-19 13:00	-	-	10	<1	<1	<2	0.17
GRAB	RMD-262	13799 Commerce Pkwy.	2021-05-19 13:15	-	-	10	<1	<1	<2	0.16
GRAB	RMD-278	6651 Fraserwood Place	2021-05-19 13:30	-	-	10	<1	<1	<2	0.26
GRAB	RMD-261	9911 Sidaway Rd.	2021-05-19 14:25	-	-	10	<1	<1	<2	0.14
GRAB	RMD-259	10020 Amethyst Ave.	2021-05-19 14:45	-	-	10	<1	<1	<2	0.2
GRAB	RMD-266	9380 General Currie Rd.	2021-05-19 14:55	-	-	10	<1	<1	<2	0.17
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-05-19 15:10	-	-	10	<1	<1	<2	0.12
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-05-19 15:35	-	-	10	<1	<1	<2	0.11
GRAB	RMD-204	3180 Granville Ave.	2021-05-20 07:50	-	-	10	<1	<1	<2	0.1
GRAB	RMD-206	4251 Moncton St.	2021-05-20 08:05	-	-	10	<1	<1	<2	0.12
GRAB	RMD-216	11080 No. 2 Rd.	2021-05-20 08:20	-	-	10	<1	<1	<2	0.16
GRAB	RMD-208	13200 No. 4 Rd.	2021-05-20 08:55	-	-	10	<1	<1	<2	0.1
GRAB	RMD-205	13851 Steveston Hwy.	2021-05-20 09:20	-	-	10	<1	<1	<2	0.11
GRAB	RMD-202	1500 Valemont Way	2021-05-20 10:00	-	-	10	<1	<1	<2	0.13
GRAB	RMD-267	17240 Fedoruk	2021-05-20 10:45	-	-	10	<1	<1	<2	0.11
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-05-20 11:00	-	-	10	<1	<1	<2	0.1
GRAB	RMD-203	23260 Westminster Hwy.	2021-05-20 11:45	-	-	10	<1	<1	<2	0.16
GRAB	RMD-251	5951 McCallan Rd.	2021-05-25 12:30	-	-	10	<1	<1	<2	0.09
GRAB	RMD-253	11051 No 3 Rd.	2021-05-25 13:30	-	-	10	<1	<1	<2	0.1
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-05-25 15:00	-	-	10	<1	<1	<2	0.15
GRAB	RMD-272	751 Catalina Cres.	2021-05-25 15:30	-	-	10	<1	<1	2	0.13
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-05-26 13:50	-	-	10	<1	<1	<2	0.14
GRAB	RMD-260	11111 Horseshoe Way	2021-05-26 14:25	-	-	10	<1	<1	<2	0.13
GRAB	RMD-266	9380 General Currie Rd.	2021-05-26 14:55	-	-	10	<1	<1	<2	0.12
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-05-26 15:10	-	-	10	<1	<1	<2	0.14
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-05-26 15:25	-	-	10	<1	<1	<2	0.1
GRAB	RMD-206	4251 Moncton St.	2021-05-28 07:45	-	-	10	<1	<1	<2	0.11
GRAB	RMD-205	13851 Steveston Hwy.	2021-05-28 09:00	-	-	10	<1	<1	<2	0.11
GRAB	RMD-202	1500 Valemont Way	2021-05-28 09:25	-	-	10	<1	<1	<2	0.12
GRAB	RMD-214	11720 Westminster Hwy.	2021-05-28 09:45	-	-	10	<1	<1	<2	0.1
GRAB	RMD-203	23260 Westminster Hwy.	2021-05-28 11:00	-	-	10	<1	<1	<2	0.08
GRAB	RMD-251	5951 McCallan Rd.	2021-05-31 12:30	-	-	10	<1	<1	<2	0.4
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-05-31 14:55	-	-	10	<1	<1	<2	0.3
GRAB	RMD-271	3800 Cessna Drive	2021-05-31 15:10	-	-	10	<1	<1	<2	0.15
GRAB	RMD-206	4251 Moncton St.	2021-06-03 07:45	-	-	10	<1	<1	<2	0.2
GRAB	RMD-216	11080 No. 2 Rd.	2021-06-03 08:00	-	-	10	<1	<1	<2	0.12
GRAB	RMD-202	1500 Valemont Way	2021-06-03 09:25	-	-	10	<1	<1	<2	0.14
GRAB	RMD-203	23260 Westminster Hwy.	2021-06-03 11:00	-	-	10	<1	<1	<2	0.12
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-06-07 15:00	-	-	10	<1	<1	<2	0.27
GRAB	RMD-264	13100 Mitchell Rd.	2021-06-09 12:45	-	-	10	<1	<1	<2	0.16
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-06-09 13:00	-	-	10	<1	<1	<2	0.14
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-06-09 13:50	-	-	10	<1	<1	<2	0.17
GRAB	RMD-260	11111 Horseshoe Way	2021-06-09 14:25	-	-	10	<1	<1	<2	0.14
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-06-09 15:15	-	-	10	<1	<1	<2	0.11
GRAB	RMD-257	6640 Blundell Rd.	2021-06-09 15:45	-	-	10	<1	<1	<2	0.14
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-06-16 12:45	-	-	10	<1	<1	<2	0.15
GRAB	RMD-206	4251 Moncton St.	2021-06-17 07:45	-	-	10	<1	<1	<2	0.16
GRAB	RMD-216	11080 No. 2 Rd.	2021-06-17 08:00	-	-	10	<1	<1	<2	0.13
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-06-17 08:30	-	-	10	<1	<1	<2	0.18
GRAB	RMD-203	23260 Westminster Hwy.	2021-06-17 11:00	-	-	10	<1	<1	<2	0.5
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-06-21 15:10	-	-	10	<1	<1	<2	0.2
GRAB	RMD-251	5951 McCallan Rd.	2021-10-18 12:30	-	-	10	<1	<1	<2	0.12
GRAB	RMD-269	14951 Triangle Rd.	2021-10-18 13:55	-	-	10	<1	<1	<2	0.13
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-10-18 14:50	-	-	10	<1	<1	<2	0.1
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-10-18 15:10	-	-	10	<1	<1	<2	0.2
GRAB	RMD-272	751 Catalina Cres.	2021-10-18 15:40	-	-	10	<1	<1	8	0.17
GRAB	RMD-250	6071 Azure Rd.	2021-10-18 15:55	-	-	10	<1	<1	<2	0.15
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-10-20 13:50	-	-	10	<1	<1	<2	0.14
GRAB	RMD-257	6640 Blundell Rd.	2021-10-20 15:45	-	-	10	<1	<1	<2	0.14
GRAB	RMD-202	1500 Valemont Way	2021-10-21 09:30	-	-	10	<1	<1	<2	0.12
GRAB	RMD-275	5180 Smith Cres.	2021-10-21 11:10	-	-	10	<1	<1	<2	0.21
GRAB	RMD-203	23260 Westminster Hwy.	2021-10-21 11:30	-	-	10	<1	<1	<2	0.22
GRAB	RMD-251	5951 McCallan Rd.	2021-10-25 12:30	-	-	10	<1	<1	<2	0.73
GRAB	RMD-269	14951 Triangle Rd.	2021-10-25 13:50	-	-	10	<1	<1	<2	0.14
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-10-25 15:00	-	-	10	<1	<1	<2	0.27
GRAB	RMD-250	6071 Azure Rd.	2021-10-25 15:45	-	-	10	<1	<1	4	0.2
GRAB	RMD-263	12560 Cambie Rd.	2021-10-27 12:30	-	-	10	<1	<1	<2	0.14
GRAB	RMD-262	13799 Commerce Pkwy.	2021-10-27 13:15	-	-	10	<1	<1	<2	0.16
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-10-27 13:50	-	-	10	<1	<1	<2	0.14
GRAB	RMD-260	11111 Horseshoe Way	2021-10-27 14:25	-	-	10	<1	<1	<2	0.14
GRAB	RMD-259	10020 Amethyst Ave.	2021-10-27 14:40	-	-	10	<1	<1	<2	0.12
GRAB	RMD-266	9380 General Currie Rd.	2021-10-27 14:55	-	-	10	<1	<1	<2	0.18
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-10-27 15:10	-	-	10	<1	<1	<2	0.12
GRAB	RMD-257	6640 Blundell Rd.	2021-10-27 15:45	-	-	10	<1	<1	<2	0.14
GRAB	RMD-204	3180 Granville Ave.	2021-10-29 07:30	-	-	10	<1	<1	LA	0.11
GRAB	RMD-206	4251 Moncton St.	2021-10-29 07:45	-	-	10	<1	<1	<2	0.22
GRAB	RMD-216	11080 No. 2 Rd.	2021-10-29 08:00	-	-	10	<1	<1	<2	0.25
GRAB	RMD-208	13200 No. 4 Rd.	2021-10-29 08:45	-	-	10	<1	<1	<2	0.15
GRAB	RMD-205	13851 Steveston Hwy.	2021-10-29 09:00	-	-	10	<1	<1	<2	0.18
GRAB	RMD-214	11720 Westminster Hwy.	2021-10-29 09:40	-	-	10	<1	<1	<2	0.15
GRAB	RMD-252	9751 Pendleton Rd.	2021-11-01 13:00	-	-	10	<1	<1	<2	0.12
GRAB	RMD-274	10920 Springwood Court	2021-11-01 13:15	-	-	10	<1	<1	<2	0.22
GRAB	RMD-269	14951 Triangle Rd.	2021-11-01 13:50	-	-	10	<1	<1	<2	0.13
GRAB	RMD-270	8200 Jones Rd.	2021-11-01 14:10	-	-	10	<1	<1	8	0.12
GRAB	RMD-254	5300 No. 3 Rd.	2021-11-01 14:25	-	-	10	<1	<1	2	0.11
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-11-01 14:40	-	-	10	<1	<1	<2	0.13
GRAB	RMD-271	3800 Cessna Drive	2021-11-01 15:10	-	-	10	<1	<1	<2	0.11
GRAB	RMD-250	6071 Azure Rd.	2021-11-01 15:45	-	-	10	<1	<1	2	0.16
GRAB	RMD-263	12560 Cambie Rd.	2021-11-03 12:30	-	-	10	<1	<1	<2	0.12
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-11-03 12:50	-	-	10	<1	<1	2	0.15
GRAB	RMD-264	13100 Mitchell Rd.	2021-11-03 13:05	-	-	10	<1	<1	<2	0.13
GRAB	RMD-262	13799 Commerce Pkwy.	2021-11-03 13:25	-	-	10	<1	<1	<2	0.12
GRAB	RMD-261	9911 Sidaway Rd.	2021-11-03 14:20	-	-	10	<1	<1	<2	0.27
GRAB	RMD-260	11111 Horseshoe Way	2021-11-03 14:40	-	-	10	<1	<1	<2	0.12
GRAB	RMD-259	10020 Amethyst Ave.	2021-11-03 15:00	-	-	10	<1	<1	<2	0.13

Sample Type	Sample Name	Description	Sample Date	Total Coliform (MPN/100mL)	E. coli (MPN/100mLs)	Temperature (°C)	Total Coliform (CFU/100mL)	E. coli (CFU/100mL)	HPC (CFU/mL)	Turbidity (NTU)
GRAB	RMD-266	9380 General Currie Rd.	2021-11-03 15:15	-	-	10	<1	<1	<2	0.14
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-11-03 15:30	-	-	10	<1	<1	<2	0.19
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-11-03 15:45	-	-	10	<1	<1	<2	0.13
GRAB	RMD-206	4251 Moncton St.	2021-11-04 07:45	-	-	10	<1	<1	<2	0.22
GRAB	RMD-216	11080 No. 2 Rd.	2021-11-04 08:00	-	-	10	<1	<1	<2	0.11
GRAB	RMD-280	11500 McKenzie Rd.	2021-11-04 08:15	-	-	10	<1	<1	<2	0.16
GRAB	RMD-205	13851 Steveston Hwy.	2021-11-04 09:00	-	-	10	<1	<1	<2	0.15
GRAB	RMD-202	1500 Valemont Way	2021-11-04 09:25	-	-	10	<1	<1	<2	0.13
GRAB	RMD-214	11720 Westminster Hwy.	2021-11-04 09:45	-	-	10	<1	<1	<2	0.16
GRAB	RMD-267	17240 Fedoruk	2021-11-04 10:00	-	-	10	<1	<1	<2	0.11
GRAB	RMD-276	22271 Cochrane Drive	2021-11-04 10:30	-	-	10	<1	<1	<2	0.17
GRAB	RMD-275	5180 Smith Cres.	2021-11-04 10:45	-	-	10	<1	<1	<2	0.22
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-11-08 12:45	-	-	10	<1	<1	<2	0.11
GRAB	RMD-253	11051 No 3 Rd.	2021-11-08 13:40	-	-	10	<1	<1	<2	0.15
GRAB	RMD-254	5300 No. 3 Rd.	2021-11-08 14:40	-	-	10	<1	<1	2	0.11
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-11-08 15:00	-	-	10	<1	<1	<2	0.1
GRAB	RMD-270	8200 Jones Rd.	2021-11-08 15:20	-	-	10	<1	<1	<2	0.11
GRAB	RMD-271	3800 Cessna Drive	2021-11-08 15:30	-	-	10	<1	<1	<2	0.12
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-11-09 12:45	-	-	10	<1	<1	2	0.15
GRAB	RMD-264	13100 Mitchell Rd.	2021-11-09 13:00	-	-	10	<1	<1	<2	0.13
GRAB	RMD-261	9911 Sidaway Rd.	2021-11-09 14:10	-	-	10	<1	<1	<2	0.12
GRAB	RMD-260	11111 Horseshoe Way	2021-11-09 14:25	-	-	10	<1	<1	<2	0.13
GRAB	RMD-259	10020 Amethyst Ave.	2021-11-09 14:40	-	-	10	<1	<1	2	0.19
GRAB	RMD-266	9380 General Currie Rd.	2021-11-09 14:55	-	-	10	<1	<1	<2	0.17
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-11-09 15:15	-	-	10	<1	<1	<2	0.13
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-11-09 15:30	-	-	10	<1	<1	<2	0.12
GRAB	RMD-257	6640 Blundell Rd.	2021-11-09 15:45	-	-	10	<1	<1	<2	0.15
GRAB	RMD-204	3180 Granville Ave.	2021-11-12 07:30	-	-	10	<1	<1	<2	0.13
GRAB	RMD-206	4251 Moncton St.	2021-11-12 07:45	-	-	10	<1	<1	<2	0.12
GRAB	RMD-216	11080 No. 2 Rd.	2021-11-12 08:00	-	-	10	<1	<1	<2	0.13
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-11-12 08:40	-	-	10	<1	<1	<2	0.16
GRAB	RMD-202	1500 Valemont Way	2021-11-12 09:40	-	-	10	<1	<1	<2	0.14
GRAB	RMD-267	17240 Fedoruk	2021-11-12 10:15	-	-	10	<1	<1	<2	0.14
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-11-12 10:30	-	-	10	<1	<1	<2	0.14
GRAB	RMD-276	22271 Cochrane Drive	2021-11-12 10:50	-	-	10	<1	<1	<2	0.13
GRAB	RMD-275	5180 Smith Cres.	2021-11-12 11:10	-	-	10	<1	<1	<2	0.14
GRAB	RMD-203	23260 Westminster Hwy.	2021-11-12 11:30	-	-	10	<1	<1	<2	0.16
GRAB	RMD-252	9751 Pendleton Rd.	2021-11-15 13:00	-	-	10	<1	<1	<2	0.2
GRAB	RMD-274	10920 Springwood Court	2021-11-15 13:15	-	-	10	<1	<1	<2	0.1
GRAB	RMD-254	5300 No. 3 Rd.	2021-11-15 14:30	-	-	10	<1	<1	2	0.11
GRAB	RMD-278	6651 Fraserwood Place	2021-11-17 13:30	-	-	10	<1	<1	2	0.12
GRAB	RMD-261	9911 Sidaway Rd.	2021-11-17 14:10	-	-	10	<1	<1	<2	0.11
GRAB	RMD-267	17240 Fedoruk	2021-11-18 10:10	-	-	10	<1	<1	<2	0.15
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-11-22 12:45	-	-	10	<1	<1	<2	0.2
GRAB	RMD-274	10920 Springwood Court	2021-11-22 13:15	-	-	10	<1	<1	<2	0.1
GRAB	RMD-253	11051 No 3 Rd.	2021-11-22 13:35	-	-	10	<1	<1	<2	0.14
GRAB	RMD-269	14951 Triangle Rd.	2021-11-22 13:55	-	-	10	<1	<1	<2	0.13
GRAB	RMD-254	5300 No. 3 Rd.	2021-11-22 14:30	-	-	10	<1	<1	<2	0.11
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-11-22 15:00	-	-	10	<1	<1	<2	0.15
GRAB	RMD-271	3800 Cessna Drive	2021-11-22 15:15	-	-	10	<1	<1	<2	0.16
GRAB	RMD-272	751 Catalina Cres.	2021-11-22 15:30	-	-	10	<1	<1	2	0.12
GRAB	RMD-250	6071 Azure Rd.	2021-11-22 15:45	-	-	10	<1	<1	2	0.11
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-11-29 12:45	-	-	10	<1	<1	<2	0.13
GRAB	RMD-274	10920 Springwood Court	2021-11-29 13:15	-	-	10	<1	<1	<2	0.11
GRAB	RMD-278	6651 Fraserwood Place	2021-12-02 10:30	-	-	10	<1	<1	<2	0.16
GRAB	RMD-253	11051 No 3 Rd.	2021-04-19 13:30	-	-	10.2	<1	<1	<2	0.2
GRAB	RMD-254	5300 No. 3 Rd.	2021-04-19 14:30	-	-	10.4	<1	<1	<2	0.2
GRAB	RMD-252	9751 Pendleton Rd.	2021-05-10 13:00	-	-	11	<1	<1	<2	0.16
GRAB	RMD-254	5300 No. 3 Rd.	2021-05-10 14:30	-	-	11	<1	<1	<2	0.12
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-05-10 14:45	-	-	11	<1	<1	<2	0.11
GRAB	RMD-208	13200 No. 4 Rd.	2021-05-14 09:25	-	-	11	<1	<1	<2	0.17
GRAB	RMD-252	9751 Pendleton Rd.	2021-05-17 13:00	-	-	11	<1	<1	<2	0.19
GRAB	RMD-253	11051 No 3 Rd.	2021-05-17 13:30	-	-	11	<1	<1	<2	0.29
GRAB	RMD-270	8200 Jones Rd.	2021-05-17 14:15	-	-	11	<1	<1	<2	0.28
GRAB	RMD-254	5300 No. 3 Rd.	2021-05-17 14:30	-	-	11	<1	<1	<2	0.13
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-05-17 14:45	-	-	11	<1	<1	<2	0.15
GRAB	RMD-271	3800 Cessna Drive	2021-05-17 15:15	-	-	11	<1	<1	<2	0.14
GRAB	RMD-280	11500 McKenzie Rd.	2021-05-20 08:30	-	-	11	<1	<1	<2	0.16
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-05-20 08:40	-	-	11	<1	<1	2	0.11
GRAB	RMD-276	22271 Cochrane Drive	2021-05-20 11:15	-	-	11	<1	<1	<2	0.09
GRAB	RMD-275	5180 Smith Cres.	2021-05-20 11:30	-	-	11	<1	<1	<2	0.14
GRAB	RMD-254	5300 No. 3 Rd.	2021-05-25 14:30	-	-	11	<1	<1	<2	0.11
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-05-25 14:45	-	-	11	<1	<1	<2	0.18
GRAB	RMD-271	3800 Cessna Drive	2021-05-25 15:15	-	-	11	<1	<1	<2	0.09
GRAB	RMD-250	6071 Azure Rd.	2021-05-25 15:45	-	-	11	<1	<1	<2	0.1
GRAB	RMD-263	12560 Cambie Rd.	2021-05-26 12:30	-	-	11	<1	<1	<2	0.1
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-05-26 12:45	-	-	11	<1	<1	<2	0.22
GRAB	RMD-264	13100 Mitchell Rd.	2021-05-26 13:00	-	-	11	<1	<1	<2	0.11
GRAB	RMD-262	13799 Commerce Pkwy.	2021-05-26 13:15	-	-	11	<1	<1	<2	0.11
GRAB	RMD-261	9911 Sidaway Rd.	2021-05-26 14:10	-	-	11	<1	<1	<2	0.12
GRAB	RMD-259	10020 Amethyst Ave.	2021-05-26 14:40	-	-	11	<1	<1	<2	0.12
GRAB	RMD-257	6640 Blundell Rd.	2021-05-26 15:45	-	-	11	<1	<1	<2	0.16
GRAB	RMD-216	11080 No. 2 Rd.	2021-05-28 08:00	-	-	11	<1	<1	<2	0.1
GRAB	RMD-280	11500 McKenzie Rd.	2021-05-28 08:15	-	-	11	<1	<1	<2	0.1
GRAB	RMD-208	13200 No. 4 Rd.	2021-05-28 08:45	-	-	11	<1	<1	<2	0.11
GRAB	RMD-276	22271 Cochrane Drive	2021-05-28 10:30	-	-	11	<1	<1	<2	0.13
GRAB	RMD-275	5180 Smith Cres.	2021-05-28 10:45	-	-	11	<1	<1	<2	0.09
GRAB	RMD-252	9751 Pendleton Rd.	2021-05-31 13:00	-	-	11	<1	<1	<2	0.25
GRAB	RMD-253	11051 No 3 Rd.	2021-05-31 13:30	-	-	11	<1	<1	<2	0.21
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-05-31 14:40	-	-	11	<1	<1	<2	0.17
GRAB	RMD-272	751 Catalina Cres.	2021-05-31 15:25	-	-	11	<1	<1	<2	0.26
GRAB	RMD-264	13100 Mitchell Rd.	2021-06-02 12:45	-	-	11	<1	<1	<2	0.3
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-06-02 13:50	-	-	11	<1	<1	<2	0.13
GRAB	RMD-266	9380 General Currie Rd.	2021-06-02 14:55	-	-	11	<1	<1	<2	0.19
GRAB	RMD-204	3180 Granville Ave.	2021-06-03 07:30	-	-	11	<1	<1	<2	0.2
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-06-03 08:30	-	-	11	<1	<1	<2	0.16
GRAB	RMD-208	13200 No. 4 Rd.	2021-06-03 08:45	-	-	11	<1	<1	<2	0.18
GRAB	RMD-205	13851 Steveston Hwy.	2021-06-03 09:00	-	-	11	<1	<1	<2	0.12
GRAB	RMD-214	11720 Westminster Hwy.	2021-06-03 09:45	-	-	11	<1	<1	2	0.15
GRAB	RMD-267	17240 Fedoruk	2021-06-03 10:00	-	-	11	<1	<1	<2	0.22

Sample Type	Sample Name	Description	Sample Date	Total Coliform (MPN/100mL)	E. coli (MPN/100mL)	Temperature (°C)	Total Coliform (CFU/100mL)	E. coli (CFU/100mL)	HPC (CFU/mL)	Turbidity (NTU)
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-06-03 10:15	-	-	11	<1	<1	2	0.14
GRAB	RMD-276	22271 Cochrane Drive	2021-06-03 10:30	-	-	11	<1	<1	<2	0.1
GRAB	RMD-251	5951McCallan Rd.	2021-06-07 12:30	-	-	11	<1	<1	<2	0.21
GRAB	RMD-252	9751 Pendleton Rd.	2021-06-07 13:00	-	-	11	<1	<1	<2	0.12
GRAB	RMD-263	12560 Cambie Rd.	2021-06-09 12:30	-	-	11	<1	<1	<2	0.14
GRAB	RMD-262	13799 Commerce Pkwy.	2021-06-09 13:15	-	-	11	<1	<1	<2	0.13
GRAB	RMD-278	6651 Fraserwood Place	2021-06-09 13:35	-	-	11	<1	<1	30	0.18
GRAB	RMD-261	9911 Sidaway Rd.	2021-06-09 14:10	-	-	11	<1	<1	<2	0.14
GRAB	RMD-259	10020 Amethyst Ave.	2021-06-09 14:40	-	-	11	<1	<1	<2	0.13
GRAB	RMD-266	9380 General Currie Rd.	2021-06-09 14:55	-	-	11	<1	<1	<2	0.17
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-06-09 15:30	-	-	11	<1	<1	<2	0.08
GRAB	RMD-280	11500 McKenzie Rd.	2021-06-11 08:15	-	-	11	<1	<1	<2	0.11
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-06-11 08:30	-	-	11	<1	<1	<2	0.11
GRAB	RMD-208	13200 No. 4 Rd.	2021-06-11 08:45	-	-	11	<1	<1	<2	0.11
GRAB	RMD-205	13851 Steveston Hwy.	2021-06-11 09:00	-	-	11	<1	<1	<2	0.1
GRAB	RMD-214	11720 Westminster Hwy.	2021-06-11 09:35	-	-	11	<1	<1	<2	0.11
GRAB	RMD-203	23260 Westminster Hwy.	2021-06-11 11:00	-	-	11	<1	<1	<2	0.11
GRAB	RMD-251	5951McCallan Rd.	2021-06-14 12:30	-	-	11	<1	<1	<2	0.14
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-06-14 15:00	-	-	11	<1	<1	<2	0.25
GRAB	RMD-263	12560 Cambie Rd.	2021-06-16 12:30	-	-	11	<1	<1	<2	0.21
GRAB	RMD-264	13100 Mitchell Rd.	2021-06-16 13:00	-	-	11	<1	<1	<2	0.13
GRAB	RMD-262	13799 Commerce Pkwy.	2021-06-16 13:15	-	-	11	<1	<1	<2	0.13
GRAB	RMD-278	6651 Fraserwood Place	2021-06-16 13:30	-	-	11	<1	<1	2	0.14
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-06-16 13:50	-	-	11	<1	<1	<2	0.22
GRAB	RMD-261	9911 Sidaway Rd.	2021-06-16 14:10	-	-	11	<1	<1	<2	0.13
GRAB	RMD-260	11111 Horseshoe Way	2021-06-16 14:25	-	-	11	<1	<1	<2	0.16
GRAB	RMD-259	10020 Amethyst Ave.	2021-06-16 14:40	-	-	11	<1	<1	<2	0.14
GRAB	RMD-266	9380 General Currie Rd.	2021-06-16 14:55	-	-	11	<1	<1	<2	0.18
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-06-16 15:10	-	-	11	<1	<1	<2	0.23
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-06-16 15:25	-	-	11	<1	<1	<2	0.14
GRAB	RMD-257	6640 Blundell Rd.	2021-06-16 15:45	-	-	11	<1	<1	<2	0.17
GRAB	RMD-204	3180 Granville Ave.	2021-06-17 07:30	-	-	11	<1	<1	<2	0.16
GRAB	RMD-208	13200 No. 4 Rd.	2021-06-17 08:45	-	-	11	<1	<1	<2	0.14
GRAB	RMD-205	13851 Steveston Hwy.	2021-06-17 09:00	-	-	11	<1	<1	<2	0.16
GRAB	RMD-202	1500 Valemont Way	2021-06-17 09:25	-	-	11	<1	<1	<2	0.12
GRAB	RMD-214	11720 Westminster Hwy.	2021-06-17 09:45	-	-	11	<1	<1	<2	0.17
GRAB	RMD-267	17240 Fedoruk	2021-06-17 10:00	-	-	11	<1	<1	<2	0.18
GRAB	RMD-276	22271 Cochrane Drive	2021-06-17 10:30	-	-	11	<1	<1	2	0.15
GRAB	RMD-251	5951McCallan Rd.	2021-06-21 12:30	-	-	11	<1	<1	<2	0.15
GRAB	RMD-252	9751 Pendleton Rd.	2021-06-21 13:00	-	-	11	<1	<1	<2	0.29
GRAB	RMD-253	11051 No 3 Rd.	2021-06-21 13:35	-	-	11	<1	<1	<2	0.13
GRAB	RMD-271	3800 Cessna Drive	2021-06-21 15:25	-	-	11	<1	<1	2	0.11
GRAB	RMD-250	6071 Azure Rd.	2021-06-21 15:55	-	-	11	<1	<1	<2	0.17
GRAB	RMD-257	6640 Blundell Rd.	2021-06-25 07:30	-	-	11	<1	<1	<2	0.19
GRAB	RMD-206	4251 Moncton St.	2021-06-25 07:45	-	-	11	<1	<1	<2	0.17
GRAB	RMD-216	11080 No. 2 Rd.	2021-06-25 08:00	-	-	11	<1	<1	<2	0.18
GRAB	RMD-280	11500 McKenzie Rd.	2021-06-25 08:15	-	-	11	<1	<1	<2	0.18
GRAB	RMD-260	11111 Horseshoe Way	2021-06-25 08:30	-	-	11	<1	<1	<2	0.15
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-06-25 08:35	-	-	11	<1	<1	<2	0.17
GRAB	RMD-259	10020 Amethyst Ave.	2021-06-25 08:45	-	-	11	<1	<1	<2	0.14
GRAB	RMD-266	9380 General Currie Rd.	2021-06-25 09:00	-	-	11	<1	<1	<2	0.2
GRAB	RMD-205	13851 Steveston Hwy.	2021-06-25 09:15	-	-	11	<1	<1	<2	0.17
GRAB	RMD-202	1500 Valemont Way	2021-06-25 09:30	-	-	11	<1	<1	<2	0.16
GRAB	RMD-263	12560 Cambie Rd.	2021-06-25 09:30	-	-	11	<1	<1	<2	0.15
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-06-25 09:45	-	-	11	<1	<1	<2	0.15
GRAB	RMD-214	11720 Westminster Hwy.	2021-06-25 09:50	-	-	11	<1	<1	<2	0.16
GRAB	RMD-264	13100 Mitchell Rd.	2021-06-25 10:00	-	-	11	<1	<1	<2	0.19
GRAB	RMD-276	22271 Cochrane Drive	2021-06-25 10:35	-	-	11	<1	<1	<2	0.15
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-06-25 10:40	-	-	11	<1	<1	<2	0.12
GRAB	RMD-251	5951McCallan Rd.	2021-06-28 12:30	-	-	11	<1	<1	<2	0.24
GRAB	RMD-260	11111 Horseshoe Way	2021-06-29 14:25	-	-	11	<1	<1	<2	0.44
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-10-06 13:50	-	-	11	<1	<1	<2	0.19
GRAB	RMD-214	11720 Westminster Hwy.	2021-10-07 09:45	-	-	11	<1	<1	<2	0.17
GRAB	RMD-251	5951McCallan Rd.	2021-10-12 12:30	-	-	11	<1	<1	<2	0.12
GRAB	RMD-272	751 Catalina Cres.	2021-10-12 15:30	-	-	11	<1	<1	28	0.16
GRAB	RMD-260	11111 Horseshoe Way	2021-10-13 14:25	-	-	11	<1	<1	<2	0.14
GRAB	RMD-257	6640 Blundell Rd.	2021-10-13 15:45	-	-	11	<1	<1	2	0.2
GRAB	RMD-206	4251 Moncton St.	2021-10-15 07:45	-	-	11	<1	<1	<2	0.13
GRAB	RMD-203	23260 Westminster Hwy.	2021-10-15 09:40	-	-	11	<1	<1	12	0.17
GRAB	RMD-214	11720 Westminster Hwy.	2021-10-15 10:00	-	-	11	<1	<1	<2	0.15
GRAB	RMD-202	1500 Valemont Way	2021-10-15 11:30	-	-	11	<1	<1	2	0.19
GRAB	RMD-263	12560 Cambie Rd.	2021-10-20 12:30	-	-	11	<1	<1	<2	0.12
GRAB	RMD-264	13100 Mitchell Rd.	2021-10-20 12:45	-	-	11	<1	<1	<2	0.13
GRAB	RMD-262	13799 Commerce Pkwy.	2021-10-20 13:15	-	-	11	<1	<1	<2	0.12
GRAB	RMD-278	6651 Fraserwood Place	2021-10-20 13:35	-	-	11	<1	<1	<2	0.15
GRAB	RMD-261	9911 Sidaway Rd.	2021-10-20 14:10	-	-	11	<1	<1	<2	0.12
GRAB	RMD-260	11111 Horseshoe Way	2021-10-20 14:25	-	-	11	<1	<1	4	0.15
GRAB	RMD-266	9380 General Currie Rd.	2021-10-20 14:55	-	-	11	<1	<1	<2	0.13
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-10-20 15:15	-	-	11	<1	<1	<2	0.11
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-10-20 15:30	-	-	11	<1	<1	<2	0.23
GRAB	RMD-204	3180 Granville Ave.	2021-10-21 07:30	-	-	11	<1	<1	12	0.15
GRAB	RMD-206	4251 Moncton St.	2021-10-21 07:45	-	-	11	<1	<1	<2	0.12
GRAB	RMD-216	11080 No. 2 Rd.	2021-10-21 08:00	-	-	11	<1	<1	<2	0.13
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-10-21 08:30	-	-	11	<1	<1	2	0.14
GRAB	RMD-208	13200 No. 4 Rd.	2021-10-21 08:50	-	-	11	<1	<1	<2	0.15
GRAB	RMD-205	13851 Steveston Hwy.	2021-10-21 09:10	-	-	11	<1	<1	<2	0.15
GRAB	RMD-214	11720 Westminster Hwy.	2021-10-21 09:50	-	-	11	<1	<1	2	0.16
GRAB	RMD-267	17240 Fedoruk	2021-10-21 10:10	-	-	11	<1	<1	<2	0.15
GRAB	RMD-276	22271 Cochrane Drive	2021-10-21 10:50	-	-	11	<1	<1	<2	0.14
GRAB	RMD-252	9751 Pendleton Rd.	2021-10-25 13:00	-	-	11	<1	<1	<2	0.25
GRAB	RMD-253	11051 No 3 Rd.	2021-10-25 13:30	-	-	11	<1	<1	<2	0.16
GRAB	RMD-270	8200 Jones Rd.	2021-10-25 14:15	-	-	11	<1	<1	<2	0.25
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-10-25 14:45	-	-	11	<1	<1	2	0.14
GRAB	RMD-264	13100 Mitchell Rd.	2021-10-27 13:00	-	-	11	<1	<1	<2	0.15
GRAB	RMD-278	6651 Fraserwood Place	2021-10-27 13:35	-	-	11	<1	<1	<2	0.21
GRAB	RMD-261	9911 Sidaway Rd.	2021-10-27 14:10	-	-	11	<1	<1	<2	0.13
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-10-27 15:25	-	-	11	<1	<1	<2	0.12
GRAB	RMD-280	11500 McKenzie Rd.	2021-10-29 08:15	-	-	11	<1	<1	<2	0.12
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-10-29 08:30	-	-	11	<1	<1	<2	0.22
GRAB	RMD-202	1500 Valemont Way	2021-10-29 09:20	-	-	11	<1	<1	<2	0.18



Sample Type	Sample Name	Description	Sample Date	Total Coliform (MPN/100mL)	E. coli (MPN/100mL)	Temperature (°C)	Total Coliform (CFU/100mL)	E. coli (CFU/100mL)	HPC (CFU/mL)	Turbidity (NTU)
GRAB	RMD-267	17240 Fedoruk	2021-10-29 09:55	-	-	11	<1	<1	<2	0.12
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-10-29 10:10	-	-	11	<1	<1	2	0.15
GRAB	RMD-276	22271 Cochrane Drive	2021-10-29 10:25	-	-	11	<1	<1	<2	0.21
GRAB	RMD-275	5180 Smith Cres.	2021-10-29 10:45	-	-	11	<1	<1	<2	0.22
GRAB	RMD-203	23260 Westminster Hwy.	2021-10-29 11:00	-	-	11	<1	<1	2	0.16
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-11-01 12:45	-	-	11	<1	<1	<2	0.13
GRAB	RMD-278	6651 Fraserwood Place	2021-11-03 13:45	-	-	11	<1	<1	<2	0.12
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-11-03 14:00	-	-	11	<1	<1	<2	0.12
GRAB	RMD-257	6640 Blundell Rd.	2021-11-03 16:00	-	-	11	<1	<1	<2	0.21
GRAB	RMD-204	3180 Granville Ave.	2021-11-04 07:30	-	-	11	<1	<1	<2	0.11
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-11-04 08:30	-	-	11	<1	<1	2	0.17
GRAB	RMD-208	13200 No. 4 Rd.	2021-11-04 08:45	-	-	11	<1	<1	<2	0.22
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-11-04 10:15	-	-	11	<1	<1	4	0.16
GRAB	RMD-252	9751 Pendleton Rd.	2021-11-08 13:00	-	-	11	<1	<1	<2	0.11
GRAB	RMD-274	10920 Springwood Court	2021-11-08 13:20	-	-	11	<1	<1	8	0.11
GRAB	RMD-278	6651 Fraserwood Place	2021-11-09 13:35	-	-	11	<1	<1	<2	0.12
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-11-15 12:45	-	-	11	<1	<1	<2	0.16
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-11-22 14:45	-	-	11	<1	<1	<2	0.12
GRAB	RMD-252	9751 Pendleton Rd.	2021-04-19 13:00	-	-	11.1	<1	<1	<2	0.27
GRAB	RMD-274	10920 Springwood Court	2021-04-19 13:15	-	-	11.2	<1	<1	2	0.25
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-04-19 12:45	-	-	11.4	<1	<1	<2	0.21
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-05-03 12:45	-	-	12	<1	<1	<2	0.25
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-05-10 12:45	-	-	12	<1	<1	<2	0.19
GRAB	RMD-269	14951 Triangle Rd.	2021-05-17 13:50	-	-	12	<1	<1	<2	1
GRAB	RMD-252	9751 Pendleton Rd.	2021-05-25 13:00	-	-	12	<1	<1	<2	0.12
GRAB	RMD-269	14951 Triangle Rd.	2021-05-25 13:50	-	-	12	<1	<1	<2	0.1
GRAB	RMD-270	8200 Jones Rd.	2021-05-25 14:15	-	-	12	<1	<1	2	0.11
GRAB	RMD-278	6651 Fraserwood Place	2021-05-26 13:30	-	-	12	<1	<1	<2	0.21
GRAB	RMD-204	3180 Granville Ave.	2021-05-28 07:30	-	-	12	<1	<1	<2	0.09
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-05-28 08:30	-	-	12	<1	<1	<2	0.1
GRAB	RMD-267	17240 Fedoruk	2021-05-28 10:00	-	-	12	<1	<1	<2	0.09
GRAB	RMD-274	10920 Springwood Court	2021-05-31 13:15	-	-	12	<1	<1	<2	0.24
GRAB	RMD-269	14951 Triangle Rd.	2021-05-31 13:50	-	-	12	<1	<1	<2	0.15
GRAB	RMD-270	8200 Jones Rd.	2021-05-31 14:10	-	-	12	<1	<1	<2	0.15
GRAB	RMD-254	5300 No. 3 Rd.	2021-05-31 14:25	-	-	12	<1	<1	<2	0.11
GRAB	RMD-250	6071 Azure Rd.	2021-05-31 15:45	-	-	12	<1	<1	<2	0.21
GRAB	RMD-263	12560 Cambie Rd.	2021-06-02 12:30	-	-	12	<1	<1	<2	0.31
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-06-02 13:00	-	-	12	<1	<1	<2	0.23
GRAB	RMD-262	13799 Commerce Pkwy.	2021-06-02 13:15	-	-	12	<1	<1	2	0.11
GRAB	RMD-278	6651 Fraserwood Place	2021-06-02 13:35	-	-	12	<1	<1	<2	0.26
GRAB	RMD-261	9911 Sidaway Rd.	2021-06-02 14:10	-	-	12	<1	<1	<2	0.1
GRAB	RMD-260	11111 Horseshoe Way	2021-06-02 14:25	-	-	12	<1	<1	<2	0.18
GRAB	RMD-259	10020 Amethyst Ave.	2021-06-02 14:40	-	-	12	<1	<1	<2	0.15
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-06-02 15:15	-	-	12	<1	<1	<2	0.11
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-06-02 15:30	-	-	12	<1	<1	<2	0.1
GRAB	RMD-257	6640 Blundell Rd.	2021-06-02 15:45	-	-	12	<1	<1	<2	0.17
GRAB	RMD-280	11500 McKenzie Rd.	2021-06-03 08:15	-	-	12	<1	<1	<2	0.12
GRAB	RMD-275	5180 Smith Cres.	2021-06-03 10:45	-	-	12	<1	<1	<2	0.1
GRAB	RMD-253	11051 No 3 Rd.	2021-06-07 13:30	-	-	12	<1	<1	<2	0.13
GRAB	RMD-269	14951 Triangle Rd.	2021-06-07 13:50	-	-	12	<1	<1	<2	0.13
GRAB	RMD-270	8200 Jones Rd.	2021-06-07 14:15	-	-	12	<1	<1	<2	0.24
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-06-07 14:45	-	-	12	<1	<1	<2	0.13
GRAB	RMD-271	3800 Cessna Drive	2021-06-07 15:15	-	-	12	<1	<1	<2	0.12
GRAB	RMD-272	751 Catalina Cres.	2021-06-07 15:30	-	-	12	<1	<1	<2	0.22
GRAB	RMD-250	6071 Azure Rd.	2021-06-07 15:45	-	-	12	<1	<1	<2	0.78
GRAB	RMD-216	11080 No. 2 Rd.	2021-06-11 08:00	-	-	12	<1	<1	<2	0.11
GRAB	RMD-202	1500 Valemont Way	2021-06-11 09:20	-	-	12	<1	<1	<2	0.1
GRAB	RMD-267	17240 Fedoruk	2021-06-11 09:50	-	-	12	<1	<1	<2	0.09
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-06-11 10:10	-	-	12	<1	<1	20	0.1
GRAB	RMD-276	22271 Cochrane Drive	2021-06-11 10:25	-	-	12	<1	<1	<2	0.12
GRAB	RMD-275	5180 Smith Cres.	2021-06-11 10:45	-	-	12	<1	<1	<2	0.11
GRAB	RMD-252	9751 Pendleton Rd.	2021-06-14 13:00	-	-	12	<1	<1	<2	0.12
GRAB	RMD-274	10920 Springwood Court	2021-06-14 13:15	-	-	12	<1	<1	<2	0.22
GRAB	RMD-269	14951 Triangle Rd.	2021-06-14 13:50	-	-	12	<1	<1	<2	0.12
GRAB	RMD-254	5300 No. 3 Rd.	2021-06-14 14:30	-	-	12	<1	<1	<2	0.15
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-06-14 14:45	-	-	12	<1	<1	<2	0.16
GRAB	RMD-271	3800 Cessna Drive	2021-06-14 15:15	-	-	12	<1	<1	<2	0.13
GRAB	RMD-272	751 Catalina Cres.	2021-06-14 15:30	-	-	12	<1	<1	2	0.19
GRAB	RMD-250	6071 Azure Rd.	2021-06-14 15:45	-	-	12	<1	<1	<2	0.2
GRAB	RMD-280	11500 McKenzie Rd.	2021-06-17 08:15	-	-	12	<1	<1	<2	0.14
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-06-17 10:15	-	-	12	<1	<1	24	0.12
GRAB	RMD-269	14951 Triangle Rd.	2021-06-21 13:50	-	-	12	<1	<1	<2	0.11
GRAB	RMD-272	751 Catalina Cres.	2021-06-21 15:40	-	-	12	<1	<1	<2	0.16
GRAB	RMD-204	3180 Granville Ave.	2021-06-25 07:30	-	-	12	<1	<1	<2	0.15
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-06-25 07:50	-	-	12	2	<1	34	0.32
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-06-25 08:10	-	-	12	<1	<1	<2	0.13
GRAB	RMD-208	13200 No. 4 Rd.	2021-06-25 08:50	-	-	12	<1	<1	<2	0.18
GRAB	RMD-261	9911 Sidaway Rd.	2021-06-25 09:15	-	-	12	<1	<1	<2	0.18
GRAB	RMD-267	17240 Fedoruk	2021-06-25 10:05	-	-	12	<1	<1	<2	0.15
GRAB	RMD-262	13799 Commerce Pkwy.	2021-06-25 10:20	-	-	12	<1	<1	<2	0.12
GRAB	RMD-275	5180 Smith Cres.	2021-06-25 10:50	-	-	12	<1	<1	<2	0.11
GRAB	RMD-203	23260 Westminster Hwy.	2021-06-25 11:05	-	-	12	<1	<1	<2	0.11
GRAB	RMD-253	11051 No 3 Rd.	2021-06-28 13:30	-	-	12	<1	<1	2	0.24
GRAB	RMD-269	14951 Triangle Rd.	2021-06-28 13:55	-	-	12	<1	<1	<2	0.21
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-06-28 15:00	-	-	12	<1	<1	<2	0.25
GRAB	RMD-263	12560 Cambie Rd.	2021-06-29 12:30	-	-	12	<1	<1	<2	0.34
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-06-29 12:45	-	-	12	<1	<1	<2	0.25
GRAB	RMD-264	13100 Mitchell Rd.	2021-06-29 13:00	-	-	12	<1	<1	<2	0.27
GRAB	RMD-262	13799 Commerce Pkwy.	2021-06-29 13:15	-	-	12	<1	<1	<2	0.18
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-06-29 13:50	-	-	12	<1	<1	<2	0.24
GRAB	RMD-261	9911 Sidaway Rd.	2021-06-29 14:10	-	-	12	<1	<1	<2	0.31
GRAB	RMD-259	10020 Amethyst Ave.	2021-06-29 14:20	-	-	12	<1	<1	2	0.27
GRAB	RMD-266	9380 General Currie Rd.	2021-06-29 14:55	-	-	12	<1	<1	<2	0.31
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-06-29 15:10	-	-	12	<1	<1	<2	0.23
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-06-29 15:30	-	-	12	<1	<1	<2	0.61
GRAB	RMD-257	6640 Blundell Rd.	2021-06-29 15:45	-	-	12	<1	<1	<2	0.28
GRAB	RMD-206	4251 Moncton St.	2021-06-30 07:45	-	-	12	<1	<1	<2	0.59
GRAB	RMD-216	11080 No. 2 Rd.	2021-06-30 08:00	-	-	12	<1	<1	<2	0.28
GRAB	RMD-280	11500 McKenzie Rd.	2021-06-30 08:15	-	-	12	<1	<1	2	0.16
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-06-30 08:30	-	-	12	<1	<1	<2	0.18

Sample Type	Sample Name	Description	Sampled Date	Total Coliform (MPN/100mL)	E. coli (MPN/100mL)	Temperature (°C)	Total Coliform (CFU/100mL)	E. coli (CFU/100mL)	HPC (CFU/mL)	Turbidity (NTU)
GRAB	RMD-208	13200 No. 4 Rd.	2021-06-30 08:45	-	-	12	<1	<1	<2	0.21
GRAB	RMD-205	13851 Steveston Hwy.	2021-06-30 09:00	-	-	12	<1	<1	<2	0.25
GRAB	RMD-202	1500 Valemont Way0730	2021-06-30 09:25	-	-	12	<1	<1	<2	0.18
GRAB	RMD-214	11720 Westminster Hwy.	2021-06-30 09:45	-	-	12	<1	<1	<2	0.25
GRAB	RMD-267	17240 Fedoruk	2021-06-30 10:00	-	-	12	<1	<1	<2	0.32
GRAB	RMD-276	22271 Cochrane Drive	2021-06-30 10:30	-	-	12	<1	<1	<2	0.26
GRAB	RMD-275	5180 Smith Cres.	2021-06-30 10:45	-	-	12	<1	<1	<2	0.33
GRAB	RMD-203	23260 Westminster Hwy.	2021-06-30 11:00	-	-	12	<1	<1	2	0.24
GRAB	RMD-251	5951McCallan Rd.	2021-07-05 12:30	-	-	12	<1	<1	<2	0.2
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-07-07 13:50	-	-	12	<1	<1	<2	0.18
GRAB	RMD-260	11111 Horseshoe Way	2021-07-07 14:25	-	-	12	<1	<1	<2	0.13
GRAB	RMD-206	4251 Moncton St.	2021-07-09 07:45	-	-	12	<1	<1	<2	0.12
GRAB	RMD-214	11720 Westminster Hwy.	2021-07-09 09:50	-	-	12	<1	<1	<2	0.18
GRAB	RMD-203	23260 Westminster Hwy.	2021-07-09 11:10	-	-	12	<1	<1	<2	0.18
GRAB	RMD-253	11051 No 3 Rd.	2021-07-12 13:35	-	-	12	<1	<1	<2	0.2
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-07-12 15:00	-	-	12	<1	<1	<2	0.23
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-07-13 13:50	-	-	12	<1	<1	<2	0.18
GRAB	RMD-257	6640 Blundell Rd.	2021-07-13 15:50	-	-	12	<1	<1	<2	0.14
GRAB	RMD-214	11720 Westminster Hwy.	2021-07-14 12:30	-	-	12	<1	<1	<2	0.17
GRAB	RMD-203	23260 Westminster Hwy.	2021-07-14 13:50	-	-	12	<1	<1	<2	0.15
GRAB	RMD-206	4251 Moncton St.	2021-07-14 15:45	-	-	12	<1	<1	<2	0.16
GRAB	RMD-251	5951McCallan Rd.	2021-07-19 12:30	-	-	12	<1	<1	<2	0.11
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-07-19 14:55	-	-	12	<1	<1	<2	0.16
GRAB	RMD-260	11111 Horseshoe Way	2021-07-21 14:25	-	-	12	<1	<1	<2	0.15
GRAB	RMD-257	6640 Blundell Rd.	2021-07-21 15:45	-	-	12	<1	<1	<2	0.15
GRAB	RMD-214	11720 Westminster Hwy.	2021-07-23 09:50	-	-	12	<1	<1	<2	0.22
GRAB	RMD-251	5951McCallan Rd.	2021-10-04 12:30	-	-	12	<1	<1	2	0.13
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-10-04 15:00	-	-	12	<1	<1	2	0.21
GRAB	RMD-261	9911 Sidaway Rd.	2021-10-06 14:10	-	-	12	<1	<1	<2	0.21
GRAB	RMD-260	11111 Horseshoe Way	2021-10-06 14:25	-	-	12	<1	<1	2	0.2
GRAB	RMD-216	11080 No. 2 Rd.	2021-10-07 08:00	-	-	12	<1	<1	<2	0.14
GRAB	RMD-205	13851 Steveston Hwy.	2021-10-07 09:00	-	-	12	<1	<1	<2	0.19
GRAB	RMD-202	1500 Valemont Way	2021-10-07 09:25	-	-	12	<1	<1	2	0.14
GRAB	RMD-203	23260 Westminster Hwy.	2021-10-07 11:00	-	-	12	<1	<1	2	0.43
GRAB	RMD-269	14951 Triangle Rd.	2021-10-12 13:55	-	-	12	<1	<1	<2	0.21
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-10-12 14:45	-	-	12	<1	<1	4	0.13
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-10-12 15:00	-	-	12	<1	<1	2	0.19
GRAB	RMD-264	13100 Mitchell Rd.	2021-10-13 12:45	-	-	12	<1	<1	<2	0.21
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-10-13 13:00	-	-	12	<1	<1	8	0.12
GRAB	RMD-262	13799 Commerce Pkwy.	2021-10-13 13:15	-	-	12	<1	<1	<2	0.13
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-10-13 13:50	-	-	12	<1	<1	<2	0.13
GRAB	RMD-261	9911 Sidaway Rd.	2021-10-13 14:10	-	-	12	<1	<1	2	0.13
GRAB	RMD-259	10020 Amethyst Ave.	2021-10-13 14:40	-	-	12	<1	<1	2	0.14
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-10-13 15:15	-	-	12	<1	<1	<2	0.14
GRAB	RMD-216	11080 No. 2 Rd.	2021-10-15 08:00	-	-	12	<1	<1	<2	0.13
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-10-15 08:40	-	-	12	<1	<1	4	0.16
GRAB	RMD-208	13200 No. 4 Rd.	2021-10-15 09:00	-	-	12	<1	<1	2	0.15
GRAB	RMD-205	13851 Steveston Hwy.	2021-10-15 09:20	-	-	12	<1	<1	2	0.19
GRAB	RMD-267	17240 Fedoruk	2021-10-15 10:20	-	-	12	<1	<1	<2	0.14
GRAB	RMD-276	22271 Cochrane Drive	2021-10-15 11:00	-	-	12	<1	<1	<2	0.2
GRAB	RMD-275	5180 Smith Cres.	2021-10-15 11:15	-	-	12	<1	<1	<2	0.16
GRAB	RMD-252	9751 Pendleton Rd.	2021-10-18 13:00	-	-	12	<1	<1	2	0.11
GRAB	RMD-253	11051 No 3 Rd.	2021-10-18 13:35	-	-	12	<1	<1	<2	0.1
GRAB	RMD-270	8200 Jones Rd.	2021-10-18 14:15	-	-	12	<1	<1	10	0.13
GRAB	RMD-254	5300 No. 3 Rd.	2021-10-18 14:30	-	-	12	<1	<1	6	0.11
GRAB	RMD-259	10020 Amethyst Ave.	2021-10-20 14:40	-	-	12	<1	<1	2	0.13
GRAB	RMD-280	11500 McKenzie Rd.	2021-10-21 08:15	-	-	12	<1	<1	<2	0.18
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-10-21 10:30	-	-	12	<1	<1	2	0.17
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-10-27 12:45	-	-	12	<1	<1	2	0.15
GRAB	RMD-274	10920 Springwood Court	2021-05-17 13:15	-	-	13	<1	<1	<2	0.18
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-05-28 10:15	-	-	13	<1	<1	<2	0.1
GRAB	RMD-254	5300 No. 3 Rd.	2021-06-07 14:30	-	-	13	<1	<1	<2	0.18
GRAB	RMD-204	3180 Granville Ave.	2021-06-11 07:30	-	-	13	<1	<1	<2	0.11
GRAB	RMD-206	4251 Moncton St.	2021-06-11 07:45	-	-	13	<1	<1	2	0.11
GRAB	RMD-253	11051 No 3 Rd.	2021-06-14 13:30	-	-	13	<1	<1	<2	0.16
GRAB	RMD-270	8200 Jones Rd.	2021-06-14 14:15	-	-	13	<1	<1	2	0.19
GRAB	RMD-275	5180 Smith Cres.	2021-06-17 10:45	-	-	13	<1	<1	2	0.19
GRAB	RMD-270	8200 Jones Rd.	2021-06-21 14:20	-	-	13	<1	<1	<2	0.11
GRAB	RMD-254	5300 No. 3 Rd.	2021-06-21 14:35	-	-	13	<1	<1	<2	0.12
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-06-21 14:55	-	-	13	<1	<1	<2	0.13
GRAB	RMD-252	9751 Pendleton Rd.	2021-06-28 13:00	-	-	13	<1	<1	<2	0.23
GRAB	RMD-254	5300 No. 3 Rd.	2021-06-28 14:30	-	-	13	<1	<1	<2	0.27
GRAB	RMD-271	3800 Cessna Drive	2021-06-28 15:15	-	-	13	<1	<1	<2	0.29
GRAB	RMD-272	751 Catalina Cres.	2021-06-28 15:30	-	-	13	<1	<1	<2	0.31
GRAB	RMD-204	3180 Granville Ave.	2021-06-30 07:30	-	-	13	<1	<1	<2	0.3
GRAB	RMD-274	10920 Springwood Court	2021-07-05 13:15	-	-	13	<1	<1	<2	0.21
GRAB	RMD-253	11051 No 3 Rd.	2021-07-05 13:30	-	-	13	<1	<1	<2	0.22
GRAB	RMD-270	8200 Jones Rd.	2021-07-05 14:10	-	-	13	<1	<1	8	0.16
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-07-05 14:55	-	-	13	<1	<1	<2	0.26
GRAB	RMD-271	3800 Cessna Drive	2021-07-05 15:10	-	-	13	<1	<1	<2	0.11
GRAB	RMD-272	751 Catalina Cres.	2021-07-05 15:25	-	-	13	<1	<1	6	0.14
GRAB	RMD-250	6071 Azure Rd.	2021-07-05 15:45	-	-	13	<1	<1	<2	0.14
GRAB	RMD-263	12560 Cambie Rd.	2021-07-07 12:30	-	-	13	<1	<1	<2	0.14
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-07-07 13:00	-	-	13	<1	<1	<2	0.17
GRAB	RMD-262	13799 Commerce Pkwy.	2021-07-07 13:15	-	-	13	<1	<1	<2	0.15
GRAB	RMD-261	9911 Sidaway Rd.	2021-07-07 14:10	-	-	13	<1	<1	<2	0.13
GRAB	RMD-259	10020 Amethyst Ave.	2021-07-07 14:40	-	-	13	<1	<1	<2	0.11
GRAB	RMD-266	9380 General Currie Rd.	2021-07-07 14:55	-	-	13	<1	<1	<2	0.13
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-07-07 15:30	-	-	13	<1	<1	<2	0.12
GRAB	RMD-257	6640 Blundell Rd.	2021-07-07 15:45	-	-	13	<1	<1	2	0.14
GRAB	RMD-204	3180 Granville Ave.	2021-07-09 07:30	-	-	13	<1	<1	<2	0.17
GRAB	RMD-216	11080 No. 2 Rd.	2021-07-09 08:00	-	-	13	<1	<1	<2	0.17
GRAB	RMD-208	13200 No. 4 Rd.	2021-07-09 08:50	-	-	13	<1	<1	<2	0.25
GRAB	RMD-205	13851 Steveston Hwy.	2021-07-09 09:15	-	-	13	<1	<1	<2	0.19
GRAB	RMD-202	1500 Valemont Way	2021-07-09 09:30	-	-	13	<1	<1	<2	0.19
GRAB	RMD-267	17240 Fedoruk	2021-07-09 10:05	-	-	13	<1	<1	<2	0.14
GRAB	RMD-251	5951McCallan Rd.	2021-07-12 12:30	-	-	13	<1	<1	<2	0.13
GRAB	RMD-272	751 Catalina Cres.	2021-07-12 15:30	-	-	13	<1	<1	22	0.17
GRAB	RMD-263	12560 Cambie Rd.	2021-07-13 12:30	-	-	13	<1	<1	<2	0.15
GRAB	RMD-262	13799 Commerce Pkwy.	2021-07-13 13:20	-	-	13	<1	<1	<2	0.15

Sample Type	Sample Name	Description	Sample Date	Total Coliform (MPN/100mL)	E. coli (MPN/100mL)	Temperature (°C)	Total Coliform (CFU/100mL)	E. coli (CFU/100mL)	HPC (CFU/mL)	Turbidity (NTU)
GRAB	RMD-260	11111 Horseshoe Way	2021-07-13 14:25	-	-	13	<1	<1	<2	0.17
GRAB	RMD-259	10020 Amethyst Ave.	2021-07-13 14:40	-	-	13	<1	<1	<2	0.15
GRAB	RMD-266	9380 General Currie Rd.	2021-07-13 15:00	-	-	13	<1	<1	<2	0.18
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-07-13 15:20	-	-	13	<1	<1	2	0.16
GRAB	RMD-205	13851 Steveston Hwy.	2021-07-14 14:25	-	-	13	<1	<1	2	0.17
GRAB	RMD-208	13200 No. 4 Rd.	2021-07-14 14:40	-	-	13	<1	<1	2	0.25
GRAB	RMD-216	11080 No. 2 Rd.	2021-07-14 15:30	-	-	13	<1	<1	<2	0.19
GRAB	RMD-204	3180 Granville Ave.	2021-07-14 16:00	-	-	13	<1	<1	<2	0.13
GRAB	RMD-253	11051 No 3 Rd.	2021-07-19 13:30	-	-	13	<1	<1	<2	0.13
GRAB	RMD-272	751 Catalina Cres.	2021-07-19 15:25	-	-	13	<1	<1	22	0.14
GRAB	RMD-263	12560 Cambie Rd.	2021-07-21 12:30	-	-	13	<1	<1	<2	0.11
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-07-21 13:50	-	-	13	<1	<1	<2	0.18
GRAB	RMD-266	9380 General Currie Rd.	2021-07-21 14:55	-	-	13	<1	<1	<2	0.12
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-07-21 15:15	-	-	13	<1	<1	<2	0.22
GRAB	RMD-206	4251 Moncton St.	2021-07-23 07:45	-	-	13	<1	<1	<2	0.17
GRAB	RMD-216	11080 No. 2 Rd.	2021-07-23 08:00	-	-	13	<1	<1	<2	0.17
GRAB	RMD-208	13200 No. 4 Rd.	2021-07-23 08:50	-	-	13	<1	<1	<2	0.17
GRAB	RMD-205	13851 Steveston Hwy.	2021-07-23 09:15	-	-	13	<1	<1	2	0.15
GRAB	RMD-203	23260 Westminster Hwy.	2021-07-23 11:10	-	-	13	<1	<1	<2	0.14
GRAB	RMD-251	5951 McCallan Rd.	2021-07-26 12:30	-	-	13	<1	<1	<2	0.14
GRAB	RMD-271	3800 Cessna Drive	2021-07-26 15:15	-	-	13	<1	<1	<2	0.14
GRAB	RMD-260	11111 Horseshoe Way	2021-07-28 14:25	-	-	13	<1	<1	<2	0.19
GRAB	RMD-259	10020 Amethyst Ave.	2021-07-28 14:40	-	-	13	<1	<1	<2	0.2
GRAB	RMD-257	6640 Blundell Rd.	2021-07-28 15:50	-	-	13	<1	<1	<2	0.18
GRAB	RMD-214	11720 Westminster Hwy.	2021-07-29 09:45	-	-	13	<1	<1	<2	0.2
GRAB	RMD-214	11720 Westminster Hwy.	2021-10-01 09:50	-	-	13	<1	<1	<2	0.14
GRAB	RMD-276	22271 Cochrane Drive	2021-10-01 10:40	-	-	13	<1	<1	4	0.13
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-10-04 14:45	-	-	13	<1	<1	2	0.17
GRAB	RMD-272	751 Catalina Cres.	2021-10-04 15:30	-	-	13	<1	<1	8	0.22
GRAB	RMD-263	12560 Cambie Rd.	2021-10-06 12:30	-	-	13	<1	<1	2	0.26
GRAB	RMD-264	13100 Mitchell Rd.	2021-10-06 12:45	-	-	13	<1	<1	<2	0.21
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-10-06 13:00	-	-	13	<1	<1	30	0.17
GRAB	RMD-262	13799 Commerce Pkwy.	2021-10-06 13:15	-	-	13	<1	<1	2	0.17
GRAB	RMD-278	6651 Fraserwood Place	2021-10-06 13:35	-	-	13	<1	<1	<2	0.19
GRAB	RMD-259	10020 Amethyst Ave.	2021-10-06 14:40	-	-	13	<1	<1	6	0.24
GRAB	RMD-266	9380 General Currie Rd.	2021-10-06 14:55	-	-	13	<1	<1	<2	0.28
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-10-06 15:15	-	-	13	<1	<1	<2	0.24
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-10-06 15:30	-	-	13	<1	<1	<2	0.18
GRAB	RMD-257	6640 Blundell Rd.	2021-10-06 15:45	-	-	13	<1	<1	<2	0.34
GRAB	RMD-204	3180 Granville Ave.	2021-10-07 07:30	-	-	13	<1	<1	<2	0.15
GRAB	RMD-206	4251 Moncton St.	2021-10-07 07:45	-	-	13	<1	<1	4	0.18
GRAB	RMD-208	13200 No. 4 Rd.	2021-10-07 08:45	-	-	13	<1	<1	<2	0.15
GRAB	RMD-267	17240 Fedoruk	2021-10-07 10:00	-	-	13	<1	<1	<2	0.19
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-10-07 10:15	-	-	13	<1	<1	2	0.16
GRAB	RMD-276	22271 Cochrane Drive	2021-10-07 10:30	-	-	13	<1	<1	<2	0.46
GRAB	RMD-275	5180 Smith Cres.	2021-10-07 10:45	-	-	13	<1	<1	<2	0.43
GRAB	RMD-252	9751 Pendleton Rd.	2021-10-12 13:00	-	-	13	<1	<1	<2	0.13
GRAB	RMD-253	11051 No 3 Rd.	2021-10-12 13:30	-	-	13	<1	<1	<2	0.2
GRAB	RMD-270	8200 Jones Rd.	2021-10-12 14:15	-	-	13	<1	<1	20	0.13
GRAB	RMD-254	5300 No. 3 Rd.	2021-10-12 14:30	-	-	13	<1	<1	26	0.15
GRAB	RMD-250	6071 Azure Rd.	2021-10-12 15:45	-	-	13	<1	<1	<2	0.13
GRAB	RMD-263	12560 Cambie Rd.	2021-10-13 12:30	-	-	13	<1	<1	<2	0.14
GRAB	RMD-266	9380 General Currie Rd.	2021-10-13 14:55	-	-	13	<1	<1	<2	0.13
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-10-13 15:30	-	-	13	<1	<1	<2	0.12
GRAB	RMD-204	3180 Granville Ave.	2021-10-15 07:30	-	-	13	<1	<1	2	0.12
GRAB	RMD-280	11500 McKenzie Rd.	2021-10-15 08:20	-	-	13	<1	<1	<2	0.2
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-10-18 12:45	-	-	13	<1	<1	<2	0.11
GRAB	RMD-271	3800 Cessna Drive	2021-10-18 15:25	-	-	13	<1	<1	2	0.11
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-10-20 13:00	-	-	13	<1	<1	<2	0.13
GRAB	RMD-274	10920 Springwood Court	2021-10-25 13:15	-	-	13	<1	<1	6	0.12
GRAB	RMD-271	3800 Cessna Drive	2021-10-25 15:15	-	-	13	<1	<1	<2	0.13
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-05-17 12:45	-	-	14	<1	<1	<2	0.16
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-05-25 12:45	-	-	14	<1	<1	1A	0.11
GRAB	RMD-274	10920 Springwood Court	2021-05-25 13:15	-	-	14	<1	<1	<2	0.12
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-05-31 12:45	-	-	14	<1	<1	<2	0.23
GRAB	RMD-274	10920 Springwood Court	2021-06-07 13:15	-	-	14	<1	<1	<2	0.12
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-06-25 10:20	-	-	14	<1	<1	<2	0.15
GRAB	RMD-278	6651 Fraserwood Place	2021-06-25 11:00	-	-	14	<1	<1	<2	0.16
GRAB	RMD-270	8200 Jones Rd.	2021-06-28 14:15	-	-	14	<1	<1	<2	0.34
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-06-28 14:45	-	-	14	<1	<1	<2	0.25
GRAB	RMD-250	6071 Azure Rd.	2021-06-28 15:45	-	-	14	<1	<1	<2	0.43
GRAB	RMD-278	6651 Fraserwood Place	2021-06-29 13:30	-	-	14	<1	<1	<2	0.38
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-06-30 10:15	-	-	14	<1	<1	12	0.16
GRAB	RMD-252	9751 Pendleton Rd.	2021-07-05 13:00	-	-	14	<1	<1	<2	0.14
GRAB	RMD-269	14951 Triangle Rd.	2021-07-05 13:50	-	-	14	<1	<1	10	0.15
GRAB	RMD-254	5300 No. 3 Rd.	2021-07-05 14:25	-	-	14	<1	<1	<2	0.18
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-07-05 14:40	-	-	14	<1	<1	<2	0.14
GRAB	RMD-264	13100 Mitchell Rd.	2021-07-07 12:45	-	-	14	<1	<1	<2	0.13
GRAB	RMD-278	6651 Fraserwood Place	2021-07-07 13:35	-	-	14	<1	<1	<2	0.14
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-07-07 15:15	-	-	14	<1	<1	<2	0.13
GRAB	RMD-280	11500 McKenzie Rd.	2021-07-09 08:15	-	-	14	<1	<1	<2	0.16
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-07-09 08:30	-	-	14	<1	<1	<2	0.13
GRAB	RMD-276	22271 Cochrane Drive	2021-07-09 10:35	-	-	14	<1	<1	<2	0.15
GRAB	RMD-252	9751 Pendleton Rd.	2021-07-12 13:00	-	-	14	<1	<1	<2	0.16
GRAB	RMD-269	14951 Triangle Rd.	2021-07-12 13:50	-	-	14	<1	<1	<2	0.17
GRAB	RMD-254	5300 No. 3 Rd.	2021-07-12 14:25	-	-	14	<1	<1	<2	0.13
GRAB	RMD-264	13100 Mitchell Rd.	2021-07-13 13:00	-	-	14	<1	<1	<2	0.21
GRAB	RMD-261	9911 Sidaway Rd.	2021-07-13 14:10	-	-	14	<1	<1	<2	0.11
GRAB	RMD-276	22271 Cochrane Drive	2021-07-14 13:20	-	-	14	<1	<1	<2	0.13
GRAB	RMD-202	1500 Valemont Way	2021-07-14 14:10	-	-	14	<1	<1	<2	0.12
GRAB	RMD-252	9751 Pendleton Rd.	2021-07-19 13:00	-	-	14	<1	<1	<2	0.09
GRAB	RMD-269	14951 Triangle Rd.	2021-07-19 13:50	-	-	14	<1	<1	<2	0.11
GRAB	RMD-250	6071 Azure Rd.	2021-07-19 15:45	-	-	14	<1	<1	2	0.11
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-07-21 12:45	-	-	14	<1	<1	<2	0.17
GRAB	RMD-264	13100 Mitchell Rd.	2021-07-21 13:00	-	-	14	<1	<1	<2	0.13
GRAB	RMD-262	13799 Commerce Pkwy.	2021-07-21 13:15	-	-	14	<1	<1	<2	0.16
GRAB	RMD-278	6651 Fraserwood Place	2021-07-21 13:30	-	-	14	<1	<1	<2	0.13
GRAB	RMD-261	9911 Sidaway Rd.	2021-07-21 14:10	-	-	14	<1	<1	<2	0.15
GRAB	RMD-259	10020 Amethyst Ave.	2021-07-21 14:40	-	-	14	<1	<1	6	0.1
GRAB	RMD-280	11500 McKenzie Rd.	2021-07-23 08:15	-	-	14	<1	<1	<2	0.12

Sample Type	Sample Name	Description	Sampled Date	Total Coliform (MPN/100mL)	E. coli (MPN/100mL)	Temperature (°C)	Total Coliform (CFU/100mL)	E. coli (CFU/100mL)	HPC (CFU/mL)	Turbidity (NTU)
GRAB	RMD-276	22271 Cochrane Drive	2021-07-23 10:40	-	-	14	<1	<1	<2	0.17
GRAB	RMD-253	11051 No 3 Rd.	2021-07-26 13:35	-	-	14	<1	<1	2	0.46
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-07-26 15:00	-	-	14	<1	<1	<2	0.35
GRAB	RMD-272	751 Catalina Cres.	2021-07-26 15:30	-	-	14	<1	<1	6	0.25
GRAB	RMD-250	6071 Azure Rd.	2021-07-26 15:45	-	-	14	<1	<1	<2	0.19
GRAB	RMD-263	12560 Cambie Rd.	2021-07-28 12:30	-	-	14	<1	<1	<2	0.22
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-07-28 12:45	-	-	14	<1	<1	<2	0.3
GRAB	RMD-264	13100 Mitchell Rd.	2021-07-28 13:00	-	-	14	<1	<1	<2	0.39
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-07-28 13:50	-	-	14	<1	<1	<2	0.17
GRAB	RMD-261	9911 Sidaway Rd.	2021-07-28 14:10	-	-	14	<1	<1	2	0.15
GRAB	RMD-266	9380 General Currie Rd.	2021-07-28 15:00	-	-	14	<1	<1	<2	0.25
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-07-28 15:20	-	-	14	<1	<1	<2	0.19
GRAB	RMD-206	4251 Moncton St.	2021-07-29 07:45	-	-	14	<1	<1	<2	0.46
GRAB	RMD-216	11080 No. 2 Rd.	2021-07-29 08:00	-	-	14	<1	<1	<2	0.19
GRAB	RMD-208	13200 No. 4 Rd.	2021-07-29 08:45	-	-	14	<1	<1	4	0.2
GRAB	RMD-203	23260 Westminster Hwy.	2021-07-29 11:00	-	-	14	<1	<1	2	0.19
GRAB	RMD-251	5951 McCallan Rd.	2021-08-03 12:30	-	-	14	<1	<1	<2	0.13
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-08-03 14:55	-	-	14	<1	<1	<2	0.24
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-08-04 13:55	-	-	14	<1	<1	<2	0.19
GRAB	RMD-260	11111 Horseshoe Way	2021-08-04 14:30	-	-	14	<1	<1	<2	0.15
GRAB	RMD-257	6640 Blundell Rd.	2021-08-04 15:45	-	-	14	<1	<1	<2	0.14
GRAB	RMD-214	11720 Westminster Hwy.	2021-08-06 10:10	-	-	14	<1	<1	<2	0.16
GRAB	RMD-264	13100 Mitchell Rd.	2021-09-22 08:00	-	-	14	<1	<1	10	0.29
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-09-22 08:50	-	-	14	<1	<1	<2	0.26
GRAB	RMD-261	9911 Sidaway Rd.	2021-09-22 09:10	-	-	14	<1	<1	4	0.12
GRAB	RMD-259	10020 Amethyst Ave.	2021-09-22 09:40	-	-	14	<1	<1	<2	0.31
GRAB	RMD-266	9380 General Currie Rd.	2021-09-22 10:05	-	-	14	<1	<1	<2	0.35
GRAB	RMD-257	6640 Blundell Rd.	2021-09-22 10:35	-	-	14	<1	<1	<2	0.15
GRAB	RMD-205	13851 Steveston Hwy.	2021-09-23 09:00	-	-	14	<1	<1	<2	0.15
GRAB	RMD-214	11720 Westminster Hwy.	2021-09-23 09:35	-	-	14	<1	<1	<2	0.15
GRAB	RMD-203	23260 Westminster Hwy.	2021-09-23 11:00	-	-	14	<1	<1	<2	0.13
GRAB	RMD-251	5951 McCallan Rd.	2021-09-27 12:30	-	-	14	<1	<1	<2	0.11
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-09-27 14:45	-	-	14	<1	<1	<2	0.13
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-09-27 15:00	-	-	14	<1	<1	6	0.19
GRAB	RMD-250	6071 Azure Rd.	2021-09-27 15:45	-	-	14	<1	<1	4	0.12
GRAB	RMD-257	6640 Blundell Rd.	2021-09-29 07:30	-	-	14	<1	<1	<2	0.16
GRAB	RMD-260	11111 Horseshoe Way	2021-09-29 08:15	-	-	14	<1	<1	<2	0.13
GRAB	RMD-264	13100 Mitchell Rd.	2021-09-29 09:40	-	-	14	<1	<1	20	0.14
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-09-29 10:45	-	-	14	<1	<1	<2	0.23
GRAB	RMD-206	4251 Moncton St.	2021-10-01 07:45	-	-	14	<1	<1	<2	0.16
GRAB	RMD-208	13200 No. 4 Rd.	2021-10-01 08:50	-	-	14	<1	<1	<2	0.12
GRAB	RMD-205	13851 Steveston Hwy.	2021-10-01 09:15	-	-	14	<1	<1	<2	0.12
GRAB	RMD-202	1500 Valemont Way	2021-10-01 09:30	-	-	14	<1	<1	<2	0.11
GRAB	RMD-275	5180 Smith Cres.	2021-10-01 10:55	-	-	14	<1	<1	6	0.18
GRAB	RMD-203	23260 Westminster Hwy.	2021-10-01 11:10	-	-	14	<1	<1	<2	0.14
GRAB	RMD-252	9751 Pendleton Rd.	2021-10-04 13:00	-	-	14	<1	<1	4	0.12
GRAB	RMD-253	11051 No 3 Rd.	2021-10-04 13:30	-	-	14	<1	<1	4	0.13
GRAB	RMD-269	14951 Triangle Rd.	2021-10-04 13:50	-	-	14	<1	<1	2	0.15
GRAB	RMD-270	8200 Jones Rd.	2021-10-04 14:15	-	-	14	<1	<1	10	0.26
GRAB	RMD-280	11500 McKenzie Rd.	2021-10-07 08:15	-	-	14	<1	<1	<2	0.15
GRAB	RMD-278	6651 Fraserwood Place	2021-10-13 13:35	-	-	14	<1	<1	<2	0.17
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-10-15 10:40	-	-	14	<1	<1	26	0.16
GRAB	RMD-274	10920 Springwood Court	2021-10-18 13:15	-	-	14	<1	<1	2	0.12
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-10-25 12:45	-	-	14	<1	<1	6	0.64
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-06-07 12:45	-	-	15	<1	<1	<2	0.11
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-06-14 12:45	-	-	15	<1	<1	<2	0.13
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-06-21 12:45	-	-	15	<1	<1	<2	0.32
GRAB	RMD-274	10920 Springwood Court	2021-06-21 13:15	-	-	15	<1	<1	<2	0.23
GRAB	RMD-274	10920 Springwood Court	2021-06-28 13:15	-	-	15	<1	<1	<2	0.39
GRAB	RMD-275	5180 Smith Cres.	2021-07-09 10:50	-	-	15	<1	<1	14	0.13
GRAB	RMD-270	8200 Jones Rd.	2021-07-12 14:10	-	-	15	<1	<1	<2	0.16
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-07-12 14:45	-	-	15	<1	<1	2	0.13
GRAB	RMD-271	3800 Cessna Drive	2021-07-12 15:15	-	-	15	<1	<1	<2	0.11
GRAB	RMD-250	6071 Azure Rd.	2021-07-12 15:45	-	-	15	<1	<1	<2	0.15
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-07-13 12:45	-	-	15	<1	<1	<2	0.2
GRAB	RMD-278	6651 Fraserwood Place	2021-07-13 13:35	-	-	15	<1	<1	<2	0.16
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-07-13 15:35	-	-	15	<1	<1	<2	0.22
GRAB	RMD-267	17240 Fedoruk	2021-07-14 12:45	-	-	15	<1	<1	<2	0.17
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-07-14 15:00	-	-	15	<1	<1	<2	0.17
GRAB	RMD-270	8200 Jones Rd.	2021-07-19 14:10	-	-	15	<1	<1	<2	0.13
GRAB	RMD-254	5300 No. 3 Rd.	2021-07-19 14:25	-	-	15	<1	<1	<2	0.11
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-07-19 14:40	-	-	15	<1	<1	<2	0.09
GRAB	RMD-271	3800 Cessna Drive	2021-07-19 15:10	-	-	15	<1	<1	<2	0.12
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-07-21 15:30	-	-	15	<1	<1	<2	0.13
GRAB	RMD-204	3180 Granville Ave.	2021-07-23 07:30	-	-	15	<1	<1	<2	0.24
GRAB	RMD-202	1500 Valemont Way	2021-07-23 09:35	-	-	15	<1	<1	<2	0.14
GRAB	RMD-267	17240 Fedoruk	2021-07-23 10:10	-	-	15	<1	<1	<2	0.11
GRAB	RMD-275	5180 Smith Cres.	2021-07-23 10:55	-	-	15	<1	<1	<2	0.17
GRAB	RMD-252	9751 Pendleton Rd.	2021-07-26 13:00	-	-	15	<1	<1	<2	0.15
GRAB	RMD-269	14951 Triangle Rd.	2021-07-26 13:50	-	-	15	<1	<1	<2	0.13
GRAB	RMD-270	8200 Jones Rd.	2021-07-26 14:10	-	-	15	<1	<1	<2	0.15
GRAB	RMD-262	13799 Commerce Pkwy.	2021-07-28 13:20	-	-	15	<1	<1	<2	0.2
GRAB	RMD-278	6651 Fraserwood Place	2021-07-28 13:35	-	-	15	<1	<1	<2	0.2
GRAB	RMD-204	3180 Granville Ave.	2021-07-29 07:30	-	-	15	<1	<1	<2	0.28
GRAB	RMD-205	13851 Steveston Hwy.	2021-07-29 09:00	-	-	15	<1	<1	<2	0.14
GRAB	RMD-202	1500 Valemont Way	2021-07-29 09:25	-	-	15	<1	<1	<2	0.14
GRAB	RMD-267	17240 Fedoruk	2021-07-29 10:00	-	-	15	<1	<1	<2	0.12
GRAB	RMD-253	11051 No 3 Rd.	2021-08-03 13:30	-	-	15	<1	<1	2	0.13
GRAB	RMD-271	3800 Cessna Drive	2021-08-03 15:10	-	-	15	<1	<1	<2	0.13
GRAB	RMD-272	751 Catalina Cres.	2021-08-03 15:25	-	-	15	<1	<1	<2	0.13
GRAB	RMD-250	6071 Azure Rd.	2021-08-03 15:45	-	-	15	<1	<1	2	0.13
GRAB	RMD-263	12560 Cambie Rd.	2021-08-04 12:30	-	-	15	<1	<1	<2	0.19
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-08-04 12:45	-	-	15	<1	<1	8	0.19
GRAB	RMD-262	13799 Commerce Pkwy.	2021-08-04 13:20	-	-	15	<1	<1	<2	0.18
GRAB	RMD-261	9911 Sidaway Rd.	2021-08-04 14:15	-	-	15	<1	<1	<2	0.15
GRAB	RMD-259	10020 Amethyst Ave.	2021-08-04 14:45	-	-	15	<1	<1	2	0.12
GRAB	RMD-266	9380 General Currie Rd.	2021-08-04 15:00	-	-	15	<1	<1	<2	0.16
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-08-04 15:15	-	-	15	<1	<1	<2	0.31
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-08-04 15:30	-	-	15	<1	<1	<2	0.25
GRAB	RMD-272-1	751 Catalina Cres.	2021-08-05 11:45	-	-	15	<1	<1	<2	0.17

Sample Type	Sample Name	Description	Sampled Date	Total Coliform (MPN/100mL)	E. coli (MPN/100mL)	Temperature (°C)	Total Coliform (CFU/100mL)	E. coli (CFU/100mL)	HPC (CFU/mL)	Turbidity (NTU)
GRAB	RMD-272-2	751 Catalina Cres.	2021-08-05 13:45	-	-	15	<1	<1	<2	0.19
GRAB	RMD-206	4251 Moncton St.	2021-08-06 08:15	-	-	15	<1	<1	<2	0.19
GRAB	RMD-216	11080 No. 2 Rd.	2021-08-06 08:30	-	-	15	<1	<1	2	0.12
GRAB	RMD-208	13200 No. 4 Rd.	2021-08-06 09:15	-	-	15	<1	<1	<2	0.17
GRAB	RMD-205	13851 Steveston Hwy.	2021-08-06 09:30	-	-	15	<1	<1	<2	0.16
GRAB	RMD-251	5951 McCallan Rd.	2021-08-09 12:30	-	-	15	<1	<1	<2	0.14
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-08-09 15:00	-	-	15	<1	<1	2	0.36
GRAB	RMD-272	751 Catalina Cres.	2021-08-09 15:30	-	-	15	<1	<1	4	0.19
GRAB	RMD-260	11111 Horseshoe Way	2021-08-11 14:25	-	-	15	<1	<1	<2	0.27
GRAB	RMD-257	6640 Blundell Rd.	2021-08-11 15:45	-	-	15	<1	<1	<2	0.23
GRAB	RMD-251	5951 McCallan Rd.	2021-09-20 07:30	-	-	15	<1	<1	<2	0.12
GRAB	RMD-252	9751 Pendleton Rd.	2021-09-20 08:00	-	-	15	<1	<1	<2	0.15
GRAB	RMD-253	11051 No 3 Rd.	2021-09-20 08:30	-	-	15	<1	<1	6	0.14
GRAB	RMD-269	14951 Triangle Rd.	2021-09-20 08:30	-	-	15	<1	<1	<2	0.25
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-09-20 09:20	-	-	15	<1	<1	14	0.16
GRAB	RMD-272	751 Catalina Cres.	2021-09-20 09:50	-	-	15	<1	<1	2	0.18
GRAB	RMD-271	3800 Cessna Drive	2021-09-20 10:05	-	-	15	<1	<1	14	0.18
GRAB	RMD-263	12560 Cambie Rd.	2021-09-22 07:30	-	-	15	<1	<1	<2	0.17
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-09-22 07:45	-	-	15	<1	<1	16	0.12
GRAB	RMD-262	13799 Commerce Pkwy.	2021-09-22 08:20	-	-	15	<1	<1	<2	0.11
GRAB	RMD-278	6651 Fraserwood Place	2021-09-22 08:35	-	-	15	<1	<1	<2	0.1
GRAB	RMD-260	11111 Horseshoe Way	2021-09-22 09:25	-	-	15	<1	<1	<2	0.12
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-09-22 09:55	-	-	15	<1	<1	<2	0.13
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-09-22 10:20	-	-	15	<1	<1	<2	0.12
GRAB	RMD-204	3180 Granville Ave.	2021-09-23 07:30	-	-	15	<1	<1	<2	0.12
GRAB	RMD-206	4251 Moncton St.	2021-09-23 07:45	-	-	15	<1	<1	<2	0.13
GRAB	RMD-216	11080 No. 2 Rd.	2021-09-23 08:00	-	-	15	<1	<1	2	0.15
GRAB	RMD-208	13200 No. 4 Rd.	2021-09-23 08:45	-	-	15	<1	<1	<2	0.15
GRAB	RMD-267	17240 Fedoruk	2021-09-23 09:50	-	-	15	<1	<1	<2	0.13
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-09-23 10:10	-	-	15	<1	<1	6	0.22
GRAB	RMD-276	22271 Cochrane Drive	2021-09-23 10:25	-	-	15	<1	<1	<2	0.16
GRAB	RMD-252	9751 Pendleton Rd.	2021-09-27 13:00	-	-	15	<1	<1	24	0.13
GRAB	RMD-253	11051 No 3 Rd.	2021-09-27 13:30	-	-	15	<1	<1	18	0.11
GRAB	RMD-269	14951 Triangle Rd.	2021-09-27 13:50	-	-	15	<1	<1	<2	0.14
GRAB	RMD-270	8200 Jones Rd.	2021-09-27 14:15	-	-	15	<1	<1	<2	0.13
GRAB	RMD-254	5300 No. 3 Rd.	2021-09-27 14:30	-	-	15	<1	<1	4	0.1
GRAB	RMD-271	3800 Cessna Drive	2021-09-27 15:15	-	-	15	<1	<1	6	0.13
GRAB	RMD-272	751 Catalina Cres.	2021-09-27 15:30	-	-	15	<1	<1	36	0.18
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-09-29 07:45	-	-	15	<1	<1	<2	0.11
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-09-29 08:00	-	-	15	<1	<1	<2	0.11
GRAB	RMD-261	9911 Sidaway Rd.	2021-09-29 08:30	-	-	15	<1	<1	<2	0.11
GRAB	RMD-259	10020 Amethyst Ave.	2021-09-29 08:50	-	-	15	<1	<1	<2	0.14
GRAB	RMD-266	9380 General Currie Rd.	2021-09-29 09:05	-	-	15	<1	<1	<2	0.13
GRAB	RMD-263	12560 Cambie Rd.	2021-09-29 09:25	-	-	15	<1	<1	<2	0.12
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-09-29 10:00	-	-	15	<1	<1	12	0.22
GRAB	RMD-262	13799 Commerce Pkwy.	2021-09-29 10:15	-	-	15	<1	<1	<2	0.14
GRAB	RMD-278	6651 Fraserwood Place	2021-09-29 10:30	-	-	15	<1	<1	88	0.24
GRAB	RMD-216	11080 No. 2 Rd.	2021-10-01 08:00	-	-	15	<1	<1	<2	0.12
GRAB	RMD-280	11500 McKenzie Rd.	2021-10-01 08:15	-	-	15	<1	<1	<2	0.12
GRAB	RMD-267	17240 Fedoruk	2021-10-01 10:10	-	-	15	<1	<1	2	0.12
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-10-01 10:25	-	-	15	<1	<1	18	0.21
GRAB	RMD-254	5300 No. 3 Rd.	2021-10-04 14:30	-	-	15	<1	<1	6	0.11
GRAB	RMD-271	3800 Cessna Drive	2021-10-04 15:15	-	-	15	<1	<1	6	0.17
GRAB	RMD-250	6071 Azure Rd.	2021-10-04 15:45	-	-	15	<1	<1	4	0.12
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-10-07 08:30	-	-	15	<1	<1	4	0.15
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-10-12 12:45	-	-	15	<1	<1	2	0.12
GRAB	RMD-274	10920 Springwood Court	2021-10-12 13:15	-	-	15	<1	<1	4	0.16
GRAB	RMD-271	3800 Cessna Drive	2021-10-12 15:15	-	-	15	<1	<1	6	0.16
GRAB	RMD-254	5300 No. 3 Rd.	2021-10-25 14:30	-	-	15	<1	<1	<2	0.19
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-07-09 10:20	-	-	16	<1	<1	<2	0.34
GRAB	RMD-275	5180 Smith Cres.	2021-07-14 13:35	-	-	16	<1	<1	2	0.23
GRAB	RMD-280	11500 McKenzie Rd.	2021-07-14 15:15	-	-	16	<1	<1	<2	0.19
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-07-23 08:35	-	-	16	<1	<1	<2	0.17
GRAB	RMD-254	5300 No. 3 Rd.	2021-07-26 14:25	-	-	16	<1	<1	2	0.26
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-07-26 14:45	-	-	16	<1	<1	<2	0.12
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-07-28 15:35	-	-	16	<1	<1	<2	0.13
GRAB	RMD-280	11500 McKenzie Rd.	2021-07-29 08:15	-	-	16	<1	<1	<2	0.21
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-07-29 08:30	-	-	16	<1	<1	<2	0.28
GRAB	RMD-275	5180 Smith Cres.	2021-07-29 10:30	-	-	16	<1	<1	12	0.18
GRAB	RMD-252	9751 Pendleton Rd.	2021-08-03 13:00	-	-	16	<1	<1	<2	0.12
GRAB	RMD-269	14951 Triangle Rd.	2021-08-03 13:50	-	-	16	<1	<1	<2	0.1
GRAB	RMD-270	8200 Jones Rd.	2021-08-03 14:10	-	-	16	<1	<1	2	0.13
GRAB	RMD-278	6651 Fraserwood Place	2021-08-04 13:35	-	-	16	<1	<1	2	0.19
GRAB	RMD-204	3180 Granville Ave.	2021-08-06 08:00	-	-	16	<1	<1	<2	0.16
GRAB	RMD-280	11500 McKenzie Rd.	2021-08-06 08:45	-	-	16	<1	<1	<2	0.17
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-08-06 09:00	-	-	16	<1	<1	<2	0.19
GRAB	RMD-202	1500 Valemont Way	2021-08-06 09:50	-	-	16	<1	<1	<2	0.16
GRAB	RMD-275	5180 Smith Cres.	2021-08-06 10:55	-	-	16	<1	<1	8	0.18
GRAB	RMD-276	22271 Cochrane Drive	2021-08-06 11:10	-	-	16	<1	<1	<2	0.13
GRAB	RMD-203	23260 Westminster Hwy.	2021-08-06 11:25	-	-	16	<1	<1	<2	0.14
GRAB	RMD-252	9751 Pendleton Rd.	2021-08-09 13:00	-	-	16	<1	<1	<2	0.11
GRAB	RMD-263	12560 Cambie Rd.	2021-08-11 12:30	-	-	16	<1	<1	<2	0.22
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-08-11 12:50	-	-	16	<1	<1	<2	0.19
GRAB	RMD-262	13799 Commerce Pkwy.	2021-08-11 13:25	-	-	16	<1	<1	<2	0.23
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-08-11 13:55	-	-	16	<1	<1	<2	0.15
GRAB	RMD-261	9911 Sidaway Rd.	2021-08-11 14:10	-	-	16	<1	<1	<2	0.23
GRAB	RMD-259	10020 Amethyst Ave.	2021-08-11 14:40	-	-	16	<1	<1	4	0.26
GRAB	RMD-266	9380 General Currie Rd.	2021-08-11 15:00	-	-	16	<1	<1	<2	0.14
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-08-11 15:15	-	-	16	<1	<1	<2	0.2
GRAB	RMD-206	4251 Moncton St.	2021-08-12 07:45	-	-	16	<1	<1	<2	0.47
GRAB	RMD-216	11080 No. 2 Rd.	2021-08-12 08:00	-	-	16	<1	<1	2	0.21
GRAB	RMD-208	13200 No. 4 Rd.	2021-08-12 08:45	-	-	16	<1	<1	<2	0.24
GRAB	RMD-205	13851 Steveston Hwy.	2021-08-12 09:00	-	-	16	<1	<1	<2	0.13
GRAB	RMD-214	11720 Westminster Hwy.	2021-08-12 09:40	-	-	16	<1	<1	<2	0.21
GRAB	RMD-267	17240 Fedoruk	2021-08-12 10:00	-	-	16	<1	<1	<2	0.14
GRAB	RMD-276	22271 Cochrane Drive	2021-08-12 10:30	-	-	16	<1	<1	<2	0.11
GRAB	RMD-275	5180 Smith Cres.	2021-08-12 10:45	-	-	16	<1	<1	6	0.2
GRAB	RMD-203	23260 Westminster Hwy.	2021-08-12 11:00	-	-	16	<1	<1	<2	0.13
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-08-16 15:00	-	-	16	<1	<1	4	0.36
GRAB	RMD-272	751 Catalina Cres.	2021-08-16 15:30	-	-	16	<1	<1	<2	0.28



Sample Type	Sample Name	Description	Sampled Date	Total Coliform (MPN/100mL)	E. coli (MPN/100mL)	Temperature (°C)	Total Coliform (CFU/100mL)	E. coli (CFU/100mL)	HPC (CFU/mL)	Turbidity (NTU)
GRAB	RMD-260	11111 Horseshoe Way	2021-08-18 14:25	-	-	16	<1	<1	<2	0.14
GRAB	RMD-257	6640 Blundell Rd.	2021-08-18 15:50	-	-	16	<1	<1	2	0.29
GRAB	RMD-206	4251 Moncton St.	2021-08-20 07:45	-	-	16	<1	<1	130	0.9
GRAB	RMD-216	11080 No. 2 Rd.	2021-08-20 08:00	-	-	16	<1	<1	<2	0.12
GRAB	RMD-280	11500 McKenzie Rd.	2021-08-20 08:15	-	-	16	<1	<1	<2	0.14
GRAB	RMD-208	13200 No. 4 Rd.	2021-08-20 08:45	-	-	16	<1	<1	<2	0.17
GRAB	RMD-205	13851 Steveston Hwy.	2021-08-20 09:00	-	-	16	<1	<1	2	0.22
GRAB	RMD-214	11720 Westminster Hwy.	2021-08-20 09:35	-	-	16	<1	<1	2	0.23
GRAB	RMD-203	23260 Westminster Hwy.	2021-08-20 11:00	-	-	16	<1	<1	<2	0.15
GRAB	RMD-251	5951 McCallan Rd.	2021-08-23 12:30	-	-	16	<1	<1	<2	0.12
GRAB	RMD-269	14951 Triangle Rd.	2021-08-23 13:50	-	-	16	<1	<1	<2	0.2
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-08-23 15:00	-	-	16	<1	<1	2	0.22
GRAB	RMD-272	751 Catalina Cres.	2021-08-23 15:30	-	-	16	<1	<1	150	0.2
GRAB	RMD-251	5951 McCallan Rd.	2021-08-30 12:30	-	-	16	<1	<1	<2	0.12
GRAB	RMD-269	14951 Triangle Rd.	2021-08-30 13:55	-	-	16	<1	<1	<2	0.15
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-08-30 15:00	-	-	16	<1	<1	2	0.18
GRAB	RMD-272	751 Catalina Cres.	2021-08-30 15:30	-	-	16	<1	<1	<2	0.42
GRAB	RMD-260	11111 Horseshoe Way	2021-09-01 14:30	-	-	16	<1	<1	<2	0.25
GRAB	RMD-257	6640 Blundell Rd.	2021-09-01 15:45	-	-	16	<1	<1	<2	0.18
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-09-07 15:00	-	-	16	<1	<1	18	0.24
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-09-08 14:00	-	-	16	<1	<1	<2	0.12
GRAB	RMD-261	9911 Sidaway Rd.	2021-09-08 14:15	-	-	16	<1	<1	<2	0.13
GRAB	RMD-260	11111 Horseshoe Way	2021-09-08 14:30	-	-	16	<1	<1	<2	0.13
GRAB	RMD-203	23260 Westminster Hwy.	2021-09-09 11:00	-	-	16	<1	<1	<2	0.17
GRAB	RMD-251	5951 McCallan Rd.	2021-09-13 12:30	-	-	16	<1	<1	<2	0.11
GRAB	RMD-252	9751 Pendleton Rd.	2021-09-13 13:00	-	-	16	<1	<1	4	0.2
GRAB	RMD-269	14951 Triangle Rd.	2021-09-13 13:55	-	-	16	<1	<1	<2	0.15
GRAB	RMD-255	6000 Blk. Miller Rd.	2021-09-13 15:00	-	-	16	<1	<1	2	0.22
GRAB	RMD-272	751 Catalina Cres.	2021-09-13 15:30	-	-	16	<1	<1	2	0.2
GRAB	RMD-264	13100 Mitchell Rd.	2021-09-15 12:45	-	-	16	<1	<1	14	0.23
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-09-15 13:00	-	-	16	<1	<1	8	0.21
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-09-15 13:50	-	-	16	<1	<1	<2	0.16
GRAB	RMD-260	11111 Horseshoe Way	2021-09-15 14:25	-	-	16	<1	<1	<2	0.31
GRAB	RMD-257	6640 Blundell Rd.	2021-09-15 15:45	-	-	16	<1	<1	<2	0.18
GRAB	RMD-206	4251 Moncton St.	2021-09-17 08:15	-	-	16	<1	<1	<2	0.33
GRAB	RMD-216	11080 No. 2 Rd.	2021-09-17 08:30	-	-	16	<1	<1	<2	0.19
GRAB	RMD-270	8200 Jones Rd.	2021-09-20 08:45	-	-	16	<1	<1	<2	0.13
GRAB	RMD-254	5300 No. 3 Rd.	2021-09-20 09:00	-	-	16	<1	<1	<2	0.14
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-09-20 09:35	-	-	16	<1	<1	6	0.21
GRAB	RMD-250	6071 Azure Rd.	2021-09-20 10:20	-	-	16	<1	<1	8	0.11
GRAB	RMD-280	11500 McKenzie Rd.	2021-09-23 08:15	-	-	16	<1	<1	2	0.15
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-09-23 08:30	-	-	16	<1	<1	2	0.14
GRAB	RMD-202	1500 Valemont Way	2021-09-23 09:20	-	-	16	<1	<1	<2	0.11
GRAB	RMD-275	5180 Smith Cres.	2021-09-23 10:45	-	-	16	<1	<1	4	0.14
GRAB	RMD-274	10920 Springwood Court	2021-09-27 13:15	-	-	16	<1	<1	<2	0.12
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-10-01 08:35	-	-	16	<1	<1	4	0.11
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-10-04 12:45	-	-	16	<1	<1	2	0.17
GRAB	RMD-274	10920 Springwood Court	2021-10-04 13:15	-	-	16	<1	<1	2	0.15
GRAB	RMD-272	751 Catalina Cres.	2021-10-25 15:30	-	-	16	<1	<1	2	0.17
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-06-28 12:45	-	-	17	<1	<1	<2	0.26
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-07-05 12:45	-	-	17	<1	<1	<2	0.12
GRAB	RMD-274	10920 Springwood Court	2021-07-12 13:15	-	-	17	<1	<1	<2	0.13
GRAB	RMD-274	10920 Springwood Court	2021-07-19 13:15	-	-	17	<1	<1	<2	0.16
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-07-23 10:25	-	-	17	<1	<1	<2	0.18
GRAB	RMD-274	10920 Springwood Court	2021-07-26 13:15	-	-	17	<1	<1	6	0.18
GRAB	RMD-276	22271 Cochrane Drive	2021-07-29 10:45	-	-	17	<1	<1	<2	0.13
GRAB	RMD-254	5300 No. 3 Rd.	2021-08-03 14:25	-	-	17	<1	<1	<2	0.12
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-08-03 14:40	-	-	17	<1	<1	2	0.1
GRAB	RMD-264	13100 Mitchell Rd.	2021-08-04 13:00	-	-	17	<1	<1	<2	0.12
GRAB	RMD-267	17240 Fedoruk	2021-08-06 10:25	-	-	17	<1	<1	14	0.41
GRAB	RMD-269	14951 Triangle Rd.	2021-08-09 13:50	-	-	17	<1	<1	<2	0.14
GRAB	RMD-270	8200 Jones Rd.	2021-08-09 14:10	-	-	17	<1	<1	<2	0.25
GRAB	RMD-254	5300 No. 3 Rd.	2021-08-09 14:25	-	-	17	<1	<1	2	0.21
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-08-09 14:45	-	-	17	<1	<1	2	0.17
GRAB	RMD-271	3800 Cessna Drive	2021-08-09 15:15	-	-	17	<1	<1	<2	0.16
GRAB	RMD-250	6071 Azure Rd.	2021-08-09 15:50	-	-	17	<1	<1	2	0.12
GRAB	RMD-264	13100 Mitchell Rd.	2021-08-11 13:05	-	-	17	<1	<1	<2	0.24
GRAB	RMD-278	6651 Fraserford Place	2021-08-11 13:40	-	-	17	<1	<1	<2	0.23
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-08-11 15:30	-	-	17	<1	<1	<2	0.12
GRAB	RMD-204	3180 Granville Ave.	2021-08-12 07:30	-	-	17	<1	<1	<2	0.25
GRAB	RMD-280	11500 McKenzie Rd.	2021-08-12 08:15	-	-	17	<1	<1	<2	0.26
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-08-12 08:30	-	-	17	<1	<1	<2	0.22
GRAB	RMD-202	1500 Valemont Way	2021-08-12 09:20	-	-	17	<1	<1	<2	0.19
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-08-12 10:15	-	-	17	<1	<1	6	0.15
GRAB	RMD-251	5951 McCallan Rd.	2021-08-16 12:30	-	-	17	<1	<1	<2	0.29
GRAB	RMD-252	9751 Pendleton Rd.	2021-08-16 13:00	-	-	17	<1	<1	<2	0.1
GRAB	RMD-263	12560 Cambie Rd.	2021-08-18 12:30	-	-	17	<1	<1	<2	0.21
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-08-18 12:45	-	-	17	<1	<1	<2	0.16
GRAB	RMD-264	13100 Mitchell Rd.	2021-08-18 13:00	-	-	17	<1	<1	<2	0.27
GRAB	RMD-262	13799 Commerce Pkwy.	2021-08-18 13:15	-	-	17	<1	<1	<2	0.11
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-08-18 13:50	-	-	17	<1	<1	<2	0.11
GRAB	RMD-261	9911 Sidaway Rd.	2021-08-18 14:10	-	-	17	<1	<1	<2	0.12
GRAB	RMD-259	10020 Amethyst Ave.	2021-08-18 14:40	-	-	17	<1	<1	<2	0.14
GRAB	RMD-266	9380 General Currie Rd.	2021-08-18 14:55	-	-	17	<1	<1	<2	0.26
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-08-18 15:15	-	-	17	<1	<1	4	0.39
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-08-18 15:30	-	-	17	<1	<1	2	0.11
GRAB	RMD-204	3180 Granville Ave.	2021-08-20 07:30	-	-	17	<1	<1	<2	0.14
GRAB	RMD-202	1500 Valemont Way	2021-08-20 09:20	-	-	17	<1	<1	<2	0.17
GRAB	RMD-267	17240 Fedoruk	2021-08-20 09:50	-	-	17	<1	<1	2	0.16
GRAB	RMD-276	22271 Cochrane Drive	2021-08-20 10:25	-	-	17	<1	<1	<2	0.15
GRAB	RMD-275	5180 Smith Cres.	2021-08-20 10:45	-	-	17	<1	<1	4	0.19
GRAB	RMD-252	9751 Pendleton Rd.	2021-08-23 13:00	-	-	17	<1	<1	<2	0.13
GRAB	RMD-271	3800 Cessna Drive	2021-08-23 13:15	-	-	17	<1	<1	<2	0.14
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-08-23 14:45	-	-	17	<1	<1	6	0.17
GRAB	RMD-263	12560 Cambie Rd.	2021-08-25 12:30	-	-	17	<1	<1	2	0.14
GRAB	RMD-264	13100 Mitchell Rd.	2021-08-25 12:45	-	-	17	<1	<1	<2	0.16
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-08-25 13:00	-	-	17	<1	<1	<2	0.2
GRAB	RMD-262	13799 Commerce Pkwy.	2021-08-25 13:15	-	-	17	<1	<1	<2	0.14
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-08-25 13:50	-	-	17	<1	<1	<2	0.17
GRAB	RMD-261	9911 Sidaway Rd.	2021-08-25 14:10	-	-	17	<1	<1	<2	0.17

Sample Type	Sample Name	Description	Sample Date	Total Coliform (MPN/100mL)	E. coli (MPN/100mL)	Temperature (°C)	Total Coliform (CFU/100mL)	E. coli (CFU/100mL)	HPC (CFU/mL)	Turbidity (NTU)
GRAB	RMD-260	11111 Horseshoe Way	2021-08-25 14:25	-	-	17	<1	<1	<2	0.13
GRAB	RMD-259	10020 Amethyst Ave.	2021-08-25 14:40	-	-	17	<1	<1	<2	0.13
GRAB	RMD-266	9380 General Currie Rd.	2021-08-25 14:55	-	-	17	<1	<1	4	0.15
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-08-25 15:15	-	-	17	<1	<1	<2	0.24
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-08-25 15:30	-	-	17	<1	<1	<2	0.17
GRAB	RMD-257	6640 Blundell Rd.	2021-08-25 15:45	-	-	17	<1	<1	<2	0.17
GRAB	RMD-204	3180 Granville Ave.	2021-08-26 07:30	-	-	17	<1	<1	<2	0.15
GRAB	RMD-206	4251 Moncton St.	2021-08-26 07:45	-	-	17	<1	<1	<2	0.28
GRAB	RMD-216	11080 No. 2 Rd.	2021-08-26 08:00	-	-	17	<1	<1	<2	0.17
GRAB	RMD-280	11500 McKenzie Rd.	2021-08-26 08:15	-	-	17	<1	<1	<2	0.21
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-08-26 08:30	-	-	17	<1	<1	<2	0.14
GRAB	RMD-208	13200 No. 4 Rd.	2021-08-26 08:45	-	-	17	<1	<1	<2	0.22
GRAB	RMD-205	13851 Steveston Hwy.	2021-08-26 09:00	-	-	17	<1	<1	<2	0.19
GRAB	RMD-202	1500 Valemont Way	2021-08-26 09:20	-	-	17	<1	<1	<2	0.15
GRAB	RMD-214	11720 Westminster Hwy.	2021-08-26 09:35	-	-	17	<1	<1	<2	0.14
GRAB	RMD-203	23260 Westminster Hwy.	2021-08-26 11:00	-	-	17	<1	<1	<2	0.21
GRAB	RMD-252	9751 Pendleton Rd.	2021-08-30 13:00	-	-	17	<1	<1	<2	0.16
GRAB	RMD-253	11051 No 3 Rd.	2021-08-30 13:35	-	-	17	<1	<1	<2	0.37
GRAB	RMD-270	8200 Jones Rd.	2021-08-30 14:05	-	-	17	<1	<1	<2	0.14
GRAB	RMD-254	5300 No. 3 Rd.	2021-08-30 14:20	-	-	17	<1	<1	<2	0.24
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-08-30 14:40	-	-	17	<1	<1	<2	0.16
GRAB	RMD-271	3800 Cessna Drive	2021-08-30 15:15	-	-	17	<1	<1	<2	0.12
GRAB	RMD-250	6071 Azure Rd.	2021-08-30 15:50	-	-	17	<1	<1	6	0.28
GRAB	RMD-263	12560 Cambie Rd.	2021-09-01 12:30	-	-	17	<1	<1	<2	0.13
GRAB	RMD-264	13100 Mitchell Rd.	2021-09-01 13:05	-	-	17	<1	<1	<2	0.12
GRAB	RMD-262	13799 Commerce Pkwy.	2021-09-01 13:20	-	-	17	<1	<1	4	0.16
GRAB	RMD-278	6651 Fraserwood Place	2021-09-01 13:40	-	-	17	<1	<1	4	0.11
GRAB	RMD-279	Opp. 20371 Westminster Hwy.	2021-09-01 13:55	-	-	17	<1	<1	12	0.12
GRAB	RMD-261	9911 Sidaway Rd.	2021-09-01 14:15	-	-	17	<1	<1	<2	0.14
GRAB	RMD-259	10020 Amethyst Ave.	2021-09-01 14:45	-	-	17	<1	<1	2	0.12
GRAB	RMD-266	9380 General Currie Rd.	2021-09-01 15:00	-	-	17	<1	<1	<2	0.2
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-09-01 15:15	-	-	17	<1	<1	2	0.13
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-09-01 15:30	-	-	17	<1	<1	<2	0.14
GRAB	RMD-206	4251 Moncton St.	2021-09-03 07:45	-	-	17	<1	<1	<2	0.2
GRAB	RMD-216	11080 No. 2 Rd.	2021-09-03 08:00	-	-	17	<1	<1	<2	0.13
GRAB	RMD-280	11500 McKenzie Rd.	2021-09-03 08:15	-	-	17	<1	<1	<2	0.12
GRAB	RMD-208	13200 No. 4 Rd.	2021-09-03 08:45	-	-	17	<1	<1	2	0.13
GRAB	RMD-205	13851 Steveston Hwy.	2021-09-03 09:00	-	-	17	<1	<1	<2	0.13
GRAB	RMD-202	1500 Valemont Way	2021-09-03 09:20	-	-	17	<1	<1	<2	0.12
GRAB	RMD-214	11720 Westminster Hwy.	2021-09-03 09:40	-	-	17	<1	<1	<2	0.14
GRAB	RMD-267	17240 Fedoruk	2021-09-03 10:00	-	-	17	<1	<1	<2	0.12
GRAB	RMD-276	22271 Cochrane Drive	2021-09-03 10:15	-	-	17	<1	<1	<2	0.13
GRAB	RMD-275	5180 Smith Cres.	2021-09-03 10:30	-	-	17	<1	<1	<2	0.17
GRAB	RMD-203	23260 Westminster Hwy.	2021-09-03 11:00	-	-	17	<1	<1	2	0.1
GRAB	RMD-251	5951 McCallan Rd.	2021-09-07 12:30	-	-	17	<1	<1	2	0.19
GRAB	RMD-252	9751 Pendleton Rd.	2021-09-07 13:00	-	-	17	<1	<1	<2	0.15
GRAB	RMD-253	11051 No 3 Rd.	2021-09-07 13:30	-	-	17	<1	<1	4	0.13
GRAB	RMD-269	14951 Triangle Rd.	2021-09-07 13:50	-	-	17	<1	<1	6	0.21
GRAB	RMD-270	8200 Jones Rd.	2021-09-07 14:15	-	-	17	<1	<1	4	0.27
GRAB	RMD-254	5300 No. 3 Rd.	2021-09-07 14:30	-	-	17	<1	<1	<2	0.19
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-09-07 14:45	-	-	17	<1	<1	<2	0.19
GRAB	RMD-271	3800 Cessna Drive	2021-09-07 15:15	-	-	17	<1	<1	2	0.14
GRAB	RMD-272	751 Catalina Cres.	2021-09-07 15:30	-	-	17	<1	<1	20	0.14
GRAB	RMD-250	6071 Azure Rd.	2021-09-07 15:45	-	-	17	<1	<1	30	0.17
GRAB	RMD-263	12560 Cambie Rd.	2021-09-08 12:30	-	-	17	<1	<1	<2	0.14
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-09-08 12:50	-	-	17	<1	<1	2	0.2
GRAB	RMD-274	10920 Springwood Court	2021-09-08 13:15	-	-	17	<1	<1	<2	0.16
GRAB	RMD-262	13799 Commerce Pkwy.	2021-09-08 13:25	-	-	17	<1	<1	2	0.12
GRAB	RMD-278	6651 Fraserwood Place	2021-09-08 13:45	-	-	17	<1	<1	6	0.12
GRAB	RMD-259	10020 Amethyst Ave.	2021-09-08 14:45	-	-	17	<1	<1	<2	0.13
GRAB	RMD-266	9380 General Currie Rd.	2021-09-08 15:00	-	-	17	<1	<1	<2	0.12
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-09-08 15:15	-	-	17	<1	<1	<2	0.19
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-09-08 15:30	-	-	17	<1	<1	<2	0.2
GRAB	RMD-257	6640 Blundell Rd.	2021-09-08 15:45	-	-	17	<1	<1	<2	0.13
GRAB	RMD-204	3180 Granville Ave.	2021-09-09 07:30	-	-	17	<1	<1	<2	0.13
GRAB	RMD-206	4251 Moncton St.	2021-09-09 07:45	-	-	17	<1	<1	<2	0.36
GRAB	RMD-216	11080 No. 2 Rd.	2021-09-09 08:00	-	-	17	<1	<1	<2	0.18
GRAB	RMD-280	11500 McKenzie Rd.	2021-09-09 08:15	-	-	17	<1	<1	<2	0.23
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-09-09 08:30	-	-	17	<1	<1	<2	0.13
GRAB	RMD-208	13200 No. 4 Rd.	2021-09-09 08:45	-	-	17	<1	<1	<2	0.16
GRAB	RMD-205	13851 Steveston Hwy.	2021-09-09 09:00	-	-	17	<1	<1	<2	0.2
GRAB	RMD-202	1500 Valemont Way	2021-09-09 09:20	-	-	17	<1	<1	<2	0.12
GRAB	RMD-214	11720 Westminster Hwy.	2021-09-09 09:35	-	-	17	<1	<1	2	0.15
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-09-09 10:10	-	-	17	<1	<1	10	0.14
GRAB	RMD-276	22271 Cochrane Drive	2021-09-09 10:25	-	-	17	<1	<1	<2	0.13
GRAB	RMD-275	5180 Smith Cres.	2021-09-09 10:40	-	-	17	<1	<1	<2	0.15
GRAB	RMD-270	8200 Jones Rd.	2021-09-13 14:15	-	-	17	<1	<1	<2	0.16
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-09-13 14:45	-	-	17	<1	<1	<2	0.12
GRAB	RMD-271	3800 Cessna Drive	2021-09-13 15:15	-	-	17	<1	<1	<2	0.12
GRAB	RMD-250	6071 Azure Rd.	2021-09-13 15:45	-	-	17	<1	<1	10	0.15
GRAB	RMD-263	12560 Cambie Rd.	2021-09-15 12:30	-	-	17	<1	<1	2	0.17
GRAB	RMD-262	13799 Commerce Pkwy.	2021-09-15 13:15	-	-	17	<1	<1	<2	0.12
GRAB	RMD-278	6651 Fraserwood Place	2021-09-15 13:35	-	-	17	<1	<1	<2	0.12
GRAB	RMD-261	9911 Sidaway Rd.	2021-09-15 14:10	-	-	17	<1	<1	<2	0.13
GRAB	RMD-259	10020 Amethyst Ave.	2021-09-15 14:40	-	-	17	<1	<1	<2	0.21
GRAB	RMD-266	9380 General Currie Rd.	2021-09-15 14:55	-	-	17	<1	<1	2	0.17
GRAB	RMD-268	13800 No. 3 Rd. (off Garden City)	2021-09-15 15:15	-	-	17	<1	<1	2	0.14
GRAB	RMD-258	7000 Blk. Dyke Rd.	2021-09-15 15:30	-	-	17	<1	<1	<2	0.15
GRAB	RMD-204	3180 Granville Ave.	2021-09-17 08:00	-	-	17	<1	<1	<2	0.12
GRAB	RMD-280	11500 McKenzie Rd.	2021-09-17 08:45	-	-	17	<1	<1	2	0.15
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-09-17 09:00	-	-	17	<1	<1	8	0.16
GRAB	RMD-208	13200 No. 4 Rd.	2021-09-17 09:20	-	-	17	<1	<1	<2	0.12
GRAB	RMD-205	13851 Steveston Hwy.	2021-09-17 09:40	-	-	17	<1	<1	<2	0.18
GRAB	RMD-202	1500 Valemont Way	2021-09-17 10:00	-	-	17	<1	<1	8	0.13
GRAB	RMD-214	11720 Westminster Hwy.	2021-09-17 10:20	-	-	17	<1	<1	<2	0.17
GRAB	RMD-267	17240 Fedoruk	2021-09-17 10:40	-	-	17	<1	<1	<2	0.14
GRAB	RMD-276	22271 Cochrane Drive	2021-09-17 11:15	-	-	17	<1	<1	<2	0.13
GRAB	RMD-275	5180 Smith Cres.	2021-09-17 11:30	-	-	17	<1	<1	2	0.17
GRAB	RMD-203	23260 Westminster Hwy.	2021-09-17 11:45	-	-	17	<1	<1	8	0.13
GRAB	RMD-274	10920 Springwood Court	2021-09-20 08:15	-	-	17	<1	<1	2	0.1

Sample Type	Sample Name	Description	Sampled Date	Total Coliform (MPN/100mL)	E. coli (MPN/100mL)	Temperature (°C)	Total Coliform (CFU/100mL)	E. coli (CFU/100mL)	HPC (CFU/mL)	Turbidity (NTU)
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-09-27 12:45	-	-	17	<1	<1	2	0.14
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-07-12 12:45	-	-	18	<1	<1	<2	0.2
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-07-14 13:05	-	-	18	<1	<1	2	0.64
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-07-19 12:45	-	-	18	<1	<1	<2	0.1
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-07-26 12:45	-	-	18	<1	<1	2	0.25
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-07-29 10:15	-	-	18	<1	<1	62	0.15
GRAB	RMD-253	11051 No 3 Rd.	2021-08-09 13:30	-	-	18	<1	<1	<2	0.13
GRAB	RMD-269	14951 Triangle Rd.	2021-08-16 13:50	-	-	18	<1	<1	<2	0.12
GRAB	RMD-270	8200 Jones Rd.	2021-08-16 14:15	-	-	18	<1	<1	<2	0.13
GRAB	RMD-254	5300 No. 3 Rd.	2021-08-16 14:30	-	-	18	<1	<1	<2	0.18
GRAB	RMD-271	3800 Cessna Drive	2021-08-16 15:15	-	-	18	<1	<1	<2	0.17
GRAB	RMD-250	6071 Azure Rd.	2021-08-16 15:45	-	-	18	<1	<1	<2	0.16
GRAB	RMD-278	6651 Fraserwood Place	2021-08-18 13:35	-	-	18	<1	<1	2	0.12
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-08-20 08:30	-	-	18	<1	<1	<2	0.18
GRAB	RMD-253	11051 No 3 Rd.	2021-08-23 13:30	-	-	18	<1	<1	<2	0.13
GRAB	RMD-270	8200 Jones Rd.	2021-08-23 14:10	-	-	18	<1	<1	2	0.13
GRAB	RMD-254	5300 No. 3 Rd.	2021-08-23 14:25	-	-	18	<1	<1	<2	0.14
GRAB	RMD-250	6071 Azure Rd.	2021-08-23 15:50	-	-	18	<1	<1	12	0.15
GRAB	RMD-278	6651 Fraserwood Place	2021-08-25 13:35	-	-	18	<1	<1	<2	0.2
GRAB	RMD-267	17240 Fedoruk	2021-08-26 09:50	-	-	18	<1	<1	<2	0.2
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-08-26 10:10	-	-	18	<1	<1	2	0.21
GRAB	RMD-276	22271 Cochrane Drive	2021-08-26 10:30	-	-	18	<1	<1	<2	0.16
GRAB	RMD-275	5180 Smith Cres.	2021-08-26 10:45	-	-	18	<1	<1	4	0.25
GRAB	RMD-277	Opp. 11280 Twigg Place	2021-09-01 12:50	-	-	18	<1	<1	42	0.37
GRAB	RMD-204	3180 Granville Ave.	2021-09-03 07:30	-	-	18	<1	<1	2	0.11
GRAB	RMD-212	Opp. 8600 Ryan Rd.	2021-09-03 08:30	-	-	18	<1	<1	<2	0.1
GRAB	RMD-264	13100 Mitchell Rd.	2021-09-08 13:05	-	-	18	<1	<1	2	0.15
GRAB	RMD-267	17240 Fedoruk	2021-09-09 09:50	-	-	18	<1	<1	<2	0.12
GRAB	RMD-253	11051 No 3 Rd.	2021-09-13 13:35	-	-	18	<1	<1	<2	0.14
GRAB	RMD-254	5300 No. 3 Rd.	2021-09-13 14:30	-	-	18	<1	<1	<2	0.14
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-09-17 11:00	-	-	18	<1	<1	4	0.5
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-09-20 07:45	-	-	18	<1	<1	2	0.13
GRAB	RMD-204	3180 Granville Ave.	2021-10-01 07:30	-	-	18	<1	<1	4	0.14
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-08-03 12:45	-	-	19	<1	<1	<2	0.11
GRAB	RMD-274	10920 Springwood Court	2021-08-03 13:15	-	-	19	<1	<1	<2	0.15
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-08-06 10:40	-	-	19	<1	<1	<2	0.15
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-08-09 12:45	-	-	19	<1	<1	<2	0.15
GRAB	RMD-274	10920 Springwood Court	2021-08-09 13:15	-	-	19	<1	<1	10	0.26
GRAB	RMD-253	11051 No 3 Rd.	2021-08-16 13:30	-	-	19	<1	<1	6	0.16
GRAB	RMD-256	1000 Blk. McDonald Rd.	2021-08-16 14:45	-	-	19	<1	<1	<2	0.13
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-08-20 10:10	-	-	19	<1	<1	<2	0.25
GRAB	RMD-274	10920 Springwood Court	2021-08-23 13:15	-	-	19	<1	<1	<2	0.18
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-08-30 12:45	-	-	19	<1	<1	<2	0.12
GRAB	RMD-274	10920 Springwood Court	2021-08-30 13:15	-	-	19	<1	<1	<2	0.31
GRAB	RMD-249	23000 Blk. Dyke Rd.	2021-09-03 10:15	-	-	19	<1	<1	20	0.52
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-09-07 12:45	-	-	19	<1	<1	6	0.14
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-09-13 12:45	-	-	19	<1	<1	<2	0.14
GRAB	RMD-274	10920 Springwood Court	2021-09-13 13:15	-	-	19	<1	<1	<2	0.14
GRAB	RMD-274	10920 Springwood Court	2021-08-16 13:15	-	-	20	<1	<1	<2	0.2
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-08-23 12:45	-	-	20	<1	<1	<2	0.15
GRAB	RMD-273	Opp. 8331 Fairfax Place	2021-08-16 12:45	-	-	21	<1	<1	<2	0.12

## APPENDIX 4: 2021 THM AND HAA TEST RESULTS

Sample	Date Sampled	THM (ppb)						HAA (ppb)						
		Bromodichloromethane	Bromoform	Chlorodibromomethane	Chloroform	Total Trihalomethanes	Total THM Quarterly Average (Guideline Limit 100 ppb)	Dibromoacetic Acid	Dichloroacetic Acid	Monobromoacetic Acid	Monochloroacetic Acid	Trichloroacetic Acid	Total Haloacetic Acid	Total HAA Quarterly Average (Guideline Limit 80 ppb)
RMD-250	26-Feb-20	<1	<1	<1	19	21	24	<0.5	7	<1	<2	8	15	17
RMD-250	27-May-20	<1	<1	<1	22	24	23	<0.5	9	<1	<2	8	18	15
RMD-250	12-Aug-20	1	<1	<1	25	27	25	<0.5	9	<1	<2	7	16	16
RMD-250	2-Dec-20	<1	<1	<1	25	25	24	<0.5	11	<1	2	14	29	20
RMD-250	24-Feb-21	<1	<1	<1	23	25	25	<0.5	7	<1	<2	7	16	20
RMD-250	2-Jun-21	<1	<1	<1	20	22	25	<0.5	9	<1	<2	7	18	20
RMD-250	25-Aug-21	1	<1	<1	25	28	25	<0.5	11	<1	<2	8	19	20
RMD-250	25-Nov-21	<1	<1	<1	30	32	27	<0.5	10	<1	<2	9	19	18
RMD-251	26-Feb-20	<1	<1	<1	20	22	26	<0.5	7	<1	<2	8	16	19
RMD-251	27-May-20	<1	<1	<1	24	26	25	<0.5	8	<1	<2	7	15	17
RMD-251	12-Aug-20	1	<1	<1	26	27	26	<0.5	8	<1	<2	6	14	17
RMD-251	2-Dec-20	<1	<1	<1	24	25	25	<0.5	10	<1	2	11	24	17
RMD-251	24-Feb-21	<1	<1	<1	25	27	26	<0.5	7	<1	<2	7	17	17
RMD-251	2-Jun-21	<1	<1	<1	19	21	25	<0.5	10	<1	<2	8	20	19
RMD-251	25-Aug-21	1	<1	<1	26	29	26	<0.5	12	<1	<2	7	19	20
RMD-251	25-Nov-21	<1	<1	<1	28	29	27	<0.5	11	<1	<2	10	21	19
RMD-258	26-Feb-20	<1	<1	<1	23	25	29	<0.5	7	<1	<2	6	13	22
RMD-258	27-May-20	<1	<1	<1	26	28	29	<0.5	9	<1	<2	8	18	20
RMD-258	12-Aug-20	1	<1	<1	30	32	30	<0.5	10	<1	<2	9	20	20
RMD-258	2-Dec-20	<1	<1	<1	27	28	28	<0.5	11	<1	2	13	28	20
RMD-258	24-Feb-21	<1	<1	<1	25	26	29	<0.5	8	<1	<2	8	18	21
RMD-258	2-Jun-21	<1	<1	<1	23	25	28	<0.5	11	<1	<2	9	22	22
RMD-258	25-Aug-21	1	<1	<1	32	34	28	<0.5	13	<1	<2	9	22	22
RMD-258	25-Nov-21	<1	<1	<1	31	32	29	<0.5	11	<1	<2	11	22	21
RMD-259	26-Feb-20	<1	<1	<1	22	23	28	<0.5	8	<1	<2	9	19	21
RMD-259	27-May-20	<1	<1	<1	23	26	27	<0.5	9	<1	<2	8	18	18
RMD-259	12-Aug-20	1	<1	<1	28	29	28	<0.5	8	<1	<2	7	15	18
RMD-259	2-Dec-20	<1	<1	<1	24	25	26	<0.5	11	<1	<2	11	24	19
RMD-259	24-Feb-21	<1	<1	<1	24	26	27	<0.5	6	<1	<2	4	11	17
RMD-259	2-Jun-21	<1	<1	<1	21	23	26	<0.5	9	<1	<2	8	18	17
RMD-259	25-Aug-21	1	<1	<1	31	33	27	<0.5	13	<1	<2	10	23	19
RMD-259	25-Nov-21	<1	<1	<1	32	32	29	<0.5	11	<1	<2	10	21	18

## APPENDIX 5: 2021 METAL AND VINYL CHLORIDE TESTING RESULTS

### Metal Limits

Parameter	Canadian Guideline Limit	Reason Guideline Established
Aluminium Total (µg/L)	200	Aesthetic
Antimony Total (µg/L)	6	Health
Arsenic Total (µg/L)	10 (ALARA)	Health
Barium Total (µg/L)	2000	Health
Boron Total (µg/L)	5000	Health
Cadmium Total (µg/L)	7	Health
Calcium Total (µg/L)	none	
Chromium Total (µg/L)	50	Health
Cobalt Total (µg/L)	none	
Copper Total (µg/L)	≤2000	Health
Iron Total (µg/L)	≤ 300	Aesthetic
Lead Total (µg/L)	5 (ALARA)	Health
Magnesium Total (µg/L)	none	
Manganese Total (µg/L)	120	Health
Mercury Total (µg/L)	1.0	Health
Molybdenum Total (µg/L)	none	
Nickel Total (µg/L)	none	
Potassium Total (µg/L)	none	
Selenium Total (µg/L)	50	Health
Silver Total (µg/L)	none	
Sodium Total (µg/L)	≤ 200,000	Aesthetic
Zinc Total (µg/L)	≤ 5000	Aesthetic

ALARA = As Low As Reasonably Achievable

None = no established maximum acceptable concentration (MAC)

Guidelines updated: May 2021



## Metals

ANALYSIS	RMD-250	RMD-257	RMD-263
	6071 Azure Road	6640 Blundell Road	12560 Cambie Road
	2021-11-09 15:55	2021-11-09 15:45	2021-11-09 12:30
	GRAB	GRAB	GRAB
Aluminium Total (µg/L)	50	50	52
Antimony Total (µg/L)	<0.5	<0.5	<0.5
Arsenic Total (µg/L)	<0.5	<0.5	<0.5
Barium Total (µg/L)	2.6	2.5	2.5
Boron Total (µg/L)	<10	<10	<10
Cadmium Total (µg/L)	<0.2	<0.2	<0.2
Calcium Total (µg/L)	7880	7800	7740
Chromium Total (µg/L)	<0.05	<0.05	<0.05
Cobalt Total (µg/L)	<0.5	<0.5	<0.5
Copper Total (µg/L)	0.6	0.8	1.0
Iron Total (µg/L)	6	6	6
Lead Total (µg/L)	<0.5	<0.5	<0.5
Magnesium Total (µg/L)	183	182	181
Manganese Total (µg/L)	1.7	2.8	1.9
Mercury Total (µg/L)	<0.05	<0.05	<0.05
Molybdenum Total (µg/L)	<0.5	<0.5	<0.5
Nickel Total (µg/L)	<0.5	<0.5	<0.5
Potassium Total (µg/L)	147	145	145
Selenium Total (µg/L)	<0.5	<0.5	<0.5
Silver Total (µg/L)	<0.5	<0.5	<0.5
Sodium Total (µg/L)	2030	1990	1880
Zinc Total (µg/L)	<3.0	<3.0	<3.0

## Vinyl Chloride

Sample Name	Sample Description	Sample Date	Sample Type	Vinyl Chloride µg/L
RMD-205	13851 Steveston Highway	2021-12-10 9:40 AM	GRAB	<1
RMD-206	4251 Moncton Street	2021-12-10 8:10 AM	GRAB	<1
RMD-253	11051 No 3 Road	22021-12-10 9:10 AM	GRAB	<1
RMD-256	1000 Blk. McDonald Road	2021-12-10 7:45 AM	GRAB	<1
RMD-263	12560 Cambie Road	2021-12-10 10:20 AM	GRAB	<1

## APPENDIX 6: SPECIFIC EMERGENCY RESPONSE PLANS

### Positive Response for E. Coli or Fecal Coliform

In the event of possible E. Coli or fecal coliform contamination, all steps to ensure public health and safety will be taken, including banning water usage if necessary. If a water sample tests positive for fecal coliform, the following response plan will occur:

- The City of Richmond's water quality staff, the Drinking Water Officer and the Medical Health Officer will be notified by the Metro Vancouver laboratory.
- Interim samples from the site will be examined. Interim samples are samples in the period between when the fecal positive sample was taken and when it was determined to be fecal positive.
- Arrangements will be made for the immediate collection of a repeat sample including, where possible, samples from upstream and downstream of the fecal positive sample.
- Chlorine residual for the sample noted on the sampler's data sheet will be reviewed to determine if a localized loss of disinfectant occurred.
- Water Services staff will be contacted to determine if there was any loss of pressure or other unusual events that may have led to contaminants entering the system.
- The need for a boil-water advisory will be evaluated by the City, the Drinking Water Officer and the Medical Health Officer. If a boil water advisory is deemed necessary, the municipality will carry out various means to inform the public. Metro Vancouver will be informed of this public advisory.
- The City, in consultation with the Medical Health Officer, will determine the need and extent for a boil water advisory.
- The Metro Vancouver laboratory will initiate procedures to identify species of the fecal positive organism with standard biochemical tests.
- The Medical Health Officer will be contacted with the repeat sample results and the results of the species identification on the fecal positive sample when these tests are complete.

### Chemical or Biological Contamination Response

In the event of chemical or biological contamination, in source waters or the City's distribution system, the following actions will be taken by the City of Richmond and Metro Vancouver:

- Immediately notify Vancouver Coastal Health.
- Identify the chemical and any public health risk factors associated with its presence in potable water.
- Isolate the contaminated zone area and determine the level of contamination.
- Issue a public advisory in consultation with the Drinking Water Officer and Medical Health Officer.

In the event of possible biological or chemical contamination, all steps to safety will be taken to ensure public health, including banning water usage if necessary.

### Turbidity Response

Turbidity (cloudy water) occurs during periods of heavy rain at and surrounding Metro Vancouver water sources. The City of Richmond, in collaboration with Vancouver Coastal Health, developed a turbidity response plan, which considers the City's responsibility for due diligence without unreasonably constraining the water utility's ability to operate the system.

Should there be a turbidity event, the results will be assessed and staff will:

- Begin a rigorous sampling program for microbiological activity and residual chlorine.
- Monitor the City's supervisory control and data acquisition (SCADA) system with updates sent to Vancouver Coastal Health on a predetermined schedule.
- Flush areas and re-test.
- If necessary (in consultation with Vancouver Coastal Health), issue a public communication and issue a boil-water advisory to residents receiving turbid water.

### **Response to Interruption of Primary and/or Secondary Disinfection**

Upon notification by Metro Vancouver Operations that an interruption in disinfection has occurred:

- Staff will monitor residual levels of chlorine at strategic locations in the Metro Vancouver supply area.
- The City's SCADA system will be monitored with updates sent to Vancouver Coastal Health on a predetermined schedule, as set by the health authority.
- In cases where chlorine residual is less than 0.2 ppm, City crews will flush the affected area until an acceptable level is achieved.

These actions will continue until disinfection is resumed and adequate levels of residual chlorine have been reached in the distribution system.

### **Response to Loss of Pressure Due to High Demand**

In the event of a pressure loss due to high demand:

- City staff will attempt to rectify the problem as soon as possible using various demand management techniques and by supplementing supply to problem areas.
- Metro Vancouver, the Drinking Water Officer and the Medical Health Officer will be notified of any water quality issues.
- City staff will perform chlorine residual tests at various locations to determine if adequate disinfectant is present in the distribution.
- All water quality complaints from the public will be thoroughly investigated due to the potential for water contamination during low water pressure.

### **Response to Watermain Breaks with Suspected Contamination**

All watermain breaks where chemical or microbiological contamination of the system is suspected will be immediately reported to the Drinking Water Officer and the Medical Health Officer. The municipality will isolate the contaminated section from the rest of the distribution system. Once the watermain has been repaired, chlorine residual testing will be conducted at various locations affected by the main break. If low chlorine residuals are found, necessary actions to increase the levels of free chlorine will be carried out. If bacterial contamination is suspected, water samples will be analyzed and appropriate action taken.



## City of Richmond

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# City of Richmond

## Report to Committee




**To:** Public Works and Transportation Committee  
**From:** Suzanne Bycraft  
Director, Public Works Operations  
**Date:** May 9, 2022  
**File:** 10-6000-00/Vol 01  
**Re:** **Regional Public Works Mutual Aid Agreement**

### Staff Recommendation

That the following actions be taken in regard to approving the Regional Public Works Mutual Aid Agreement as more particularly described in the staff report dated May 9, 2022 from the Director, Public Works Operations:

1. the Chief Administrative Officer and the General Manager, Engineering and Public Works be authorized to execute on behalf of the City of Richmond the Regional Public Works Mutual Aid Agreement with the material terms and conditions as set out in the Report titled Regional Public Works Mutual Aid Agreement; and
2. the General Manager, Engineering and Public Works or his delegate be designated as the Authorized representative under the Regional Public Works Mutual Aid Agreement.

Suzanne Bycraft  
Director, Public Works Operations  
(604-233-3338)

REPORT CONCURRENCE		
<b>ROUTED TO:</b>	<b>CONCURRENCE</b>	<b>CONCURRENCE OF GENERAL MANAGER</b>
Law Department	✓	
Emergency Programs	✓	
<b>SENIOR STAFF REPORT REVIEW</b>	<b>INITIALS:</b>	<b>APPROVED BY CAO</b>
		

## Staff Report

### Origin

This report presents the Regional Public Works Mutual Aid Agreement (the Agreement) which provides a framework for mutual support, aid and assistance to, amongst other things, ensure that public works are maintained in the event of a major emergency.

This report supports Council's Strategic Plan 2018-2022 Strategy #1 A Safe and Resilient City:

*Enhance and protect the safety and well-being of Richmond.*

*1.3 Ensure Richmond is prepared for emergencies, both human-made and natural disasters.*

### Analysis

#### Background

The provincially enacted Local Authority Emergency Management Regulation allows the City to enter into mutual agreements for resources and subsequent cost recovery for areas outside of the local authority's jurisdictional area. In February 2000, the City entered into the Public Works Mutual Aid agreement. This February 2000 agreement, the provisions of which are now dated, will be superseded and replaced by the proposed Agreement, if approved by Council.

While to date the City has not requested aid under the agreement nor has the City received a request for aid from other parties, the agreement and the proposed updates represent a key tool for enhancing both local and regional emergency response capabilities.

#### Agreement Terms

The Agreement includes 27 jurisdictions, inclusive of multiple Lower Mainland municipalities, Metro Vancouver, Greater Vancouver regional district entities, Tsawwassen First Nation and the University of British Columbia. The Agreement lays out the terms of providing support, aid and assistance to ensure that public works services are maintained in the event of an emergency or significant event.

Key terms are outlined below:

1. The authorized representative may make a request for resources in situations where their own resources are fully utilized and where such requests have already been made to bordering local authorities. Resources may include supplies, equipment or personnel.
2. Resources will be provided where the furnishing of such resources will not unreasonably diminish the capacity of the responding authority to meet their own needs.
3. The authority requesting the resources shall reimburse the responding authority providing the resources for their actual costs incurred, plus 10%, based on the prevailing rates of the responding authority. Reimbursements are due within 60 days from the date of invoice.

4. The reimbursement is irrespective of the requestor's entitlement or receipt of funding received from Emergency Management BC.
5. The requesting authority is responsible for loss or damage to resources provided, and for returning the resources in the same condition. The requesting authority will pay for any repair or restoration costs.
6. Standard insurance, liability and indemnity provisions apply, including no party will be liable for damages in the event an authority fails to respond to a request for assistance under the Agreement. It is a further term of the Agreement that the requesting jurisdiction will indemnify the responding authority against any claims or damages. The responding authority indemnifies the requesting authority for negligence or misconduct of the responding authority's employees or affiliated volunteers.
7. The Agreement is reviewed every five years or upon the written request of any party to the Agreement. Members may withdraw by giving no less than 30 days prior notice. New parties may be added to the Agreement.

#### Implementation

The Regional Public Works Mutual Aid Agreement denotes an Authorized Representative of the local authority as established by Council. It is proposed that the General Manager, Engineering and Public Works or his delegate be designated as the Authorized Representative for the purposes of the Agreement.

#### **Financial Impact**

None

#### **Conclusion**

The City of Richmond is eligible to participate as a party to the Regional Public Works Mutual Aid Agreement, which establishes terms for responding to or requesting aid from other local authorities in an emergency or significant event. Staff have participated with the region and other jurisdictions in the development of the Agreement, which has received endorsement of the Regional Administrators Advisory Committee.

Given the wide scale impact that a significant emergency could have on multiple Lower Mainland jurisdictions, staff recommend the City participate as a signatory to the Agreement to ensure effective and efficient regional collaboration and sharing of public works resources among participants.



Suzanne Bycraft  
Director, Public Works Operations  
(604-233-3338)



# City of Richmond

## Report to Committee

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**To:** Public Works and Transportation Committee      **Date:** May 13, 2022  
**From:** Suzanne Bycraft  
Director, Public Works Operations      **File:** 10-6370-01/2022-Vol 01  
**Re:** **Award of Contract: 7268P – Roll-Off and In-Ground Container Collection and Recycling/Disposal Services**

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### Staff Recommendation

1. That Contract 7268P – Roll-Off and In-Ground Container Collection and Recycling/Disposal Services be awarded for a five-year term, commencing August 1, 2022 to GFL Environmental Inc. at an estimated total contract value of \$3,163,153.03, as described in the report titled “Award of Contract: 7268P – Roll-Off and In-Ground Container Collection and Recycling/Disposal Services”, dated May 13, 2022, from the Director, Public Works Operations; and
2. That the Chief Administrative Officer and General Manager, Engineering and Public Works be authorized to extend the initial five-year term, up to the maximum total term of seven years, for the maximum total amount of \$4,588,832.26, as described in the report titled “Award of Contract: 7268P – Roll-Off and In-Ground Container Collection and Recycling/Disposal Services”, dated May 13, 2022, from the Director, Public Works Operations; and
3. That the Chief Administrative Officer and General Manager, Engineering and Public Works be authorized to execute the contract and all related documentation with GFL Environmental Inc.

Suzanne Bycraft  
Director, Public Works Operations  
(604-233-3338)

REPORT CONCURRENCE		
<b>ROUTED TO:</b> Finance Department Purchasing	<b>CONCURRENCE</b> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<b>CONCURRENCE OF GENERAL MANAGER</b> 
<b>SENIOR STAFF REPORT REVIEW</b>	<b>INITIALS:</b> 	<b>APPROVED BY CAO</b> 

## Staff Report

### Origin

The City contracts for the provision of roll-off and in-ground recycling and waste containers at various locations throughout Richmond including the Works Yard and the City's Recycling Depot. This service includes the provisioning of containers, transportation, processing and marketing of various recycling and waste materials to City-approved processing facilities. The previous five-year contract (three-year term, plus two one-year renewals) was awarded on August 1, 2017 and split between two contractors. This contract is set to expire on July 31, 2022.

To engage a qualified service provider, a procurement process was undertaken via a Request for Proposals (RFP) 7268P – Roll-Off and In-Ground Container Collection and Recycling/Disposal Services.

This report presents the results of this RFP and recommends the award of a contract to GFL Environmental Inc.

This report supports Council's Strategic Plan 2018-2022 Strategy #5 Sound Financial Management:

*Accountable, transparent, and responsible financial management that supports the needs of the community into the future.*

*5.3 Decision-making focuses on sustainability and considers circular economic principles.*

### Analysis

#### Request for Proposals 7268P – Roll-Off and In-Ground Container Collection and Recycling/Disposal Services

The above referenced RFP was posted on BC Bid on January 18, 2022 and closed on February 15, 2022.

The RFP requested proponents to submit financial proposals for the supply, hauling and servicing of containers, anticipated costs and revenues for the processing and disposal of waste materials collected.

Costs include container rental fees, labour, transportation, processing or disposal, and all equipment and materials required for completion of the work. For efficiencies and economies of scale, the City intends to award one contract for all service requirements.

Five proposals were received by the closing date from the following proponents:

- GFL Environmental Inc.
- Super Save Group of Companies
- Maple Leaf Disposal Ltd.
- Cascades Recovery
- ABC Maintenance & Environmental



### Review Process

Staff undertook independent reviews of the proposal responses. Proposals were scored and evaluated against pre-determined criteria that included:

- Corporate profile and capacity
- Demonstrated experience and references
- Project understanding, approach, methodology and work plan
- Circular economy and sustainability opportunities
- Financial performance

Due to the nature of the work, only three of the proponents provided quotations for all of the requested services. The evaluation results of the RFP are summarized in Table 1.

Table 1: Evaluation Results

<b>Ranking</b>	<b>Proponent</b>	<b>Evaluation Score</b>	<b>Proponent's Pricing based on 5-Year Contract Term</b>
<b>1</b>	<b>GFL Environmental Inc.</b>	<b>91.2%</b>	<b>\$3,163,153.03</b>
2	Super Save Group of Companies	83.9%	*\$3,979,370.63
3	Maple Leaf Disposal Ltd.	76.3%	\$4,385,553.29
4	Cascades Recovery	50.3%	*\$474,578.23
5	ABC Maintenance & Environmental	27.8%	\$6,265,166.22

\*submitted pricing for certain services only

Based on staff's evaluation of the proposals received and further clarification, GFL's proposal received the highest overall score and therefore was ranked first (shown in Table 1). GFL is determined to have the greatest ability to meet the scope and nature of the work and provide best value to the City due to favourable pricing, anticipated commodity revenues and alignment with the City's circular economy goals.

### Contract Terms

The key terms of the service contract will include:

1. *Collection Services:* The provisioning of roll-off containers, collection, transportation and delivery of collected materials to disposal or processing facilities in addition to the collection and disposal services for City owned in-ground waste containers.
2. *Disposal or Processing Services:* The proponent will ensure proper disposal, processing, sale or trade at fair market value, with recyclable materials being sold or traded with the purpose of being reused or recycled into new products.
3. *Commodity Price Variation:* Processing and/or disposal costs are determined by the market rate (posted tipping fees and commodity rates provided by the disposal and recycling facilities). These costs will be validated by the rate sheets given by the

processing/disposal facility for each material. Due to considerable fluctuations in commodity markets, staff are estimating a 10% allowance for this aspect of the work.

4. *Term:* The contract will have an initial term of five (5) years commencing on August 1, 2022. The agreement may be renewed under the same terms and conditions for a maximum of two (2) additional one (1) year terms.
5. *Escalation:* Annual inflation applicable on the anniversary date of the contract fixed at 3.5% per annum.
6. *Reporting:* Contractor to provide waste tracking reports, including weight reports for all materials collected on a monthly basis, or as requested by the City.

### Financial Impact

The total value of this contract over the recommended five-year term is estimated at \$3,163,153.03 as summarized in Table 2.

Table 2: Total 5-Year Term Contract

<b>Contract Year</b>	<b>GFL Environmental Inc.</b>
2022	\$491,557.60
2023	\$508,762.12
2024	\$526,568.79
2025	\$544,998.69
2026	\$564,073.65
Commodity Price Variation	\$263,596.09
Contingency	\$263,596.09
<b>Total (5 years)</b>	<b>\$3,163,153.03</b>

The City has the option to extend the initial five-year contract for two additional one-year terms, for a total added value of \$1,425,679.23. The estimated costs associated with this extension are summarized in Table 3.

Table 3: Contract Extension Cost

<b>Contract Year</b>	<b>GFL Environmental Inc.</b>
2027	\$583,816.23
2028	\$604,249.80
Commodity Price Variation	\$118,806.60
Contingency	\$118,806.60
<b>Total (2 years)</b>	<b>\$1,425,679.23</b>
<b>Total (5 years)</b>	<b>\$3,163,153.03</b>
<b>Maximum 7-year term</b>	<b>\$4,588,832.26</b>

The total amount for the maximum seven-year term is \$4,588,832.26. The decision to extend the contract by an additional two years would be based on the company's individual performance over the initial term. Required funding amounts for the services under this contract are included in the annual Solid Waste & Recycling budget.

## **Conclusion**

This report presents the results of a competitive procurement under 7268P – Roll-Off and In-Ground Container Collection and Recycling/Disposal Services. It is recommended that the contract be awarded to GFL Environmental Inc. for the initial five-year term, at the total amount of \$3,163,153.03, and that the Chief Administrative Officer and General Manager, Engineering and Public Works be authorized to extend the initial five-year term, up to a maximum total term of seven years for the total amount of \$4,588,832.26, with anticipated commencement on August 1, 2022 based on the key terms as outlined.



Kristina Nishi  
Waste Reduction and Recycling Coordinator  
(604-244-1261)

KN:kn



# City of Richmond

## Report to Committee

**To:** Planning Committee  
**From:** Wayne Craig  
Director, Development

**Date:** June 8, 2022  
**File:** RZ 21-928623

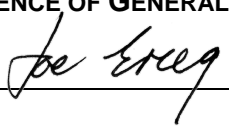
**Re:** Application by Farrell Estates Ltd. for Rezoning at 6831 Graybar Road, 20455 Dyke Road, 20911 Dyke Road, 7500 No. 9 Road, Lot A Block 4N Plan EPP113853 Section 9 Range 4W New Westminster Land District & SEC 16, 17, 20 (031-553-231) and a portion of Graybar Road from the "Industrial and Marina (ZI17) – Graybar Road (East Richmond", "Industrial Business Park (IB1)", and "Light Industrial (IL)" Zones to the "Industrial Business Park and Marina (ZI20) – Graybar Road (East Richmond)" Zone

### Staff Recommendation

1. That Richmond Zoning Bylaw 8500, Amendment Bylaw 10336 to:
  - a) create the "Industrial Business Park and Marina (ZI20) – Graybar Road (East Richmond)" zone, and to rezone 6831 Graybar Road, 20455 Dyke Road, 20911 Dyke Road, 7500 No. 9 Road, Lot A Block 4N Plan EPP113853 Section 9 Range 4W New Westminster Land District & SEC 16, 17, 20 (PID 031-553-231), and a portion of Graybar Road from the "Industrial and Marina (ZI17) – Graybar Road (East Richmond)", "Industrial Business Park (IB1)", and "Light Industrial (IL)" zones to the "Industrial Business Park and Marina (ZI20) – Graybar Road (East Richmond)" zone be introduced and given first reading; and,
  - b) discharge "Land Use Contract 127", entered in to pursuant to "Farrell Estates Ltd. Land Use Contract Bylaw No. 3613 (RD85962)", from the title of 6831 Graybar Road:  
  
be introduced and given first reading.

  
Wayne Craig  
Director, Development  
(604-247-4625)

WC/JR:blg  
Att. 6

REPORT CONCURRENCE		
ROUTED To:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Real Estate Services	<input checked="" type="checkbox"/>	
Engineering	<input checked="" type="checkbox"/>	
Transportation	<input checked="" type="checkbox"/>	

## Staff Report

### Origin

Farrell Estates Ltd. (Director: Terry McPhail) has applied to the City of Richmond to discharge Land Use Contract 127 from 6831 Graybar Road, and to rezone 6831 Graybar Road, 20455 Dyke Road, 20911 Dyke Road, 7500 No. 9 Road, Lot A Block 4N Plan EPP113853 Section 9 Range 4W New Westminster Land District & SEC 16, 17, 20 (PID 031-553-231) and a portion of Graybar Road from the “Industrial and Marina (ZI17) – Graybar Road (East Richmond)”, “Industrial Business Park (IB1)”, and “Light Industrial (IL)” zones to the new site-specific “Industrial Business Park and Marina (ZI20) – Graybar Road (East Richmond)” zone, to permit a light industrial development and boat yard. A location map and aerial photo are provided in Attachment 1. A site survey and draft subdivision plan is provided in Attachment 2.

The subject Land Use Contract (LUC) 127 was registered on 6831 Graybar Road and other properties on Graybar Road at the time of the subdivision of the area in 1979. The *Local Government Act* provides that all LUCs will expire on June 30, 2024 and requires municipalities to establish underlying zoning for LUC properties. The underlying zoning for this property is “Industrial and Marina (ZI17) – Graybar Road (East Richmond)”, which was established by the adoption of Richmond Zoning Bylaw 8500, Amendment Bylaw 9993 on May 21, 2019.

The owner has applied to discharge LUC 127 from the subject site and rezone to a new site specific zone, so that the entire development site would be subject to the same zoning regulations. The applicant proposes to consolidate the properties into two lots and construct a multi-phase (5 phase) light industrial development consisting of two two-storey buildings (Phase 1 and 2), and three additional buildings in undetermined future phases (Phases 3-5) (see Attachment 3).

### Findings of Fact

The subject site is currently operating as a boat yard/marina and contains an existing 1,551 m<sup>2</sup> (16,700 ft<sup>2</sup>) building and additional structures (including tents, and Quonset huts) which are proposed to be retained in the interim. A Development Application Data Sheet providing details about the development proposal is provided in Attachment 4.

### Surrounding Development

Development immediately surrounding the subject is generally as follows:

- To the North: Two-storey light industrial buildings on a property governed by Land Use Contract 127 and with underlying zoning of “Industrial and Marina (ZI17) – Graybar Road (East Richmond)” at 6751/6753/6755 Graybar Road; two-storey light industrial buildings on a property zoned “Industrial Business Park (IB1)” at 6700 McMillan Way; the McMillan Way cul-de-sac; and a farm on a property zoned “Agriculture (AG1)” at 20500 Westminster Highway.
- To the South: Dyke Road and the south arm of the Fraser River, which includes a marina associated with the boat yard on the subject site.



- To the East: A two-storey building on a property governed by Land Use Contract 127 and with underlying zoning of “Industrial and Marina (ZI17) – Graybar Road (East Richmond)” at 6911 Graybar Road. Across Graybar Road, three-storey light industrial and office buildings on a property zoned “Industrial Business Park (IB1)”.
- To the West: An active rail right-of-way (ROW) and undeveloped properties zoned “Agriculture (AG1)” and “Light Industrial (IL)”.

## **Related Policies & Studies**

### **Official Community Plan**

The subject properties are located in the East Richmond planning area and have two land use designations in the Official Community Plan (OCP) as shown in Attachment 5.

- 7500 No. 9 Road, 20455 Dyke Road, and the west half of PID 031-553-231 are designated “Industrial”, which supports a range of industrial uses.
- 20911 Dyke Road, 6831 Graybar Road, the east half of PID 031-553-231 and a portion of Graybar Road are designated “Mixed Employment”, which would support a range of industrial and commercial uses.

The proposed site specific zone would restrict limited commercial uses to the east half of the site only, consistent with the OCP “Mixed Employment” land use designation.

### **Agricultural Land Reserve (ALR) Buffer Zone**

The west portion of the subject site abuts property in the Agricultural Land Reserve (ALR). A Development Permit will be required to ensure an adequate landscape buffer is provided on the subject site to mitigate the impact of the development on adjacent farm properties. The applicant has proposed a 5.0 m buffer along the portion of the property adjacent to the lands within the ALR.

Prior to final adoption of the rezoning bylaw, the applicant will be required to register a legal agreement on title to identify the ALR buffer zone, ensure that the landscaping is not removed, and address public awareness of the potential impacts of agricultural activities such as noise, dust, and odour.

### **Floodplain Management Implementation Strategy**

The proposed redevelopment must meet the requirements of the Richmond Flood Plain Designation and Protection Bylaw 8204. The subject site is located in an area with a designated Flood Construction level of 3.5 GSC. Registration of a flood indemnity covenant on title is required prior to final adoption of the rezoning bylaw.

## **Public Consultation**

A rezoning sign has been installed on the subject property. Staff have not received any comments from the public about the rezoning application in response to the placement of the rezoning sign on the property.

Should the Planning Committee endorse this application and Council grant first reading to the rezoning bylaw, the bylaw will be forwarded to a Public Hearing, where any area resident or interested party will have an opportunity to comment.

Public notification for the Public Hearing will be provided as per the *Local Government Act*.

## **Analysis**

### **Proposed Road Closure**

The subject site consists of four separate properties along the dike, a portion of the former CN Rail right-of-way (ROW), and an unopened road parcel located between the subject site and the property to the north (6751-6755 Graybar Road).

The applicant is required to enter into a purchase and sale agreement with the City for the purchase of the unopened road allowance of approximately 1,237 m<sup>2</sup> (13,300 ft<sup>2</sup>) in size. The primary business terms of the purchase and sales agreement for the unopened road allowance have been previously endorsed by Council; however, a separate road closure bylaw will be brought forward to Council in a separate report from the Director, Real Estate Services.

### **Land Use Contract 127**

6831 Graybar Road is governed by Land Use Contract 127, which is set to automatically expire on June 30, 2024 and be replaced with the underlying “Industrial and Marina (ZI17) – Graybar Road (East Richmond)” zone. The underlying zoning for this property is “Industrial and Marina (ZI17) – Graybar Road (East Richmond)”, which was established by the adoption of Richmond Zoning Bylaw 8500, Amendment Bylaw 9993 on May 21, 2019.

The owner has requested to discharge LUC 127 from the subject site and rezone to a new site specific zone, so that the new development site would be subject to the same site specific zoning regulations.

### **Existing Legal Encumbrances**

There are various City and third party utility Statutory Right-of-Way (SRW) agreements registered on title, which include municipal water, sanitary sewer, and storm sewer lines. New and expanded SRWs are required for the municipal utilities, and are to be 6.0 m centered on the utility line. These SRWs will be secured prior to rezoning bylaw adoption.

A BC Hydro SRW containing overhead transmission lines runs the length of the site. The proposed drive aisle and parking would be in the SRW. The applicant has confirmed that the proposed development is consistent with the terms of the hydro SRW.

### Proposed Zone

The proposed rezoning would result in a single zone for the entire subject site, which is currently governed by a Land Use Contract and three different industrial zones (IL, IB1 and ZI17). The rezoning would not result in any additional floor area ratio (FAR) over what is currently permitted (i.e. a maximum of 1.0 FAR).

A site-specific zone is proposed to address the unique location of the subject site along the waterfront and the two OCP land use designations. The proposed zone is based on the standard “Industrial Business Park (IB1)” zone, but includes land uses permitted in the site-specific “Industrial and Marina (ZI17) – Graybar Road (East Richmond)” zone. These additional uses would be marine-oriented to allow for the continued operation of the boat yard.

Certain land uses, including stand alone office, are proposed to be permitted only in the east portion of the site, which is designated “Mixed Employment” in the OCP, whereas the west portion of the site is proposed be limited to industrial land uses consistent with the “Industrial” OCP land use designation.

### Development Phasing

The applicant proposes to redevelop the subject site in five phases. Phases 1 and 2 consist of two light industrial buildings totalling 18,448 m<sup>2</sup> (198,571 ft<sup>2</sup>) and are proposed on the former CN rail right-of-way and Graybar Road parcel. Phases 3-5 which would add additional light industrial uses, are proposed on the existing boat yard. Concept plans are provided in Attachment 3, which include both a phasing plan for the entire site and more detailed site plans for Phases 1 and 2. The phasing plan is provided as a concept only, as the applicant does not anticipate construction of Phases 3-5 in the near term. Further, there will be no change to the existing site condition along the southern limits of the property.

Prior to zoning bylaw adoption, the applicant is required to enter into an agreement, registered on title, to ensure that no new construction of buildings or structures which would generate new floor area, or changes to the existing site condition occurs within 50.0 m of the south property line abutting Dyke Road (i.e. Phases 3-5) until such time as:

- the applicant submits a Transportation Impact Assessment to the satisfaction of the Director, Transportation for approval;
- enters into a Servicing Agreement for site servicing works and frontage improvements, including watermain replacement along the Dyke Road frontage
- provision of a minimum 3.0 m wide pedestrian walkway between McMillan Way and the dike and secured through a statutory right of way providing public right-of-passage; and,
- completion of upgrades to the existing dike through a Servicing Agreement.

### Built Form and Site Planning

The proposed light industrial development consists of five phases, however only two phases are planned for the immediate future. The first two phases would result in the construction of two buildings totalling 16,897 m<sup>2</sup> (181,871 ft<sup>2</sup>) on the north side of the subject site in addition to the existing 1,551 m<sup>2</sup> (16,700 ft<sup>2</sup>) existing building on the property, generally as shown in Attachment 3. Both new buildings (Phases 1 and 2) would contain two-storey light industrial units fronting the internal drive aisle and the proposed parking.

The applicant anticipates redevelopment of the south portion of the site (Phase 3-5) as part of a longer term vision for the property. Future phases of development would be organized around a widened central drive isle running east-west and providing access for larger vehicles and parking. This rezoning application would provide for continued operation of the existing boat yard in the interim.

### Transportation and Site Access

Vehicle and pedestrian access is proposed from the McMillan Way cul-de-sac and Graybar Road. A single drive aisle would connect the McMillan Way and Graybar Road driveways, allowing access through the site to either street. Vehicular access to the existing boat yard is currently provided via Graybar Road and Dyke Road and is proposed to remain in place. Upon redevelopment of the south side of the subject site (Phases 3-5) additional access is proposed from Dyke Road. The applicant provided a Traffic Impact Assessment to support their application, the findings of which have been reviewed and accepted by the Transportation Department.

An informal pedestrian connection is currently located on the subject site (within the former CN Rail parcel). In recognition of this, the applicant has agreed to provide a formal access through their site as part of Phase 1 which would connect McMillan Way to Graybar Road and ultimately to the waterfront. This connection is secured through a statutory right-of-way providing public rights of passage for pedestrians over the walkway and sidewalk adjacent to the south side of Building 1.

A more direct connection from McMillan to Dyke Road would be formalized as part of the development of Phases 3-5 as a formal connection cannot be provided at this time while the boat yard is in operation due to security and public safety concerns. This direction connection will be designed to provide a 3.0 m wide defined pedestrian pathway connect McMillan Way to Dyke Road, and is to be secured through a statutory right-of-way providing public rights of passage for pedestrians. Design of the walkway will be completed as part of the Servicing Agreement works required for Phases 3-5.

### Encroachments on Dyke Road

A number of the existing structures on the subject property have been found to extend beyond the developer's property boundary and are encroaching onto City property and Dyke Road. In addition, there are a number of parking stalls and loading facilities (including areas used to transporting boats between the subject site and the river) that are associated with the use of the subject property but which are located on City lands and Dyke Road.

City staff have reviewed the encroachments and the use of the parking located on City lands with the applicant. These encroachments do not impact the functionality or safe operation of vehicles on Dyke Road. Prior to rezoning bylaw adoption the owner shall enter into a License Agreement with the City for the use of any parking and loading facilities (including areas used for the operation of gantry cranes) located on City lands and the Dike Road right-of-way across the frontage of the subject site to the satisfaction of the City.

In addition, prior to zoning bylaw adoption, the owner shall obtain the City's acceptance and enter into an encroachment agreement for the portion of existing structures located on City lands and the Dike Road right-of-way to the satisfaction of the City. The primary business terms of such agreement, amongst other matters, shall include the removal of the encroaching structures at the City's request and at the expense of the owner, compensation to be provided to the City for the occupation of the portion of the structure encroaching on City property at fair market value to be paid to the City annually.

### Tree Retention and Replacement

The applicant has submitted a Certified Arborist's Report; which identifies on-site and off-site tree species, assesses tree structure and condition, and provides recommendations on tree retention and removal relative to the proposed development. The Report assesses 114 bylaw-sized trees on the subject property and 16 City trees on the portion of Graybar Road proposed to be acquired by the applicant, 31 trees located on neighbouring properties, and two (2) street trees on City property (McMillan Way).

The City's Tree Preservation Coordinator has reviewed the Arborist's Report and supports the Arborist's findings, with the following comments:

- Four (4) trees located on site along the Graybar Road frontage, specifically (tag #7988, 7989, 7990 & 7991) are identified to be retained and protected.
- 110 trees located on site, within the former CN Rail parcel, are in conflict with the proposed development and identified to be removed and replaced. These trees are primary Cottonwood and Birch.
- A total of 16 trees (tag #City1-City16) on the portion of Graybar Road to be acquired by the developer have been identified as candidates for relocation. The applicant has proposed to relocate all of the 16 trees to other properties they control in the immediate area.
- A total of 17 trees located on the adjacent property at 6751 Graybar Road and five (5) trees located on 7920 No 9 Road are identified to be retained and protected. Provide tree protection as per City of Richmond Tree Protection Information Bulletin Tree-03.
- Seven (7) trees located on the adjacent property at 6751 Graybar Road (tag #OS1, OS2, OS4, OS8, OS9, OS11, OS13) are recommended for removal due to conflicts with the proposed Building 1. The neighbouring strata council has consented to the removal and planting plan provided by the applicant (attachment 6).
- Two (2) trees located on the adjacent property at 6751 Graybar Road (tag #OS16 and OS17) are recommended to be relocated to the frontage of the same property (See Attachment 7).
- Replacement trees should be specified at 2:1 ratio as per the OCP.



Two (2) trees on City property (tag #2103 and 2180) along the McMillan Way cul-de-sac frontage have been reviewed by Parks Department staff, with the following comments:

- Tag #2103 – Tree is in good health and condition. It is lifting up concrete sidewalk panels. Remedial action will be detrimental to the tree health. Conflicts with frontage works. Recommend removal. \$1500 required in compensation.
- Tag #2108 - Tree is in good health and condition. It is lifting up concrete sidewalk panels. Remedial action will be detrimental to the tree health. Conflicts with frontage works. Recommend removal. \$1500 required in compensation.

#### *Tree Protection*

Four (4) on-site trees (tag #7988-7991) and 17 trees located on the neighbouring property at 6751 Graybar Road (tag #OS3, 5-7, 10, 12, 14, 15, 18-26) and five (5) trees located on 7920 No 9 Road (tag #1542-1546) are to be retained and protected. The applicant has submitted a tree protection plan showing the trees to be retained and the measures taken to protect them during development stage (Attachment 7). To ensure that the trees identified for retention are protected at the development stage, the applicant is required to complete the following items:

- Prior to final adoption of the rezoning bylaw, submission to the City of a contract with a Certified Arborist for the supervision of all works conducted within or in close proximity to tree protection zones. The contract must include the scope of work required, the number of proposed monitoring inspections at specified stages of construction, any special measures required to ensure tree protection, and a provision for the Arborist to submit a post-construction impact assessment to the City for review.
- Prior to demolition of the existing dwelling on the subject site, installation of tree protection fencing around all trees to be retained. Tree protection fencing must be installed to City standard in accordance with the City's Tree Protection Information Bulletin Tree-03 prior to any works being conducted on-site, and remain in place until construction and landscaping on-site is completed.

#### *Tree Replacement*

The applicant wishes to remove 110 on-site trees which have been identified by the project arborist as being in high risk, poor or moderate health and in conflict with the proposed building envelope and associated ground densification works. The 2:1 replacement ratio for on-site tree replacement would require a total of 220 replacement trees. The applicant has submitted a preliminary landscape plan (Attachment 7) identifying 53 trees to be planted as part of Phase 1 and 46 trees as part of Phase 2 (including within the proposed ALR Buffer area). The required replacement trees are to be a minimum 8 cm caliper deciduous or 4 m tall coniferous species, as per Tree Protection Bylaw No. 8057.

To satisfy the 2:1 replacement ratio established in the OCP, the applicant will contribute \$96,000.00 to the City's Tree Compensation Fund in lieu of the remaining 128 ( $220 + 7 - 53 - 46 = 128$ ) trees that have not been accommodated as part of the preliminary landscape design of Phase 1 and Phase 2.

#### *Tree Relocation*

The applicant wishes to relocate 16 trees (tag #City1-City16) located on the portion of Graybar Road proposed to be acquired by the developer to other properties the applicant controls in the immediate area. The proposed location is identified in their preliminary landscape plan (Attachment 3).

The applicant wishes to relocate two (2) Japanese Maple trees (tag #OS16 and OS17) and remove seven (7) Black Pine trees (tag #OS1, 2, 4, 8, 9, 11, 13) located on the neighbouring property at 6751 Graybar Road which conflict with the proposed development. The applicant has agreed to plant seven (7) new omorika spruce trees on the neighbouring property and provide an additional seven (7) replacement trees on the subject development site. The strata of the neighbouring property at 6751 Graybar Road has been consulted and provided their consent to the tree removal and replanting proposed for their property (Attachment 6).

Prior to rezoning bylaw adoption, the applicant is required to submit a Landscape Plan and cost estimate for Phase 1 which shall incorporate the 53 on-site replacement trees, the seven (7) replacement trees to be planted on the neighbouring property, relocation of the two (2) Japanese maple trees located on 6791 Graybar Road, and the relocation of the 16 trees located on the portion of Graybar Road which is proposed to be acquired by the developer.

#### Public Art

Consistent with the City's Public Art policy, as a rezoning consideration the applicant will be making a voluntary contribution of approximately \$49,105.17 for Buildings 1 and 2 to the City's Public Art Fund. Additional voluntary contributions for Buildings 3-5 will be provided prior to building permit issuance at the rate applicable at the time of building permit issuance.

#### Sustainability

The applicant proposes to incorporate a number of sustainability and building energy efficiency features into the proposed development including:

- a minimum of 12 EV charging stations to be provided for each building (60 stations in total across all five Phases);
- rooftop solar photovoltaic panels capable of powering all landlord/common area electrical needs, including exterior lighting and lighting in mechanical and service areas;
- pre-ducting/conduit rough-in within each unit for future rooftop solar photovoltaic infrastructure as an alternative energy source for individual tenants; and,
- buildings are proposed to be constructed to achieve a minimum 10% better energy efficiency than the base building code requirement.

Prior to rezoning bylaw adoption, the applicant is required to enter into one or more agreements to ensure that development of the subject site proceeds in accordance with the above commitments.

#### Site Servicing and Frontage Improvements

The City's Ewen Road Drainage Pump Station, outlet and intake structure are partially located on the subject property. As a consideration of rezoning the applicant is required to dedicate lands

to the City at 7500 No 9 Road to access, operate and maintain the watercourse upstream of the Ewen Road Drainage Pump Station and the Ewen Road Drainage Pump Station outlet and intake structure.

Prior to issuance of a Building Permit for Phase 1 or 2, the applicant is required to enter into a Servicing Agreement for the design and construction of the required site servicing and frontage works as required and as described in Attachment 8. There are extensive engineering and servicing requirements associated with the proposed development that are subject to additional study and design as part of the Servicing Agreement process. These requirements include, but are not limited to:

- New 1.5 m sidewalk and landscaped boulevard on Graybar Road.
- New 1.5 m sidewalk on the south side of the McMillan Way cul-de-sac between the driveways for the subject site and 6700 McMillan Way.
- New hydrants, watermains and rights of ways, as applicable.
- An assessment of the existing storm water system and retention of existing storm sewers and additional rights of way as required.
- Retain the existing sanitary main and further assessment and upgrades of existing sanitary and pump station infrastructure as required.
- Raise and replace the existing forcemain that crosses from the marina into the development site.

Prior to issuance of any Building Permit for Phases 3-5, the applicant is required to enter into a Servicing Agreement for the design and construction of the required site servicing and frontage works as described in Attachment 8. These include, but are not limited to:

- Site servicing connections for water, sanitary and storm water.
- Raise and replace existing watermain and hydrants along Dyke Road frontage.
- Design and construction of a walkway and statutory rights of way to provide for a minimum 3.0 m wide statutory right of way providing public right of passage for pedestrian access between McMillan Way and Dyke Road.
- Dike raising along the entire site frontage (approximately 730.0 m in length), together with ditch in-fill and replacement of approximately 225 m of the existing storm sewer, and the reconstruction of Dyke Road.

#### Development Permit Review

As previously noted, Phase 2 (Building 2) abuts the Agricultural Land Reserve. A Development Permit is required to ensure an adequate landscape buffer is provided on the subject site to mitigate the impact of the development on adjacent farm properties. Specific issues to be addressed through that review will include:

- Assessing compliance with the Official Community Plan Development Permit Guidelines.
- A review of the proposed landscape Plant/tree selection, sizes, location and rational
- Additional landscape securities will be calculated to address the landscaping additions.
- A review of the proposed landscaping within the proposed 5.0 m ALR buffer.

## Financial Impact

The rezoning application results in an Operational Budget Impact of \$20,000.00 for off-site City Infrastructure (roadworks, waterworks, storm sewers and sanitary sewers upgrades, street lights and street trees).

To facilitate the proposed development, the applicant proposes to purchase a portion of Graybar Road for inclusion in the applicants' development site. The total approximate area of City lands proposed to be sold and included in the development site is 1,237 m<sup>2</sup> (13,300 ft<sup>2</sup>). As identified in the attached Rezoning Considerations (Attachment 8), the applicant is required to enter into a purchase and sales agreement with the City for the purchase of the lands, which is to be based on the business terms approved by Council.

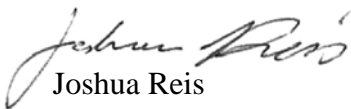
## Conclusion

The purpose of this application is to discharge Land Use Contract 127 from 6831 Graybar Road, and to rezone 6831 Graybar Road, 20455 Dyke Road, 20911 Dyke Road, 7500 No. 9 Road, Lot A Block 4N Plan EPP113853 Section 9 Range 4W New Westminster Land District & SEC 16, 17, 20 (PID 031-553-231) and a portion of Graybar Road from the “Industrial and Marina (ZI17) – Graybar Road (East Richmond)”, “Industrial Business Park (IB1)”, and “Light Industrial (IL)” zones to the new site-specific “Industrial Business Park and Marina (ZI20) – Graybar Road (East Richmond)” zone, to permit a multi-phase light industrial development.

The proposed rezoning is generally consistent with the plans and policies affecting the subject site.

The list of rezoning considerations is provided in Attachment 8, which has been agreed to by the applicant (signed concurrence on file).

It is recommended that Richmond Zoning Bylaw 8500, Amendment Bylaw 10336 be introduced and given first reading.



Joshua Reis  
Program Manager, Development  
(604-204-8653)

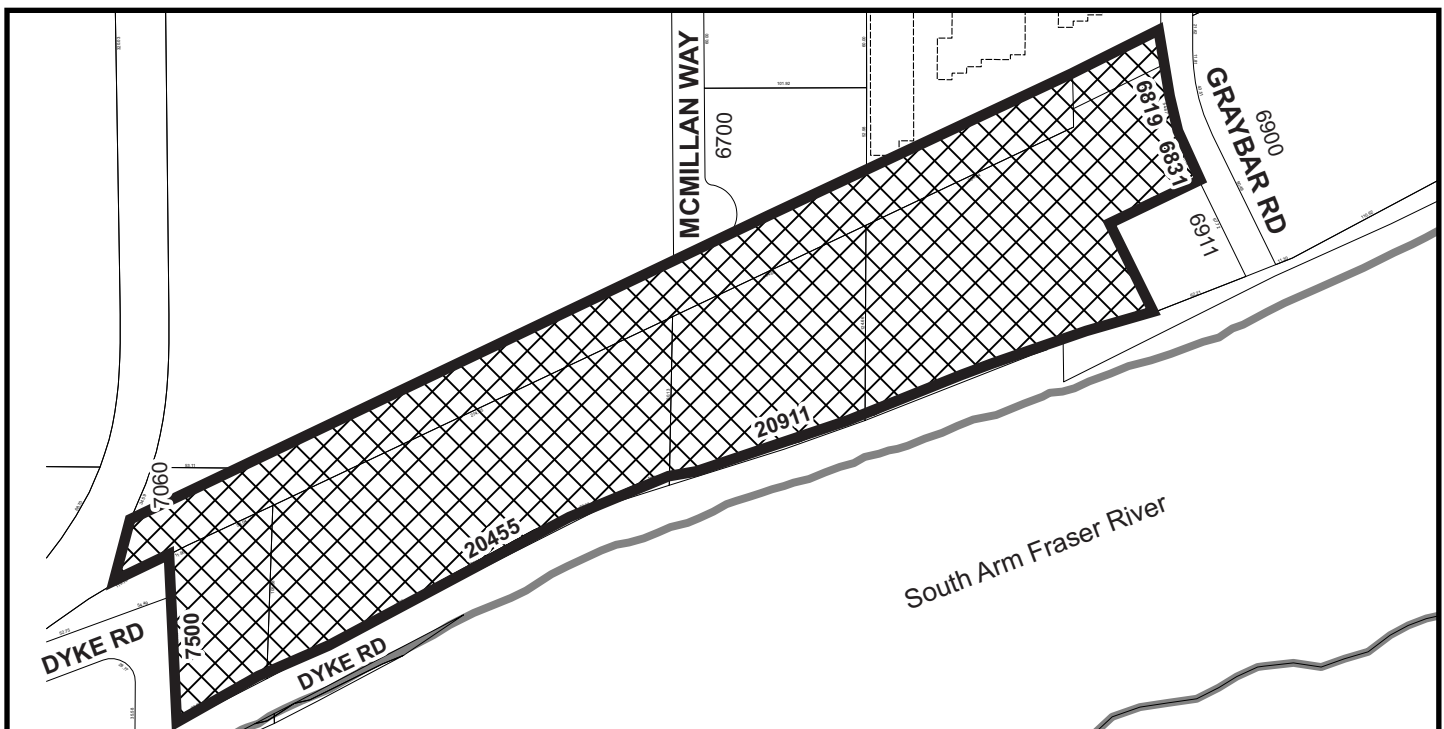
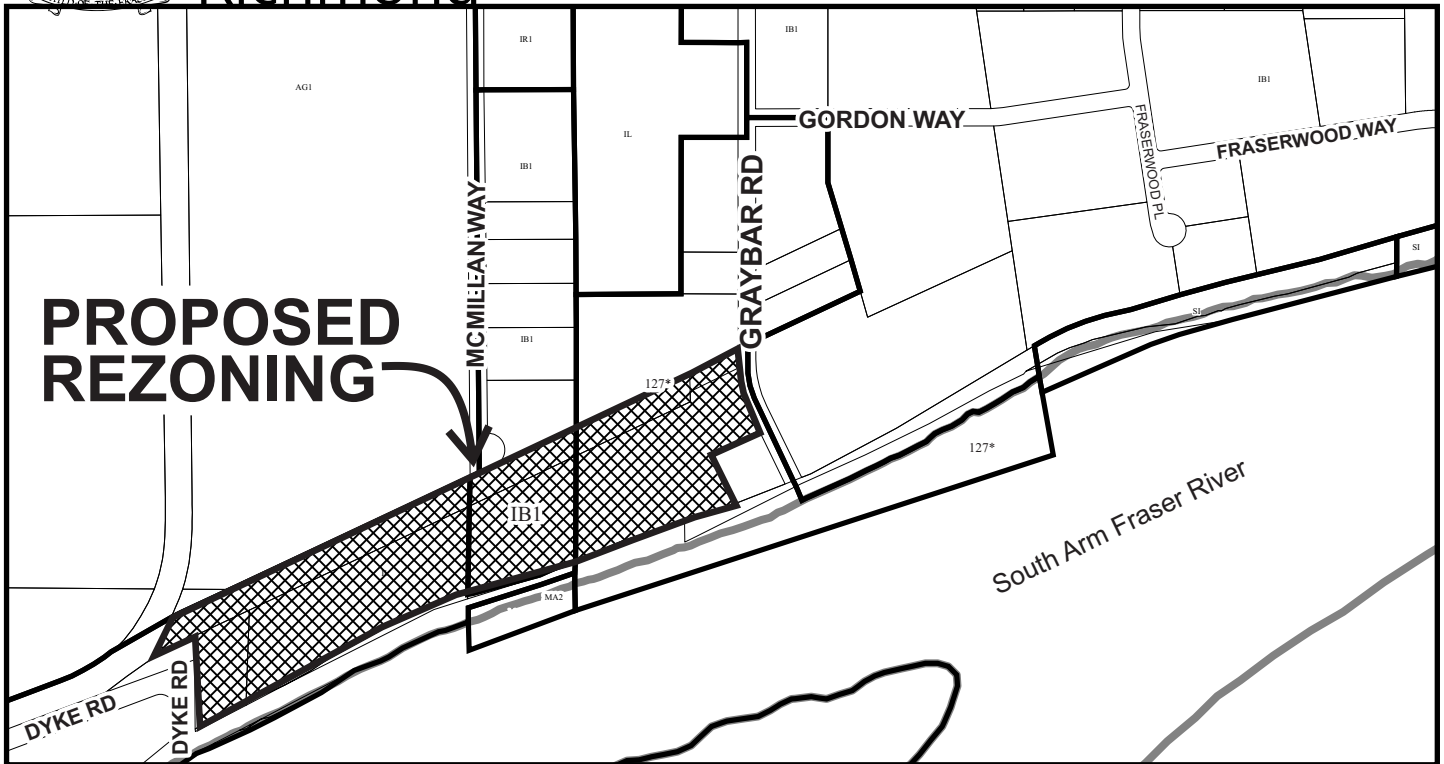
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### Attachments:

- Attachment 1: Location Map and Aerial Photo
- Attachment 2: Site Survey
- Attachment 3: Concept Development Plans
- Attachment 4: Development Application Data Sheet
- Attachment 5: East Richmond OCP Land Use Map
- Attachment 6: Letter of Support from Adjacent Property
- Attachment 7: Tree Retention Plan
- Attachment 8: Rezoning Considerations



# City of Richmond



## RZ 21-928623

Original Date: 04/27/21

Revision Date: 06/06/22

Note: Dimensions are in METRES





# City of Richmond



## RZ 21-928623

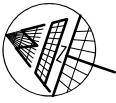
Original Date: 04/27/21

Revision Date: 06/06/22

Note: Dimensions are in METRES

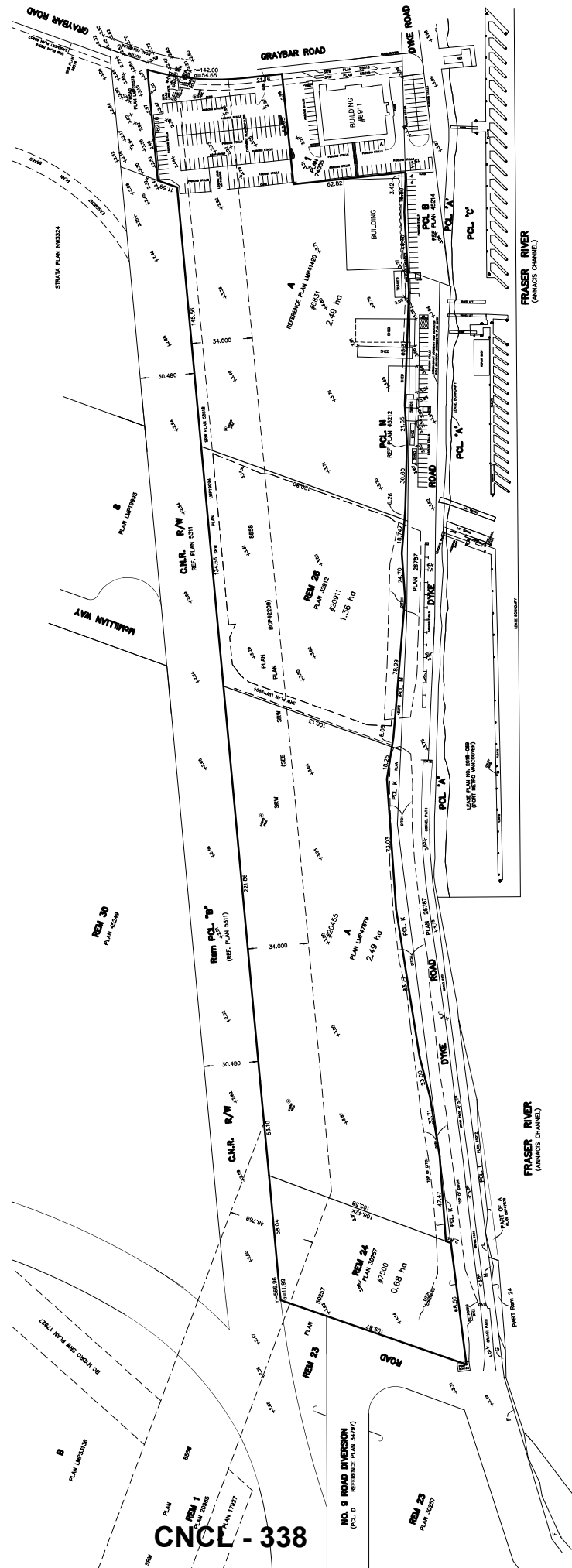
# **SITE SURVEY PLAN OF PORTIONS OF SECTIONS 9, 10, AND 16 BLOCK 4 NORTH RANGE 4 WEST NEW WESTMINSTER DISTRICT**

LANDS DEALT WITH:  
 LOT 24 EXCEPT: FIRSTLY: PARCEL "C" (REFERENCE PLAN 45212), SECONDLY: PARCEL "H" (REFERENCE PLAN 45212), SECTION 16 BLOCK 4 NORTH RANGE 4 WEST NWD PLAN 30257  
 PID: 003-571-157  
 CIVIC ADDRESS: #7500 NO. 9 ROAD, RICHMOND, B.C.  
 LOT A SECTIONS 9 AND 16 BLOCK 4 NORTH RANGE 4 WEST NWD PLAN LMP47879  
 PID: 024-886-327  
 CIVIC ADDRESS: #20485 DYKE ROAD, RICHMOND, B.C.  
 LOT 26 EXCEPT PARCEL "M" (REFERENCE PLAN 45212) SECTIONS 9 AND 16 BLOCK 4 NORTH RANGE 4 WEST NWD PLAN 32912  
 PID: 004-101-235  
 CIVIC ADDRESS: #20911 DYKE ROAD, RICHMOND, B.C.  
 LOT A SECTIONS 9 AND 10 BLOCK 4 NORTH RANGE 4 WEST NWD PLAN LMP41420  
 PID: 024-494-721  
 CIVIC ADDRESS: #6831 GRAYBAR ROAD, RICHMOND, B.C.



**LEGEND**  
 SCALE 1:1000  
 0 20 40 60  
 ALL DISTANCES ARE IN METRES  
 \* INDICATES SPOT ELEVATION  
 B/E INDICATES ELECTRICAL BOX  
 C INDICATES INSPECTION CHAMBER  
 M INDICATES MANHOLE  
 W INDICATES WATER VALVE

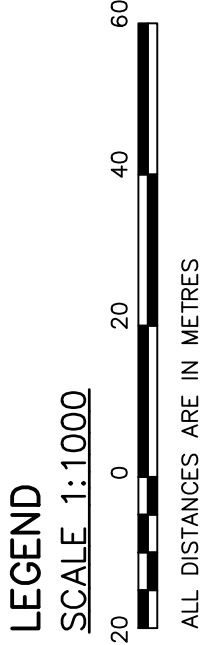
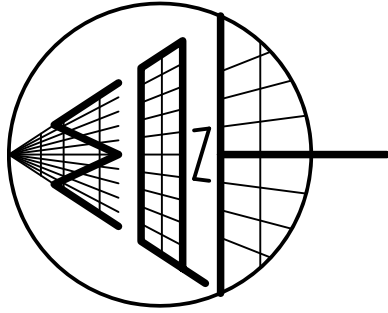
**NOTES**  
 ELEVATIONS ARE IN METRES AND ARE DERIVED FROM AN ADJACENT SURVEY PLAN (PLAN 45212) WITH AN ELEVATION OF 4.56 METRES.  
 THIS PLAN SHOWS PRELIMINARY LOT DIMENSIONS AND AREAS AND ARE SUBJECT TO REVISION FOLLOWING FULL LEGAL SURVEY OF LOT BOUNDARIES.



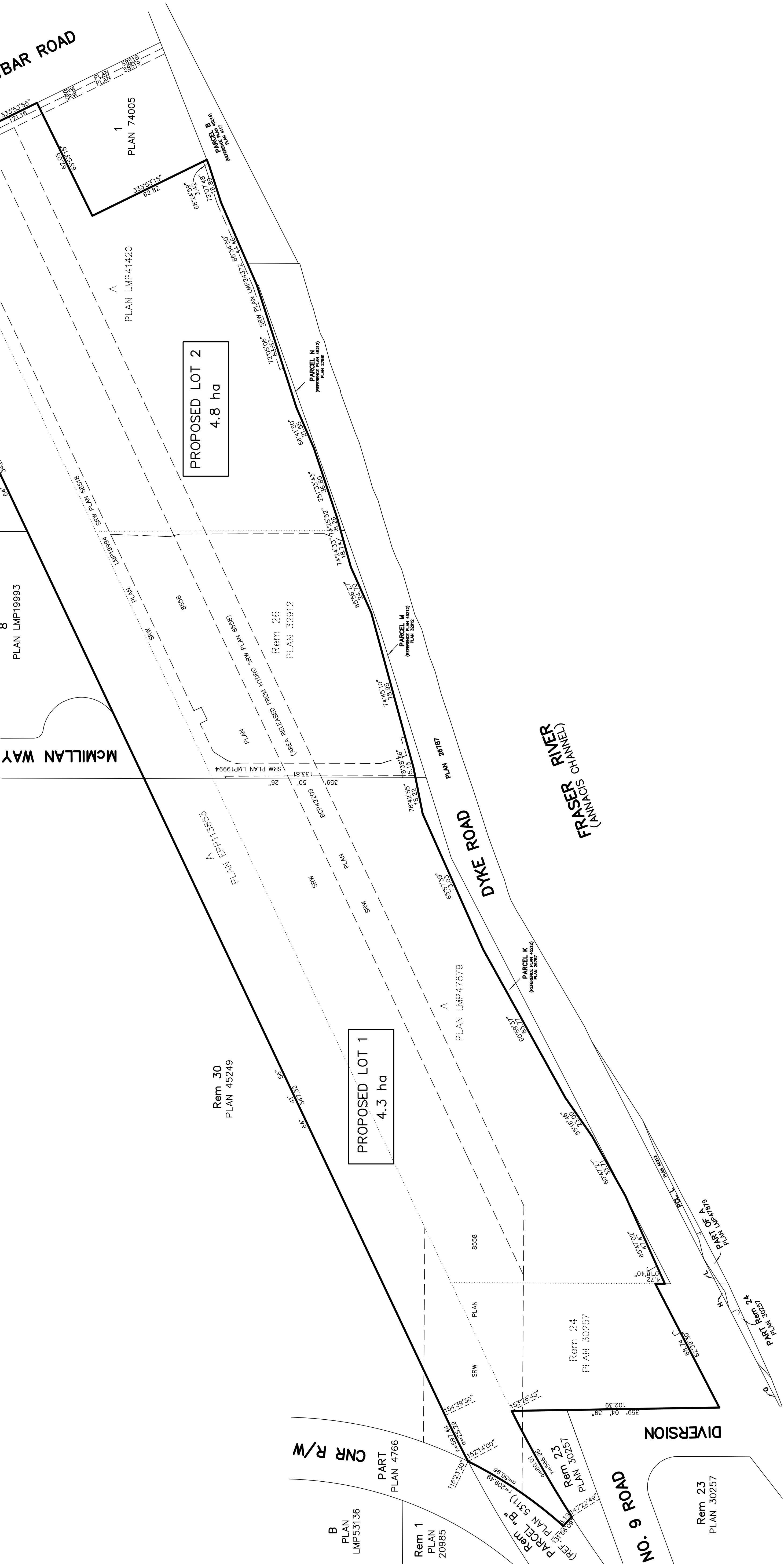


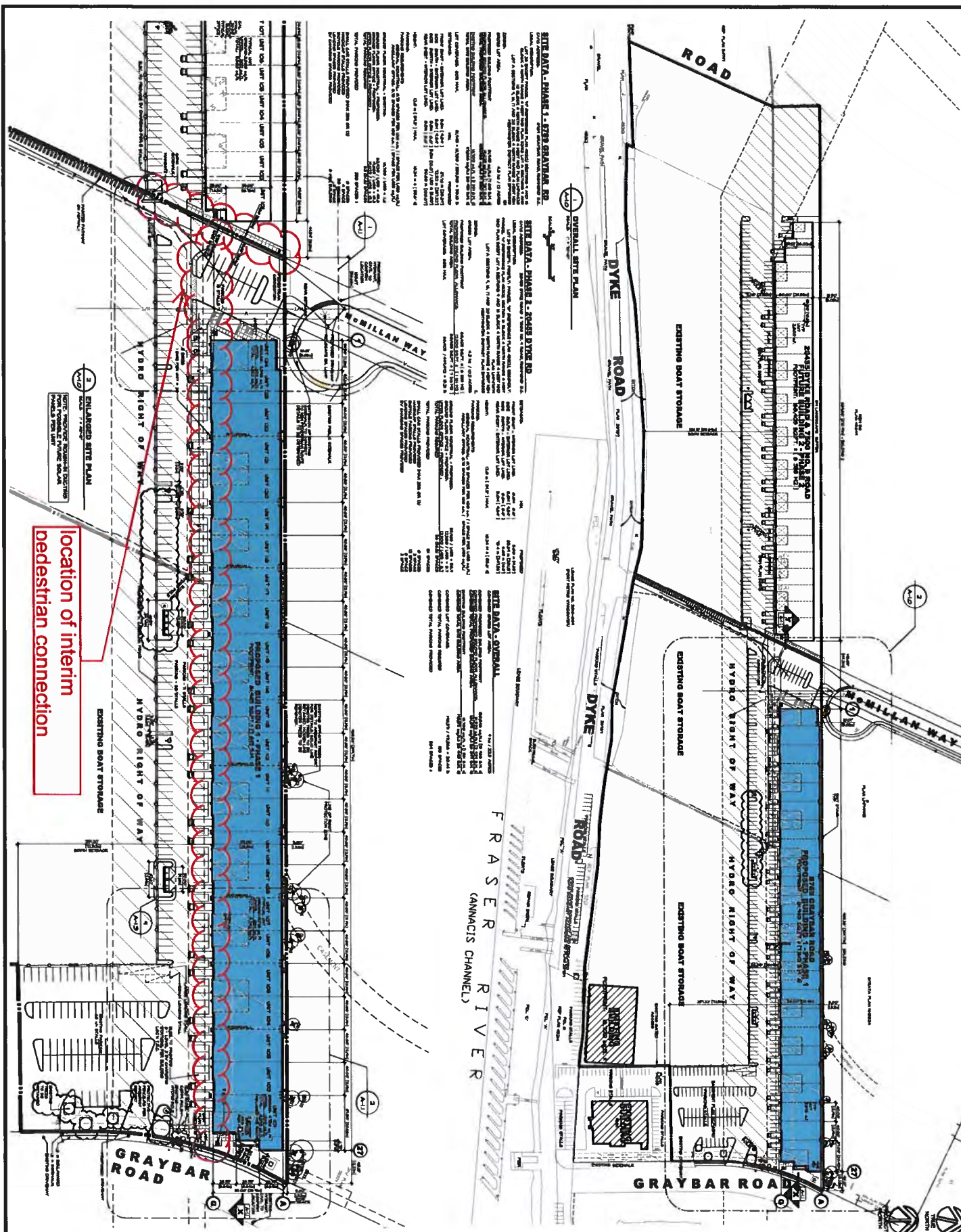
PROPOSED CONSOLIDATION AND SUBDIVISION PLAN OF:

- (1) PART OF LOT 24 EXCEPT: FIRSTLY: PARCEL "G" (REFERENCE PLAN 45212), SECONDLY: PARCEL "H" (REFERENCE PLAN 45212), SECTION 16 BLOCK 4 NORTH RANGE 4 WEST NWD PLAN 30257
- (2) PART OF LOT A SECTIONS 9 AND 16 BLOCK 4 NORTH RANGE 4 WEST NWD PLAN LMP47879
- (3) LOT 26 EXCEPT PARCEL "M" (REFERENCE PLAN 45212) SECTIONS 9 AND 16 BLOCK 4 NORTH RANGE 4 WEST NWD PLAN 32912
- (4) LOT A SECTIONS 9 AND 10 BLOCK 4 NORTH RANGE 4 WEST NWD PLAN LMP41420
- (5) PARCEL A SECTION 10 BLOCK 4 NORTH RANGE 4 WEST NWD PLAN EPP121251 (CLOSED ROAD)
- (6) LOT A SECTIONS 9, 16, 17 AND 20 BLOCK 4 NORTH RANGE 4 WEST NWD PLAN EPP113853

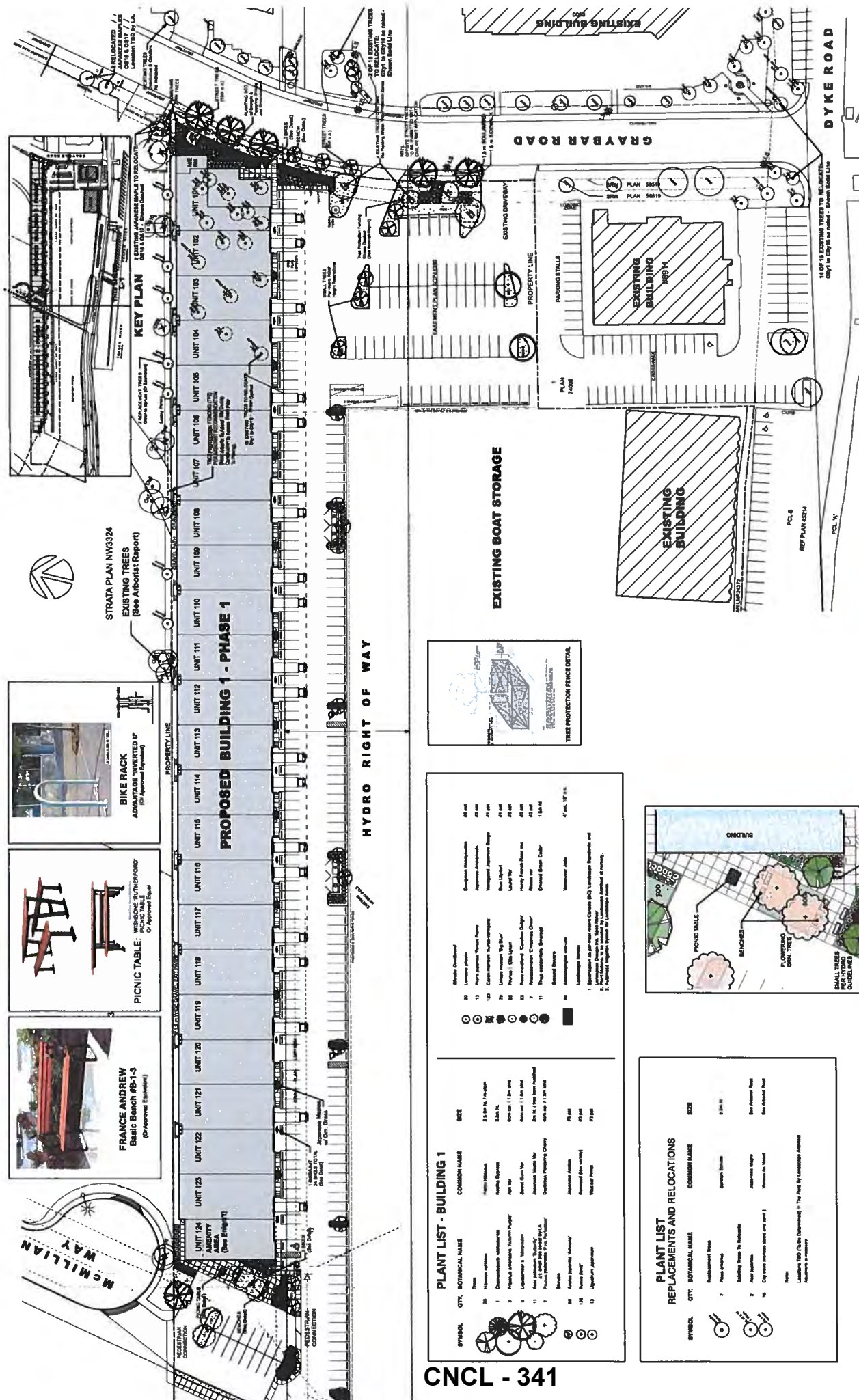


NOTE:  
ALL DIMENSIONS AND AREAS ON THIS PLAN  
ARE TO BE TAKEN AS SHOWN AND NOT TO BE  
TO REVISION FOLLOWING LEGAL BOUNDARY SURVEY.



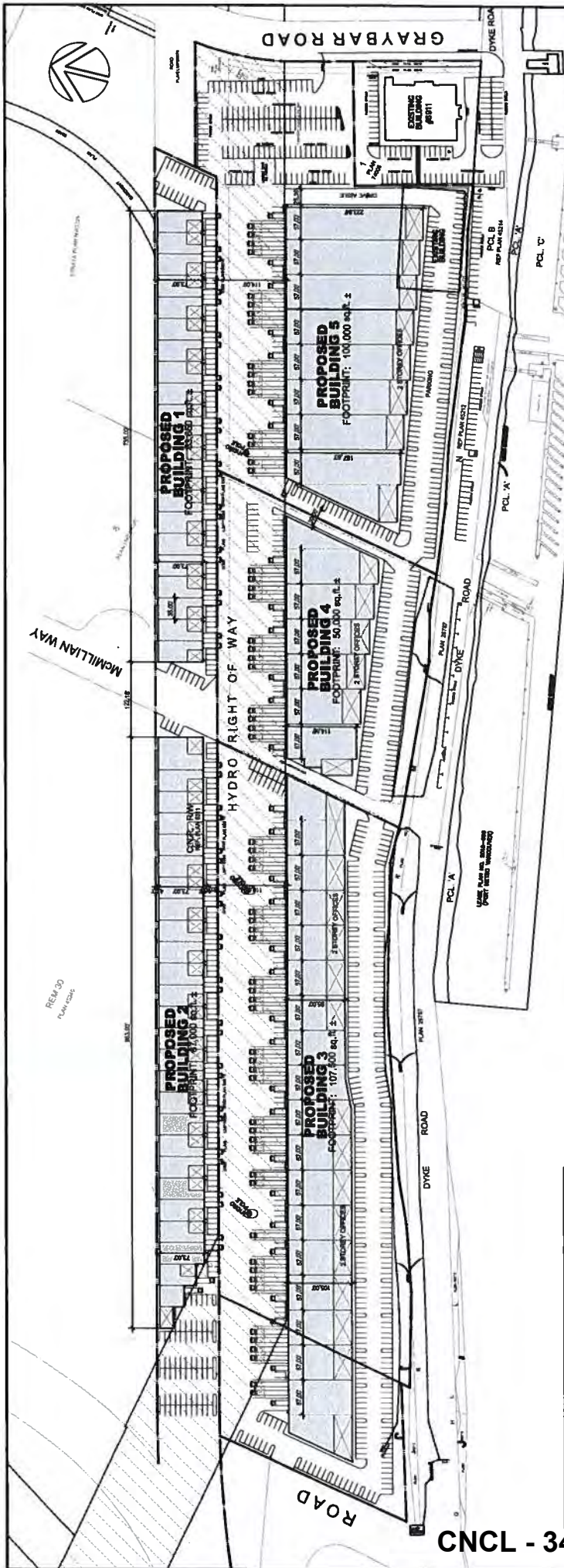












# **1** SK1 **FEASIBILITY STUDY** NOT TO SCALE **FRASER RIVER** (ANNACIS CHANNEL)

**Farrell Estates LTD.**  
A Division of the McPhail Group

**CHIP BARRETT ARCHITECT**  
PH: 604-226-1336, FAX: 604-226-1337  
P: 604-836-1272

**D.FORCE DESIGN INC.**  
2625A ALLIANCE STREET, ABBOTSFORD, B.C. V2S 3J9  
TEL: (604) 507-5555 EMAIL: DARYL@DFORCE.CA

IN ASSOCIATION WITH

**PROPOSED MASTER PLANNING FOR:**  
**FARRELL ESTATES**  
**BOAT YARD REDEVELOPMENT**

CMV ADDRESS: 7500 No 9 Road, 20455 & 20911 Dyke Road, 8831 Graybar Road, Richmond BC

PLAN BASED ON INFO PROVIDED BY CLIENT & HAS NOT BEEN VERIFIED. FOR PRELIMINARY USE ONLY. VERIFY ALL INFORMATION

Building Areas	Bldg1	Bldg2	Bldg3	Bldg4	Bldg5	Combined
Footprint:	sq.ft.	sq.ft.	sq.ft.	sq.ft.	sq.ft.	sq.ft.
Footprint:	53,500	67,000	107,500	50,000	100,000	378,000
Upper floor area:	10,500	13,000	32,000	10,000	13,000	78,500
Total Area	64,000	80,000	139,500	60,000	113,000	456,500
Industrial	43,000	54,000	75,500	40,000	87,000	299,500
Office (1st Floor)	10,500	13,000	32,000	10,000	13,000	78,500
2nd floor offices	10,500	13,000	32,000	10,000	13,000	78,500
2nd floor storage						
Parking Stalls Required						
Warehouse - 1 stall per	1,076	40.0	50.2	37.2	80.9	308
Office - 1 stalls per	359	58.6	72.5	178.4	55.8	438
Total	98.5	122.7	278.3	92.9	153.3	746
Stalls provided	81	122	284	98	148	733

REM 30  
PLAN COPY

CNCL - 343





**RZ 21-928623**

**Attachment 4**

Address: 6831 Graybar Road, 20455 Dyke Road, 20911 Dyke Road, 7500 No. 9 Road, PID 031-553-231 and a portion of Graybar Road

Applicant: Farrell Estates Ltd.

Planning Area(s): East Richmond

	Existing	Proposed
<b>Owner:</b>	Farrell Estates Ltd.	No change
<b>Site Size (m<sup>2</sup>):</b>	90,245 m <sup>2</sup> (22.3 Acres)	90,245 m <sup>2</sup> (22.3 Acres)
<b>Land Uses:</b>	Boat yard and marina	Light industrial, boat yard, and marina
<b>OCP Designation:</b>	Industrial and Mixed Employment	No change
<b>Zoning:</b>	"Industrial and Marina (ZI17) – Graybar Road (East Richmond)" "Industrial Business Park (IB1)" "Light Industrial (IL)"	"Industrial Business Park and Marina (ZI20) – Graybar Road (East Richmond)"
<b>Land Use Contracts:</b>	LUC 127	Discharge

	Bylaw Requirement	Proposed	Variance
Floor Area Ratio:	Max. 1.0 FAR	Max. 1.0 FAR	none permitted
Buildable Floor Area (m <sup>2</sup> ):*	Max.-Lot 1: 43,000 m <sup>2</sup> (462,848 ft <sup>2</sup> )  Max Lot 2: 48,000 m <sup>2</sup> (516,667 ft <sup>2</sup> )	<u>Lot 1:</u> Existing Building: 1,551 m <sup>2</sup> (16,8700 ft <sup>2</sup> ) Building 1: 9,380 m <sup>2</sup> (100,966 ft <sup>2</sup> )  <u>Lot 2:</u> Building 2: 7,516 m <sup>2</sup> (80,905 ft <sup>2</sup> )	none permitted
Lot Coverage (% of lot area):	Building: Max. 75%	20.5%	None
Lot Size:	None	Lot 1: 4.3 ha (10.63 acres) Lot 2: 4.8 ha (1.86 acres)	None
Lot Dimensions (m):	None	Width: Varies Depth: Varies	None
Setbacks (m):	Graybar Rd: Min. 6.0 m McMillan Way: Min. 3.0 m ALR: Min. 5.0 m North PL: 1.5 m South PL: 3.0 m Interior side yard: No Minimum Rear yard: No minimum	Graybar Rd: 6.0 m McMillan Way: 3.0 m ALR: 5.0 m North PL: 1.5 m South PL: 72.3 m Interior side yard: complies Rear yard: complies	None

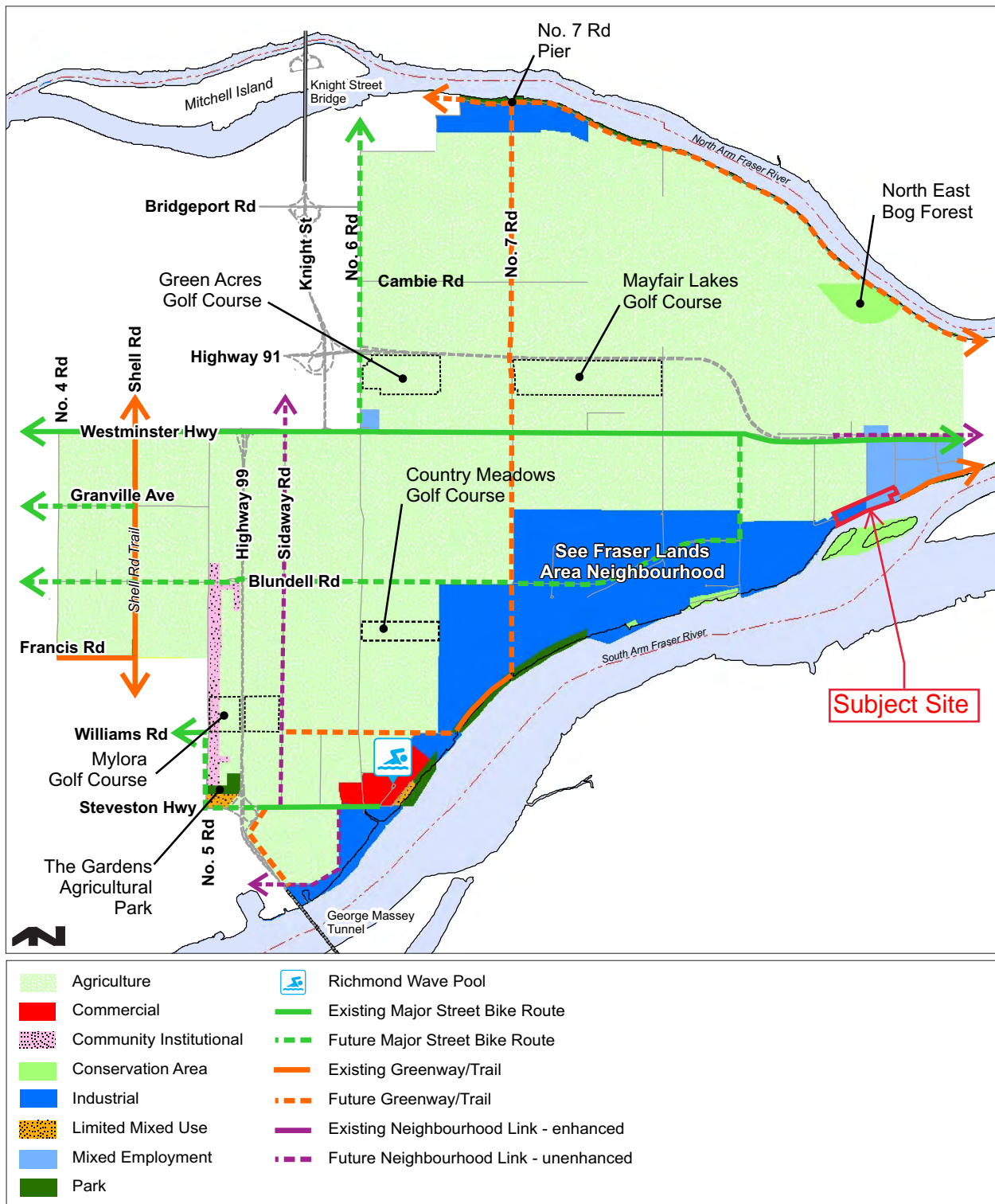
	<b>Bylaw Requirement</b>	<b>Proposed</b>	<b>Variance</b>
Height (m):	Max 16.0 m	Building 1: 10.25 m Building 2: 10.25 m	None
Off-street Parking Spaces:	Regular: Min. 50% Small: Max. 50% Accessible: Min. 2%	Regular: Min. 50% Small: Max. 50% Accessible: Min. 2%	None
Off-street Parking Spaces – Total:	0.75 spaces per 100 m <sup>2</sup> leasable floor area (139)	389 spaces	None
Off-street Loading Spaces:	1 medium loading space per building	2 medium loading spaces	none
Bicycle Parking:	Class 1: Min, 0.27 per 100 m <sup>2</sup> Class 2: Min. 0.27 per 100 m <sup>2</sup>	Complies	None

Other: \_\_\_\_\_

\* Preliminary estimate; not inclusive of garage; exact building size to be determined through zoning bylaw compliance review at Building Permit stage.



### 13. East Richmond







Strata, Residential & Commercial Property Management  
604.685.3227 | [www.awmalliance.com](http://www.awmalliance.com)

April 11, 2022

Sent via e-mail: [rmcphail@farrellestates.com](mailto:rmcphail@farrellestates.com)

**Farrell Estates Ltd.**  
6911 Graybar Road  
Richmond, BC V6W 1H3

Attn: Ross McPhail, Project & Development Manager

**RE: Strata Plan NW3324 – Graybar South Complex [located at 6751 / 6753 / 6755 Graybar Road, Richmond]  
Tree Removal & Relocation**

We write to you on behalf of the Strata Council of Strata Plan NW3324 – Graybar South Complex [the “Strata Corporation”] following recent discussions and site meetings between the parties regarding the removal of certain trees and relocation of others located on the property of the Strata Corporation.

The Strata Council has considered the matter and would like to inform you that it is in agreement with the following:

1. Removal of Black Pine trees labeled OS1, OS2, OS4, OS8, OS9, OS11, and OS13 and their replacement with “Sitka Spruce” trees, as noted in the attached *Arboricultural Tree Study* issued by Diamond Head, dated March 10, 2022, and attached *Landscape Plan* issued by LandScape Design Inc., dated March 31, 2022.
2. Relocation of Japanese Maple trees OS16 and OS17, as noted in the attached *Arboricultural Tree Study* issued by Diamond Head, dated March 10, 2022, and attached *Landscape Plan* issued by LandScape Design Inc., dated March 31, 2022.
3. The exact new locations of the trees are to be confirmed with the Strata Council closer to construction / in advance of their replacement and relocation, respectively.
4. The install of a black chain link fence on the boundary / property line between the Strata Corporation and Farrell Estates Ltd.
5. All of the direct & associated costs in relation to the above [trees removal, trees replacement, trees relocation, install of black chain link fence] are to be borne in their entirety by Farrell Estates Ltd.

Authorized  
Representative: Eduard Lorincz

Title: Strata & Rental Manager  
AWM-Alliance Real Estate Group Ltd.  
Managing Agents for  
Strata Plan NW3324

Signature:

Authorized  
Representative: Ross McPhail

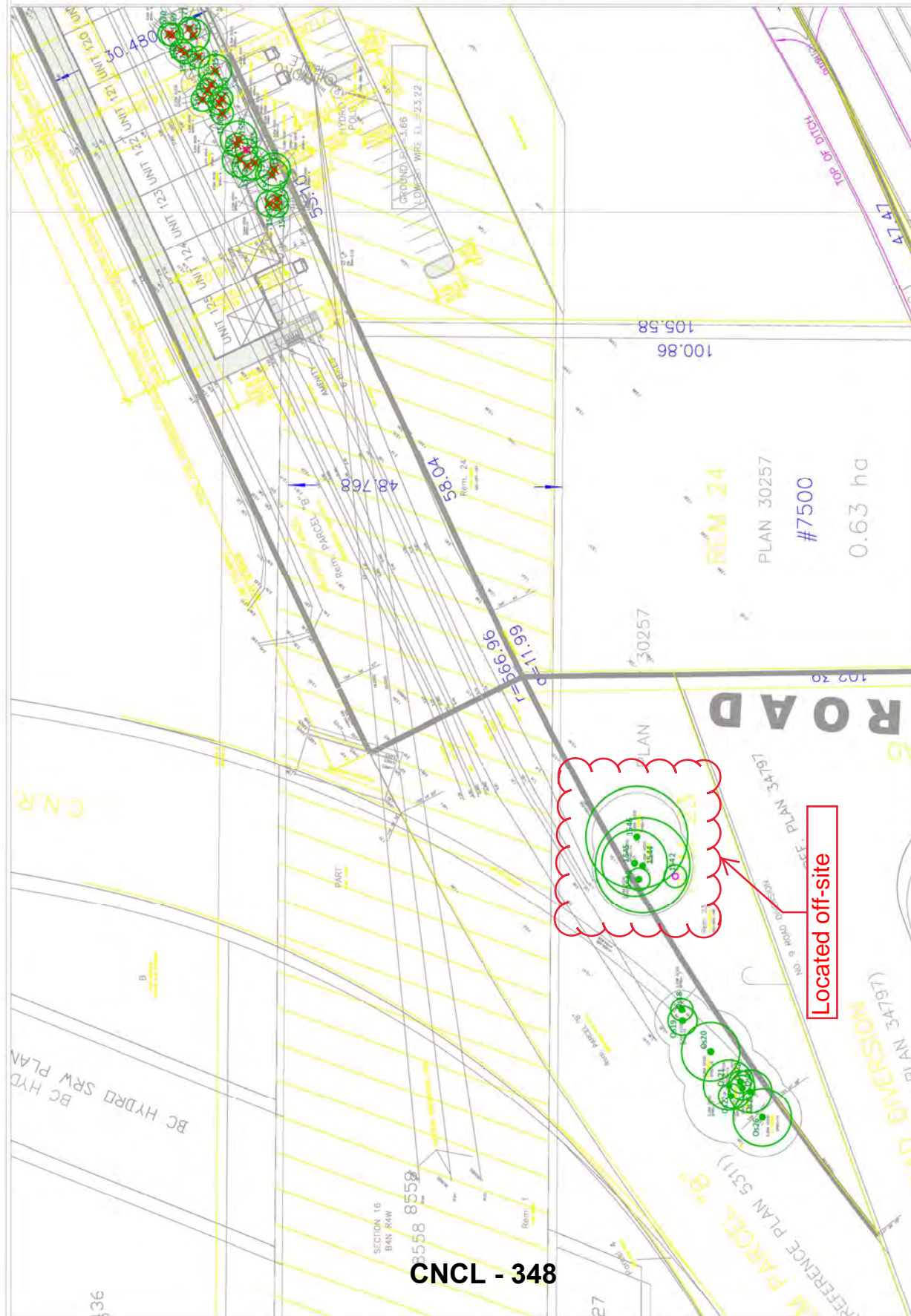
Title: Project & Development Manager  
Farrell Estates Ltd.

Signature:

**Vancouver Head Office**  
401-958 West 8th Avenue  
Vancouver, BC V5Z 1E5

**Fraser Valley Office**  
214-6820 188th Street.  
Surrey, BC V4N 3G6

**Whistler Office**  
212-1200 Alpha Lake Road  
Whistler, BC V8E 0H6







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PLAN 45249

PLAN 45249

PLAN 45249

PLAN 45249

- LEGEND
- TREE PROTECTION FENCE
  - TREE TO BE RETAINED
  - UN-SURVEYED TREE
  - TREE TO BE REMOVED

NOTES

- The location of un-surveyed trees on this plan is approximate. Their location and ownership cannot be confirmed without being surveyed by a Registered BC Land Surveyor.
- All tree protection fencing must be built to the relevant municipal bylaw specifications. The dimensions shown are from the outer edge of the stem of the tree.
- The tree protection zone shown is a graphical representation of the critical root zone, measured from the outer edge of the stem of the tree. The tree diameter was added to the graphical tree protection circles to accommodate the survey point being in the center of the tree.
- Any construction activities or grade changes within the Foot Protection Zone must be approved by the project arborist.
- This plan is based on a topographic and tree location survey provided by the owners' Registered British Columbia Land Surveyor (BCLS) and layout drawings provided by the owners' Engineer (P Eng).
- This plan is provided for context only and is not certified as to the accuracy of the location of features or dimensions shown on this plan. Please refer to the original survey plan and engineering plans.

REFERENCE DRAWINGS

- Base Survey by: Underhill Geomatics Ltd. Engineers and Surveyors dated Nov. 3, 2020.

Drawing title: Tree Retention and Removal Plan  
Project address: 6831 Graybar Road, Richmond  
Client: Farrell Estates

3559 COMMERCIAL STREET  
VANCOUVER BC V6N 4A8  
T 604.733.4688 F 604.733.4679







- LEGEND
- TREE PROTECTION ZONE
  - TREE PROTECTION FENCE
  - TREE TO BE RETAINED
  - UN-SURVEYED TREE
  - TREE TO BE REMOVED

NOTES

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Drawing title: Tree Retention and Removal Plan  
Project address: 6831 Graybar Road, Richmond  
Client: Farrell Estates

3559 COMMERCIAL STREET  
VANCOUVER BC V6N 4B8  
TEL: 604.733.4681 | 1.866.733.4679



CNCL - 350





LEGEND

- TREE PROTECTION FENCE
- TREE TO BE RETAINED
- UN-SURVEYED TREE
- TREE TO BE REMOVED

NOTES

- The location of un-surveyed trees on this plan is approximate. Their location and ownership cannot be confirmed without being surveyed by a Registered BC Land Surveyor.
- All tree protection fencing must be built to the relevant municipal bylaw specifications. The dimensions shown are from the outer edge of the stem of the tree.
- The tree protection zone shown is a graphical representation of the critical root zone, measured from the outer edge of the stem of the tree. The tree diameter was added to the graphical tree protection circles to accommodate the survey point being in the center of the tree.
- Any construction activities or grade changes within the Foot Protection Zone must be approved by the project arborist.
- This plan is based on a topographic and tree location survey provided by the owners' Registered British Columbia Land Surveyor (BCLS) and layout drawings provided by the owners' Engineer (P. Eng.).
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REFERENCE DRAWINGS

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Drawing title: Tree Retention and Removal Plan  
Project address: 6831 Graybar Road, Richmond  
Client: Farrell Estates

3559 COMMERCIAL STREET  
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CNCL - 351





**Address:** 6831 Graybar Road, 20455 Dyke Road, 20911 Dyke Road, and 7500 No 9 Road  
**File No.:** RZ 21-928623

**Prior to final adoption of Richmond Zoning Bylaw 8500, Amendment Bylaw 10336, the developer is required to complete the following:**

1. Council approval of the road closure bylaw for the unopened portion of Graybar Road (approximately 1,237 m<sup>2</sup> in area) to be consolidated with the development site. The developer shall be required to enter into a purchase and sales agreement with the City for the purchase of the Land, which is to be based on the business terms approved by Council. All costs associated with the purchase and sales agreement shall be borne by the developer.
2. Consolidation of the 1,237 m<sup>2</sup> closed portion of Graybar Road with one or more of the lots subject to this rezoning application, to the satisfaction of the City's Approving Officer.
3. Dedication of land to the City, at 7500 No 9 Road to access, operate and maintain the watercourse upstream of the Ewen Road Drainage Pump Station and the Ewen Road Drainage Pump Station outlet and intake structure. Additional dedicated land will also required around the Ewen Road Drainage Pump Station to accommodate future upgrades by the City. Detailed requirements for the dedicated lands shall be finalized during the servicing agreement design review for Phase 1.
4. Granting of a statutory right-of-way, approximately 3.0 m wide, between the southern edge of the proposed Building 1 foundation to the northern edge of the City right of way that contains the existing watermain.
5. City acceptance of the developer's offer to voluntarily contribute \$99,000.00 (\$96,000 for on-site tree replacement + \$3,000 for City Tree replacement) to the City's Tree Compensation Fund for the planting of replacement trees within the City.
6. Submission of a Contract entered into between the applicant and a Certified Arborist for supervision of any on-site works conducted within the tree protection zone of the trees to be retained. The Contract should include the scope of work to be undertaken, including: the proposed number of site monitoring inspections, and a provision for the Arborist to submit a post-construction assessment report to the City for review.
7. Submission of a Tree Survival Security to the City in the amount of \$40,000 for the four (4) trees to be retained on-site.
8. Submission of a Landscape Plan and cost estimate, prepared by a Registered Landscape Architect, to the satisfaction of the Director of Development. The Landscape Plan should:
  - comply with all applicable guidelines of the OCP;
  - include a mix of coniferous and deciduous trees;
  - include the dimensions of tree protection fencing as illustrated on the Tree Retention Plan attached to this report;
  - include the cost of tree transplant/relocation for the 16 trees located on City property and the two (2) trees located on the adjacent property at 6751/6753 and 6755 Graybar Road;
  - include the cost of the seven (7) replacement trees to be provided on the adjacent property at 6751/6753 and 6755 Graybar Road and the 53 proposed on-site replacement trees with the following minimum sizes:

No. of Replacement Trees	Minimum Caliper of Deciduous Tree	or	Minimum Height of Coniferous Tree
60	8 cm		4 m

If required replacement trees cannot be accommodated on-site, a cash-in-lieu contribution in the amount of \$750/tree to the City's Tree Compensation Fund for off-site planting is required.

9. Registration of a flood plain covenant on title identifying a minimum habitable elevation of 3.5 m GSC (Not Area A).
10. Registration of an Electric Vehicle (EV) Charging Infrastructure covenant on Title, securing the owner's commitment to voluntarily provide, install, and maintain EV charging equipment for the use of the commercial tenants and others as determined to the satisfaction of the City through an approved Development Permit. More specifically, a minimum

of 12 of the required parking spaces per building (for a minimum of 60 spaces across all five phases of development) must be provided with Level 2 EV charging.

11. Registration of a legal agreement on Title ensuring the building energy use will be a minimum 10% less than current code (BC Building Code 2018). Compliance will be confirmed at Building Permit and Tenant Improvement stage through energy modelling to the satisfaction of the Director of Building Approvals.
12. Registration of a legal agreement on Title ensuring all units are pre-ducted for solar photovoltaic or other alternative energy systems to the satisfaction of the Director of Building Approvals.
13. Registration of a legal agreement on Title ensuring that solar panels capable of supporting all common area electrical needs (including but not limited to exterior lighting and lighting within servicing and mechanical areas) will be installed to the satisfaction of the Director of Building Approvals, maintained for the life of the building and will not be removed without City approval. The agreement will include provisions for alternative renewable technologies to replace the solar panel installations provided that equal or better performance is achievable to the satisfaction of the Director of Development and the Director of Building Approvals.
14. The granting of a statutory right-of-way for the area over the proposed 3.0 m wide walkway from McMillan Way to the southern limits of the area to be developed and along the sidewalk adjacent to Building 1 (being a min. of 1.5 m in width) to provide public pedestrian access between McMillan Way and Graybar Road with the developer and owner being responsible for liability, construction and maintenance.
15. Registration of a legal agreement on title to ensure that landscaping planted within the ALR buffer is not abandoned or removed. The legal agreement is to identify the ALR buffer area and indicate that the property is potentially subject to impacts of noise, dust and odour resulting from agricultural operations since it abuts a lot which is in the ALR.
16. City acceptance of the developer's offer to voluntarily contribute \$0.27 per buildable square foot (e.g. \$49,105.17) to the City's public art fund for Buildings 1 and 2. In the event that the contribution is not provided within one year of the application receiving third reading of Council (i.e. Public Hearing), the contribution rate shall be increased annually thereafter based on the Statistics Canada yearly quarter-to-quarter change for Vancouver, where the change is positive.
17. The submission and processing of a Development Permit\* completed to a level deemed acceptable by the Director of Development for Phase 2 (Building 2).
18. Enter into a License Agreement with the City for the purpose and use of parking and loading facilities (including areas used for the operation of gantry cranes) located on City lands and the Dike Road right-of-way across the frontage of the subject site to the satisfaction of the City's Director, Real Estate Services, Director, Transportation, and Director, Engineering. The primary business terms of such agreement shall generally include a per stall rate to be paid monthly.
19. City's acceptance and entering into an encroachment agreement for the portion of existing structures located on City lands and the Dike Road right-of-way to the satisfaction of the City's Director, Real Estate Services, Director, Transportation, and Director, Engineering.. The primary business terms of such agreement, amongst other matters, shall include the removal of the encroaching structures at the City's request and at the expense of the owner, compensation to be provided to the City for the occupation of the portion of the structure encroaching on City property at fair market value to be paid to the City annually.
20. Registration of a legal agreement on title restricting issuance of a building permit which would result in the creation of new floor area or removal of any bylaw sized trees (without prior City consent) on the southerly 50.0 m of the consolidated property, roughly as shown in Appendix A, until the requirements identified in Appendix B have been completed. The agreement shall also provide that in the event that future diking improvements are constructed by the City, that the owner will dedicate all lands required to accommodate the full width of the Dike based on the City's detailed design.
21. Enter into a Servicing Agreement\* for the design and construction of engineering infrastructure improvements. A Letter of Credit or cash security for the value of the Service Agreement works, as determined by the City, will be required as part of entering into the Servicing Agreement. Works include, but may not be limited to:

Water Works:

- a) Using the OCP Model with the water main upgrades identified below, there will be 272.9 L/s of water available at 20 psi residual at the Graybar Road frontage and 268.2 L/s of water available at 20 psi at the hydrant located at the north property line of 20911 Dyke Road. Based on the proposed development, the site requires a minimum fire flow of 220 L/s.
- b) At Developer's cost, the Developer is required to:
- i. Submit Fire Underwriter Survey (FUS) or International Organization for Standardization (ISO) fire flow calculations to confirm development has adequate fire flow for onsite fire protection. Calculations must be signed and sealed by a Professional Engineer and be based on Building Permit Stage Building designs.
  - ii. Subject to a geotechnical assessment of the impact of the proposed Building 1 on the existing watermain along the north PL of 20911 Dyke Rd and 6831 Graybar Rd, retain the existing watermain and protect it during construction of the proposed building.
  - iii. Show on the site plan the clearance (approximately 3m wide) between the southern edge of the proposed Building 1 foundation to the northern edge of the City right of way that contains the existing watermain. This area shall be secured/registered as a right of way prior to rezoning adoption.
  - iv. Subject to the City's fire department review, provide new hydrants to service the proposed buildings. The new hydrants shall be along the proposed drive isle and spaced to service both proposed (i.e., Buildings 1 and 2) and the future buildings that will front Dyke Rd.
  - v. If the City's fire department requires hydrants in the drive aisle between the proposed and future buildings, the developer will be required to provide a new watermain that shall front the proposed Building 2. The new watermain shall be looped via new watermain along the common property line of 7500 No 9 Rd and 20455 Dyke Rd and the Dyke Rd frontage of 20455 Dyke Rd.
  - vi. The new watermain that fronts Building 2 and along the common property line of 7500 No 9 Rd and 20455 Dyke Rd shall be contained in a new 6m wide right of way. The details of the new watermain and the required rights of ways shall be finalized via the servicing agreement review.
  - vii. Monitor the settlement at the adjacent watermain during pre-loading, dewatering, and soil preparation works per a geotechnical engineer's recommendations, and report the settlement amounts and mitigation measures to the City for approval.
  - viii. Install one new water service connection for each of the proposed Buildings 1 and 2. Meter to be located onsite (i.e. within the mechanical room).
- c) At Developer's cost, the City is to:
- i. Complete all tie-ins for the proposed works to existing City infrastructure.

#### Storm Sewer Works:

- a) At Developer's cost, the Developer is required to:
- i. Confirm the catchment of the existing ditches along the CNR corridor, subject to City approval. Ditches will need to be filled because they conflict with the proposed Building 1 and 2 and the drainage shall be redirected to the appropriate storm system. Remove the four culverts and headwalls that inlet the CNR ditches into the City's storm system that is contained in the City right of way along the west property line of 20911 Dyke Rd.
  - ii. Subject to a geotechnical assessment of the impact of the proposed Building 1 on the existing storm sewer that crosses the CNR corridor, retain the existing storm sewer and provide mitigation measures to protect it during construction of the proposed Building 1.
  - iii. Retain the existing storm sewers contained in the right of way along the north and west property lines of 20911 Dyke Rd. The existing 6m right of way along the west property line of 20911 Dyke Rd shall be increased to 9m. This is to facilitate access as the existing 900mm storm sewer is against the east edge of the existing 6m right of way.
  - iv. Retain the existing storm sewers along the Dyke Rd frontage of 6831 Graybar Rd
  - v. Details of the required service connections (e.g., location, size, etc.) for proposed Buildings 1 and 2 shall be finalized at the servicing agreement review stage.

- vi. Monitor the settlement at the adjacent drainage utilities and structures during pre-loading, dewatering, and soil preparation works per a geotechnical engineer's recommendations, and report the settlement amounts and mitigation measures to the City for approval.
  - vii. Install one new storm service connection each for the proposed Buildings 1 and 2. From the City's storm service connection, the proposed Buildings 1 and 2 may have to be serviced by private storm sewers that will run along the drive aisles fronting Buildings 1 and 2. As the drive aisles are located within a BC Hydro right of way which contains overhead transmission lines and poles, consultation with BC Hydro is required. BC Hydro's approval of the required private underground lines within the drive aisles shall be included in the development process design review. If Shaw and Telus and other private utility companies have existing infrastructures and rights of ways in the drive aisle then written approval from them are required also.
  - viii. Provide an erosion and sediment control plan for all on-site and off-site works, to be reviewed as part of the servicing agreement.
- b) At Developer's cost, the City is to:
- i. Cut and cap all existing storm service connections and remove inspection chambers.
  - ii. Complete all tie-ins for the proposed works to existing City infrastructure, including re-connections of existing services to the new mains.

Sanitary Sewer Works:

- c) At Developer's cost, the Developer is required to:
- i. The west edge of proposed Building 1 Shall be a minimum of six metres away from the existing sanitary sewer that crosses the former CN Rail property.
  - ii. Subject to a geotechnical assessment of the impact of the proposed Building 1 on the existing sanitary main along the north PL of 20911 Dyke Rd and 6831 Graybar Rd and subject to capacity analyses to confirm that the existing sanitary main and existing Graybar sanitary pump station are adequate to service the proposed Buildings 1 and 2 and the future buildings, retain the existing sanitary main that fronts proposed Building 1 and protect it during construction of the proposed building. If the capacity analyses indicate that the existing sanitary line and pump station are inadequate to service the proposed and future buildings then the existing sanitary line and pump station shall be upgraded. The pump station upgrade may include replacement of the pumps, kiosks, antenna and provision of a BC Hydro PMT.
  - iii. Provide additional right of way around the Graybar sanitary pump station to accommodate future upgrades by the City. The details of the additional right of way shall be finalized in the servicing agreement design review.
  - iv. Show on the site plan the clearance (approximately 3m wide) between the southern edge of the proposed Building 1 foundation to the northern edge of the City right of way that contains the existing sanitary main. This area shall be secured/registered as a right of way prior to rezoning adoption.
  - v. Monitor the settlement at the adjacent sanitary main and pump station during pre-loading, dewatering, and soil preparation works per a geotechnical engineer's recommendations, and report the settlement amounts and mitigation measures to the City for approval.
  - vi. Install one new sanitary service connection each for the proposed Buildings 1 and 2. From the City's sanitary service connection, the proposed Buildings 1 and 2 may have to be serviced by private sanitary sewers that will run along the drive aisles fronting buildings 1 and 2. As the drive aisles are located within a BC Hydro right of way which contains overhead transmission lines and poles, consultation with BC Hydro is required. BC Hydro's approval of the required private underground lines within the drive aisles shall be included in the development process design review. If Shaw and Telus and other private utility companies have existing infrastructures and rights of ways in the drive aisle then written approval from them are required also.
  - vii. Raise and replace the existing forcemain that crosses from the marina into the development site for City review. The elevation and alignment of the replacement forcemain shall be finalized via the servicing

agreement review. After review of the new forcemain, additional requirements such as legal agreements, relocation of services, and transfer of ownership of the City-owned portion of the forcemain to the developer (with accompanying license agreement to permit it to encroach into City property) are required. These legal agreements are required prior to approval of the servicing agreement design.

- d) At Developer's cost, the City is to:
- i. Cut and cap all existing service connections to the development site, and remove inspection chambers.
  - ii. Complete all tie-ins for the proposed works to existing City infrastructure including re-connections of existing services to the new mains.

### Frontage Improvements

- e) At the Developer's cost, the Developer is required to:
- i. Review street lighting along the Graybar Road and McMillan Way frontages, and provide additional street lighting if required.
  - ii. Upgrade the Graybar Road frontage to include:
    - 1.5 m wide boulevard and 1.5 m wide sidewalk along the Graybar frontage where there isn't an existing sidewalk; and
    - Removal and/or replacement of driveway crossings to meet City of Richmond Engineering Design Specifications.
  - iii. Upgrade the McMillan Way frontage to include:
    - 1.5 m wide boulevard and 1.5 m wide sidewalk along the cul-de-sac between the driveways for the subject site and 6700 McMillan Way; and
    - New driveway crossing to meet City of Richmond Engineering Design Specifications.

### General Items:

- f) The Developer is required to:
- i. Locate/relocate all above ground utility cabinets and kiosks required to service the proposed development, and all above ground utility cabinets and kiosks located along the development's frontages, within the developments site (see list below for examples). A functional plan showing conceptual locations for such infrastructure shall be included in the development process design review. Please coordinate with the respective private utility companies and the project's lighting and traffic signal consultants to confirm the requirements (e.g., statutory right-of-way dimensions) and the locations for the aboveground structures. If a private utility company does not require an aboveground structure, that company shall confirm this via a letter to be submitted to the City. The following are examples of statutory right-of-ways that shall be shown on the functional plan and registered prior to SA design approval:
    - BC Hydro PMT – 4.0 x 5.0 m
    - BC Hydro LPT – 3.5 x 3.5 m
    - Street light kiosk – 1.5 x 1.5 m
    - Traffic signal kiosk – 1.0 x 1.0 m
    - Traffic signal UPS – 2.0 x 1.5 m
    - Shaw cable kiosk – 1.0 x 1.0 m
    - Telus FDH cabinet – 1.1 x 1.0 m
  - ii. Coordinate with BC Hydro, Telus and other private communication service providers:
    - To underground, the overhead lines and poles along Lysander Lane. All required above-ground boxes to facilitate the undergrounding works shall be located within the development site; all below-ground boxes shall be located outside of sidewalks and bike paths.
    - To pre-duct for future hydro, telephone and cable utilities along all road frontages.



- When relocating/modifying any of the existing power poles and/or guy wires within the property frontages.
- iii. Provide, prior to site preparation works (e.g., preloading, soil densification, DSM wall installation, etc.) or within the first servicing agreement submission, whichever comes first, a geotechnical assessment of pre-load and soil preparation impacts on the existing utilities fronting the development site (e.g., existing sanitary sewers and storm sewers and existing Graybar sanitary pump station, drainage pump station, etc.) and provide mitigation recommendations.
- iv. Provide a video inspection report of the existing storm sewers and sanitary sewers along the development's frontages prior to start of site preparation works or within the first servicing agreement submission, whichever comes first. Provide a follow-up video inspection after site preparation works are complete (i.e. pre-load removal, completion of dewatering, etc.) to assess the condition of the existing utilities is required. Any utilities damaged by the pre-load, de-watering, or other ground preparation shall be replaced at the Developer's cost.
- v. Monitor the settlement at the adjacent utilities and structures during pre-loading, dewatering, and soil preparation works per a geotechnical engineer's recommendations, and report the settlement amounts to the City for approval.
- vi. Enter into, if required, additional legal agreements, as determined via the subject development's Servicing Agreement(s) and/or Development Permit(s), and/or Building Permit(s) to the satisfaction of the Director of Engineering, including, but not limited to, site investigation, testing, monitoring, site preparation, de-watering, drilling, underpinning, anchoring, shoring, piling, pre-loading, ground densification or other activities that may result in settlement, displacement, subsidence, damage or nuisance to City and private utility infrastructure.

**At Subdivision\* stage, the developer must complete the following requirements:**

1. Subdivision of the property shall be such that no building is located on more than one parcel of land.
2. Registration of a cross-access easement, statutory right-of-way, and/or other legal agreement or measures as determined to the satisfaction of the Director of Development, over the internal drive-aisles in favour of Lot 1 including the installation of way-finding and other appropriate signage on the subject property.

**Prior to a Development Permit\* being forwarded to the Development Permit Panel for consideration for Phase 2, the developer is required to:**

1. Submission of a Landscape Plan, prepared by a Registered Landscape Architect, to the satisfaction of the Director of Development, together with a cost estimate provided by the Landscape Architect, including installation costs. The Landscape Plan should:
  - comply with the guidelines of the OCP's for Industrial and ALR-adjacent developments;
  - include a mix of coniferous and deciduous trees;
  - include the dimensions of tree protection fencing as illustrated on the Tree Retention Plan attached to this report; and
  - include the 46 required replacement trees.

If required replacement trees cannot be accommodated on-site, a cash-in-lieu contribution in the amount of \$750/tree to the City's Tree Compensation Fund for off-site planting is required

**Prior to Development Permit\* issuance, the developer is required to:**

1. Deposit of a Landscape Security based on 100% of the cost estimate provided by the Landscape Architect plus a 10% contingency. Up to 90% of the Landscape Security will be refunded after a Landscape Inspection, with the remainder held for up to one year to ensure the agreed upon landscaping survives.

**Prior to Demolition Permit\* Issuance, the developer must complete the following requirements:**

1. Installation of appropriate tree protection fencing around all trees to be retained as part of the development prior to any construction activities, including building demolition, occurring on-site.

**Prior to Building Permit\* Issuance, the developer must complete the following requirements:**

1. Submission of a Construction Parking and Traffic Management Plan to the Transportation Department. Management Plan shall include location for parking for services, deliveries, workers, loading, application for any lane closures, and proper construction traffic controls as per Traffic Control Manual for works on Roadways (by Ministry of Transportation) and MMCD Traffic Regulation Section 01570.
2. Obtain a Building Permit (BP) for any construction hoarding. If construction hoarding is required to temporarily occupy a public street, the air space above a public street, or any part thereof, additional City approvals and associated fees may be required as part of the Building Permit. For additional information, contact the Building Approvals Department at 604-276-4285.

**Note:**

- \* This requires a separate application.
- Where the Director of Development deems appropriate, the preceding agreements are to be drawn not only as personal covenants of the property owner but also as covenants pursuant to Section 219 of the Land Title Act.

All agreements to be registered in the Land Title Office shall have priority over all such liens, charges and encumbrances as is considered advisable by the Director of Development. All agreements to be registered in the Land Title Office shall, unless the Director of Development determines otherwise, be fully registered in the Land Title Office prior to enactment of the appropriate bylaw.

The preceding agreements shall provide security to the City including indemnities, warranties, equitable/rent charges, letters of credit and withholding permits, as deemed necessary or advisable by the Director of Development. All agreements shall be in a form and content satisfactory to the Director of Development.

- Additional legal agreements, as determined via the subject development's Servicing Agreement(s) and/or Development Permit(s), and/or Building Permit(s) to the satisfaction of the Director of Engineering may be required including, but not limited to, site investigation, testing, monitoring, site preparation, de-watering, drilling, underpinning, anchoring, shoring, piling, pre-loading, ground densification or other activities that may result in settlement, displacement, subsidence, damage or nuisance to City and private utility infrastructure.
- Applicants for all City Permits are required to comply at all times with the conditions of the Provincial *Wildlife Act* and Federal *Migratory Birds Convention Act*, which contain prohibitions on the removal or disturbance of both birds and their nests. Issuance of Municipal permits does not give an individual authority to contravene these legislations. The City of Richmond recommends that where significant trees or vegetation exists on site, the services of a Qualified Environmental Professional (QEP) be secured to perform a survey and ensure that development activities are in compliance with all relevant legislation.

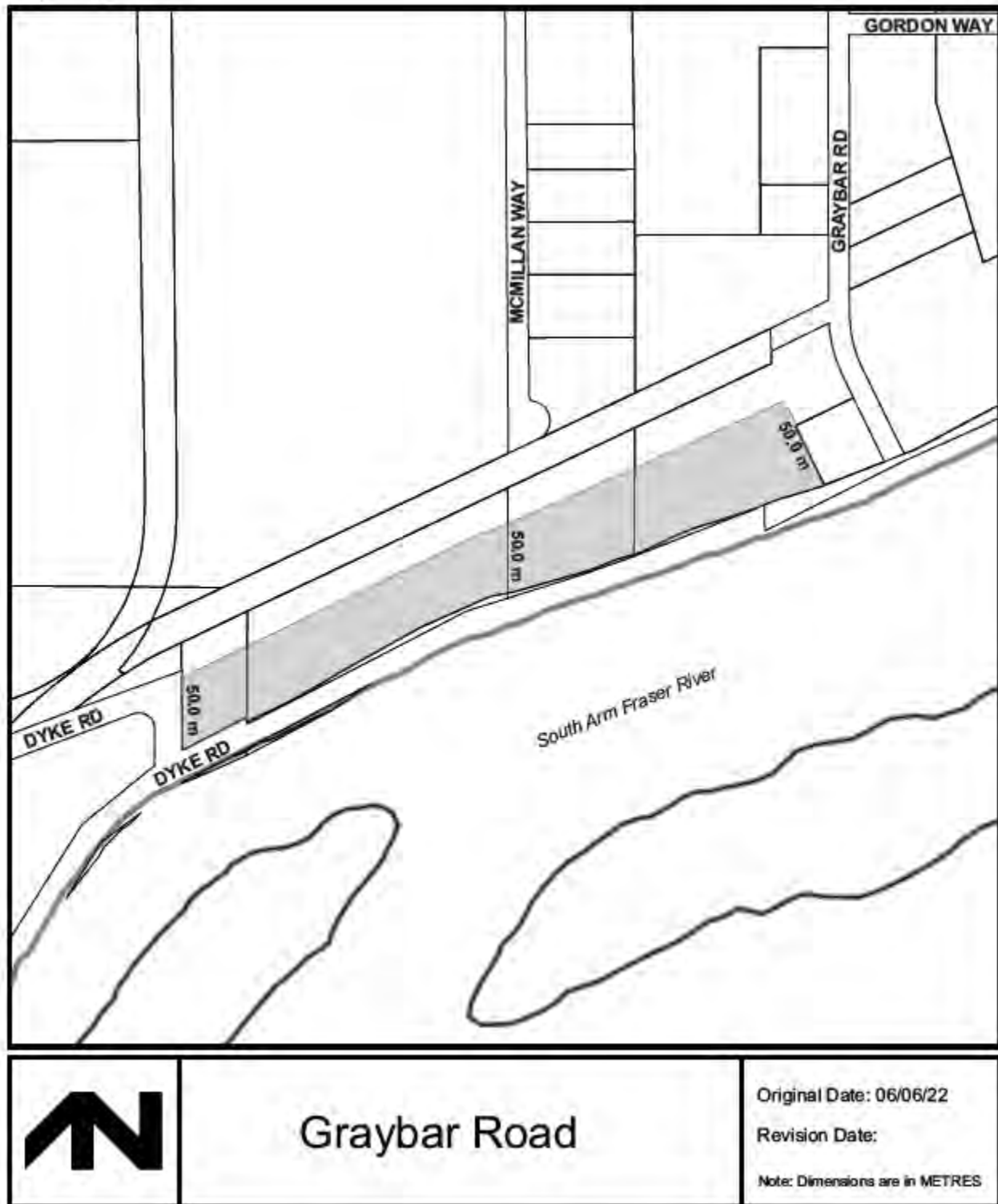
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Signed

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Date

## APPENDIX A



## **APPENDIX B**

### **Prior to a Building Permit being issued for any building on the southerly portion (50.0 m) of the consolidated lot, the developer is required to:**

1. City acceptance of the developer's offer to voluntarily contribute \$0.27 per buildable square foot to the City's Public Art Fund. The contribution rate should be revised to reflect the applicable rate at the time a Building Permit application is received.
2. The granting of a statutory right-of-way for the area over the proposed 3.0 m wide walkway from McMillan Way to Dyke Road to provide public pedestrian access between McMillan Way and Dyke Road, with the developer and owner being responsible for liability, construction and maintenance.
3. Dedication of land for dike
4. Submit a Traffic Impact Analysis, to the satisfaction of the Director, Transportation for the portion of development located within the future phase.
5. Enter into a Servicing Agreement\* for the design and construction of engineering infrastructure improvements. A Letter of Credit or cash security for the value of the Service Agreement works, as determined by the City, will be required as part of entering into the Servicing Agreement. Works include, but may not be limited to:

#### **Water Works**

a) At Developer's cost, the Developer is required to:

- i. Submit Fire Underwriter Survey (FUS) or International Organization for Standardization (ISO) fire flow calculations to confirm development has adequate fire flow for onsite fire protection. Calculations must be signed and sealed by a Professional Engineer and be based on Building Permit Stage Building designs.
- ii. Confirm with the City's fire department whether the existing hydrants along the Dyke Rd frontage of the site can be decommissioned if there are new hydrants in the drive aisle between proposed Buildings 1-2 and future buildings.
- iii. If the existing hydrants along the Dyke Rd frontage of the site cannot be decommissioned, raise and replace the approximately 400 m of existing water main and hydrants along the Dyke Road frontage to locate it out of the proposed dike core. Additional right of ways may be required. The details (e.g., alignment, etc.) of the required replacement watermain and new rights of ways along the Dyke Rd frontages of the site shall be finalized via the servicing agreement design review.
- iv. Monitor the settlement at the adjacent watermain during pre-loading, dewatering, and soil preparation works per a geotechnical engineer's recommendations, and report the settlement amounts and mitigation measures to the City for approval.
- v. Install one new water service connection for each of the proposed buildings. Meter to be located onsite (i.e. within the mechanical room).

b) At Developer's cost, the City is to:

- i. Complete all tie-ins for the proposed works to existing City infrastructure

#### **Storm Sewer Works**

a) At Developer's cost, the Developer is required to:

- i. Remove the existing perforated pipe along the east PL of 20911 Dyke Rd – subject to a review by a professional engineer confirming that the pipe is no longer in use.
- ii. Monitor the settlement at the adjacent drainage utilities and structures during pre-loading, dewatering, and soil preparation works per a geotechnical engineer's recommendations, and report the settlement amounts and mitigation measures to the City for approval.

- iii. Install one new storm service connection for each of the proposed buildings.
  - iv. Provide an erosion and sediment control plan for all on-site and off-site works, to be reviewed as part of the servicing agreement.
- b) If the application for Phases 3-5 precedes the raising of the dike fronting the development, the Developer, at Developer's cost, is required to:
- i. Fill in the existing ditches along the Dyke Road frontages of 20911 Dyke Rd, 20455 Dyke Rd and 7500 No 9 Rd and replace with approximately 475 m of culvert. Provide capacity analyses under the existing and OCP scenarios to confirm the size of the required culvert. The developer's civil consultant shall confirm with the City's Engineering Department the drainage catchment boundary prior to start of the capacity analyses works. The culverts shall be located so they do not encroach in the proposed dike core.
  - ii. Replace and relocate approximately 225 m of existing storm sewer so they do not encroach in the proposed dike core.
- c) At Developer's cost, the City is to:
- i. Cut and cap all existing storm service connections and remove inspection chambers.
  - ii. Complete all tie-ins for the proposed works to existing City infrastructure, including re-connections of existing services to the new mains.

#### Sanitary Sewer Works:

- a) At Developer's cost, the Developer is required to:
- i. Monitor the settlement at the adjacent sanitary main and pump station during pre-loading, dewatering, and soil preparation works per a geotechnical engineer's recommendations, and report the settlement amounts and mitigation measures to the City for approval.
  - ii. Install one new sanitary service connection for each of the proposed buildings.
- b) At Developer's cost, the City is to:
- i. Cut and cap all existing service connections to the development site, and remove inspection chambers.
  - ii. Complete all tie-ins for the proposed works to existing City infrastructure including re-connections of existing services to the new mains.

#### Dike Works

- a) If the application for Phases 3-5 precedes the raising of the dike fronting the development, the Developer, at Developer's cost, is required to:
- i. Construct approximately 730 m of dike upgrades, from the west property line of 7500 No 9 Rd to the eastern most property line of 6831 Graybar Rd (i.e. at Graybar Rd). The dike shall be a standard "superdike" trapezoidal configuration with a minimum crest elevation of 4.9 m geodetic with the ability to accommodate the future elevation of 5.9 geodetic. The dike shall include a retaining structure or sloped transition back to existing grade at the east and west end of the dike.
  - ii. Fill in the existing ditches along the Dyke Road frontages of 20911 Dyke Rd, 20455 Dyke Rd and 7500 No 9 Rd and replace with approximately 475 m of culvert. Provide capacity analyses under the existing and OCP scenarios to confirm the size of the required culvert. The developer's civil consultant shall confirm with the City's Engineering Department the drainage catchment boundary prior to start of the capacity analyses works. The culverts shall be located so they do not encroach in the proposed dike core.



### Frontage Works

- a) The Developer, at Developer's cost, is required to:
  - i. Complete frontage improvements on Dyke Road to the satisfaction of the Director of Transportation. These should generally include sidewalk, landscaped boulevard, and street lighting. Exact frontage works to be determined at the time a Servicing Agreement application is received.
  - ii. Complete other road works at the discretion of the Director of Transportation based on the findings and recommendations of the Traffic Impact Analysis.
- b) If the application for Phases 3-5 precedes the raising of the dike fronting the development, the Developer, at Developer's cost, is required to:
  - i. Reconstruct Dyke Road to the satisfaction of the Director of Transportation. Exact road works to be determined at the time a Servicing Agreement application is received.

### General Items:

- a) The Developer is required to:
  - i. Locate/relocate all above ground utility cabinets and kiosks required to service the proposed development, and all above ground utility cabinets and kiosks located along the development's frontages, within the developments site (see list below for examples). A functional plan showing conceptual locations for such infrastructure shall be included in the development process design review. Please coordinate with the respective private utility companies and the project's lighting and traffic signal consultants to confirm the requirements (e.g., statutory right-of-way dimensions) and the locations for the aboveground structures. If a private utility company does not require an aboveground structure, that company shall confirm this via a letter to be submitted to the City. The following are examples of statutory right-of-ways that shall be shown on the functional plan and registered prior to SA design approval:
    - a. BC Hydro PMT – 4.0 x 5.0 m
    - b. BC Hydro LPT – 3.5 x 3.5 m
    - c. Street light kiosk – 1.5 x 1.5 m
    - d. Traffic signal kiosk – 1.0 x 1.0 m
    - e. Traffic signal UPS – 2.0 x 1.5 m
    - f. Shaw cable kiosk – 1.0 x 1.0 m
    - g. Telus FDH cabinet – 1.1 x 1.0 m
  - ii. Coordinate with BC Hydro, Telus and other private communication service providers:
    - a. To underground, the overhead lines and poles along all road frontages. All required above-ground boxes to facilitate the undergrounding works shall be located within the development site; all below-ground boxes shall be located outside of sidewalks and bike paths.
    - b. To pre-duct for future hydro, telephone and cable utilities along all road frontages.
    - c. When relocating/modifying any of the existing power poles and/or guy wires within the property frontages.
  - iii. Provide, prior to site preparation works (e.g., preloading, soil densification, DSM wall installation, etc.) or within the first servicing agreement submission, whichever comes first, a geotechnical assessment of preload and soil preparation impacts on the existing utilities fronting the development site (e.g., existing sanitary sewers and storm sewers and existing Graybar sanitary pump station, drainage pump station, etc.) and provide mitigation recommendations.
  - iv. Provide a video inspection report of the existing storm sewers and sanitary sewers along the development's frontages prior to start of site preparation works or within the first servicing agreement

- submission, whichever comes first. Provide a follow-up video inspection after site preparation works are complete (i.e. pre-load removal, completion of dewatering, etc.) to assess the condition of the existing utilities is required. Any utilities damaged by the pre-load, de-watering, or other ground preparation shall be replaced at the Developer's cost.
- v. Monitor the settlement at the adjacent utilities and structures during pre-loading, dewatering, and soil preparation works per a geotechnical engineer's recommendations, and report the settlement amounts to the City for approval.
  - vi. Enter into, if required, additional legal agreements, as determined via the subject development's Servicing Agreement(s) and/or Development Permit(s), and/or Building Permit(s) to the satisfaction of the Director of Engineering, including, but not limited to, site investigation, testing, monitoring, site preparation, de-watering, drilling, underpinning, anchoring, shoring, piling, pre-loading, ground densification or other activities that may result in settlement, displacement, subsidence, damage or nuisance to City and private utility infrastructure.



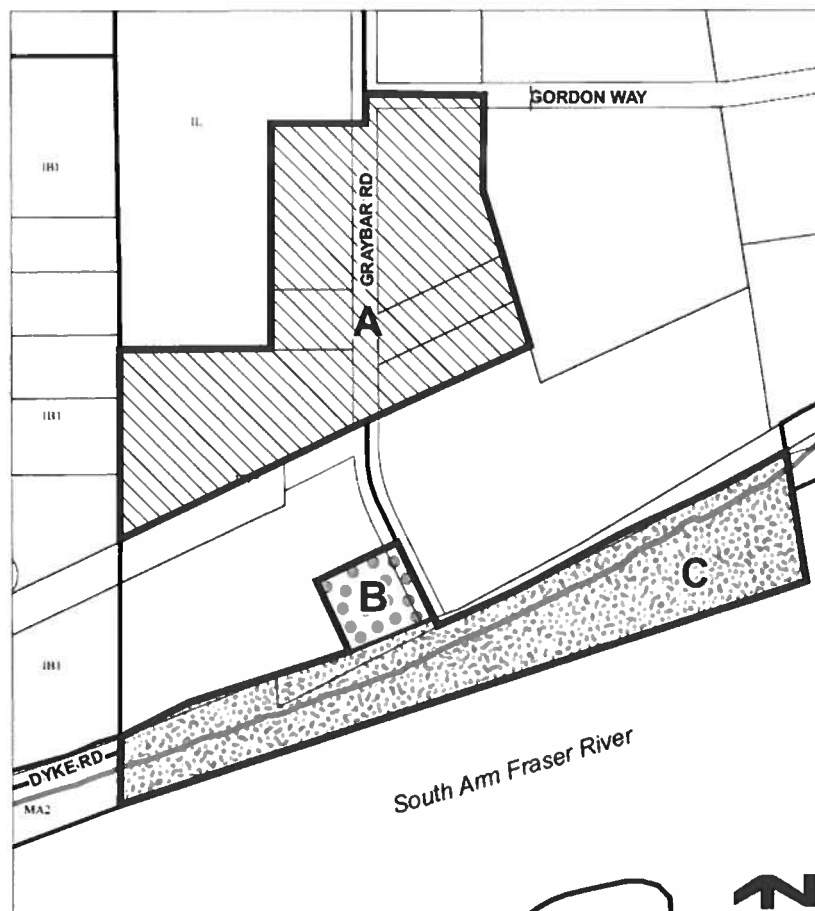
**Richmond Zoning Bylaw 8500**

**Amendment Bylaw 10336 (RZ 21-928623)**

**6831 Graybar Road, 20455 Dyke Road, 20911 Dyke Road, 7500 No 9 Road and Lot A Block 4N Plan EPP113853 Section 9 Range 4W New Westminster Land District & SEC 16, 17, 20 (PID 031-553-231) and a portion of Graybar Road**

The Council of the City of Richmond, in open meeting assembled, enacts as follows:

1. Richmond Zoning Bylaw 8500, as amended, is further amended by replacing Section 23.17.4.3 Diagram 1 with the following:
3. Diagram 1



2. Richmond Zoning Bylaw 8500, as amended, is further amended by inserting the following into Section 23 (Site Specific Industrial Zones), in numerical order:

<b>23.20</b>	<b>Industrial Business Park and Marina (ZI20) – Graybar Road (East Richmond)</b>
--------------	--

**23.20.1 Purpose**

This zone provides for a range of **general industrial**, stand-alone **office**, and **maritime uses**, with a limited range of compatible **uses**.

**23.20.2**

**Permitted Uses**

- animal daycare
- animal grooming
- auction, minor
- boat shelter
- broadcasting studio
- car or truck wash
- child care
- commercial storage
- commercial vehicle parking and storage
- contractor service
- education, commercial
- emergency service
- equipment, minor
- fleet service
- government service
- health service, minor
- industrial, general
- industrial, manufacturing
- industrial, warehouse
- library and exhibit
- manufacturing, custom indoor
- marina
- marine sales & rentals
- marine sales and repair
- microbrewery, winery, and distillery
- office
- recreation, indoor
- recycling depot
- recycling drop-off
- restaurant
- utility, minor
- vehicle body repair or paint shop
- vehicle repair

**23.20.3**

**Secondary Uses**

- outdoor storage
- residential security/operator unit

**23.20.4 Permitted Density**

1. The maximum **floor area ratio** is 1.0, together with an additional 0.1 **floor area ratio** provided that it is entirely used to accommodate **community amenity space**.

**23.20.5 Permitted Lot Coverage**

1. The maximum **lot coverage** is 75% for **buildings**.

**23.20.6 Yards & Setbacks**

1. The minimum **setback** to Graybar Road is 6.0 m.
2. The minimum **setback** to the north **property line** is 1.5 m.
3. Notwithstanding section 23.20.6.2, the minimum **setback** to the north **property line** for any portion of a **building** abutting McMillan Way is 3.0 m.
4. Where the **property line** abuts the **Agricultural Land Reserve** the minimum **setback** is 5.0 m.
5. The minimum **setback** to the south **property line** is 3.0 m.
6. There is no minimum **interior side yard** or **rear yard**.
7. A **restaurant** shall not be located closer than 20.0 m to the high water mark.

**23.20.7 Permitted Heights**

1. The maximum **height** for **buildings** is 16.0 m. Additional **building height** may be permitted through the development permit or development variance permit process to a maximum **height** for **buildings** of 35.0 m.
2. The maximum **height** for **accessory structures** is 20.0 m.

**23.20.8 Subdivision Provisions/Minimum Lot Size**

1. There is no minimum **lot width**, **lot depth**, or **lot area** requirement.

**23.20.9 Landscaping & Screening**

1. **Landscaping** and **screening** shall be provided according to the provisions of Section 6.0.

**23.20.10 On-Site Parking and Loading**

1. On-site **vehicle** and bicycle parking and loading shall be provided according to the standards set out in Section 7.0.

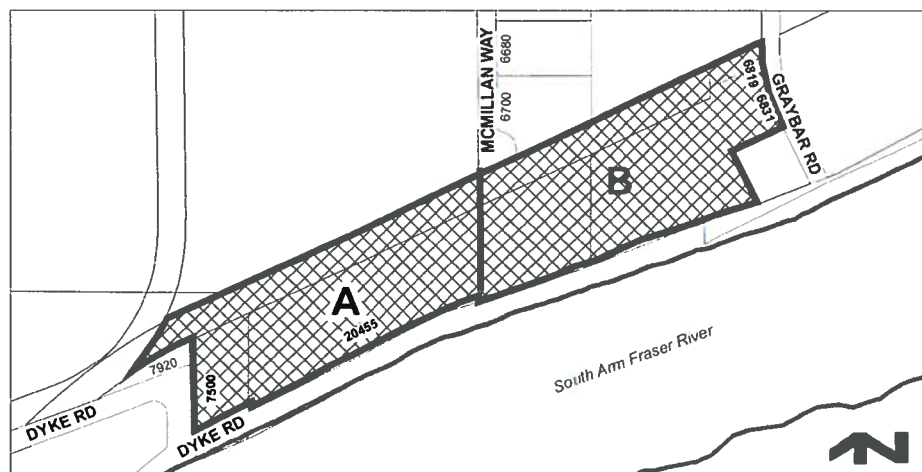


2. On-site loading shall be provided according to the provisions of Section 7.0, except that the minimum number of **loading spaces** shall be: 1 medium **loading space** and 0 large **loading spaces** per building.

### 23.20.11 Other Regulations

1. The following **permitted uses** are subject to the restrictions in 23.20.11.2:
  - a) **broadcasting studio**
  - b) **education, commercial**
  - c) **emergency services**
  - d) **equipment, minor**
  - e) **government service**
  - f) **health service, minor**
  - g) **library and exhibit**
  - h) **microbrewery, winery and distillery**
  - h) **office**
2. **Permitted uses** listed in 23.20.11.1 are only permitted in the area shown as "B" on Diagram 1, below.

Diagram 1



3. The sale of products or manufactured items to the general public is a permitted **secondary use** for **industrial, manufacturing uses** only, and is limited to 15% of the total **gross floor area**, up to a maximum **floor area** of 500 m<sup>2</sup>, of the **business**.

4. The following are prohibited from occurring on **sites** where **outdoor storage** is a **secondary use**:
  - a) **Outdoor storage** of wrecked or salvaged goods or materials;
  - b) **Outdoor storage** of food products;
  - c) **Outdoor storage** of goods or materials that are capable of being transmitted above, across, or below a land or water surface due to the effects of weather;
  - d) **Outdoor storage** of goods or materials that constitute a health, fire, explosion, or safety hazard;
  - e) Producing, discharging, or emitting odiferous, toxic, noxious matter or vapours, effluent, heat, glare, radiation, noise, electrical interference, or vibrations; or
  - f) Outdoor servicing of **vehicles** or equipment.
5. **Commercial vehicle parking and storage** and **outdoor storage uses** are not permitted to be stored, stacked, or piled in any manner that exceed 4.5 m in height.
6. In addition to the regulations listed above, the General Development Regulations in Section 4.0 and Specific Use Regulations in Section 5.0 apply.
3. The Zoning Map of the City of Richmond, which accompanies and forms part of Richmond Zoning Bylaw 8500, is amended by designating that portion outlined in bold and shown on "Schedule A attached to and forming part of Bylaw 10336" as **"INDUSTRIAL BUSINESS PARK AND MARINA (ZI20) – GRAYBAR ROAD (EAST RICHMOND)."**
4. That the Mayor and Clerk are hereby authorized to execute any documents necessary to discharge "Land Use Contract 127", having charge number RD85962, including all amendments, modifications and extensions to charge number RD85962 from the following area:
 

Lot A Sections 9 and 10 Block 4 North Range 4 West  
 New Westminster District Plan LMP41420  
 PID 024-494-721

5. This Bylaw may be cited as **“Richmond Zoning Bylaw 8500, Amendment Bylaw 10336”**.

FIRST READING

A PUBLIC HEARING WAS HELD ON

SECOND READING

THIRD READING

OTHER CONDITIONS SATISFIED

ADOPTED

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\_\_\_\_\_  
MAYOR

\_\_\_\_\_  
CORPORATE OFFICER



# City of Richmond

## Report to Committee

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**To:** Finance Committee **Date:** May 12, 2022  
**From:** Jerry Chong **File:** 01-0375-01/2022-Vol  
Acting General Manager, Finance and Corporate 01  
Services  
**Re:** 2021 Annual Report and 2021 Annual Report Highlights



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### Staff Recommendation

That the reports titled, "2021 Annual Report and 2021 Annual Report – Highlights" be approved.

Jerry Chong  
Acting General Manager, Finance and Corporate Services  
(604-276-4064)

Att. 2

REPORT CONCURRENCE	
<b>CONCURRENCE OF GENERAL MANAGER</b>  Acting GM, F&CS	
<b>SENIOR MANAGEMENT TEAM REVIEW</b>	<b>INITIALS:</b> SL
<b>APPROVED BY CAO</b> 	

## Staff Report

### Origin

Pursuant to Section 98 of the Community Charter, before June 30<sup>th</sup>, in each year, a Council must:

- a) Prepare an annual report
- b) Make the report available for public inspection
- c) Have the report available for public inspection at a Council or other public meeting

This report supports Council's Strategic Plan 2018-2022 Strategy #5 Sound Financial Management:

*Accountable, transparent, and responsible financial management that supports the needs of the community into the future.*

*5.1 Maintain a strong and robust financial position.*

This report supports Council's Strategic Plan 2018-2022 Strategy #8 An Engaged and Informed Community:

*Ensure that the citizenry of Richmond is well-informed and engaged about City business and decision-making.*

*8.2 Ensure citizens are well-informed with timely, accurate and easily accessible communication using a variety of methods and tools.*

### Analysis

The City of Richmond's annual report formally presents the audited financial statements and other relevant financial, economic and demographic indicators to the public. The report also highlights many of the City's significant achievements and milestones from 2021.

Two versions of the Annual Report are produced each year in order to reach the different audiences interested in this information. The comprehensive 2021 Annual Report meets all legislative requirements for financial reporting as required under the Community Charter for British Columbia's local governments. This version will be publicly available through the City's website at [www.richmond.ca](http://www.richmond.ca) and printed only on a demand basis. The comprehensive version includes the City's audited consolidated financial statements; the City's corporate objectives and success indicators, as identified through Council's Term Goals; and a listing of permissive exemptions. In addition to the statutorily required information, the comprehensive version provides information on the City's milestones from 2021, including awards and achievements and a variety of key corporate financial and community demographic statistical data for the year.

For a broader audience, the City also produces a condensed financial reporting document known as the 2021 Annual Report – Highlights. This shorter version, which is designed to be accessible



and easily understandable for a general audience, provides information about the City of Richmond, its services, highlights from 2021 and the City's financial condition. In order to support sustainable practices the condensed version is available through the City's website and distribution will be done electronically. There will be limited printed copies for presentation purposes and to fulfill statutory obligations.

Both copies will be submitted to the Government Finance Officers Association for consideration in their annual awards program.

The reports are produced entirely in house through the joint efforts of the Finance Department and the Corporate Communications and Marketing Department.

### **Financial Impact**

None.

### **Conclusion**

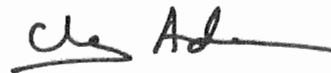
The City of Richmond 2021 Annual Report and the 2021 Annual Report – Highlights satisfy the Community Charter requirements for financial reporting and are important instruments in ensuring public transparency and accountability for the management of City finances. The reports also provide useful information on the City's achievements and milestones during the 2021 fiscal year.



Ivy Wong  
Acting Director, Finance

(4046)

IW:nm



Clay Adams  
Director, Corporate Communications and  
Marketing  
(4399)

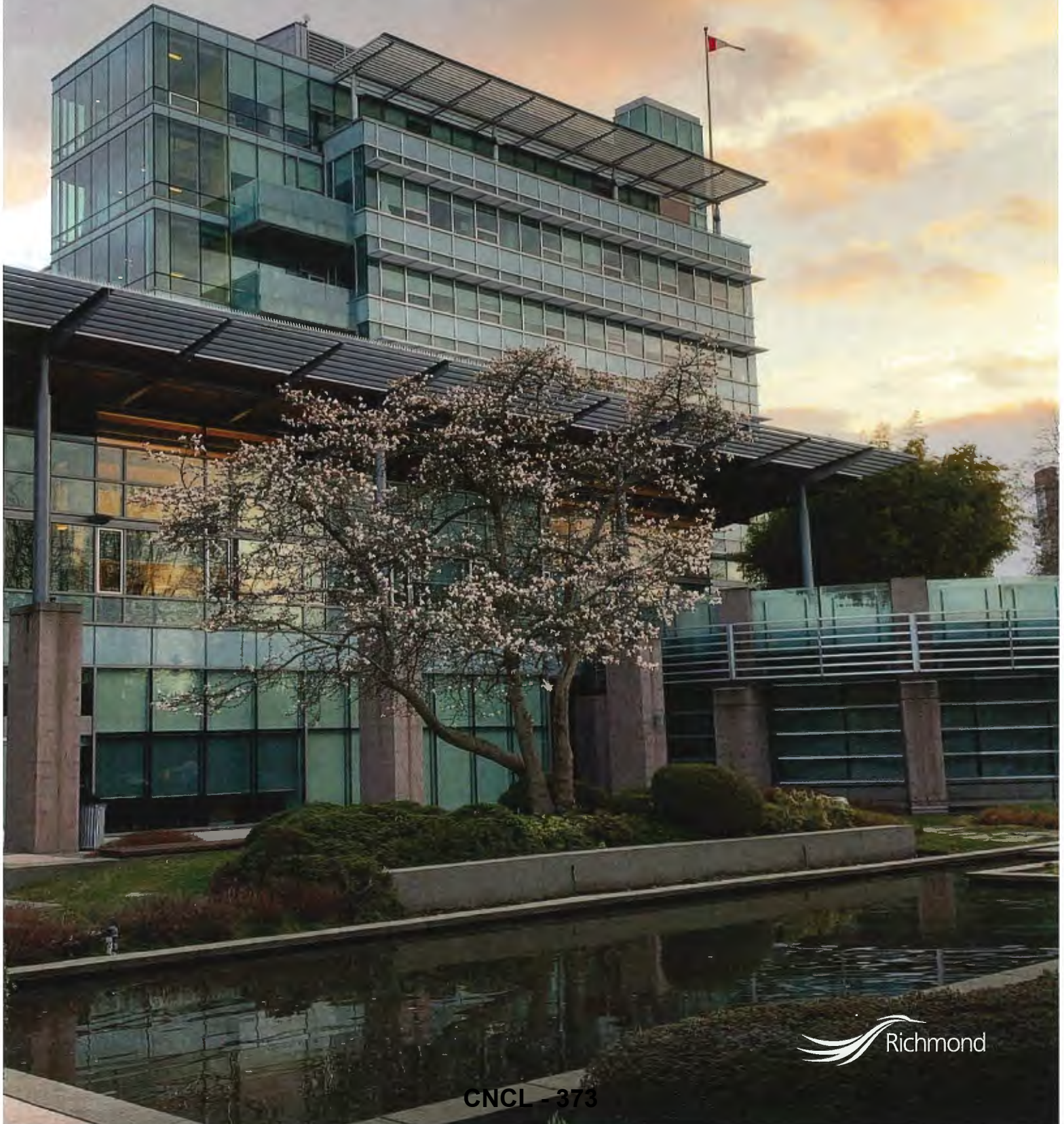
- Att. 1: 2021 Annual Report  
2: 2021 Annual Report – Highlights



**City of  
Richmond**  
British Columbia, Canada

# 2021 Annual Report

For the year ended December 31, 2021







# City of Richmond

British Columbia, Canada

## 2021 Annual Report

For the year ended December 31, 2021

*Our vision is to be the most appealing, livable  
and well-managed community in Canada*

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For an online copy of this report, please visit [www.richmond.ca/cityhall/finance/reporting/reports](http://www.richmond.ca/cityhall/finance/reporting/reports)



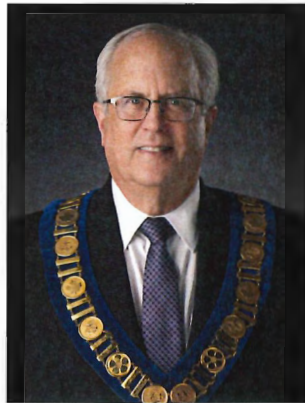
The City of Richmond is proud of its diverse and committed workforce. This year, we asked our employees to take photos and send us images of “their Richmond” for this report. Photos with the camera icon are just some of the submissions, and we are delighted to share them with you. None are professional photographers.

**COVER PHOTO:** CITY HALL IN SPRING AFTER MORNING RAIN

PHOTO BY LUC LUK, BUILDING SYSTEM MAINTENANCE LEAD HAND, FACILITY SERVICES

CITY EMPLOYEE SINCE 2003

# Message from the Mayor



The City of Richmond is proud of our high quality of life. Through its actions, City Council has always sought to provide infrastructure that preserves our rich and vibrant cultural identity.

Events of the past two years have further heightened the need to focus on how we provide a sustainable future. Many think of sustainability only from an environmental perspective. Climate change is obviously a major concern as shown by extreme weather events in 2021. Through long-term investments in flood protection infrastructure as well as award-winning initiatives such as our Lulu Island District Energy program, Richmond is building a green and safe future for its residents.

However, the term “sustainability” has a much greater meaning in Richmond. It encompasses the development of policies, services and supports to ensure that current and future generations maintain a sense of community and belonging. It also includes having a strong economy that supports businesses, their employees

and families. It involves different concepts such as ensuring safety for residents and businesses, providing adequate infrastructure as well as protecting our diverse culture.

Protecting our community is paramount as demonstrated by Richmond, statistically in the region, having some of the lowest incidence of COVID-19 cases throughout the pandemic. Closely regulating access and activities to City facilities played a role, as did our Council-led mask mandate and a vaccination requirement for City employees. All of Council—as well as almost all City staff—recognized the importance of protecting themselves, their colleagues and the community through vaccination against COVID-19.

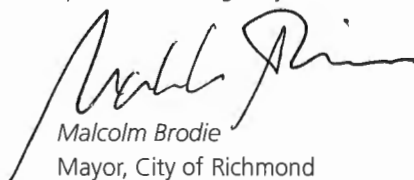
The recent opening of the City Centre Community Police Office for RCMP operations, along with adding 51 officers and 36 firefighters this term are examples of Council’s commitment to public safety. In 2021, the RCMP Fox 80 Mental Health Car completed its second full year in partnership with Vancouver Coastal Health by responding to approximately 800 calls. This program reduced high-risk situations through the interaction of a mental health professional.

City Council also supported the RCMP “No Place for Hate” campaign to encourage awareness of racism and hate crimes and provide tools to help victims, their families and friends. It has been heartening to see the push against racism grow following Council’s Statement Against Racism and Violence in 2020, offering further momentum to eradicate such unacceptable behaviour.

Richmond is proud of its rich cultural heritage and diversity. It honoured Canada’s first National Day for Truth and Reconciliation with a flag lowering, educational programs and interactive displays. In partnership with Richmond Community Associations and other partners, Richmond again supported a range of activities to promote Pride Week and our LGBTQ2S+ community. With a wide range of topics, the City’s second Diversity Symposium was attended by over 200 individuals from across BC, Canada and internationally.

While many long-running, popular events and festivals remained cancelled to maintain public safety, there was growing acceptance of the transition to online programs and events. For instance, the popular Doors Open Richmond event went online again, attracting over 25,000 interactions with 35 virtual locations. Council recognizes the importance and value of engagement to build a strong community. Maintaining such events—even if virtual—supports that commitment.

To ensure a bright and sustainable future, it is important to take action and make wise investments today. Richmond’s success, despite the challenges of COVID-19, is a credit to those who contribute to making our city a better place. This includes our staff, volunteers and businesses as well as our community and government partners. Our Annual Report contains examples of our goals and achievements. As always, I invite your comments and questions through my office.



Malcolm Brodie  
Mayor, City of Richmond

# Richmond City Council



## Top row, left to right:

Councillor Chak Au, Councillor Carol Day, Councillor Andy Hobbs (elected May 2021),  
Councillor Alexa Loo

## Centre:

Mayor Malcolm Brodie

## Bottom row, left to right:

Councillor Bill McNulty, Councillor Linda McPhail, Councillor Harold Steves,  
Councillor Michael Wolfe

## Connect with Richmond City Council

To contact Council, email [MayorAndCouncillors@richmond.ca](mailto:MayorAndCouncillors@richmond.ca) or call 604-276-4000.  
For Council Meetings agendas and minutes, visit [www.richmond.ca/cityhall/council/agendas](http://www.richmond.ca/cityhall/council/agendas).  
To live stream Council meetings or view videos of past meetings, visit  
[www.richmond.ca/WatchOnline](http://www.richmond.ca/WatchOnline).



# City of Richmond Senior Management Team 2021

## Chief Administrative Officer

George Duncan

### Community Safety

Cecilia Achiam

### Deputy CAO/Community Services

Serena Lusk

### Engineering and Public Works

John Irving

### Finance and Corporate Services

Andrew Nazareth

### Law and Legislative Services

Tony Capuccinello Iraci

### Planning and Development

Joe Erceg

Chief Administrative Officer ..... George Duncan  
 Deputy Chief Administrative Officer/General Manager, Community Services..... Serena Lusk  
 General Manager, Community Safety..... Cecilia Achiam  
 General Manager, Engineering and Public Works ..... John Irving  
 General Manager, Finance and Corporate Services ..... Andrew Nazareth  
 General Manager, Finance and Corporate Services (Acting) ..... Jerry Chong  
 General Manager, Planning and Development..... Joe Erceg  
 General Manager, Law and Legislative Services..... Tony Capuccinello Iraci

## Public safety agencies

Chief, Richmond Fire-Rescue ..... Tim Wilkinson  
 Officer in Charge, Royal Canadian Mounted Police ..... Will Ng

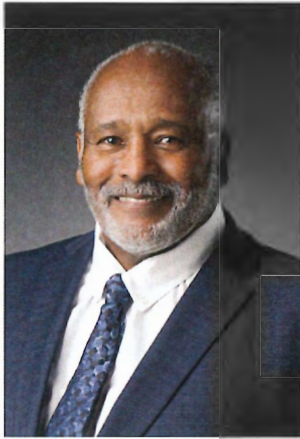
## Banker

Scotiabank

## Auditors

KPMG

# Message from the Chief Administrative Officer



I am pleased to present the City of Richmond's Annual Report for 2021. It details our strong financial position and outlines many of the initiatives we are undertaking to achieve our vision of making Richmond Canada's best-managed city.

The past year continued to present challenges due to the ongoing pandemic and extreme weather situations. In both cases, the City was well prepared and able to mitigate the impact due to strong leadership, forward planning and sound investment. Many of those actions and achievements are highlighted throughout this report.

As the pandemic entered its second year, City administration and staff remained focused on the need to maintain public safety. That required difficult decisions. With the support of Council, strategies were implemented to ensure vital City services remained in place and staff could contribute to sustaining the local economy.

Services transitioned smoothly to online access as the City switched seamlessly to a hybrid or remote working model. Not only was this in keeping with provincial health orders, it demonstrated the dedication and resiliency of employees as they adjusted to new work environments while maintaining high levels of productivity and reliability.

Their commitment to safety was further demonstrated when Council enacted a proof of vaccination requirement for all staff. Almost 99 per cent confirmed full vaccination status, with most vaccinated long before the mandate was in place. It was this conscious recognition of the need to protect themselves, colleagues, family and residents that kept Richmond's COVID-19 case counts among the lowest in the region.

2021 also saw terms such as "heat dome" and "atmospheric river" become part of our vocabulary. Record summer temperatures saw Richmond develop an emergency cooling strategy. Should extreme heat events become more common, the City is ready to provide respite for our most vulnerable citizens from potentially life threatening heat waves.

Richmond was also subject to extreme rainfall events (atmospheric rivers) in November. In one instance, over 130 millimetres (five inches) of rain fell in just three days. Thanks to long term planning and investment in flood protection, the City emerged relatively unscathed. Sadly, not all British Columbia communities were as fortunate.

Our capacity to handle the situation was not only due to the \$120 million investment in flood protection over the years, but also the City employees who worked 24/7 in sometimes difficult and dangerous situations to keep our 39 pump stations clear and operational, and our 49 kilometres of dikes secure.

Of course, one of the foundations for any successful organization is its ability to demonstrate strong financial stewardship. The City's long-term financial strategy remained a hallmark of our administration and enabled us to continue to maintain effective and responsive service levels as this report shows.

The City of Richmond remains a strong, culturally proud community and is committed to continued growth and success within a framework of diversity, sustainability and value for our taxpayers.

Finally, this will be my last Annual Report message as CAO. I announced plans to retire in mid-2022 and expect to hand over responsibilities to a new Chief Administrative Officer prior to that. During my 34+ years with the City, I have seen dramatic change and progress. I am proud to have played a role in bringing the Canada Line rapid transit to our community and in enabling construction of the internationally renowned Richmond Olympic Oval.

While initially built as a speed-skating competition arena for the 2010 Olympic Winter Games—for which Richmond was an official Host Venue—the Oval was transformed into a community sport, recreation and elite athletics facility that now welcomes thousands of residents of all ages and abilities annually. It is a true legacy from one of my most memorable times as CAO.

But what I am most proud of is the people. The staff, leadership team and Council who continued to give their all to ensure Richmond was always a better, safer and more welcoming place. As I leave, I know the City is in a sound position and more than ready to maintain its journey as the most appealing, livable and well-managed community in Canada.

A stylized, handwritten signature in black ink, appearing to read 'George Duncan'.

George Duncan  
Chief Administrative Officer



# Council Strategic Plan: 2018 to 2022

The Community Charter requires all BC municipalities to include a statement in the Annual Report of their objectives for the current and future years, along with measures to track success towards those objectives.

The City of Richmond's objectives and success indicators are expressed through the Council Strategic Plan. Soon after Council began its four-year term in October 2018, it undertook a strategic planning process to help fulfill its governance role and achieve a successful term of office. Through that process, Council adopted a revised set of eight Strategic Focus areas, which provided the framework for the City's programs and services during 2021.

## 1. A Safe and Resilient Community

Enhance and protect the safety and well-being of Richmond.

### 2021 Achievement

City Council made full COVID-19 vaccination mandatory for all City employees as an added safety measure to protect residents, visitors and staff. By year-end, almost 99 per cent of City staff and every Council member complied. Council also added funding for an additional 16 RCMP officers and 12 firefighters to complete Richmond's Safe Community Strategy, as well as unveiled the new City Centre Community Police Office. These and other initiatives saw break and enter crimes drop 33 per cent for residences and 15 per cent for businesses.



## 2. A Sustainable and Environmentally Conscious City

Environmentally conscious decision-making that demonstrates leadership in implementing innovative, sustainable practices and supports the City's unique biodiversity and island ecology.

### 2021 Achievement

Ongoing investment in dike and flood protection infrastructure saw the island city withstand one of the province's most devastating floods on record. Richmond's 39 pump stations moved 90 cubic metres of water per second (1.4 million US gallons per minute) – the equivalent of over two Olympic swimming pools every 60 seconds. The City also became one of only 15 local governments across Canada selected to participate in the Canadian Circular Cities and Regions Initiative, a peer-to-peer network bringing communities together to exchange best practices for implementing circular economy strategies and policies.



### 3. One Community Together

Vibrant and diverse arts and cultural activities and opportunities for community engagement and connection.

#### 2021 Achievement

The City invested over \$1 million in grants to local non-profit arts and culture organizations, community service groups, as well as grassroots providers in childcare, health and social services, and parks, recreation and community events. Richmond's 14th annual Doors Open festival offered a rare glimpse inside places of worship, civic centres, museums and local businesses throughout the community. Over 25,000 social media interactions and 13,000 views were logged for the week-long online event.

### 4. An Active and Thriving Richmond

An active and thriving community characterized by diverse social and wellness programs, services and spaces that foster health and well-being for all.

#### 2021 Achievement

Council amended the City's Affordable Housing Policy to increase the number of affordable rental units in new City Centre residential projects containing at least 60 units from 10 per cent to 15 per cent – among the highest level in the region. Over 1,500 affordable housing units in new developments across Richmond have been confirmed since the policy was introduced, with more underway. Council also continued to advocate for affordable, accessible, quality child care, opening two new innovative Early Childhood Development Hubs with 199 spaces to add to the more than 7,000 childcare spaces already in place to support the needs of children, families and employers in the city.

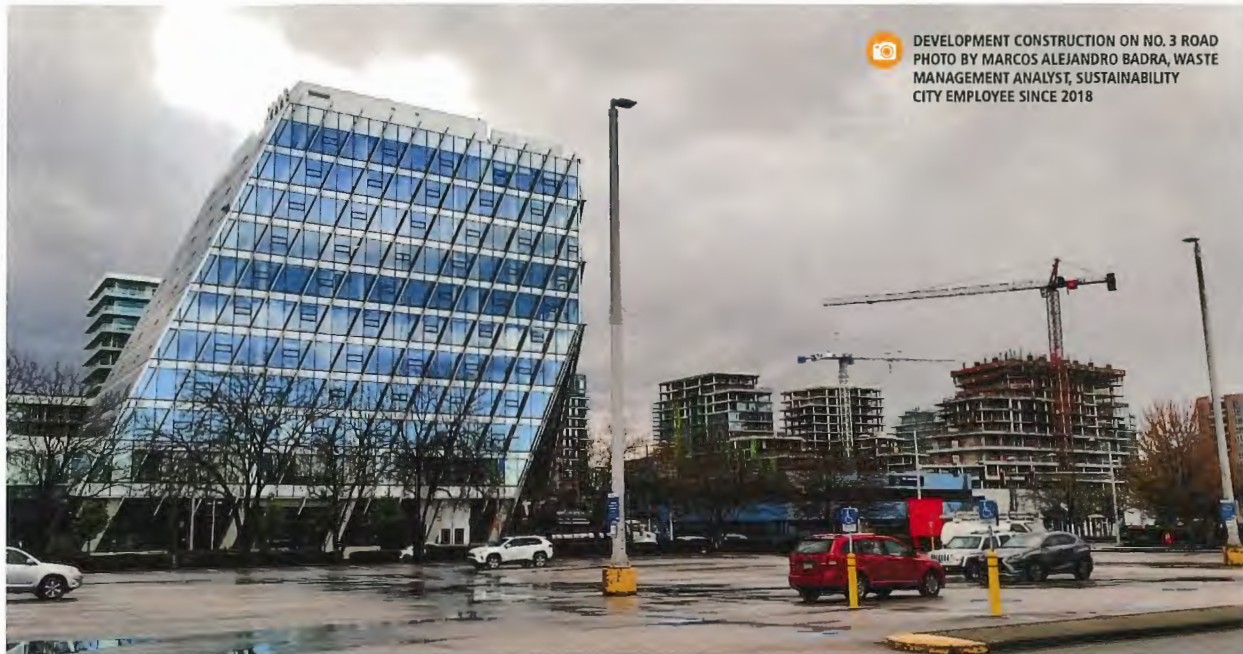
### 5. Sound Financial Management

Accountable, transparent and responsible financial management that supports the needs of the community into the future.

#### 2021 Achievement

Council supported a budget that enabled several key infrastructure projects, initially deferred due to the pandemic, to proceed, as well as ensuring operating resources for key community safety priorities. While utilizing reserves to mitigate cost increases, the budget maintained a one per cent commitment to investment for future capital needs. The City maintained a position of financial resiliency and service while keeping the overall impact to property owners to a tax change of around 27 cents per day.





DEVELOPMENT CONSTRUCTION ON NO. 3 ROAD  
PHOTO BY MARCOS ALEJANDRO BADRA, WASTE  
MANAGEMENT ANALYST, SUSTAINABILITY  
CITY EMPLOYEE SINCE 2018

## 6. Strategic and Well-Planned Growth

Leadership in effective and sustainable growth that supports Richmond's physical and social needs.

### 2021 Achievement

Richmond issued development and construction permits for 587 residential, 333 commercial and 217 industrial buildings – a 23 per cent increase from the previous year. With \$719 million in new construction value, this was higher than the City's 10-year average. The City also collected over \$16.2 million in development cost charges in 2021 to help finance future infrastructure and amenities such as parks and roads.

## 7. A Supported Economic Sector

Facilitate diversified economic growth through innovative and sustainable policies, practices and partnerships.

### 2021 Achievement

Prior investment, along with initiatives such as Richmond's Business Resilience and Supply Chain program and the Expedited Temporary Patio

Program, helped local businesses deal with the challenges of the pandemic. The number of new business licences issued in 2021 rose 15 per cent from the previous year, signaling continued economic recovery and renewal.

## 8. An Engaged and Informed Community

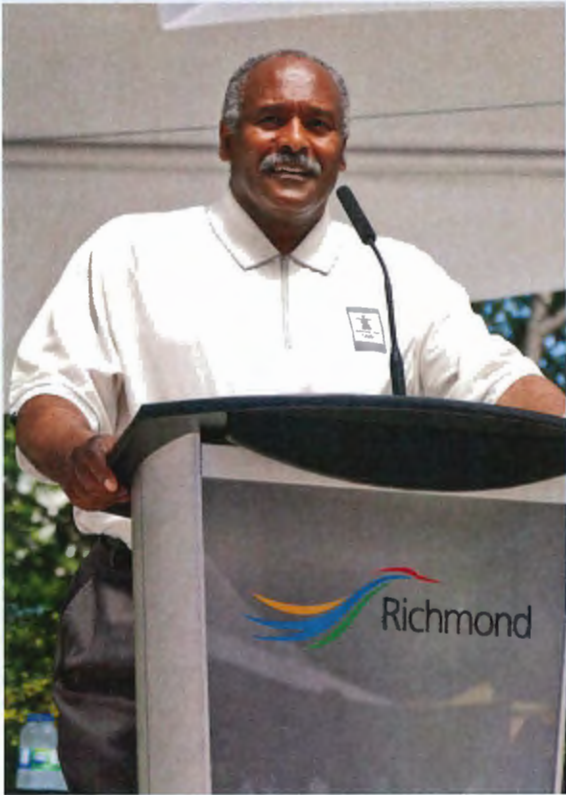
Ensure that the citizenry of Richmond is well-informed and engaged about City business and decision-making.

### 2021 Achievement

Connecting with one of the most culturally diverse and unique populations in Canada can be challenging. Over 35,000 users participated in almost 40 engagement initiatives on the City's [LetsTalkRichmond.ca](https://letsTalkRichmond.ca) platform, a 44 per cent increase. The City's social media platforms also saw steady growth with a 23 per cent increase in Facebook followers, a 47 per cent rise on Instagram and a 50 per cent jump in YouTube subscribers. The City's website logged over 3.4 million visits, a 64 per cent increase from 2020.



## Long-serving CAO bids farewell



Richmond's long-serving Chief Administrative Officer, George Duncan, will retire from his position on June 30, 2022.

The 2021 City of Richmond Annual Report will be the last completed under his full year of leadership, which has spanned over three decades.

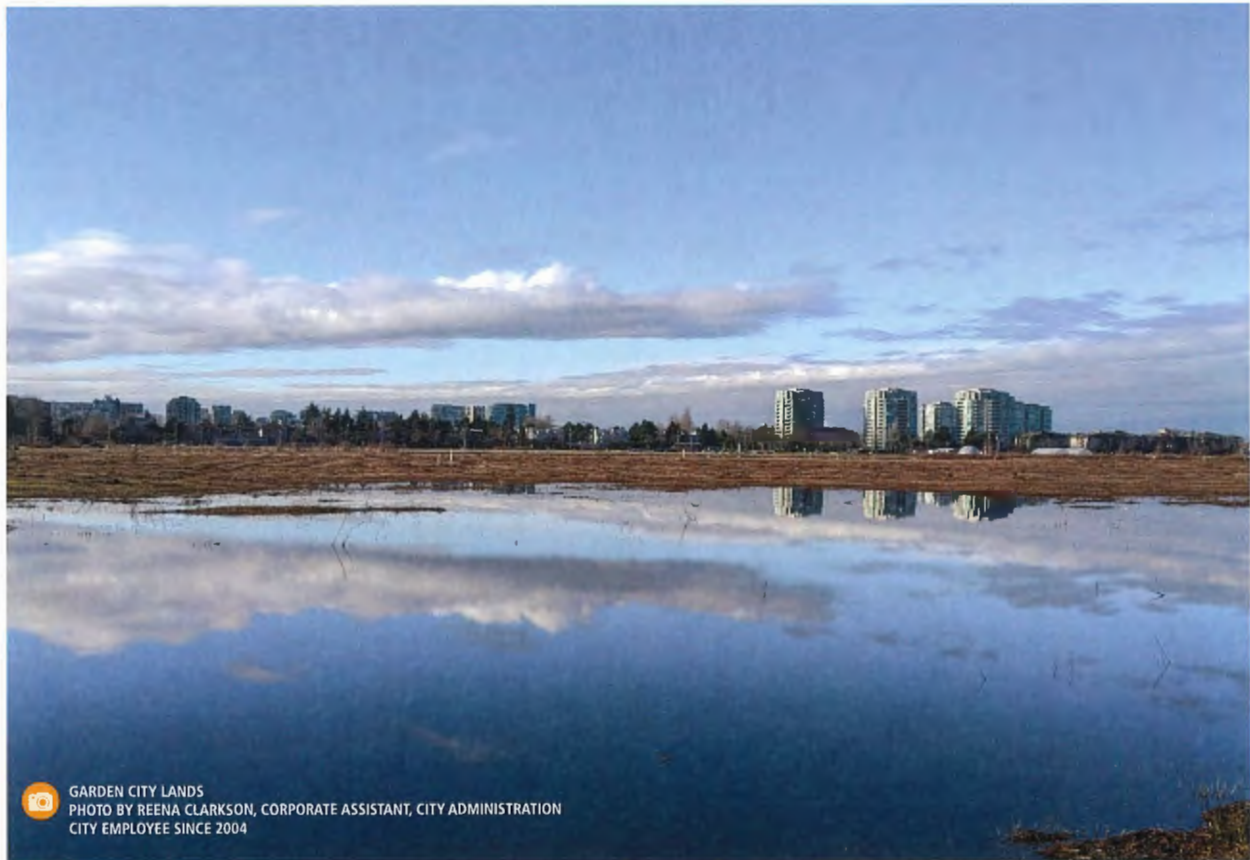
Announcing the retirement, Mayor Malcolm Brodie said George will be missed by both the organization and the community. "George has made a major impact on our city," he said. "Under his leadership, Richmond has become an award-winning leader in civic administration, sustainability, community safety and operations. One only has to look around to see how our city has grown into a diverse, dynamic and well-managed community to see his contributions and legacy."

Examples of those contributions include the key role he played in bringing rapid transit to Richmond with the introduction of the Canada Line, as well as Richmond becoming a Host Venue for the 2010 Olympic Winter Games. He was instrumental in securing the design and construction of the world-renowned Richmond Olympic Oval and its successful transition from a competition speed skating venue for the Games to a state-of-the-art multi-purpose community facility and sports complex benefiting local recreational and elite athletes alike.

Mayor Brodie also commended George for his commitment to public safety, in particular his vital leadership during the COVID-19 pandemic. "Council has always seen the safety and well-being of our community as paramount," he said. "When the pandemic hit Richmond, George mobilized teams and resources to ensure City services and staff were well positioned to keep key services in place and to protect the safety of employees, residents and businesses. That Richmond is on the road to economic and community recovery so quickly is due, in large part, to George's experienced leadership and commitment during those challenging times."

Joining the City in 1987, George was appointed CAO a decade later after taking on a series of progressive management roles and responsibilities. Under his leadership, the City and its staff have received over 200 awards for various programs and initiatives. These include two prestigious Canadian Association of Municipal Administrators (CAMA) Willis Awards for Excellence in Administration and Innovation, CAMA awards for Environmental Leadership and Sustainability and Professional Development, an Award of Excellence from the BC Human Resources Management Association, and awards from the International City/County Management Association.

# Richmond: ensuring a sustainable future



GARDEN CITY LANDS  
PHOTO BY REENA CLARKSON, CORPORATE ASSISTANT, CITY ADMINISTRATION  
CITY EMPLOYEE SINCE 2004

While 2021 brought new challenges to many parts of British Columbia, the City of Richmond was well positioned to meet them head on thanks to a lengthy history of infrastructure investment, planning and effective leadership.

Due in large part to a multi-year investment of over \$120 million in dikes and flood protection strategies, Richmond was successful in preventing large-scale damage when three devastating atmospheric rivers hit in November. The City's 39 pump stations, combined with 49 kilometres of dikes, 165 kilometres of watercourses, 61 kilometres of box culverts and 585 kilometres of drainage pipes, kept rising waters at bay.

The existing dike network can withstand high water events such as spring freshet and king tides, and handle a 500-year return period (estimated average time between) flooding event. However, recognizing the rapid impact of climate

change, Council authorized an acceleration of the plan to raise the dikes well ahead of current sea level rise projections over the next 50 years.

Earlier in the year, Richmond experienced another unexpected weather phenomenon—the heat dome. Several days of unrelenting record-setting temperatures arrived in July, prompting the development of a cooling centre strategy and mobilization of emergency services to protect the most vulnerable.

With the pandemic continuing to keep a grip on the community and economy, the City worked to find sustainable, innovative ways to support residents and businesses. The City, along with Tourism Richmond and the Richmond Hotel Association, unveiled a tourism plan to reinvigorate and revitalize the ailing industry that brought over \$2 billion to the city pre-pandemic. Richmond Sport Hosting still managed to support



20 events generating 2,700 room nights in 2021, and tourism numbers continued to rise as travel and pandemic restrictions eased by year-end.

Council took many decisive steps to assist in preserving Richmond's rich agricultural heritage and promote a sustainable farming sector. Adoption of a new Soil Deposit and Removal Bylaw expanded the City's regulatory framework with incentives for sourcing new soil from within Richmond while increasing fines for non-compliance. The bylaw provides enhanced enforcement in environmentally sensitive areas and supports other Council-endorsed strategies such as the Ecological Network Management Strategy, the Farming First Strategy and Invasive Species Action Plan. The move was timely as future soil deposits increase as the City raises the level of the land for further protection.

Development and construction offered visible evidence of economic recovery and sustainability with \$719 million in new construction value approved. This was higher than Richmond's 10-year average. Council instilled further confidence in economic recovery with several key projects including approval of the \$95 million replacement of the Steveston Community Centre and Branch Library; the opening of the new River Parkway traffic and cycling corridor to alleviate



THE PUBLIC PROVIDED INPUT TO UPDATE THE POPULAR CITY-WIDE CYCLING NETWORK



NUMEROUS NON-RESIDENTIAL PATHWAYS WERE PAVED WITH RECYCLED MATERIALS

congestion in the busy City Centre; and updates to the popular city-wide cycling network.

The Provincial Government announced plans to build a new Steveston Highway Interchange and replace the aging George Massey Tunnel with an eight-lane immersed tunnel. The project recognizes Council's long-standing recommendation for how to address the heavily congested road corridor, reducing travel time and improving transit access.

Following the success of an innovative road paving project using 40 per cent recycled materials, the City expanded the technology to pave 20 non-residential pathways across Richmond, with more planned. Such innovation, combined with the continued growth of Richmond's award-winning district energy infrastructure that reduces 7,800 tonnes of greenhouse gasses annually, reinforce Richmond's commitment to a sustainable, environmentally friendly future.

The City of Richmond has always been a leader with bold, innovative programs and strategies that reflect our character and reputation as a safe, sustainable and culturally diverse city that makes it one of the most appealing, livable and well-managed communities in Canada.

# 2021 Awards



A measurement of the City's success in achieving its goals are the honours and recognition from our peers and others. In 2021, Richmond again received numerous international, national and provincial awards recognizing our commitment to excellence and innovation.

## District energy

Recipient of over a dozen awards in the past decade, Richmond's District Energy Program continues to collect accolades for its innovation, efficiency and green sustainability. In 2021, it received the Community Energy Association's Climate and Energy Action Award. With 22 buildings and over five million square feet of floor space, the innovative District Energy Program is reducing greenhouse gas emissions by over 7,800 tonnes—the equivalent of removing 2,000 cars from our roads—each year.

## Accessibility by design

The Minoru Centre for Active Living, the City of Richmond's state-of-the-art fitness and aquatic facility, received the 2021 Architecture Prize for Accessibility from the International Olympic Committee, International Paralympic Committee, and International Association for Sports and Leisure Facilities. The annual Distinction for Accessibility Award aims to increase the accessibility of all sports and leisure facilities and architectural structures worldwide so that everyone has an opportunity to practice and view sport freely and without barriers.

## Financial reporting

Once again, the Government Finance Officers Association of the US and Canada presented Richmond with the Canadian Award for Financial Reporting (the 19th year in a row) and the Outstanding Achievement in Popular Financial Reporting Award (the 12th successive year) for its 2020 Annual Reports.



## Sustainability

The Union of BC Municipalities, which represents and advocates to government on behalf of municipalities across British Columbia, presented the City of Richmond with an Honourable Mention in the Community Excellence Award—Service Delivery category for customer-friendly upgrades to its Works Yard Recycling Depot. The \$1.58 million upgrades to aging infrastructure improved operations by providing a larger site, expanding the number of hazardous waste materials collected, adding tent coverings and steel awnings to shield recyclers and staff from the weather, as well as the purchase of new heavy equipment for moving recycled materials.

## Protecting our environment

The Environmental Manager's Association of BC recognized Richmond's environmental stewardship with two prestigious awards. The City's Corporate Hazardous Materials Management Training initiative was honoured in the Regulatory Challenge category at the organization's 2021 Environmental Awards Gala, while its Mitchell Island Stewardship Initiative received the Discharge Control Award. Both programs demonstrate the City's commitment to protecting our environment and putting processes and systems in place to protect and maintain valuable ecosystems.



Government Finance Officers Association

### Award for Outstanding Achievement in Popular Annual Financial Reporting

Presented to

**City of Richmond**

**British Columbia**

For its Annual Financial Report  
for the Fiscal Year Ended

**December 31, 2020**

*Christopher P. Morrell*

Executive Director/CEO





# Report from the General Manager, Finance and Corporate Services

Mayor Malcom Brodie and Members of Richmond City Council,

I am pleased to submit the Consolidated Financial Statements and Auditors' Report for the fiscal year ended December 31, 2021 for the City of Richmond, pursuant to Section 98 and 167 of the Community Charter. The consolidated financial statements have been prepared in accordance with Canadian public sector accounting standards as prescribed by the Public Sector Accounting Board (PSAB) of the Chartered Professional Accountants of Canada. Preparation of the financial statements is management's responsibility.

KPMG LLP was appointed by City Council to independently audit the City's consolidated financial statements. They have expressed an opinion that the City's consolidated financial statements present fairly, in all material respects, the consolidated financial position of the City of Richmond as at December 31, 2021 and its consolidated results of operations, its changes in net consolidated financial assets and its consolidated cash flows for the year ended in accordance with Canadian public sector accounting standards.

These financial statements combine the accounts of the City of Richmond, Richmond Olympic Oval and Richmond Public Library (collectively referred to as the "City"), as well as the City's investment in Lulu Island Energy Company, which is accounted for as a Government Business Enterprise.

## Consolidated statement of financial position (in \$000s)

	2021 Actual	2020 Actual	Change
Financial Assets	\$ 1,468,241	\$ 1,471,442	\$(3,201)
Liabilities	528,238	582,457	(54,219)
Net Financial Assets	<b>940,003</b>	<b>888,985</b>	<b>51,018</b>
Non-Financial Assets	2,547,884	2,495,221	52,663
Accumulated Surplus	<b>\$3,487,887</b>	<b>\$ 3,384,206</b>	<b>\$103,681</b>

The City's overall financial position improved by \$103.7 million, with accumulated surplus (similar to net worth of a corporation) totaling \$3.5 billion. A significant part of this increase is due to additions to capital assets and statutory reserves, as well as a reduction in liabilities, especially a reduction in accounts payable relating to postponed remittances to other governments relating to COVID-19 paid in 2021.

The City's cash and investments are \$1.4 billion while long-term debt continues to decline with an outstanding balance at the end of 2021 of \$17.4 million. Meanwhile, the City's tangible capital assets increased by \$51.1 million, which includes \$61.0 million of in-kind contributions from development as conditions of re-zoning.

## Statutory reserves (in \$000s)

	2017	2018	2019	2020	2021
Total Reserves	\$484,883	\$540,153	\$557,576	\$609,533	\$647,209

Statutory reserves are established by Bylaw for specific purposes, mainly capital expenditures.

The increase in the balance to \$647.2 million is mainly attributable to the timing of these capital expenditures and contributions. There are annual transfers through the City's utility and operating budget, as well as through other respective entities' annual budget. Council's Long Term Financial Management Strategy also states that increases in transfers through the City's operating budget be done annually.

## Consolidated statement of operations (in \$000s)

	2021 Budget	2021 Actual	2020 Actual
Revenue	\$575,688	\$576,698	\$579,052
Expenses	507,765	473,017	434,188
<b>Annual Surplus</b>	<b>\$67,923</b>	<b>\$103,681</b>	<b>\$144,864</b>

The City's consolidated revenue for the year totaled \$576.7 million, a decrease of \$2.4 million from 2020 mainly due to a decrease in the gain on sale of land offset by revenue increases related to facility re-openings from the COVID-19 closures.

Expenses increased by \$38.8 million from prior year mainly due to related facility re-openings from the COVID-19 closures.

The annual surplus for 2021 was \$103.7 million and represents the change in investment in tangible capital assets, reserves and other accumulated surplus.

## Budget variance

Consolidated revenue of \$576.7M was greater than budgeted revenue by \$1.0M mainly due to:

- \$6.7M in developer cash contributions and \$0.7M in gain on sale of land that are not budgeted.
- \$5.7M higher than budgeted gaming revenue mainly due to the mid-year re-opening of the River Rock Casino that was previously closed due to COVID-19.
- \$2.6M higher than budgeted payments-in-lieu of taxes due to higher than expected payments from other agencies.
- \$4.4M lower than budgeted sales of services mainly due to reduced community services programs due to COVID-19.
- \$8.4M lower than budgeted Development Cost Charges (DCC) revenue due to the timing of capital expenditures. Revenue is recognized when the amounts are spent while the budget represents the 2021 allocation of DCCs towards capital projects that can be spent over multiple years.

Consolidated expenses of \$473.0M were lower than budgeted by \$34.7M. The main variances include:

- \$13.7M lower than budgeted community services costs mainly due to reduced community services programming due to COVID-19.
- \$9.7M lower than budgeted general government costs due to vacant positions, realized savings due to lower expenditures and staff redeployment due to COVID-19.
- \$3.9M lower than budgeted community safety costs mainly due to salary savings relating to filling new fire fighter and officer positions approved in 2021.

The City's consolidated annual surplus of \$103.7 million exceeded the budgeted annual surplus of \$67.9 million by \$59.6 million, prior to transfers to reserves and other accumulated surplus.

## Year over year change

Consolidated revenue of \$576.7M decreased by \$2.4M from 2020 mainly due to:

- an increase of \$15.8M in property taxes due to the approved rate increase and growth related to new development.
- a decrease of \$7.3M in other revenue mainly due to reductions in developer cash contributions of \$2.5M and gain on sale of land of \$5.8M.
- an increase of \$6.5M in sales of service revenue mainly due to the re-opening of facilities closed due to COVID-19.
- a decrease of \$6.4M in other capital funding mainly due to external capital grants.
- a decrease of \$5.4M in licences and permits mainly due to building permits revenue recognized on large scale development construction completed in 2020.
- a decrease of \$5.2M in investment income due to the low interest rate environment.

Consolidated expenses of \$473.0M increased by \$38.8M over 2020 mainly due to:

- \$10.3M increase in community safety costs mainly due to police contract increases and additional firefighter and officer positions.
- \$9.0M increase in community services costs mainly due to the re-opening of community facilities closed due to COVID-19.

## Financial sustainability

2021 saw the easing of COVID-19 challenges through the continued re-opening of community recreation facilities and resumption of gaming revenues from the re-opening of the River Rock Casino resulting in the City maintaining its excellent financial position.

Respectfully submitted,



Jerry Chong, CPA, CA  
*Acting General Manager, Finance and Corporate Services*  
May 9, 2022

# City of Richmond audited financial statements

Year ended December 31, 2021



KPMG LLP  
PO Box 10426 777 Dunsmuir Street  
Vancouver BC V7Y 1K3  
Canada  
Telephone (604) 691-3000  
Fax (604) 691-3031

## INDEPENDENT AUDITORS' REPORT

To the Mayor and Council of the City of Richmond

### **Opinion**

We have audited the consolidated financial statements of the City of Richmond (the "City"), which comprise:

- the consolidated statement of financial position as at December 31, 2021
- the consolidated statement of operations for the year then ended
- the consolidated statement of changes in net financial assets for the year then ended
- the consolidated statement of cash flows for the year then ended
- and notes to the consolidated financial statements, including a summary of significant accounting policies

(hereinafter referred to as the "financial statements").

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

### **Basis for Opinion**

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the "**Auditors' Responsibilities for the Audit of the Financial Statements**" section of our auditors' report.

We are independent of the City in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

KPMG LLP, an Ontario limited liability partnership and member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee.





City of Richmond  
Page 2

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

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

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

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

### ***Auditors' Responsibilities for the Audit of the Financial Statements***

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

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

We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion.

The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the City's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.



City of Richmond  
Page 3

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the City's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the City to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group entity to express an opinion on the financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

A handwritten signature in black ink that reads 'KPMG LLP' with a horizontal line underneath.

Chartered Professional Accountants

Vancouver, Canada  
May 9, 2022

# CITY OF RICHMOND

Consolidated Statement of Financial Position  
(Expressed in thousands of dollars)

December 31, 2021, with comparative information for 2020

	2021	2020
<b>Financial Assets</b>		
Cash and cash equivalents	\$ 672,031	\$ 530,034
Investments (note 3)	696,886	834,010
Investment in Lulu Island Energy Company ("LIEC") (note 4)	33,647	32,736
Accrued interest receivable	8,932	9,697
Accounts receivable (note 5)	29,655	21,521
Taxes receivable	14,157	14,419
Development fees receivable	12,425	28,517
Debt reserve fund - deposits (note 6)	508	508
	1,468,241	1,471,442
<b>Liabilities</b>		
Accounts payable and accrued liabilities	86,575	156,975
Post-employment benefits (note 14)	37,395	35,121
Development cost charges (note 7)	224,655	221,151
Deposits and holdbacks (note 8)	106,041	97,445
Deferred revenue (note 9)	56,186	49,024
Debt, net of MFA sinking fund deposits (note 10)	17,386	22,741
	528,238	582,457
Net financial assets	940,003	888,985
<b>Non-Financial Assets</b>		
Tangible capital assets (note 11)	2,539,267	2,488,139
Inventory of materials and supplies	4,696	4,285
Prepaid expenses	3,921	2,797
	2,547,884	2,495,221
Accumulated surplus (note 12)	\$ 3,487,887	\$ 3,384,206

Contingent demand notes (note 6)  
Commitments and contingencies (note 17)

See accompanying notes to consolidated financial statements.



General Manager, Finance and Corporate Services

# CITY OF RICHMOND

Consolidated Statement of Operations  
(Expressed in thousands of dollars)

Year ended December 31, 2021, with comparative information for 2020

	2021 Budget (notes 2(p) and 23)	2021	2020
Revenue:			
Taxation and levies (note 19)	\$ 255,366	\$ 255,837	\$ 239,991
Utility fees	117,674	118,144	114,335
Sales of services	40,000	35,601	29,090
Payments-in-lieu of taxes	12,142	14,789	16,820
Provincial and federal contributions	10,855	12,704	16,953
Development cost charges (note 7)	24,669	16,223	16,737
Other capital funding sources	75,943	64,695	71,051
Other revenue:			
Investment income	13,290	14,968	20,175
Gaming revenue	-	5,700	2,705
Licenses and permits	11,403	13,995	19,407
Other (note 20)	12,808	23,131	30,466
Equity income in LIEC (note 4)	1,538	911	1,322
	575,688	576,698	579,052
Expenses:			
Community safety	127,108	123,232	112,895
Utilities: water, sewer and sanitation	109,787	106,519	102,824
Engineering, public works and project development	82,833	80,083	75,314
Community services	73,610	59,873	50,833
General government	63,976	54,249	51,495
Planning and development	24,409	25,166	19,201
Richmond Olympic Oval	14,844	14,079	12,586
Richmond Public Library	11,198	9,816	9,040
	507,765	473,017	434,188
Annual surplus	67,923	103,681	144,864
Accumulated surplus, beginning of year	3,384,206	3,384,206	3,239,342
Accumulated surplus, end of year	\$ 3,452,129	\$ 3,487,887	\$ 3,384,206

See accompanying notes to consolidated financial statements.

# CITY OF RICHMOND

## Consolidated Statement of Changes in Net Financial Assets (Expressed in thousands of dollars)

Year ended December 31, 2021, with comparative information for 2020

	2021 Budget (notes 2(p) and 23)	2021	2020
Annual surplus for the year	\$ 67,923	\$ 103,681	\$ 144,864
Acquisition of tangible capital assets	(106,483)	(61,150)	(70,726)
Contributed tangible capital assets	(61,479)	(61,004)	(58,240)
Amortization of tangible capital assets	67,458	68,519	66,254
Net loss (gain) on disposal of tangible capital assets	-	1,714	(6,136)
Proceeds on sale of tangible capital assets	-	793	8,507
	(32,581)	52,553	84,523
Acquisition of inventory of materials and supplies	-	(4,696)	(4,285)
Acquisition of prepaid expenses	-	(3,921)	(2,797)
Consumption of inventory of materials and supplies	-	4,285	2,961
Use of prepaid expenses	-	2,797	2,714
Change in net financial assets	(32,581)	51,018	83,116
Net financial assets, beginning of year	888,985	888,985	805,869
Net financial assets, end of year	\$ 856,404	\$ 940,003	\$ 888,985

See accompanying notes to consolidated financial statements.



# CITY OF RICHMOND

Consolidated Statement of Cash Flows  
(Expressed in thousands of dollars)

Year ended December 31, 2021, with comparative information for 2020

	2021	2020
Cash provided by (used in):		
Operating activities:		
Annual surplus	\$ 103,681	\$ 144,864
Items not involving cash:		
Amortization of tangible capital assets	68,519	66,254
Net loss (gain) on disposal of tangible capital assets	1,714	(6,136)
Contributions of tangible capital assets	(61,004)	(58,240)
Equity income in LIEC	(911)	(1,322)
Changes in non-cash operating working capital:		
Accrued interest receivable	765	(1,916)
Accounts receivable	(8,134)	6,886
Taxes receivable	262	(3,386)
Development fees receivable	16,092	(7,373)
Inventory of materials and supplies	(411)	(1,324)
Prepaid expenses	(1,124)	(83)
Accounts payable and accrued liabilities	(70,400)	83,572
Post-employment benefits	2,274	934
Development cost charges	3,504	23,480
Deposits and holdbacks	8,596	(19,919)
Deferred revenue	7,162	(15,338)
Net change in cash from operating activities	70,585	210,953
Capital activities:		
Cash used to acquire tangible capital assets	(61,150)	(70,726)
Proceeds on disposal of tangible capital assets	793	8,507
Net change in cash from capital activities	(60,357)	(62,219)
Financing activities:		
Repayments of debt	(5,355)	(5,150)
Investing activities:		
Net sale (purchase) of investments	137,124	(3,114)
Net change in cash	141,997	140,470
Cash and cash equivalents, beginning of year	530,034	389,564
Cash and cash equivalents, end of year	\$ 672,031	\$ 530,034

See accompanying notes to consolidated financial statements.

# CITY OF RICHMOND

Notes to Consolidated Financial Statements  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

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## 1. Operations:

The City of Richmond (the "City") is incorporated under the Local Government Act of British Columbia. The City's principal activities include the provision of local government services to residents of the incorporated area. These include administrative, protective, transportation, infrastructure, environmental, recreational, water, sewer, and drainage.

In March 2020, the COVID-19 outbreak was declared a pandemic by the World Health Organization. This resulted in governments worldwide, including the Canadian federal and provincial governments enacting emergency measures to combat the spread of the virus. The economic conditions and the City's response to the pandemic had a material impact on the City's operating results and financial position in 2020 and continued in 2021 affecting both revenues and expenses. The City temporarily closed civic facilities, including recreation and community centres, managed workforce challenges, including the implementation of systems and processes to facilitate remote work, and workforce adjustments, such as delayed hiring, reallocation of staff resources and temporary layoffs. The primary impact was on parks, recreation and facilities. The situation is still dynamic and the ultimate duration and magnitude of the impact on the economy and the financial effect on the City is not known at this time.

## 2. Significant accounting policies:

The consolidated financial statements of the City have been prepared in accordance with Canadian public sector accounting standards as prescribed by the Public Sector Accounting Board ("PSAB") of the Chartered Professional Accountants Canada.

### (a) Basis of consolidation:

The consolidated financial statements reflect a combination of the City's General Revenue, General Capital and Loan, Waterworks and Sewerworks, and Reserve Funds consolidated with the Richmond Public Library (the "Library") and the Richmond Olympic Oval (the "Oval"). The Library is consolidated as the Library Board is appointed by the City. The Oval is consolidated as they are a wholly owned municipal corporation of the City. Interfund transactions, fund balances and activities have been eliminated on consolidation. The City's investment in Lulu Island Energy Company ("LIEC"), a wholly owned government business enterprise ("GBE"), is accounted for using the modified equity method.

### (i) General Revenue Fund:

This fund is used to account for the current operations of the City as provided for in the Annual Budget, including collection of taxes, administering operations, policing, and servicing general debt.

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

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## 2. Significant accounting policies (continued):

### (a) Basis of consolidation (continued):

#### (ii) General Capital and Loan Fund:

This fund is used to record the City's tangible capital assets and work-in-progress, including engineering structures such as roads and bridges, and the related debt.

#### (iii) Waterworks and Sewerworks Funds:

These funds have been established to cover the costs of operating these utilities, with related capital and loan funds to record the related tangible capital assets and debt.

#### (iv) Reserve Funds:

Certain funds are established by bylaws for specific purposes. They are funded primarily by budgeted contributions from the General Revenue Fund and developer contributions plus interest earned on fund balances.

### (b) Basis of accounting:

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

### (c) Government transfers:

Restricted transfers from governments are deferred and recognized as revenue as the related expenditures are incurred or the stipulations in the related agreement are met. Unrestricted transfers are recognized as revenue when received or if the amount to be received can be reasonably estimated and collection is reasonably assured.

### (d) Cash and cash equivalents:

Cash and cash equivalents consist of cash, highly liquid money market investments and short-term investments with maturities of less than 90 days from date of acquisition.

### (e) Investments:

Investments are recorded at cost, adjusted for amortization of premiums or discounts. Provisions for losses are recorded when they are considered to be other than temporary.

### (f) Investment in government business enterprises:

Government business enterprises are recorded using the modified equity method of accounting. The City's investment in the GBE is recorded as the value of the GBE's shareholder's equity. The investment's income or loss is recognized by the City when it is earned by the GBE. Inter-organizational transactions and balances are not eliminated, except for any gains or losses on assets remaining within the City.

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 2. Significant accounting policies (continued):

### (g) Accounts receivable:

Accounts receivable are net of an allowance for doubtful accounts and therefore represent amounts expected to be collected.

### (h) Development cost charges:

Development cost charges are restricted by legislation to expenditures on capital infrastructure. These amounts are deferred upon receipt and recognized as revenue when the expenditures are incurred in accordance with the restrictions.

### (i) Post-employment benefits:

The City and its employees make contributions to the Municipal Pension Plan. As this plan is a multi-employee plan, contributions are expensed as incurred.

Post-employment benefits also accrue to the City's employees. The liabilities related to these benefits are actuarially determined based on service and best estimates of retirement ages and expected future salary and wage increases. The liabilities under these benefits plans are accrued based on projected benefits prorated as employees render services necessary to earn the future benefits.

### (j) Non-financial assets:

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

#### (i) Tangible capital assets:

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

Asset	Useful life - years
Buildings and building improvements	10 - 75
Infrastructure	5 - 100
Vehicles, machinery and equipment	3 - 40
Library's collections, furniture and equipment	4 - 20

Amortization is charged over the asset's useful life commencing when the asset is acquired. Assets under construction are not amortized until the asset is available for productive use.

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

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## 2. Significant accounting policies (continued):

(j) Non-financial assets (continued):

(ii) Contributions of tangible capital assets:

Tangible capital assets received as contributions are recorded at their fair value at the date of receipt and also are recorded as revenue.

(iii) Natural resources, works of art, and cultural and historic assets:

Natural resources, works of art, and cultural and historic assets are not recorded as assets in the consolidated financial statements.

(iv) Interest capitalization:

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

(v) Labour capitalization:

Internal labour directly attributable to the construction, development or implementation of a tangible capital asset is capitalized.

(vi) Leased tangible capital assets:

Leases which transfer substantially all of the benefits and risks incidental to ownership of property are accounted for as leased tangible capital assets. All other leases are accounted for as operating leases and the related payments are charged to expenses as incurred.

(vii) Impairment of tangible capital assets:

Tangible capital assets are written down when conditions indicate that they no longer contribute to the City's ability to provide goods and services, or when the value of future economic benefits associated with the tangible capital assets are less than their net book value. The net write-downs are accounted for as expenses in the consolidated statement of operations.

(viii) Inventory of materials and supplies:

Inventory is recorded at cost, net of an allowance for obsolete stock. Cost is determined on a weighted average basis.



# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

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## 2. Significant accounting policies (continued):

### (k) Revenue recognition:

Revenue is recognized in the period in which the transactions or events occurred that gave rise to the revenue. All revenue is recorded on an accrual basis, except when the accruals cannot be determined with a reasonable degree of certainty or when their estimation is impractical.

The City is required to act as the agent for the collection of certain taxes and fees imposed by other authorities. Collections for other authorities are excluded from the City's taxation revenue.

### (l) Property taxes:

The City establishes property tax rates based on assessed market values provided by the British Columbia Assessment Authority (BCA). Market values are determined as of July 1<sup>st</sup> of each year. The City records taxation revenue at the time the property tax bills are issued. The City is entitled to collect interest and penalties on overdue taxes.

### (m) Deferred revenue:

The City defers a portion of the revenue collected from permits, licenses and other fees and recognizes this revenue in the year in which related inspections are performed, other related expenses are incurred or services are provided.

Deferred revenue also represents funds received from external parties for specified purposes. This revenue is recognized in the period in which the related expenses are incurred.

### (n) Deposits:

Receipts restricted by the legislation of senior governments or by agreement with external parties are deferred and reported as deposits and are refundable under certain circumstances. When qualifying expenses are incurred, deposits are recognized as revenue at amounts equal to the qualifying expenses.

### (o) Debt:

Debt is recorded net of related sinking fund balances.

### (p) Budget information:

Budget information, presented on a basis consistent with that used for actual results, was included in the City's Consolidated 5 Year Financial Plan (2021-2025) ("Consolidated Financial Plan") and was adopted through Bylaw No. 10239 on March 22, 2021.

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

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## 2. Significant accounting policies (continued):

### (q) Contaminated sites:

Contaminated sites are a result of contamination being introduced into air, soil, water, or sediment of a chemical, organic or radioactive material of live organism that exceeds an environmental standard. Liabilities are recorded net of any expected recoveries.

A liability for remediation of contaminated sites is recognized when a site is not in productive use and the following criteria are met:

- (i) An environmental standard exists;
- (ii) Contamination exceeds the environmental standard;
- (iii) The City is directly responsible or accepts responsibility;
- (iv) It is expected that future economic benefits will be given up; and
- (v) A reasonable estimate of the amount can be made.

The liability is recognized as management's estimate of the cost of post-remediation including operation, maintenance and monitoring that are an integral part of the remediation strategy for a contaminated site.

### (r) Use of accounting estimates:

The preparation of consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amount of revenue and expenditures during the reporting period. Areas requiring the use of management estimates relate to performing the actuarial valuation of employee future benefits, the value of contributed tangible capital assets, value of developer contributions, useful lives for amortization, determination of provisions for accrued liabilities, performing the actuarial valuation of employee future benefits, allowance for doubtful accounts, and provision for contingencies. Actual results could differ from those estimates. Adjustments, if any, will be reflected in the consolidated financial statements in the period that the change in estimate is made, as well as in the period of settlement if the amount is different.

### (s) Segment disclosures:

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

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 3. Investments:

	2021		2020	
	Cost	Market value	Cost	Market value
Short-term notes and deposits	\$ 257,701	\$ 257,701	\$ 339,607	\$ 339,695
Government and government guaranteed bonds	280,063	280,802	326,838	334,579
Other bonds	159,122	159,283	167,565	171,729
	\$ 696,886	\$ 697,786	\$ 834,010	\$ 846,003

## 4. Investment in Lulu Island Energy Company Ltd:

The City owns 100% of the issued and outstanding shares of LIEC, which was incorporated under the British Columbia Business Corporations Act on August 19, 2013. LIEC develops, manages and operates district energy utilities in the City of Richmond, on the City's behalf, including but not limited to energy production, generation or exchange, transmission, distribution, maintenance, marketing and sales to customers, customer service, profit generation, financial management and advisory services for energy and infrastructure.

Summarized financial information relating to LIEC is as follows:

	2021	2020
Cash, cash equivalents, and investments	\$ 15,755	\$ 12,619
Accounts receivable	1,676	3,034
Tangible capital assets	39,203	37,360
Total assets	56,634	53,013
Accounts payable and accrued liabilities	2,672	1,792
Deferred contributions	8,051	7,352
Concession liability	12,264	11,133
Total liabilities	22,987	20,277
Shareholder's equity	\$ 33,647	\$ 32,736
Total revenue	\$ 6,431	\$ 5,591
Total expenses	5,520	4,269
Net income	\$ 911	\$ 1,322

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 4. Investment in Lulu Island Energy Company Ltd (continued):

Included in accounts payable and accrued liabilities in the City's consolidated statement of financial position are payables to LIEC in the amount of \$151,454 (2020 - \$323,020).

On October 30, 2014, LIEC and the Oval Village district energy utility developer ("the Concessionaire") entered into a 30-year Concession Agreement, which is a public-private partnership project ("P3"), where the Concessionaire will design, construct, finance, operate, and maintain the infrastructure for the district energy utility at the Oval Village community. As part of the Agreement, the infrastructure will be owned by LIEC.

On October 30, 2014, the Concessionaire and the City entered into a Limited Guarantee Agreement. The City is the Guarantor and guarantees the performance of some of LIEC's obligations under the Concession Agreement to a maximum of \$18.2 million (2020 - \$18.2 million).

## 5. Accounts receivable:

	2021	2020
Water and sewer utilities	\$ 13,243	\$ 11,760
Casino revenue	2,701	-
Capital grants	6,873	4,278
Other trade receivables	6,838	5,483
	<u>\$ 29,655</u>	<u>\$ 21,521</u>

## 6. Debt reserve fund deposits and contingent demand notes:

The City issues its debt instruments through the Municipal Finance Authority (the "MFA"). As a condition of these borrowings, a portion of the debenture proceeds is withheld by the MFA in a Debt Reserve Fund. The City also executes demand notes in connection with each debenture whereby the City may be required to loan certain amounts to the MFA. These demand notes are contingent in nature and are not reflected in the City's accounts. The details of the cash deposits and contingent demand notes at December 31, 2021 and 2020 are as follows:

	Cash deposits	Contingent demand notes
General Revenue Fund	\$ 508	\$ 2,447

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 7. Development cost charges:

	2021	2020
Balance, beginning of year	\$ 221,151	\$ 197,671
Contributions	16,873	36,800
Interest	2,854	3,417
Revenue recognized	(16,223)	(16,737)
Balance, end of year	\$ 224,655	\$ 221,151

## 8. Deposits and holdbacks:

	Balance December 31, 2020	Deposit contributions/ interest earned	Refund/ expenditures	Balance December 31, 2021
Security deposits	\$ 74,977	\$ 136,664	\$ (127,545)	\$ 84,096
Developer contributions	7,797	130	(15)	7,912
Damage deposits	5,589	6,513	(6,309)	5,793
Contract holdbacks	5,267	4,916	(6,323)	3,860
Other	3,815	1,183	(618)	4,380
	\$ 97,445	\$ 149,406	\$ (140,810)	\$ 106,041

## 9. Deferred revenue:

	Balance December 31, 2020	Externally restricted inflows	Revenue earned	Balance December 31, 2021
Taxes and utilities	\$ 23,221	\$ 25,116	\$ (23,221)	\$ 25,116
Building permits/development	14,117	6,846	(6,698)	14,265
Oval	1,216	325	10	1,551
Capital grants	2,219	7,546	(3,691)	6,074
Business licenses	2,603	2,262	(2,228)	2,637
Parking easement/leased land	2,431	36	(49)	2,418
Other	3,217	312	596	4,125
	\$ 49,024	\$ 42,443	\$ (35,281)	\$ 56,186



# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 10. Debt, net of MFA sinking fund deposits:

The interest rate for the year ended December 31, 2021 on the principal amount of the MFA debenture was 3.30% (2020 - 3.30%) per annum. Interest expense incurred for the year on the long-term debt was \$1,676,895 (2020 - \$1,676,895). The maturity date of the MFA debt is April 7, 2024.

The City obtains debt instruments through the MFA pursuant to security issuing bylaws under authority of the Community Charter to finance certain capital expenditures.

Gross amount for the debt less principal payments and actuarial adjustments to date are as follows:

	Gross amount borrowed	Repayments and actuarial adjustments	Net debt 2021	Net debt 2020
General Fund	\$ 50,815	\$ 33,429	\$ 17,386	\$ 22,741

Repayments on net outstanding debt over the next four years are as follows:

2022	\$ 5,570
2023	5,792
2024	6,024
	\$ 17,386

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 11. Tangible capital assets:

<b>Cost</b>	Balance December 31, 2020	Additions and transfers	Disposals	Balance December 31, 2021
Land	\$ 1,060,180	\$ 17,074	\$ -	\$ 1,077,254
Building and building improvements	552,624	33,162	(9,034)	576,752
Infrastructure	1,834,488	83,814	(5,924)	1,912,378
Vehicles, machinery and equipment	158,164	9,851	(1,884)	166,131
Library's collections, furniture and equipment	9,945	1,155	(390)	10,710
Assets under construction	83,592	(22,902)	-	60,690
	\$ 3,698,993	\$ 122,154	\$ (17,232)	\$ 3,803,915

<b>Accumulated amortization</b>	Balance December 31, 2020	Disposals	Amortization expense	Balance December 31, 2021
Building and building improvements	\$ 217,342	\$ (7,225)	\$ 19,316	\$ 229,433
Infrastructure	884,269	(5,352)	37,428	916,345
Vehicles, machinery and equipment	102,159	(1,758)	10,815	111,216
Library's collections, furniture and equipment	7,084	(390)	960	7,654
	\$ 1,210,854	\$ (14,725)	\$ 68,519	\$ 1,264,648

<b>Net book value</b>	December 31, 2021	December 31, 2020
Land	\$ 1,077,254	\$ 1,060,180
Buildings and building improvements	347,319	335,282
Infrastructure	996,033	950,219
Vehicles, machinery and equipment	54,915	56,005
Library's collection, furniture and equipment	3,056	2,861
Assets under construction	60,690	83,592
Balance, end of year	\$ 2,539,267	\$ 2,488,139

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 11. Tangible capital assets (continued):

### (a) Assets under construction:

Assets under construction having a value of \$60,690,017 (2020 - \$83,592,534) have not been amortized. Amortization of these assets will commence when the asset is put into service.

### (b) Contributed tangible capital assets:

Contributed tangible capital assets have been recognized at fair market value at the date of contribution and recorded in other capital funding revenue on the statement of operations. The value of contributed assets received during the year is \$61,004,232 (2020 - \$58,239,544) comprised of land in the amount of \$17,281,008 (2020 - \$38,682,057), infrastructure in the amount of \$20,810,489 (2020 - \$16,979,272), buildings in the amount of \$22,682,598 (2020 - \$2,578,215), and machinery in the amount of \$230,137 (2020 - nil).

### (c) Tangible capital assets disclosed at nominal values:

Where an estimate of fair value could not be made, the tangible capital asset was recognized at a nominal value.

### (d) Works of art and historical treasures:

The City manages and controls various works of art and non-operational historical cultural assets including building, artifacts, paintings, and sculptures located at City sites and public display areas. The assets are not recorded as tangible capital assets and are not amortized.

### (e) Write-down of tangible capital assets:

There were no write-down of tangible capital assets in 2021 (2020 - nil).

## 12. Accumulated surplus:

	General and Reserve Funds	Waterworks Utility Fund	Sewerworks Utility Fund	Richmond Olympic Oval	Library	2021 Total	2020 Total
Investment in tangible capital assets	\$ 2,510,069	\$ -	\$ -	\$ 8,503	\$ 3,057	\$ 2,521,629	\$ 2,465,108
Reserves (note 13)	639,109	-	-	8,100	-	647,209	609,533
Appropriated surplus	223,365	18,508	9,981	1,559	2,607	256,020	253,790
Investment in LIEC	33,647	-	-	-	-	33,647	32,736
Surplus	16,181	408	6,295	606	1,336	24,826	18,908
Other equity	4,556	-	-	-	-	4,556	4,131
Balance, end of year	\$ 3,426,927	\$ 18,916	\$ 16,276	\$ 18,768	\$ 7,000	\$ 3,487,887	\$ 3,384,206

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 13. Reserves:

	Balance, December 31, 2020	Change during year	Balance, December 31, 2021
Affordable housing	\$ 12,250	\$ 2,043	\$ 14,293
Arts, culture and heritage	3,721	(195)	3,526
Capital building and infrastructure	111,528	11,192	122,720
Capital reserve	222,778	21,667	244,445
Capstan station	11,477	(328)	11,149
Child care development	10,055	23	10,078
Community legacy and land replacement	1,387	71	1,458
Drainage improvement	60,597	(3,438)	57,159
Equipment replacement	22,577	2,629	25,206
Hamilton area plan community amenity	2,762	245	3,007
Leisure facilities	18,097	873	18,970
Local improvements	7,459	112	7,571
Neighborhood improvement	7,919	118	8,037
Oval	7,810	290	8,100
Public art program	4,582	(177)	4,405
Sanitary sewer	48,903	708	49,611
Steveston off-street parking	331	5	336
Steveston road ends	153	2	155
Waterfront improvement	195	(8)	187
Watermain replacement	54,952	1,844	56,796
	\$ 609,533	\$ 37,676	\$ 647,209

## 14. Post-employment benefits:

The City provides certain post-employment benefits, non-vested sick leave, compensated absences, and termination benefits to its employees.

	2021	2020
Accrued benefit obligation, beginning of year	\$ 35,414	\$ 35,184
Current service cost	2,644	2,446
Interest cost	728	853
Past service cost	992	-
Benefits paid	(2,035)	(2,262)
Actuarial gain	(2,419)	(807)
Accrued benefit obligation, end of year	\$ 35,324	\$ 35,414

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 14. Post-employment benefits (continued):

An actuarial valuation for these benefits was performed to determine the City's accrued benefit obligation as at December 31, 2020. This actuarial loss is being amortized over a period equal to the employees' expected average remaining service lifetime of 11 years.

	2021	2020
Accrued benefit obligation, end of year	\$ 35,324	\$ 35,414
Unamortized net actuarial gain (loss)	2,071	(293)
Accrued benefit liability, end of year	\$ 37,395	\$ 35,121

Actuarial assumptions used to determine the City's accrued benefit obligation are as follows:

	2021	2020
Discount rate	2.40%	2.00%
Expected future inflation rate	2.00%	2.00%
Expected wage and salary range increases	2.50% to 3.00%	2.50% to 3.00%

## 15. Pension plan:

The City and its employees contribute to the Municipal Pension Plan (a jointly trustee pension plan). The board of trustees, representing plan members and employers, is responsible for administering the plan, including investment of assets and administration of benefits. The plan is a multi-employer defined benefit pension plan. Basic pension benefits are based on a formula. As at December 31, 2020, the plan has about 220,000 active members and approximately 112,000 retired members. Active members include approximately 42,000 contributors from local governments.

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



# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 15. Pension plan (continued):

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

The City paid \$14,125,356 (2020 - \$13,343,310) for employer contributions while employees contributed \$11,777,413 (2020 - \$11,199,779) to the plan in fiscal 2021.

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

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

## 16. Contingent assets and contractual rights:

### (a) Contingent assets:

Contingent assets are possible assets arising from existing conditions or situations involving uncertainty. That uncertainty will ultimately be resolved when one or more future events not wholly within the City's control occurs or fails to occur.

The City has legal claims, service agreements, and land dedications that may qualify as contingent assets. Amounts cannot be estimated as of December 31, 2021. Contingent assets are not recorded in the consolidated financial statements.

### (b) Contractual rights:

The City has entered into contracts or agreements in the normal course of operations that it expects will result in revenue and assets in future fiscal years. The City's contractual rights are comprised of leases, licenses, grants and various other agreements, including the provision of police services with the Vancouver Airport Authority. The following table summarizes the expected revenue from the City's contractual rights:

2022	\$ 27,333
2023	11,110
2024	3,671
2025	2,393
2026	401
Thereafter	7,988

The City is entitled to receive revenue from certain other agreements. The revenue from these agreements cannot be quantified and has not been included in the amounts noted above.

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 17. Commitments and contingencies:

### (a) Joint and several liabilities:

The City has a contingent liability with respect to debentures of the Greater Vancouver Water District, Greater Vancouver Sewerage and Drainage District and Metro Vancouver Regional District, to the extent provided for in their respective Enabling Acts, Acts of Incorporation and Amending Acts. Management does not consider payment under this contingency to be likely and therefore no amounts have been accrued.

### (b) Lease payments:

The City is committed to operating lease payments for premises and equipment in the following approximate amounts:

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2022	\$ 2,670
2023	2,657
2024	2,487
2025	2,487
2026 and thereafter	3,542

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### (c) Litigation:

As at December 31, 2021, there were a number of claims or risk exposures in various stages of resolution. The City has made no specific provision for those where the outcome is presently not determinable.

### (d) Municipal Insurance Association of British Columbia ("Association"):

The City is a participant in the Association. Should the Association pay out claims in excess of premiums received, it is possible that the City, along with other participants, would be required to contribute towards the deficit. Management does not consider external payment under this contingency to be likely and therefore, no amounts have been accrued.

### (e) Contractual obligation:

The City has entered into various contracts for services and construction with periods ranging beyond one year. These commitments are in accordance with budgets passed by Council.

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)

(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 17. Commitments and contingencies (continued):

- (f) E-Comm Emergency Communications for Southwest British Columbia Incorporated ("E-Comm"):

The City is a shareholder of the E-Comm whose services provided include: regional 9-1-1 call centre for the Greater Vancouver Regional District; Wide Area Radio network; dispatch operations; and records management. The City has 2 Class A shares and 1 Class B share (of a total of 36 Class A and 19 Class B shares issued and outstanding as at December 31, 2021). As a Class A shareholder, the City shares in both funding the future operations and capital obligations of E-Comm (in accordance with a cost sharing formula), including any lease obligations committed to by E-Comm up to the shareholder's withdrawal date.

- (g) Community associations:

The City has agreements with the various community associations which operate the community centers throughout the City. The City generally provides the buildings and grounds, pays the operating costs of the facilities, and provides certain staff and other services such as information technology. Typically the community associations are responsible for providing programming and services to the community. The community associations retain all revenue which they receive.

## 18. Trust funds:

Certain assets have been conveyed or assigned to the City to be administered as directed by agreement or statute. The City holds the assets for the benefit of and stands in fiduciary relationship to the beneficiary. The following trust fund is excluded from the City's consolidated financial statements.

	2021	2020
Richmond Community Associations	\$ 1,928	\$ 1,909

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 19. Taxation and levies:

	2021	2020
Taxes collected:		
Property taxes	\$ 496,172	\$ 413,302
Payment-in-lieu of taxes and grants	24,326	22,375
Local improvement levies	84	88
	520,582	435,765
Less transfers to other authorities:		
Province of British Columbia - School taxes	(192,631)	(123,333)
TransLink	(42,926)	(41,992)
Metro Vancouver	(8,029)	(7,267)
BC Assessment Authority	(6,297)	(6,286)
Other	(30)	(29)
	(249,913)	(178,907)
Less payment-in-lieu of taxes retained by the City	(14,832)	(16,867)
	\$ 255,837	\$ 239,991

## 20. Other revenue:

	2021	2020
Developer contributions	\$ 6,580	\$ 9,044
Tangible capital assets gain on sale of land	722	6,513
Penalties and fines	4,210	3,180
Parking program	1,343	1,204
Other	10,276	10,525
	\$ 23,131	\$ 30,466

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 21. Government transfers:

Government transfers are received for operating and capital activities. The operating transfers consist of gaming revenue and provincial and federal contributions. Capital transfers are included in other capital funding sources revenue. The source of the government transfers are as follows:

	2021	2020
Operating		
Province of British Columbia	\$ 12,590	\$ 17,534
TransLink	3,815	546
Government of Canada	1,999	1,579
Capital		
Province of British Columbia	6,069	9,965
TransLink	2,947	2,125
Government of Canada	567	-
	<b>\$ 27,987</b>	<b>\$ 31,749</b>

## 22. Segmented reporting:

The City provides a wide variety of services to its residents. For segment disclosure, these services are grouped and reported under service areas/departments that are responsible for providing such services. They are as follows:

- (a) **Community Safety** brings together the City's public safety providers such as Police (RCMP), Fire-Rescue, Emergency Programs, and Community Bylaws. It is responsible for ensuring safe communities by providing protection services with a focus on law enforcement, crime prevention, emergency response, and protection of life and properties.
- (b) **Utilities** provide such services as planning, designing, constructing, operating, and maintaining the City's infrastructure of water, sewer, drainage and diking networks and sanitation and recycling.
- (c) **Engineering, Public Works and Project Development** comprises of General Public Works, Roads and Construction, Storm Drainage, Fleet Operations, Engineering, Project Development, and Facility Management. The services provided are construction and maintenance of the City's infrastructure and all City owned buildings, maintenance of the City's road networks, managing and operating a mixed fleet of vehicles, heavy equipment and an assortment of specialized work units for the City operations, development of current and long-range engineering planning and construction of major projects.



# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

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## 22. Segmented reporting (continued):

- (d) **Community Services** comprises of Parks, Recreation, Arts, and Culture and Heritage Services. These departments ensure recreation opportunities in Richmond by maintaining a variety of facilities such as arenas, community centres, pools, etc. It designs, constructs and maintains parks and sports fields to ensure there is adequate open green space and sports fields available for Richmond residents. It also addresses the economic, arts, culture, and community issues that the City encounters.
- (e) **General Government** comprises of Mayor and Council, Corporate Administration, and Finance and Corporate Services. It is responsible for adopting bylaws, effectively administering city operations, levying taxes, legal services, providing sound management of human resources, information technology, City finance, and ensuring high quality services to Richmond residents.
- (f) **Planning and Development** is responsible for land use plans, developing bylaws and policies for sustainable development in the City including the City's transportation systems, and community social development.
- (g) **Richmond Olympic Oval Corporation** is formed as a wholly owned subsidiary of the City. The City uses the Richmond Olympic Oval facility as a venue for a wide range of sports, business and community activities.
- (h) **Richmond Public Library** provides public access to information by maintaining 5 branches throughout the City.

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 22. Segmented reporting (continued):

	Community safety	Utilities	Engineering, public works and project development	Community services	General government	Planning and development	Total City subtotal
<b>Revenue:</b>							
Taxation and levies	\$ -	\$ -	\$ -	\$ -	\$ 255,837	\$ -	\$ 255,837
User fees	-	104,864	13,280	-	-	-	118,144
Sales of services	6,294	2,577	2,169	7,630	9,365	2,091	30,126
Payments-in-lieu of taxes	-	-	-	-	14,789	-	14,789
Provincial and federal grants	103	15	4,103	49	4,044	85	8,399
Development cost charges	-	795	4,801	3,319	2,202	5,106	16,223
Other capital funding sources	1	5,754	12,816	2,054	17,281	26,789	64,695
Other revenue:							
Investment income	-	272	-	-	14,682	-	14,954
Gaming revenue	-	-	-	-	5,700	-	5,700
Licenses and permits	4,429	32	588	-	47	8,899	13,995
Other	2,239	3,774	953	626	13,952	260	21,804
Equity income	-	-	-	-	911	-	911
	13,066	118,083	38,710	13,678	338,810	43,230	565,577
<b>Expenses:</b>							
Wages and salaries	50,092	14,609	27,679	30,710	29,025	12,447	164,562
Public works maintenance	31	6,707	4,906	2,038	(1,473)	788	12,997
Contract services	66,373	9,840	4,547	2,166	3,910	1,923	88,759
Supplies and materials	3,028	37,317	1,226	10,194	9,821	1,008	62,594
Interest and finance	91	27,494	10	123	2,576	2	30,296
Transfer from (to) capital for tangible capital assets	(54)	1,909	9,438	3,383	758	6,206	21,640
Amortization of tangible capital assets	3,025	8,626	31,645	10,249	9,517	2,758	65,820
Loss (gain) on disposal of tangible capital assets	646	17	632	1,010	115	34	2,454
	123,232	106,519	80,083	59,873	54,249	25,166	449,122
<b>Annual surplus (deficit)</b>	<b>\$ (110,166)</b>	<b>\$ 11,564</b>	<b>\$ (41,373)</b>	<b>\$ (46,195)</b>	<b>\$ 284,561</b>	<b>\$ 18,064</b>	<b>\$ 116,455</b>

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 22. Segmented reporting (continued):

	Total City subtotal	Richmond Public Library	Richmond Olympic Oval	2021 Consolidated	2020 Consolidated
<b>Revenue:</b>					
Taxation and levies	\$ 255,837	\$ -	\$ -	\$ 255,837	\$ 239,991
User fees	118,144	-	-	118,144	114,335
Sales of services	30,126	16	5,459	35,601	29,090
Payments-in-lieu of taxes	14,789	-	-	14,789	16,820
Provincial and federal grants	8,399	377	3,928	12,704	16,953
Development cost charges	16,223	-	-	16,223	16,737
Other capital funding sources	64,695	-	-	64,695	71,051
Other revenue:					
Investment income	14,954	14	-	14,968	20,175
Gaming revenue	5,700	-	-	5,700	2,705
Licenses and permits	13,995	-	-	13,995	19,407
Other	21,804	191	1,136	23,131	30,466
Equity income	911	-	-	911	1,322
	565,577	598	10,523	576,698	579,052
<b>Expenses:</b>					
Wages and salaries	164,562	7,156	8,789	180,507	164,788
Public works maintenance	12,997	19	-	13,016	13,343
Contract services	88,759	327	-	89,086	81,642
Supplies and materials	62,594	1,911	3,551	68,056	64,437
Interest and finance	30,296	5	-	30,301	29,779
Transfer from (to) capital for tangible capital assets	21,640	(544)	-	21,096	13,568
Amortization of tangible capital assets	65,820	960	1,739	68,519	66,254
Loss (gain) on disposal of tangible capital assets	2,454	(18)	-	2,436	377
	449,122	9,816	14,079	473,017	434,188
<b>Annual surplus (deficit)</b>	<b>\$ 116,455</b>	<b>\$ (9,218)</b>	<b>\$ (3,556)</b>	<b>\$ 103,681</b>	<b>\$ 144,864</b>

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 23. Budget data:

The budget data presented in these consolidated financial statements is based on the Consolidated Financial Plan adopted by Council on March 22, 2021. The table below reconciles the adopted Consolidated Financial Plan to the budget amounts reported in these consolidated financial statements.

	Financial plan Bylaw No. 10239	Financial statement budget
Consolidated financial plan:		
Revenue	\$ 575,688	\$ 575,688
Expenses	507,765	507,765
Annual surplus	67,923	67,923
Less:		
Acquisition of tangible capital assets	(272,899)	-
Contributed tangible capital assets	(61,479)	-
Transfer to reserves	(64,560)	-
Debt principal	(5,355)	-
Add:		
Capital funding	316,724	-
Transfer from surplus	19,646	-
Annual surplus	\$ -	\$ 67,923

# CITY OF RICHMOND

Unaudited Statement of Safe Restart Grant  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

The Safe Restart Grant was received November 2020 from the Province of British Columbia. A requirement of the Safe Restart Grant is to include a schedule to the financial statements presenting the amount of funding received, use of funds and year end balance of unused funds. This schedule has been included in order to comply with the conditions of the grant.

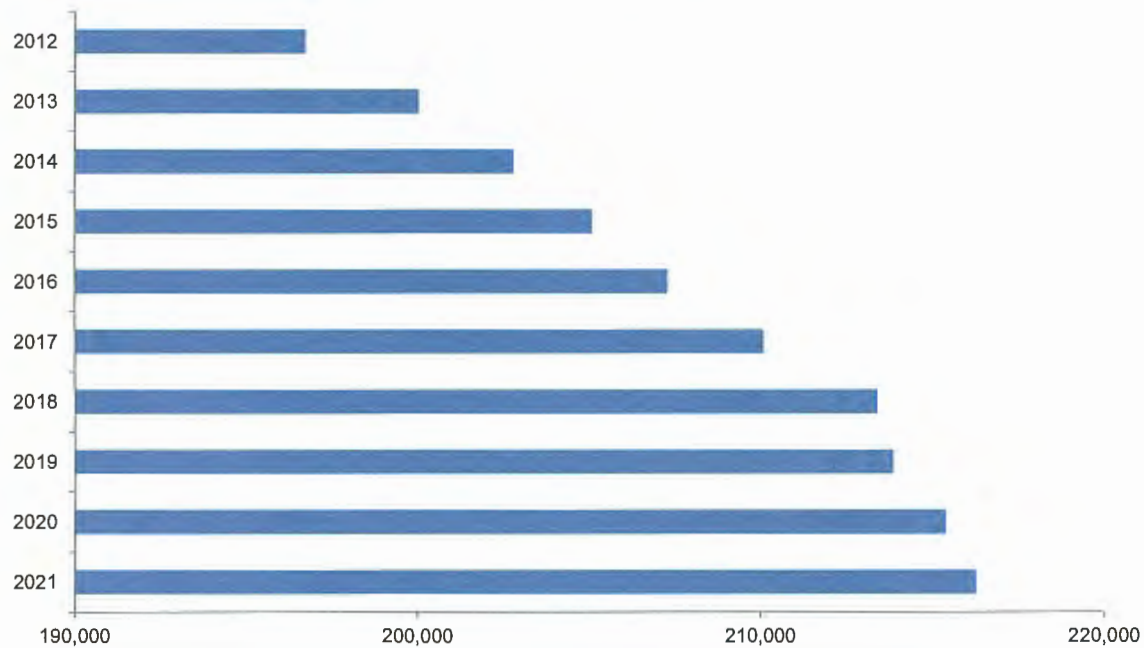
	2021	2020
Safe Restart Grant received	\$ -	\$ 9,331
Total eligible costs incurred:		
Recreation facility revenue shortfall	3,372	-
City grants program	2,613	-
Gaming revenue shortfall	1,300	-
Other revenue shortfall	1,034	-
Equipment technology	1,012	-
Balance, end of year	\$ -	\$ 9,331



# City of Richmond statistical data

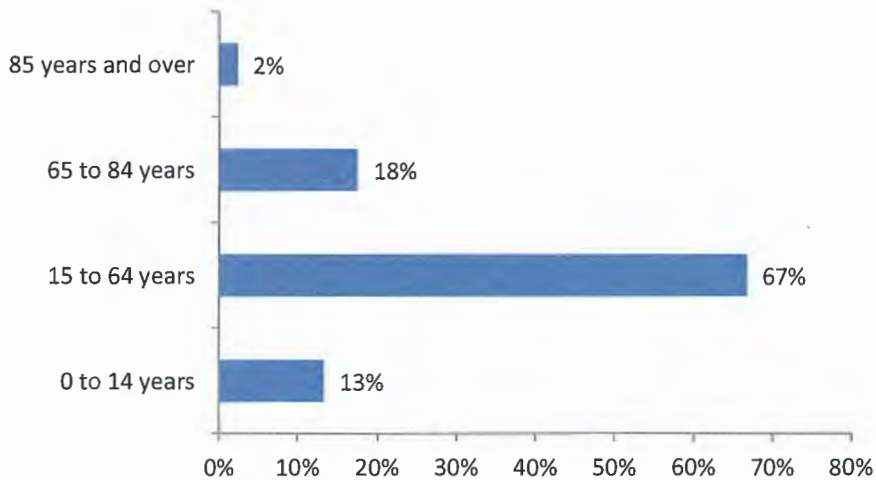
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## City of Richmond population 2012–2021



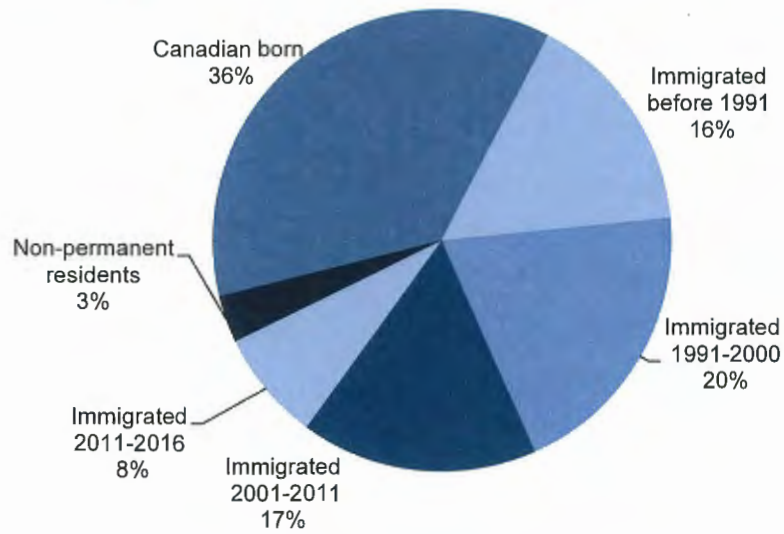
Numbers were revised for 2019–restated based on BC Stats estimates.  
Source: BC Stats population figures

## Total population by age groups



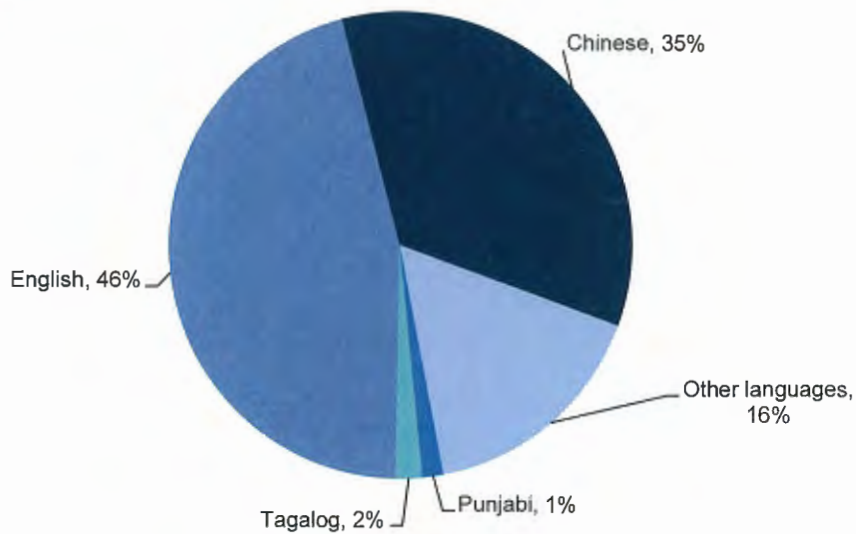
Source: Statistics Canada, 2021 Census of Population

## Immigrant status of Richmond residents by period of immigration



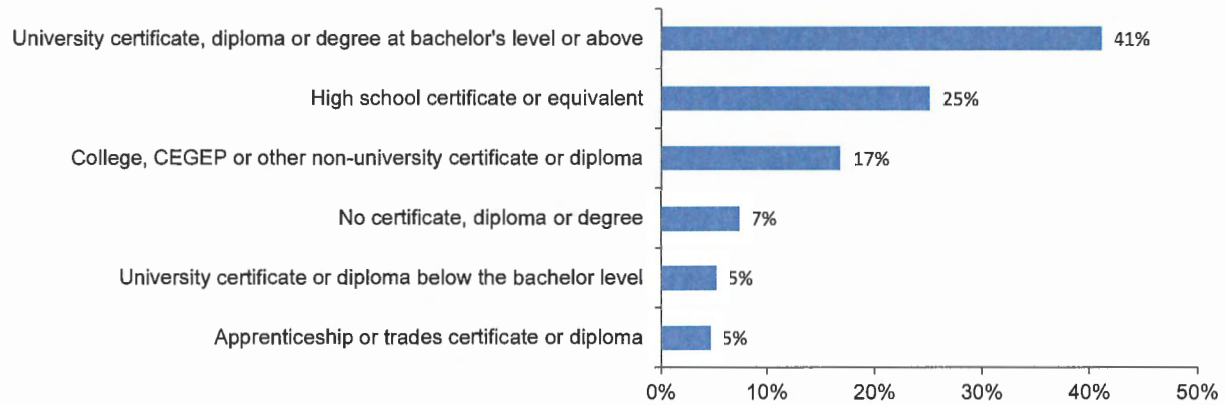
Source: Statistics Canada, 2016 Census of Population

## Language spoken most often at home



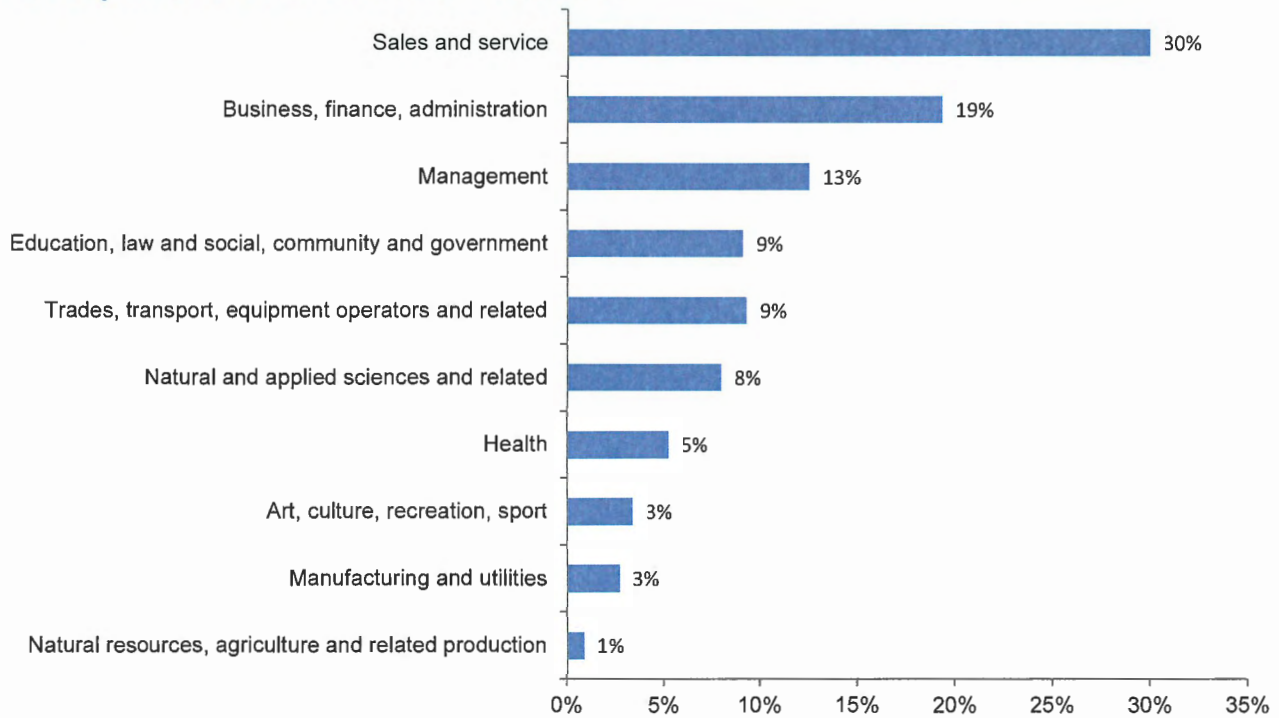
Source: Statistics Canada, 2016 Census of Population

## Highest level of education attained for the population aged 25 to 64



Source: Statistics Canada, 2016 Census of Population

## Occupations of Richmond residents

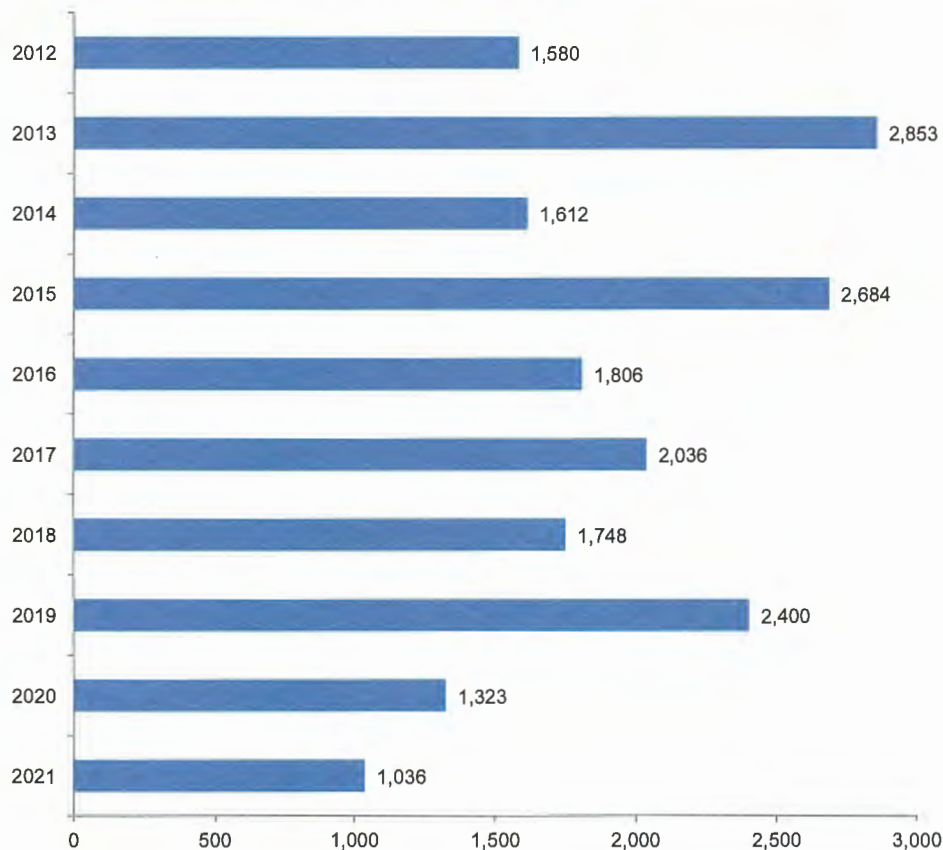


Source: Statistics Canada, 2016 Census of Population

## Top 10 largest employers in Richmond (in alphabetical order)

- Air Canada
- Allied Universal
- Amazon Canada
- Change Healthcare
- City of Richmond
- London Drugs
- MDA Systems
- River Rock Casino Resort
- School District No. 38 (Richmond)
- Vancouver Coastal Health

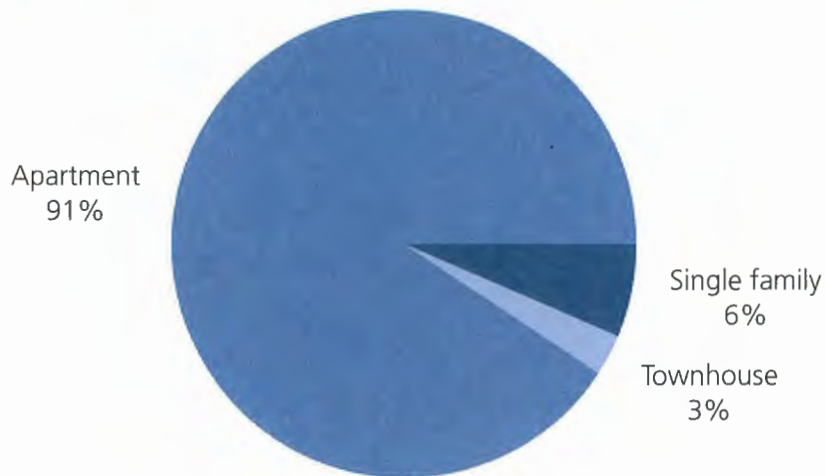
## Housing starts in Richmond 2012–2021



*Includes only projects for new residential construction receiving final building permit in given year.  
Source: City of Richmond building permit records.*

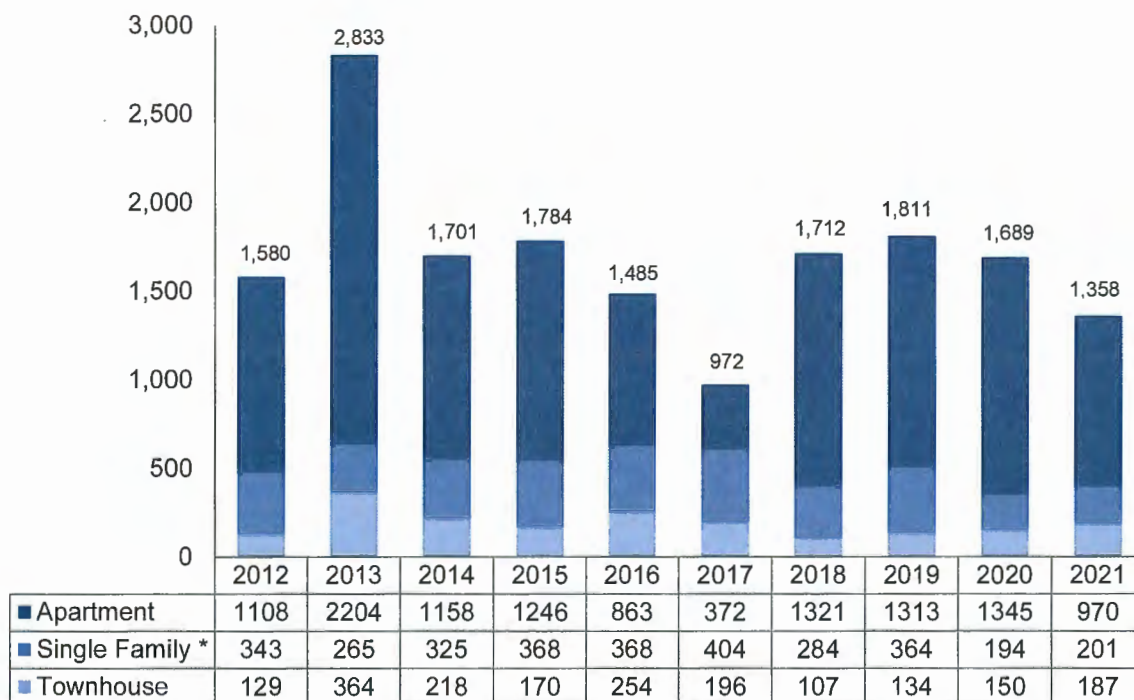


## Richmond housing starts by type of units 2021



*Includes only projects for new residential construction receiving final building permit in given year.  
Source: City of Richmond building permit records*

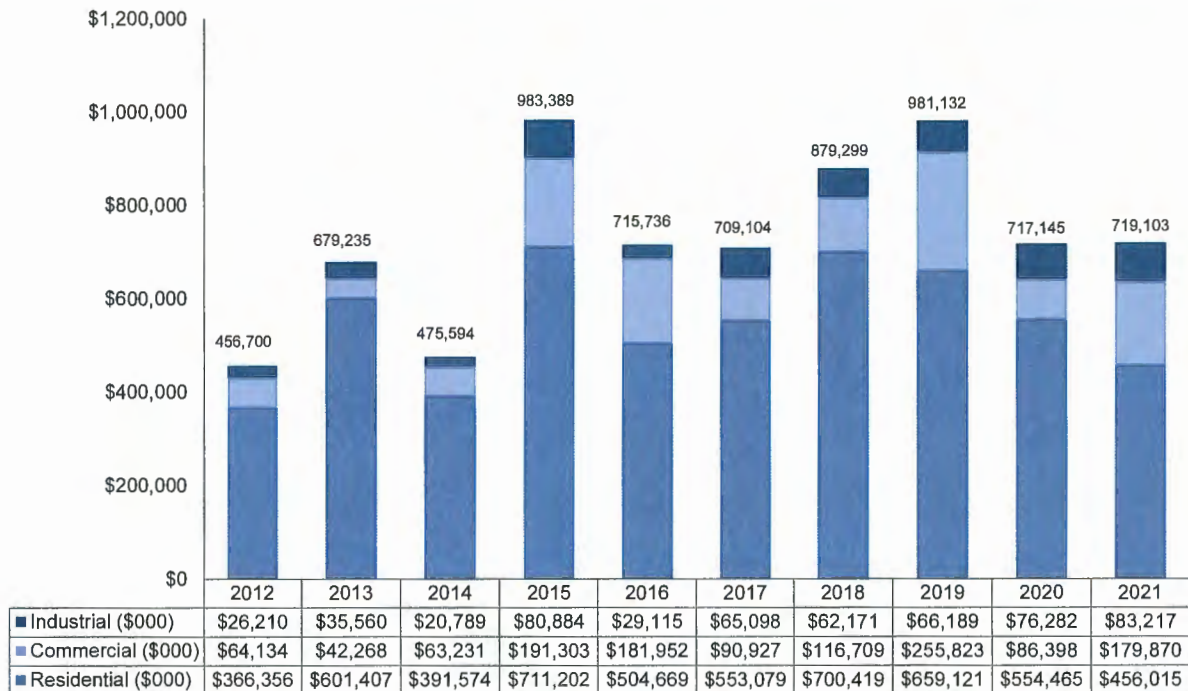
## New dwelling units constructed 2012–2021



\* Includes one family and two family dwellings.

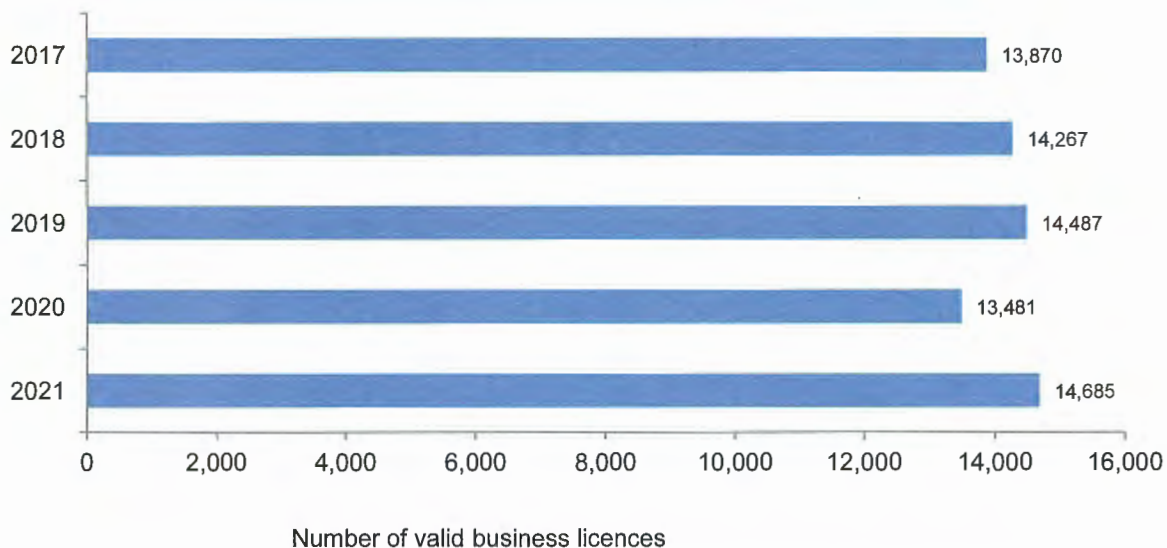
*Includes only projects for new residential construction receiving final building permit in given year.  
Source: City of Richmond building permit records*

## Construction value of building permits issued 2012–2021 (in \$000s)



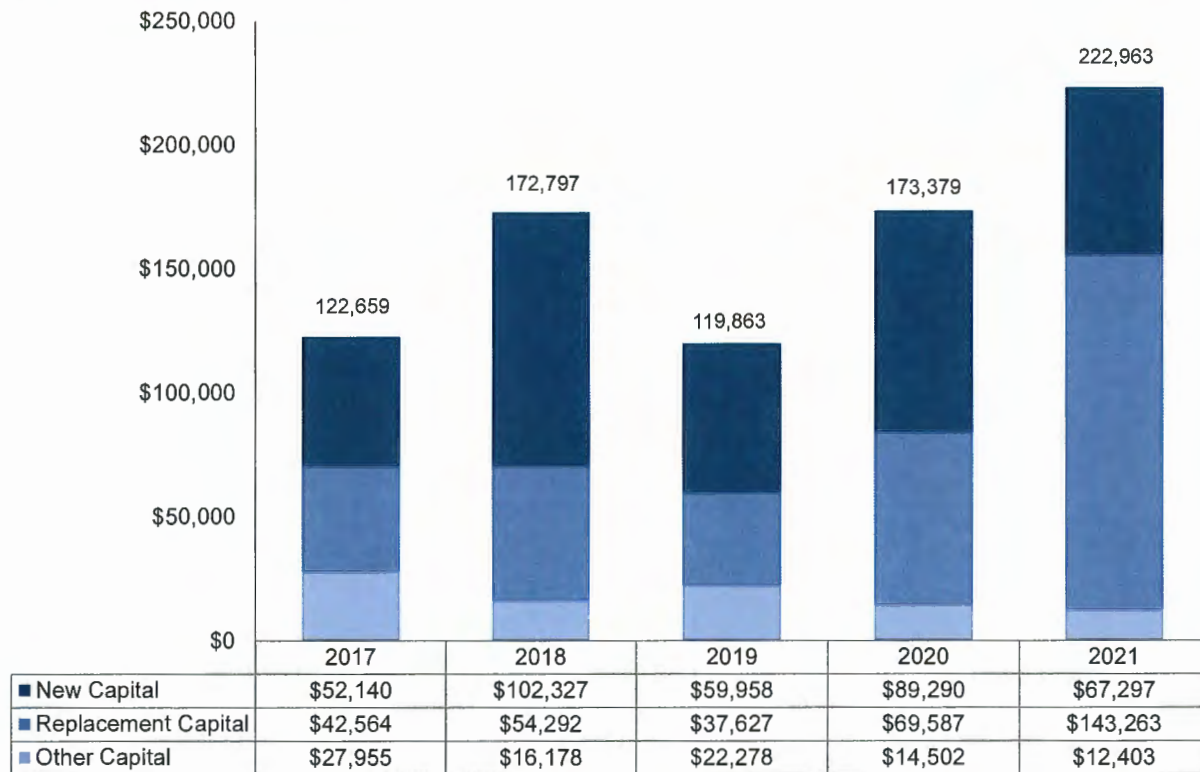
Source: City of Richmond building permit records

## Richmond business licences 2017–2021



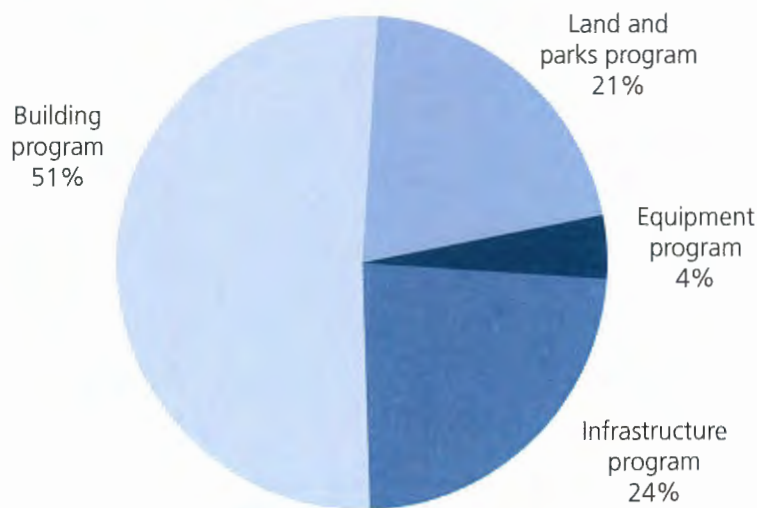
Source: 2021 City of Richmond business licences

## City of Richmond budgeted capital costs 2017–2021 (in \$000s)



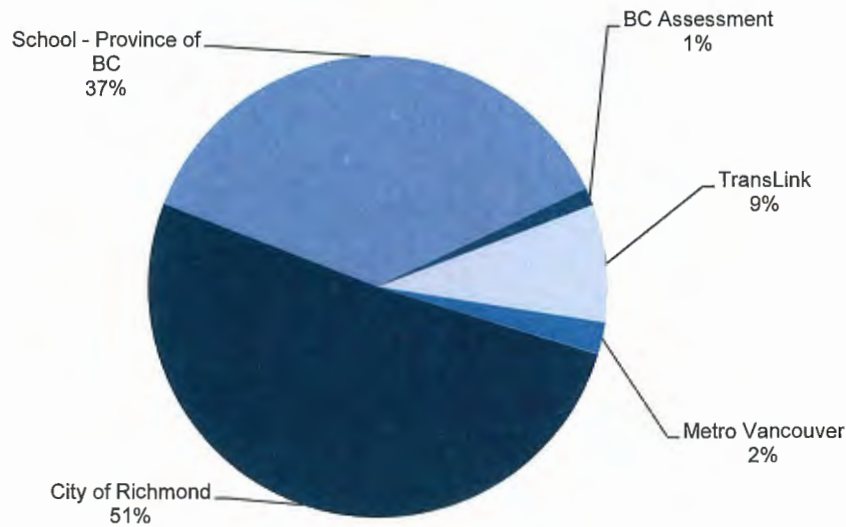
Source: City of Richmond Finance and Corporate Services

## Capital program by type 2021



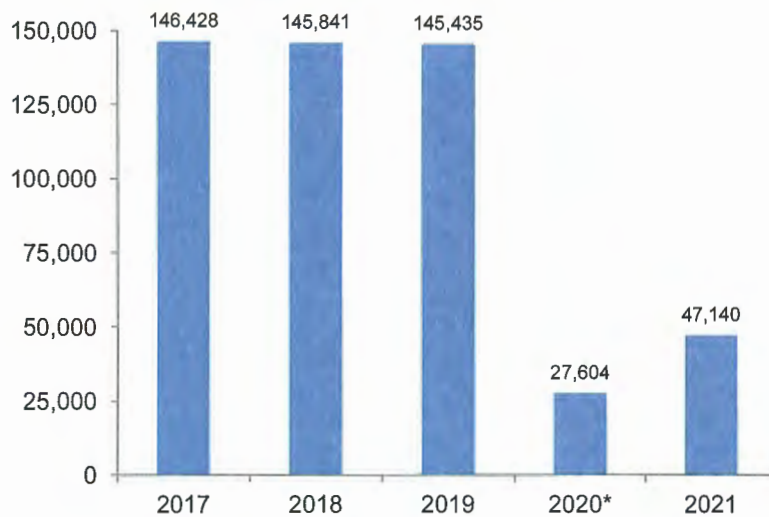
Source: City of Richmond Finance and Corporate Services

## Breakdown of residential tax bill 2021



Source: City of Richmond Finance and Corporate Services

## Registration in Richmond Recreation and Cultural Services programs 2017–2021



\*2020 figure has been restated.

Source: City of Richmond Finance and Corporate Services

## 2021 tax rates

	City of Richmond	School - Province of BC	Metro Vancouver	BC Assessment	Municipal Finance Authority	TransLink
Residential	1.85381	1.14900	0.05473	0.04110	0.00020	0.25860
Business	4.56788	3.86000	0.13409	0.11370	0.00050	0.86900
Light industrial	4.56788	3.86000	0.18609	0.11370	0.00070	0.93930
Seasonal / Recreational	1.58020	2.33000	0.05473	0.04110	0.00020	0.18880
Major industrial	8.36729	1.54400	0.18609	0.47310	0.00070	1.52540
Farm	15.31813	3.45500	0.05473	0.04110	0.00020	0.35630
Utilities	39.95085	12.86000	0.19156	0.47310	0.00070	2.36290

Source: City of Richmond Finance and Corporate Services

## 2021 general revenue fund assessment and taxation by property class (in \$000s)

	Assessment	% of assessment by class	Taxation	% of taxation by class
Residential	\$78,838,953	76.84%	\$146,152	56.85%
Business	18,856,561	18.38%	86,135	33.50%
Light industrial	4,286,605	4.18%	19,581	7.62%
Seasonal / Recreational	213,776	0.21%	338	0.13%
Major industrial	336,999	0.33%	2,820	1.09%
Farm	26,044	0.02%	399	0.16%
Utilities	41,633	0.04%	1,663	0.65%
<b>Total</b>	<b>\$102,600,571</b>	<b>100.00%</b>	<b>\$257,088</b>	<b>100.00%</b>

Amounts are based on billing.

Source: City of Richmond Finance and Corporate Services

## Taxes levied on behalf of taxing authorities (in \$000s)

	2017	2018	2019	2020	2021
City of Richmond	\$207,802	\$216,908	\$231,100	\$241,739	\$257,088
School Board	162,120	169,005	181,863	121,559	186,528
Metro Vancouver	5,216	5,915	6,922	9,145	11,146
BC Assessment	5,517	5,737	5,894	6,008	6,088
TransLink	34,380	35,991	38,863	40,189	41,576
Other	23	26	29	116	112
<b>Total Taxes</b>	<b>\$415,058</b>	<b>\$433,582</b>	<b>\$464,671</b>	<b>\$418,756</b>	<b>\$502,538</b>

Amounts are less supplementary adjustments.

Source: City of Richmond Finance and Corporate Services

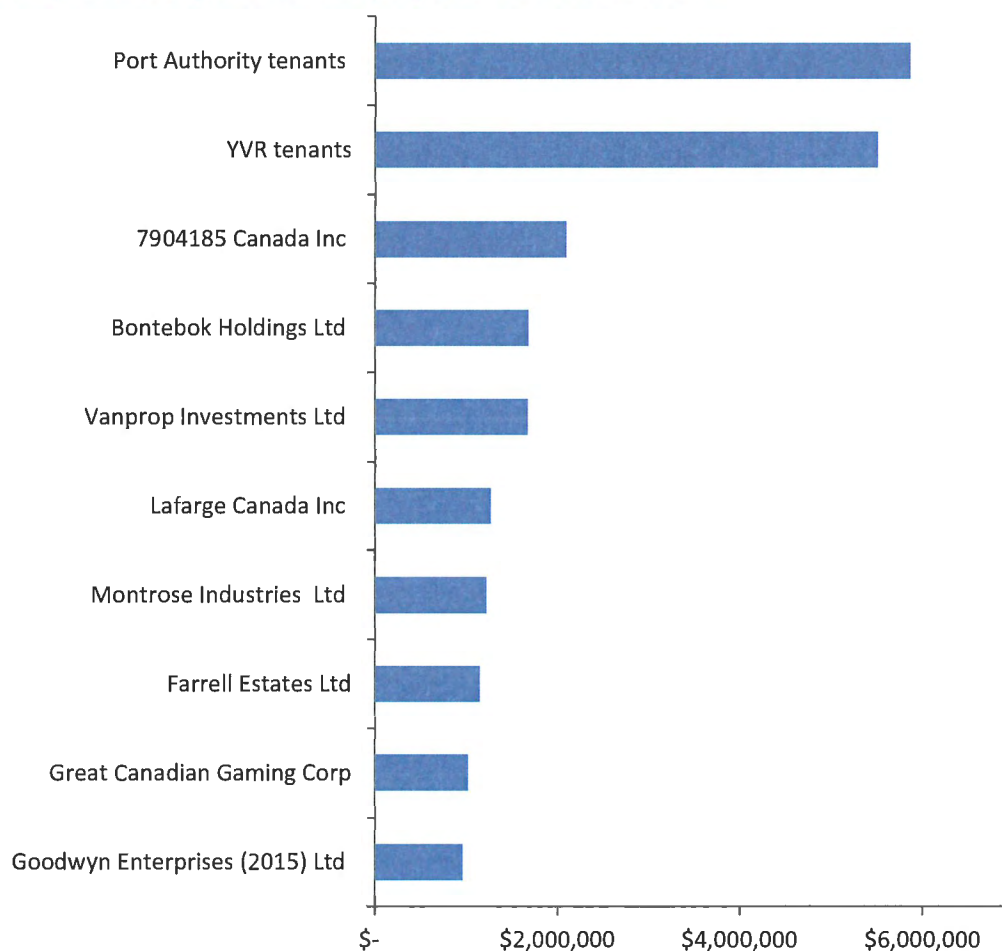


## 2017–2021 general assessment by property class (in \$000s)

	2017	2018	2019	2020	2021
Residential	\$73,414,252	\$80,530,838	\$84,391,147	\$75,895,923	\$78,838,953
Business	13,093,222	15,848,533	18,964,170	19,613,458	18,856,561
Light industrial	2,624,855	2,998,757	3,528,011	3,850,127	4,286,605
Seasonal / recreational	183,360	200,893	221,291	211,659	213,776
Major industrial	215,246	204,542	259,457	289,800	336,999
Farm	26,566	26,297	26,166	26,103	26,044
Utilities	26,541	29,250	35,869	55,674	41,633
<b>Total</b>	<b>\$89,584,042</b>	<b>\$99,839,110</b>	<b>\$107,426,111</b>	<b>\$99,942,744</b>	<b>\$102,600,571</b>

Source: City of Richmond Finance and Corporate Services

## Top 10 corporate taxpayers in Richmond



Source: City of Richmond Finance and Corporate Services

## Debt servicing costs compared to general taxation revenue 2017–2021 (in \$000s)

	2017	2018	2019	2020	2021
Debt servicing costs	5,909	5,909	6,628	6,826	7,032
General taxation revenue	\$206,901	\$216,908	\$230,198	\$239,991	\$255,837
Debt servicing costs as a % of general taxation revenue	2.86%	2.72%	2.88%	2.84%	2.75%

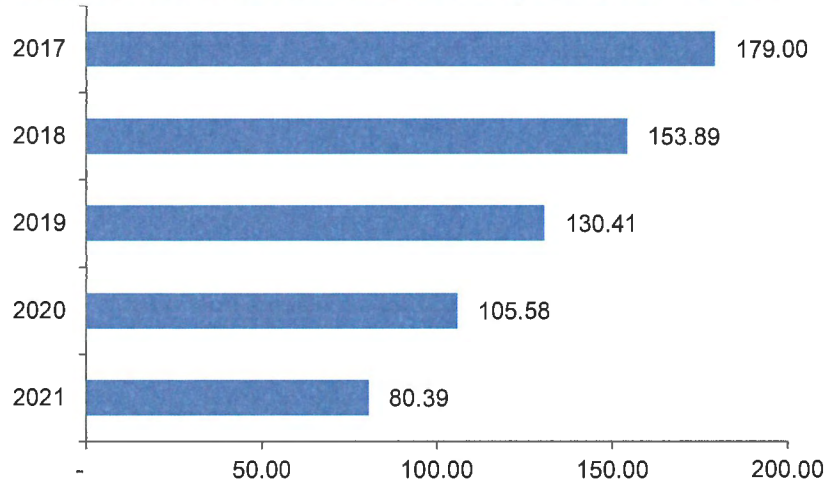
Source: City of Richmond Finance and Corporate Services

## Liability servicing limit 2017–2021 (in \$000s)

	2017	2018	2019	2020	2021
Liability servicing limit	\$107,316	\$114,285	\$117,239	\$113,768	\$113,663

The liability servicing limit is a calculated amount based on 25% of specific municipal revenues.  
Source: City of Richmond Finance and Corporate Services

## City of Richmond debt per capita 2017–2021



Source: City of Richmond Finance and Corporate Services

## Net debt 2017–2021 (in \$000s)

	2017	2018	2019	2020	2021
Net debt	\$37,603	\$32,842	\$27,891	\$22,741	\$17,386

Source: City of Richmond Finance and Corporate Services

## Expenses by function 2017–2021 (in \$000s)

	2017	2018	2019	2020	2021
Community Safety	\$89,933	\$98,500	\$106,209	\$112,895	\$123,232
Engineering and Public Works	66,120	68,793	80,940	75,314	80,083
Community Services	77,387*	63,882	67,522	50,833	59,873
General government	51,720	52,549	55,689	51,495	54,249
Utilities	87,757	89,959	98,653	102,824	106,519
Planning and Development	15,417	15,368	48,104**	19,201	25,166
Library services	9,619	9,981	10,601	9,040	14,079
Richmond Olympic Oval	15,331	15,424	15,972	12,586	9,816
<b>Total expenses</b>	<b>\$413,284</b>	<b>\$414,456</b>	<b>\$483,690</b>	<b>\$434,188</b>	<b>\$473,017</b>

\* Includes one-time affordable housing contributions.

\*\* Includes one-time TransLink contribution for Capstan Station.

Source: City of Richmond Finance and Corporate Services

## Expenses by object 2017–2021 (in \$000s)

	2017	2018	2019	2020	2021
Wages, salaries and benefits	\$159,576	\$162,331	\$177,363	\$164,788	\$180,507
Public works maintenance	14,973	13,405	15,299	13,343	13,016
Contract services	64,912	73,479	79,098	81,642	89,086
Supplies, materials	65,959	67,919	68,801	64,437	68,056
Interest and finance	23,216	23,149	26,089	29,779	30,301
Transfer from (to) capital for tangible capital assets	25,712	13,307	52,244	13,568	21,096
Amortization of tangible capital assets	58,012	60,542	64,228	66,254	68,519
Loss/(gain) on disposal of tangible capital assets	924	324	568	377	2,436
<b>Total expenses</b>	<b>\$413,284</b>	<b>\$414,456</b>	<b>\$483,690</b>	<b>\$434,188</b>	<b>\$473,017</b>

Source: City of Richmond Finance and Corporate Services

## Revenue by source 2017–2021 (in \$000s)

	2017	2018	2019	2020	2021
Taxation and levies	\$206,901	\$216,908	\$230,198	\$239,991	\$255,837
User fees	99,493	102,915	111,472	114,335	118,144
Sales of services	39,430	39,111	42,747	29,090	35,601
Licences and permits	13,011	13,637	13,030	19,407	13,995
Investment income	17,832	20,705	25,142	20,175	14,968
Grants including casino revenue	40,676	42,681	42,104	16,953	18,404
Development cost charges	15,710	17,432	13,802	16,737	15,223
Capital funding	57,570	95,859	39,028	71,051	64,695
Other	32,544	50,169	64,419	51,313	39,831
<b>Total revenue</b>	<b>\$523,167</b>	<b>\$599,417</b>	<b>\$581,942</b>	<b>\$579,052</b>	<b>\$576,698</b>

Source: City of Richmond Finance and Corporate Services

## Accumulated surplus 2017–2021 (in \$000s)

	2017*	2018	2019	2020	2021
Accumulated surplus, beginning of year	\$2,846,246	\$2,956,129	\$3,141,090	\$3,239,342	\$3,384,206
Annual surplus	109,883	184,961	98,252	144,864	103,681
Accumulated surplus, end of year	\$2,956,129	\$3,141,090	\$3,239,342	\$3,384,206	\$3,487,887

\* Opening adjustment for change in accounting treatment for a government business enterprise.

Source: City of Richmond Finance and Corporate Services

## Changes in net financial assets 2017–2021 (in \$000s)

	2017	2018	2019	2020	2021
Change in net financial assets	\$35,351	\$65,031	\$42,748	\$83,116	\$51,018
Net financial assets, end of year	\$698,090	\$763,121	\$805,869	\$888,985	\$940,003

Source: City of Richmond Finance and Corporate Services

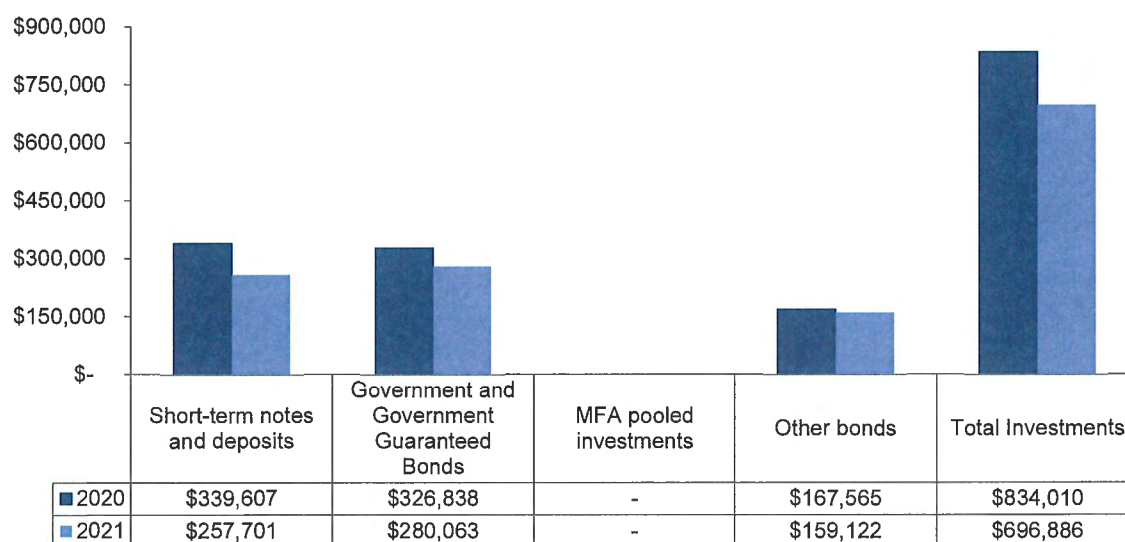
## Reserves 2017–2021 (in \$000s)

	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Affordable housing	\$10,168	\$10,836	\$11,705	\$12,250	\$14,293
Arts, culture and heritage	4,183	4,003	3,726	3,721	3,526
Capital building and infrastructure	69,731	81,763	100,686	111,528	122,720
Capital reserve	163,599	176,142	171,976	222,778	244,445
Capstan Station	19,725	32,332	32,318	11,477	11,149
Child care development	3,006	6,806	8,922	10,055	10,078
Community legacy and land replacement	8,623	8,852	1,310	1,387	1,458
Drainage improvement	56,956	56,132	55,645	60,597	57,159
Equipment replacement	22,168	19,600	20,203	22,577	25,206
Hamilton area plan community amenity	735	752	1,720	2,762	3,007
Leisure facilities	6,765	18,765	17,676	18,097	18,970
Local improvements	6,047	7,155	7,327	7,459	7,571
Neighbourhood improvement	7,100	7,520	7,860	7,919	8,037
Richmond Olympic Oval	4,749	6,324	8,856	7,810	8,100
Public art program	3,861	4,860	4,858	4,582	4,405
Sanitary sewer	42,909	44,107	47,731	48,903	49,611
Steveston off-street parking	310	317	325	331	336
Steveston road ends	211	155	150	153	155
Waterfront improvement	344	317	202	195	187
Watermain replacement	53,693	53,415	54,380	54,952	56,796
<b>Total reserves</b>	<b>\$484,883</b>	<b>\$540,153</b>	<b>\$557,576</b>	<b>\$609,533</b>	<b>\$647,209</b>

Source: City of Richmond Finance and Corporate Services



## Investment portfolio per type 2020–2021 (in \$000s)



Source: City of Richmond Finance and Corporate Services

## Ratio analysis indicators of financial condition

	2021	2020
<b>Sustainability ratios</b>		
Assets to liabilities (times)	7.6	6.8
Financial assets to liabilities (times)	2.8	2.5
Net debt to total revenues	3.0%	3.9%
Net debt to the total assessment	0.02%	0.02%
Expenses to the total assessment	0.5%	0.6%
<b>Flexibility ratios</b>		
Public debt charges to revenues	0.3%	0.3%
Net book value of capital assets to its cost	66.8%	67.3%
Own source revenue to the assessment	0.5%	0.5%
<b>Vulnerability ratios</b>		
Government transfers to total revenues	3.2%	3.4%

Source: City of Richmond Finance and Corporate Services

## 2021 permissive property tax exemptions

In accordance with Section 98 (2)(b) of the Community Charter, we disclose that the following properties were provided permissive property tax exemptions by Richmond City Council in 2021. Permissive tax exemptions are those exemptions granted by bylaw in accordance with Section 224 of the Community Charter.

Property / Organization	Address	2021 Municipal tax exempted
<b>Churches and religious properties</b>		
Aga Khan Foundation Canada	4000 May Drive	\$ 16,843
BC Muslim Association	12300 Blundell Road	2,127
Bakerview Gospel Chapel	8991 Francis Road	2,840
Beth Tikvah Congregation	9711 Geal Road	17,029
Bethany Baptist Church	22680 Westminster Highway	6,127
Brighthouse United Church	8151 Bennett Road	14,981
Broadmoor Baptist Church	8140 Saunders Road	9,885
Canadian Martyrs Parish	5771 Granville Avenue	22,955
Christian and Missionary Alliance	3360 Sexmith Road	11,988
Christian Reformed Church	9280 No. 2 Road	20,360
Church in Richmond	4460 Brown Road	2,764
Church of Latter Day Saints	8440 Williams Road	19,386
Cornerstone Evangelical Baptist Church	12011 Blundell Road	676
Dharma Drum Mountain Buddhist Temple	8240 No. 5 Road	1,143
Emmanuel Christian Community	10351 No. 1 Road	9,337
Faith Evangelical Church	11960 Montego Street	3,868
Fraserview Mennonite Brethren Church	11295 Mellis Drive	6,143
Fujian Evangelical Church	12200 Blundell Road	2,942
Gilmore Park United Church	8060 No. 1 Road	3,526
I Kuan Tao (Fayi Chungder) Association	8866 Odlin Crescent	3,752
Immanuel Christian Reformed Church	7600 No. 4 Road	3,325
India Cultural Centre	8600 No. 5 Road	2,901
International Buddhist Society	9160 Steveston Highway	4,634
Johrei Fellowship Inc.	10380 Odlin Road	6,644
Lansdowne Congregation Jehovah's Witnesses	11014 Westminster Highway	2,892
Larch St. Gospel Meeting Room	8020 No. 5 Road	2,439
Ling Yen Mountain Temple	10060 No. 5 Road	5,230
Nanaksar Gurdwara Gursikh Temple	18691 Westminster Highway	2,375
North Richmond Alliance Church	9140 Granville Avenue	5,230
Our Savior Lutheran Church	6340 No. 4 Road	3,203
Parish of St. Alban's	7260 St. Albans Road	15,208

**Churches and religious properties conitnued . . .**

Patterson Road Assembly	9291 Walford Street	\$ 1,150
Peace Evangelical Church	8280 No. 5 Road	1,155
Peace Mennonite Church	11571 Daniels Road	13,625
Richmond Alliance Church	11371 No. 3 Road	2,340
Richmond Baptist Church	6560 Blundell Road	3,624
Richmond Baptist Church	6640 Blundell Road	12,035
Richmond Bethel Mennonite Church	10160 No. 5 Road	3,962
Richmond Chinese Alliance Church	10100 No. 1 Road	15,028
Richmond Chinese Evangelical Free Church	8040 No. 5 Road	2,371
Richmond Emmanuel Church	7451 Elmbridge Way	6,514
Richmond Pentecostal Church	9260 Westminster Highway	1,810
Richmond Pentecostal Church	9300 Westminster Highway	3,090
Richmond Presbyterian Church	7111 No. 2 Road	11,873
Richmond Sea Island United Church	8711 Cambie Road	20,617
Salvation Army Church	8280 Gilbert Road	3,764
Science of Spirituality SKRM Inc.	11011 Shell Road	1,263
Shia Muslim Community	8580 No. 5 Road	1,814
South Arm United Church	11051 No. 3 Road	1,117
St. Anne's Anglican Church	4071 Francis Road	6,295
St. Gregory Armenian Apostolic Church	13780 Westminster Highway	1,064
St. Joseph the Worker Roman Catholic Church	4451 Williams Road	43,165
St. Monica's Roman Catholic Church	12011 Woodhead Road	8,290
St. Paul's Roman Catholic Parish	8251 St. Albans Road	16,425
Steveston Buddhist Temple	4360 Garry Street	17,775
Steveston Congregation Jehovah's Witnesses	4260 Williams Road	10,587
Steveston United Church	3720 Broadway Street	4,404
Subramaniya Swamy Temple	8840 No. 5 Road	1,470
Thrangu Monastery Association	8140 No. 5 Road	3,565
Thrangu Monastery Association	8160 No. 5 Road	1,502
Towers Baptist Church	10311 Albion Road	10,593
Trinity Lutheran Church	7100 Granville Avenue	16,414
Trinity Pacific Church	10011 No. 5 Road	7,422
Ukrainian Catholic Church	8700 Railway Avenue	3,666
Vancouver International Buddhist Progress Society	6690 - 8181 Cambie Road	10,719
Vancouver International Buddhist Progress Society	8271 Cambie Road	11,597
Vedic Cultural Society of BC	8200 No. 5 Road	3,447
West Richmond Gospel Hall	5651 Francis Road	4,630

**Recreation, child care and community service properties**

Atira Women's Resource Society	650 - 5688 Hollybridge Way	\$ 6,599
Cook Road Children's Centre	8300 Cook Road	1,892
Cranberry Children's Centre	23591 Westminster Highway	5,792
Gardens Children's Centre	10640 No. 5 Road	4,639
Girl Guides of Canada	4780 Blundell Road	6,050
Girl Guides of Canada	11551 Dyke Road	31,146
Navy League of Canada	7411 River Road	8,435
Regional Animal Protection Society	12071 No. 5 Road	18,058
Richmond Caring Place	7000 Minoru Boulevard	99,846
Richmond Family Place	8660 Ash Street	6,691
Richmond Lawn Bowling Club	6131 Bowling Green Road	35,634
Richmond Gymnastics Association	140 - 7400 River Road	13,999
Richmond Public Library	11580 Cambie Road	3,748
Richmond Public Library	11688 Steveston Highway	4,198
Richmond Rod and Gun Club	7760 River Road	30,752
Richmond Rod and Gun Club	140 - 7400 River Road	6,999
Richmond Tennis Club	6820 Gilbert Road	40,916
Richmond Winter Club	5540 Hollybridge Way	180,804
River Run Early Care and Learning Centre	10277 River Drive	8,348
Riverside Children's Centre	5862 Dover Crescent	1,005
Scotch Pond Heritage	2220 Chatham Street	2,636
Seasoning Child Care Centre	10380 No. 2 Road	14,847
Sharing Farm	2900 River Road	17,130
Terra Nova Children's Centre	6011 Blanchard Drive	2,121
Treehouse Learning Centre	100 - 5500 Andrews Road	1,818
Watermania	14300 Entertainment Boulevard	145,518
West Cambie Childcare Centre	4033 Stolberg Street	3,483

**Senior citizen housing**

Richmond Legion Senior Citizen Society	7251 Langton Road	\$ 29,016
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**Community care facilities**

Developmental Disabilities Association	6531 Azure Road	\$ 2,645
Developmental Disabilities Association	8400 Robinson Road	3,288
Developmental Disabilities Association	7611 Langton Road	3,237
Greater Vancouver Community Service	4811 Williams Road	2,994
Pinegrove Place, Mennonite Care Home Society	11331 Mellis Drive	13,923
Richmond Lions Manor	9020 Bridgeport Road	27,076
Richmond Society for Community Living	5728 Woodward's Road	2,670
Richmond Society for Community Living	303 - 7560 Moffatt Road	1,030
Richmond Society for Community Living	4433 Francis Road	2,147
Richmond Society for Community Living	9580 Pendleton Road	3,171
Rosewood Manor, Richmond Intermediate Care Society	6260 Blundell Road	34,784
Western Recovery Foundation	10411 Odlin Road	2,865



# Major services provided by the City of Richmond

## Administration

Includes the office of the Chief Administrative Officer who oversees the overall administration of the City's operations. Also includes the Deputy Chief Administrative Officer, Human Resources, Intergovernmental Relations and Protocol, Corporate Communications and Marketing, Corporate Planning and Organizational Development and the Corporate Programs Management Group.

## Community Safety

Brings together the City's public safety providers including RCMP, Fire-Rescue, Emergency Programs, Community Bylaws and Business Licences.

## Community Services

Coordinates, supports and develops Richmond's community services including Parks Services, Recreation and Sport Services and Arts, Culture and Heritage Services.

## Engineering and Public Works

The Engineering and Public Works Departments deliver public works services and utilities and engineering planning, design, construction and maintenance services for all utility and City building infrastructure.

## Finance and Corporate Services

Includes Customer Service, Information Technology, Finance, Economic Development, Real Estate Services and Corporate Business Service Solutions.

## Planning and Development

Includes the Policy Planning, Transportation, Development Applications, Building Approvals and Community Social Development Departments. This division provides policy directions that guide growth and change in Richmond with emphasis on land use planning, development regulations, environmental protection, heritage and livability.

## Law and Legislative Services

Includes the Law Department and the City Clerk's Office.

## Other City entities

### Gateway Theatre

Operates the City's performing arts theatre.

### Lulu Island Energy Company

Operates the City's district energy utilities.

### Richmond Olympic Oval Corporation

Operates the Richmond Olympic Oval and the Richmond Sport Hosting program.

### Richmond Public Library



Operates Richmond's public library, including four branches.

# City of Richmond contacts

The City of Richmond offers many civic services to the community. Additional services are provided through the Richmond Olympic Oval, Richmond Public Library, Gateway Theatre and Lulu Island Energy Company. For more information on City services contact:



## City of Richmond

6911 No. 3 Road  
Richmond, BC V6Y 2C1  
Phone: 604-276-4000  
Email: [InfoCentre@Richmond.ca](mailto:InfoCentre@Richmond.ca)  
[www.richmond.ca](http://www.richmond.ca)

 @CityofRichmondBC  
 @Richmond\_BC  
 @CityofRichmondBC  
 /CityofRichmondBC

## Gateway Theatre

6500 Gilbert Road  
Richmond, BC V7C 3V4  
Phone: 604-270-6500  
Box Office: 604-270-1812  
[www.GatewayTheatre.com](http://www.GatewayTheatre.com)






 @GatewayThtr  
 @GatewayThtr  
 @GatewayThtr

## Lulu Island Energy Company

6911 No. 3 Road  
Richmond, BC V6Y 2C1  
Phone: 604-276-4011  
Email: [Info@LuluIslandEnergy.ca](mailto:Info@LuluIslandEnergy.ca)  
[www.LuluIslandEnergy.ca](http://www.LuluIslandEnergy.ca)




## Richmond Public Library

100-7700 Minoru Gate (Brighthouse Branch)  
Richmond, BC V6Y 1R8  
Library Hours Line: 604-231-6401  
[www.YourLibrary.ca](http://www.YourLibrary.ca)

 @YourLibraryRichmond  
 @RPLBC  
 @RPLBC  
 /YourLibraryRichmond  
 Account: RPLYourlibrary1

## Richmond Olympic Oval

6111 River Road  
Richmond, BC V7C 0A2  
Phone: 778-296-1400  
Email: [Info@RichmondOval.ca](mailto:Info@RichmondOval.ca)  
[www.RichmondOval.ca](http://www.RichmondOval.ca)

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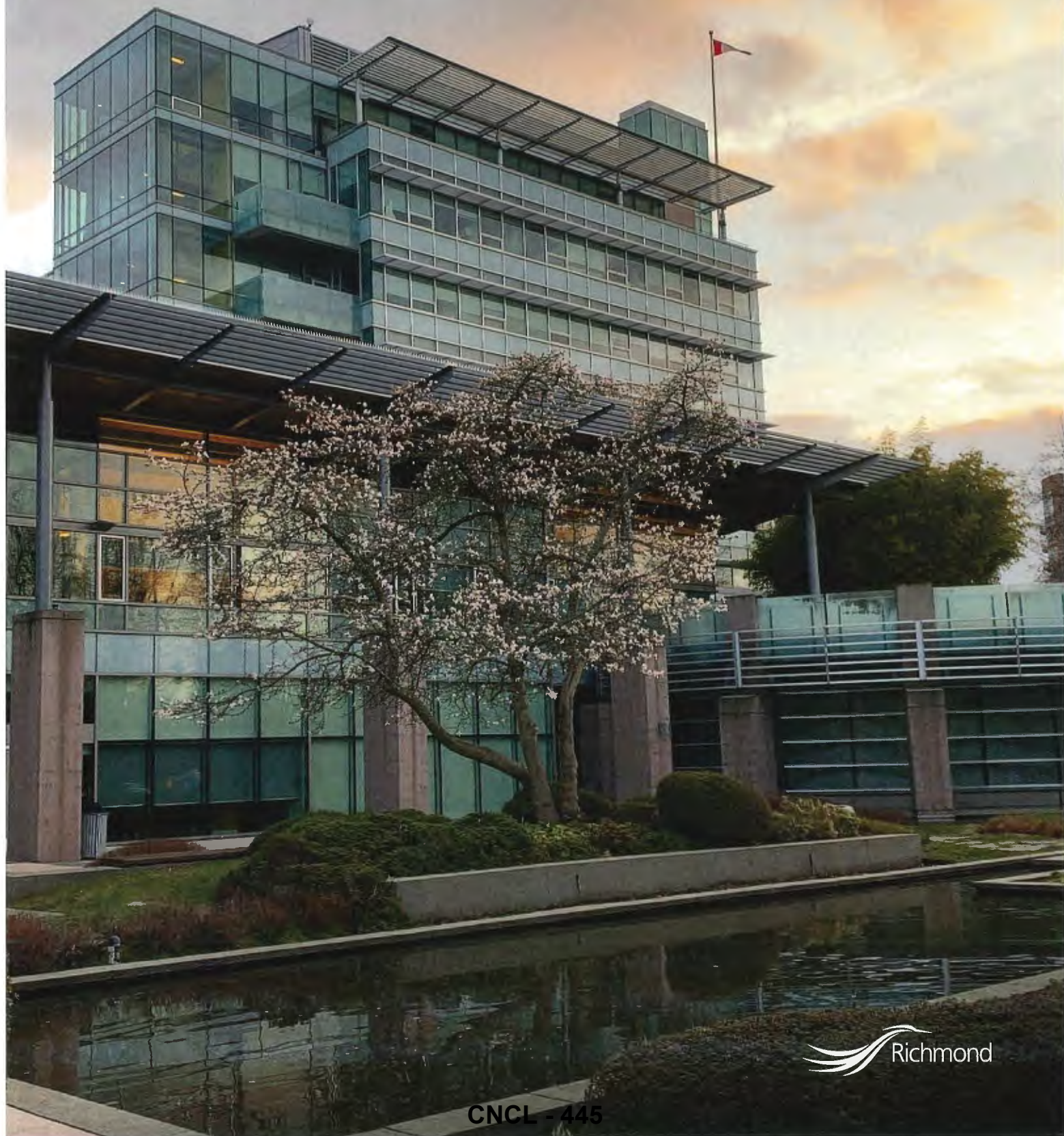


**City of  
Richmond**  
British Columbia, Canada

Attachment 2

# 2021 Annual Report Highlights

For the year ended December 31, 2021



# RICHMOND CITY COUNCIL



Top row, left to right: Councillor Chak Au, Councillor Carol Day, Councillor Andy Hobbs (elected May 2021), Councillor Alexa Loo

Centre: Mayor Malcolm Brodie

Bottom row, left to right: Councillor Bill McNulty, Councillor Linda McPhail, Councillor Harold Steves, Councillor Michael Wolfe

## CONNECT WITH RICHMOND CITY COUNCIL

To contact Council, email [MayorAndCouncillors@richmond.ca](mailto:MayorAndCouncillors@richmond.ca) or call 604-276-4000.

For Council meeting agendas and minutes, visit [www.richmond.ca/cityhall/council/agendas](http://www.richmond.ca/cityhall/council/agendas).

To live stream Council meetings or view videos of past meetings, visit [www.richmond.ca/WatchOnline](http://www.richmond.ca/WatchOnline).



The City of Richmond is proud of its diverse and committed workforce. This year, we asked our employees to take photos and send us images of “their Richmond” for this report. Photos with the camera icon are just some of the submissions, and we are delighted to share them with you. None are professional photographers.

**COVER PHOTO: CITY HALL IN SPRING AFTER MORNING RAIN**  
**PHOTO BY LUC LUK, BUILDING SYSTEM MAINTENANCE LEAD HAND, FACILITY SERVICES**  
**CITY EMPLOYEE SINCE 2003**



# CITY OF RICHMOND, BRITISH COLUMBIA 2021 ANNUAL REPORT HIGHLIGHTS

FOR THE YEAR ENDED DECEMBER 31, 2021

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This report features highlights from Richmond's 2021 Annual Report. For the detailed 2021 Annual Report that meets legislated requirements, or for an online copy of this highlights report, please visit [www.richmond.ca/cityhall/finance/reporting/reports](http://www.richmond.ca/cityhall/finance/reporting/reports).

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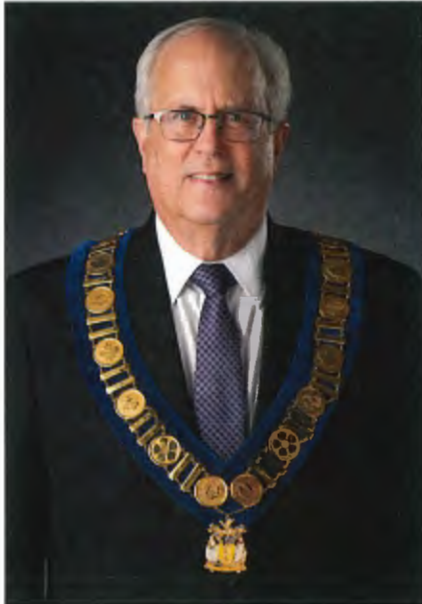
"Our vision is  
to be the most  
appealing, livable  
and well-managed  
community in  
Canada."



PHOTO BY CHRIS HICKS, BUILDING SYSTEMS  
MAINTENANCE WORKER, FACILITY SERVICES  
CITY EMPLOYEE SINCE 2019



# MESSAGE FROM THE MAYOR



The City of Richmond is proud of our high quality of life. Through its actions, City Council has always sought to provide infrastructure that preserves our rich and vibrant cultural identity.

Events of the past two years have further heightened the need to focus on how we provide a sustainable future. Many think of sustainability only from an environmental perspective. Climate change is obviously a major concern as shown by extreme weather events in 2021. Through long-term investments in flood protection infrastructure as well as award-winning initiatives such as our Lulu Island District Energy program, Richmond is building a green and safe future for its residents.

However, the term "sustainability" has a much greater meaning in Richmond. It encompasses the development of policies, services and supports to ensure that current and future generations maintain

a sense of community and belonging. It also includes having a strong economy that supports businesses, their employees and families. It involves different concepts such as ensuring safety for residents and businesses, providing adequate infrastructure as well as protecting our diverse culture.

Protecting our community is paramount as demonstrated by Richmond, statistically in the region, having some of the lowest incidence of COVID-19 cases throughout the pandemic. Closely regulating access and activities to City facilities played a role, as did our Council-led mask mandate and a vaccination requirement for City employees. All of Council – as well as almost all City staff – recognized the importance of protecting themselves, their colleagues and the community through vaccination against COVID-19.

The recent opening of the City Centre



Community Police Office for RCMP operations, along with adding 51 officers and 36 firefighters this term are examples of Council's commitment to public safety. In 2021, the RCMP Fox 80 Mental Health Car completed its second full year in partnership with Vancouver Coastal Health by responding to approximately 800 calls. This program reduced high-risk situations through the interaction of a mental health professional.

City Council also supported the RCMP "No Place for Hate" campaign to encourage awareness of racism and hate crimes and provide tools to help victims, their families and friends. It has been heartening to see the push against racism grow following Council's Statement Against Racism and Violence in 2020, offering further momentum to eradicate such unacceptable behaviour.

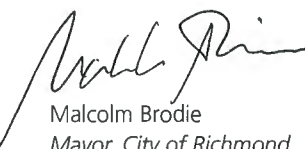
Richmond is proud of its rich cultural

heritage and diversity. It honoured Canada's first National Day for Truth and Reconciliation with a flag lowering, educational programs and interactive displays. In partnership with Richmond Community Associations and other partners, Richmond again supported a range of activities to promote Pride Week and our LGBTQ2S+ community. With a wide range of topics, the City's second Diversity Symposium was attended by over 200 individuals from across BC, Canada and internationally.

While many long-running, popular events and festivals remained cancelled to maintain public safety, there was growing acceptance of the transition to online programs and events. For instance, the popular Doors Open Richmond event went online again, attracting over 25,000 interactions with 35 virtual locations. Council recognizes the importance and

value of engagement to build a strong community. Maintaining such events—even if virtual—supports that commitment.

To ensure a bright and sustainable future, it is important to take action and make wise investments today. Richmond's success, despite the challenges of COVID-19, is a credit to those who contribute to making our city a better place. This includes our staff, volunteers and businesses as well as our community and government partners. Our Annual Report contains examples of our goals and achievements. As always, I invite your comments and questions through my office.

  
Malcolm Brodie  
Mayor, City of Richmond



CITY CENTRE COMMUNITY POLICE OFFICE



# MESSAGE FROM THE CHIEF ADMINISTRATIVE OFFICER



I am pleased to present the City of Richmond's Annual Report for 2021. It details our strong financial position and outlines many of the initiatives we are undertaking to achieve our vision of making Richmond Canada's best-managed city.

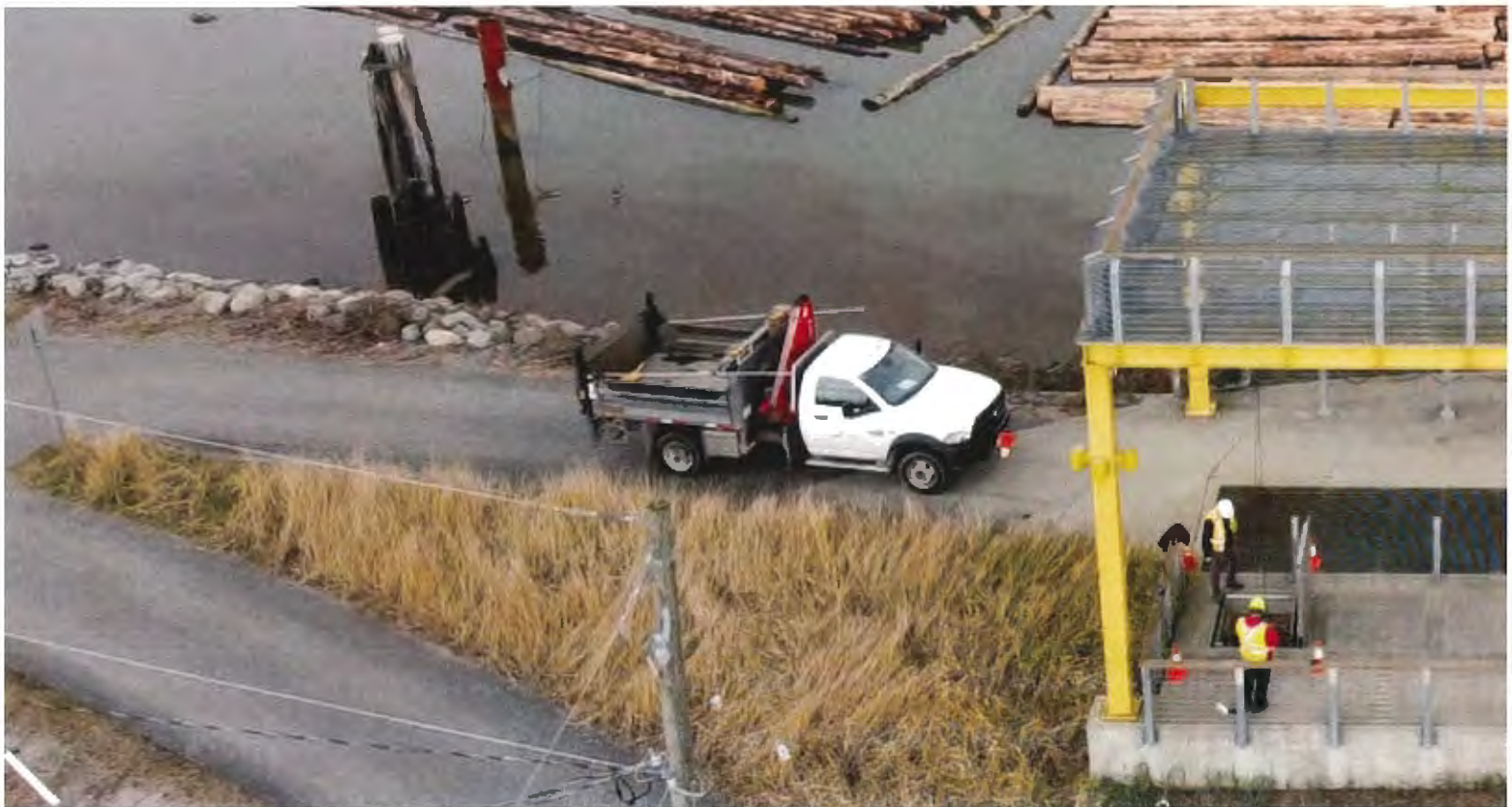
The past year continued to present challenges due to the ongoing pandemic and extreme weather situations. In both cases, the City was well prepared and able to mitigate the impact due to strong leadership, forward planning and sound investment. Many of those actions and achievements are highlighted throughout this report.

As the pandemic entered its second year, City administration and staff remained focused on the need to maintain public safety. That required difficult decisions. With the support of Council, strategies were implemented to ensure vital City services remained in place and staff could contribute to sustaining the local economy.

Services transitioned smoothly to online access as the City switched seamlessly to a hybrid or remote working model. Not only was this in keeping with provincial health orders, it demonstrated the dedication and resiliency of employees as they adjusted to new work environments while maintaining high levels of productivity and reliability.

Their commitment to safety was further demonstrated when Council enacted a proof of vaccination requirement for all staff. Almost 99 per cent confirmed full vaccination status, with most vaccinated long before the mandate was in place. It was this conscious recognition of the need to protect themselves, colleagues, family and residents that kept Richmond's COVID-19 case counts among the lowest in the region.

2021 also saw terms such as "heat dome" and "atmospheric river" become part of our vocabulary. Record summer temperatures saw Richmond develop an emergency cooling strategy. Should extreme



heat events become more common, the City is ready to provide respite for our most vulnerable citizens from potentially life threatening heat waves.

Richmond was also subject to extreme rainfall events (atmospheric rivers) in November. In one instance, over 130 millimetres (five inches) of rain fell in just three days. Thanks to long term planning and investment in flood protection, the City emerged relatively unscathed. Sadly, not all British Columbia communities were as fortunate.

Our capacity to handle the situation was not only due to the \$120 million investment in flood protection over the years, but also the City employees who worked 24/7 in sometimes difficult and dangerous situations to keep our 39 pump stations clear and operational, and our 49 kilometres of dikes secure.

Of course, one of the foundations for any successful organization is its ability to demonstrate strong financial stewardship.

The City's long-term financial strategy remained a hallmark of our administration and enabled us to continue to maintain effective and responsive service levels as this report shows.

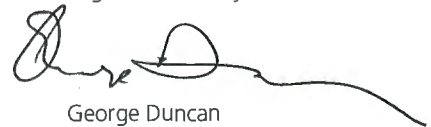
The City of Richmond remains a strong, culturally proud community and is committed to continued growth and success within a framework of diversity, sustainability and value for our taxpayers.

Finally, this will be my last Annual Report message as CAO. I announced plans to retire in mid-2022 and expect to hand over responsibilities to a new Chief Administrative Officer prior to that. During my 34+ years with the City, I have seen dramatic change and progress. I am proud to have played a role in bringing the Canada Line rapid transit to our community and in enabling construction of the internationally renowned Richmond Olympic Oval.

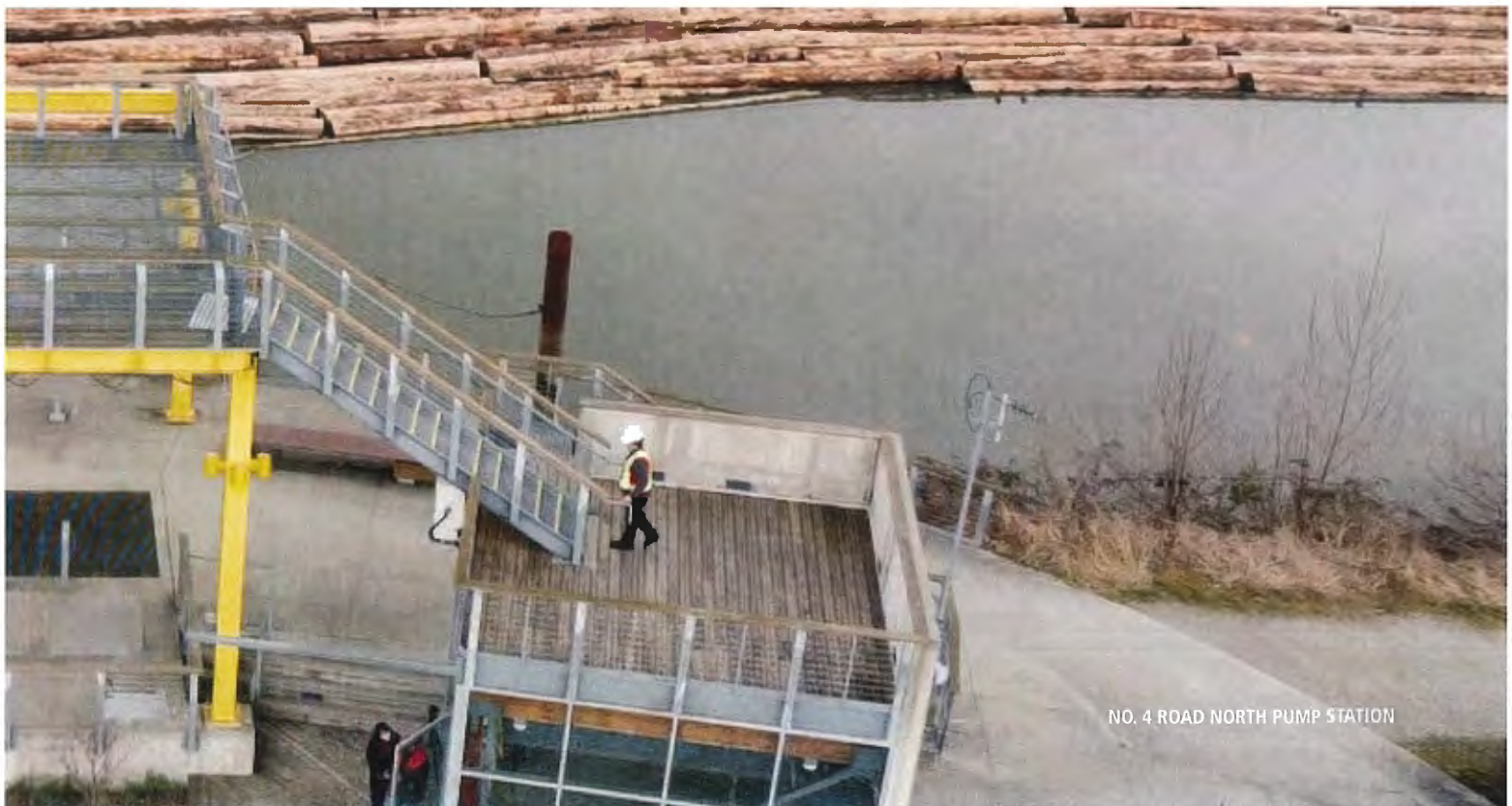
While initially built as a speed-skating competition arena for the 2010 Olympic

Winter Games—for which Richmond was an official Host Venue—the Oval was transformed into a community sport, recreation and elite athletics facility that now welcomes thousands of residents of all ages and abilities annually. It is a true legacy from one of my most memorable times as CAO.

But what I am most proud of is the people. The staff, leadership team and Council who continued to give their all to ensure Richmond was always a better, safer and more welcoming place. As I leave, I know the City is in a sound position and more than ready to maintain its journey as the most appealing, livable and well-managed community in Canada.




George Duncan  
Chief Administrative Officer



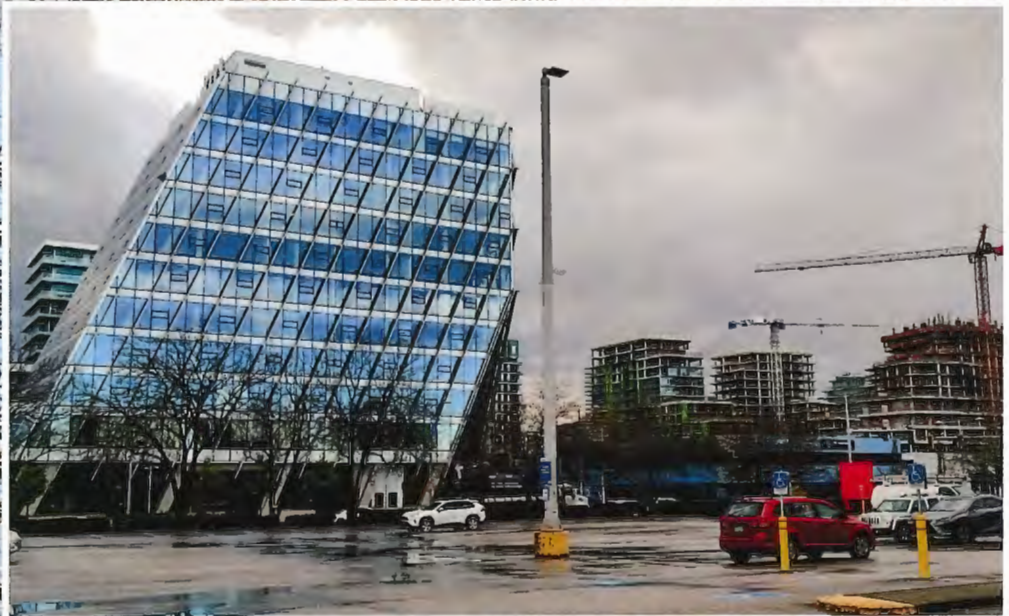




 KING TIDE AT BRITANNIA SHIPYARDS NATIONAL HISTORIC SITE  
PHOTO BY CORRINE HAER, PROJECT MANAGER, ENGINEERING PLANNING  
CITY EMPLOYEE SINCE 2012



# 2021 Achievement highlights



ABOVE: DEVELOPMENT CONSTRUCTION ON NO. 3 ROAD  
PHOTO BY MARCOS ALEJANDRO BADRA, WASTE MANAGEMENT ANALYST, SUSTAINABILITY  
CITY EMPLOYEE SINCE 2018



The Community Charter requires all BC municipalities to include a statement in the Annual Report of their objectives for the current and future years, along with measures to track success towards those objectives.

The City of Richmond's objectives and success indicators are expressed through the Council Strategic Plan. Soon after Council began its four-year term in October 2018, it undertook a strategic planning process to help fulfill its governance role and achieve a successful term of office. Through that process, Council adopted a revised set of eight Strategic Focus areas, which provided the framework for the City's programs and services during 2021.

## 1. A SAFE AND RESILIENT COMMUNITY

City Council made full COVID-19 vaccination mandatory for all City employees as an added safety measure to protect residents, visitors and staff. By year-end, almost 99 per cent of City staff and every Council member complied. Council also added funding for an additional 16 RCMP officers and 12 firefighters to complete Richmond's Safe Community Strategy, as well as unveiled the new City Centre Community Police Office. These and other initiatives saw break and enter crimes drop 33 per cent for residences and 15 per cent for businesses.

## 2. A SUSTAINABLE AND ENVIRONMENTALLY CONSCIOUS CITY

Ongoing investment in dike and flood protection infrastructure saw the island city withstand one of the province's most devastating floods on record. Richmond's 39 pump stations moved 90 cubic metres of water per second (1.4 million US gallons per minute)—the equivalent of over two Olympic swimming pools every 60 seconds. The City also became one of only 15 local governments across Canada selected to participate in the Canadian Circular Cities and Regions Initiative, a peer-to-peer network bringing communities together to exchange best practices for implementing circular economy strategies and policies.

## 3. ONE COMMUNITY TOGETHER

The City invested over \$1 million in grants to local non-profit arts and culture organizations, community service groups, as well as grassroots providers in childcare, health and social services, and parks, recreation and community events. Richmond's 14th annual Doors Open festival offered a rare glimpse inside places of worship, civic centres, museums and local businesses throughout the community. Over 25,000 social media interactions and 13,000 views were logged for the week-long online event.

## 4. AN ACTIVE AND THRIVING RICHMOND

Council amended the City's Affordable Housing Policy to increase the number of affordable rental units in new City Centre residential projects containing at least 60 units from 10 per cent to 15 per cent—among the highest level in the region. Over 1,500 affordable housing units in new developments across Richmond have been confirmed since the policy was introduced, with more underway. Council also continued to advocate for affordable, accessible, quality child care, opening two new innovative Early Childhood Development Hubs with 199 spaces to add to the more than 7,000 childcare spaces already in place to support the needs of children, families and employers in the city.

## 5. SOUND FINANCIAL MANAGEMENT

Council supported a budget that enabled several key infrastructure projects, initially deferred due to the pandemic, to proceed, as well as ensuring operating resources for key community safety priorities. While utilizing reserves to mitigate cost increases, the budget maintained a one per cent commitment to investment for future capital needs.

The City maintained a position of financial resiliency and service while keeping the overall impact to property owners to a tax change of around 27 cents per day.

## 6. STRATEGIC AND WELL-PLANNED GROWTH

Richmond issued development and construction permits for 587 residential, 333 commercial and 217 industrial buildings—a 23 per cent increase from the previous year. With \$719 million in new construction value, this was higher than the City's 10-year average. The City also collected over \$16.2 million in development cost charges in 2021 to help finance future infrastructure and amenities such as parks and roads.

## 7. A SUPPORTED ECONOMIC SECTOR

Prior investment, along with initiatives such as Richmond's Business Resilience and Supply Chain program and the Expedited Temporary Patio Program, helped local businesses deal with the challenges of the pandemic. The number of new business licences issued in 2021 rose 15 per cent from the previous year, signaling continued economic recovery and renewal.

## 8. AN ENGAGED AND INFORMED COMMUNITY

Connecting with one of the most culturally diverse and unique populations in Canada can be challenging. Over 35,000 users participated in almost 40 engagement initiatives on the City's LetsTalkRichmond.ca platform, a 44 per cent increase. The City's social media platforms also saw steady growth with a 23 per cent increase in Facebook followers, a 47 per cent rise on Instagram and a 50 per cent jump in YouTube subscribers. The City's website logged over 3.4 million visits, a 64 per cent increase from 2020.





RICHMOND FIRE-RESCUE'S FIREFIGHTERS DEMONSTRATING TEAMWORK  
PHOTO BY KYLIE MACDONALD, FIRE AND LIFE SAFETY EDUCATOR, RICHMOND FIRE-RESCUE  
CITY EMPLOYEE SINCE 2008



# Richmond: ensuring a sustainable future

While 2021 brought new challenges to many parts of British Columbia, the City of Richmond was well positioned to meet them head on thanks to a lengthy history of infrastructure investment, planning and effective leadership.

Due in large part to a multi-year investment of over \$120 million in dikes and flood protection strategies, Richmond was successful in preventing large-scale damage when three devastating atmospheric rivers hit in November. The City's 39 pump stations, combined with 49 kilometres of dikes, 165 kilometres of watercourses, 61 kilometres of box culverts and 585 kilometres of drainage pipes, kept rising waters at bay.

The existing dike network can withstand high water events such as spring freshet and king tides, and handle a 500-year return period (estimated average time between) flooding event. However, recognizing the rapid impact of climate change, Council authorized an acceleration of the plan to raise the dikes well ahead of current sea level rise projections over the next 50 years.

Earlier in the year, Richmond experienced another unexpected weather phenomenon—the heat dome. Several days of unrelenting record-setting temperatures arrived in July, prompting the development of a cooling centre strategy and mobilization of emergency services to protect the most vulnerable.

With the pandemic continuing to keep a grip on the community and economy, the City worked to find sustainable, innovative ways to support residents and businesses. The City, along with Tourism Richmond and the Richmond Hotel Association, unveiled a tourism plan to reinvigorate and revitalize the ailing industry that brought over \$2 billion to the city pre-pandemic. Richmond Sport Hosting still managed to support 20 events generating 2,700 room nights in 2021, and tourism numbers continued to rise as travel and pandemic restrictions eased by year-end.

Council took many decisive steps to assist in preserving Richmond's rich agricultural heritage and promote a sustainable farming sector. Adoption of



GARDEN CITY LANDS

PHOTO BY REENA CLARKSON, CORPORATE ASSISTANT, CITY ADMINISTRATION  
CITY EMPLOYEE SINCE 2004



a new Soil Deposit and Removal Bylaw expanded the City's regulatory framework with incentives for sourcing new soil from within Richmond while increasing fines for non-compliance. The bylaw provides enhanced enforcement in environmentally sensitive areas and supports other Council-endorsed strategies such as the Ecological Network Management Strategy, the Farming First Strategy and Invasive Species Action Plan. The move was timely as future soil deposits increase as the City raises the level of the land for further protection.

Development and construction offered visible evidence of economic recovery and sustainability with \$719 million in new construction value approved. This was higher than Richmond's 10-year average.

Council instilled further confidence in economic recovery with several key projects including approval of the \$95 million replacement of the Steveston Community Centre and Branch Library; the opening of the new River Parkway traffic and cycling corridor to alleviate congestion in the busy City Centre; and updates to the popular city-wide cycling network.

The Provincial Government announced plans to build a new Steveston Highway Interchange and replace the aging George Massey Tunnel with an eight-lane immersed tunnel. The project recognizes Council's long-standing recommendation for how to address the heavily congested road corridor, reducing travel time and improving transit access.

Following the success of an innovative road paving project using 40 per cent recycled materials, the City expanded the technology to pave 20 non-residential pathways across Richmond, with more planned. Such innovation, combined with the continued growth of Richmond's award-winning district energy infrastructure that reduces 7,800 tonnes of greenhouse gasses annually, reinforce Richmond's commitment to a sustainable, environmentally friendly future.

The City of Richmond has always been a leader with bold, innovative programs and strategies that reflect our character and reputation as a safe, sustainable and culturally diverse city that makes it one of the most appealing, livable and well-managed communities in Canada.





## LONG-SERVING CAO BIDS FAREWELL



Richmond's long-serving Chief Administrative Officer, George Duncan, will retire from his position on June 30, 2022.

The 2021 City of Richmond Annual Report will be the last completed under his full year of leadership, which has spanned over three decades.

Announcing the retirement, Mayor Malcolm Brodie said George will be missed by both the organization and the community. "George has made a major impact on our city," he said. "Under his leadership, Richmond has become an award-winning leader in civic administration, sustainability, community safety and operations. One only has to look around to see how our city has grown into a diverse, dynamic and well-managed community to see his contributions and legacy."

Examples of those contributions include the key role he played in bringing rapid transit to Richmond with the introduction of the Canada Line, as well

as Richmond becoming a Host Venue for the 2010 Olympic Winter Games. He was instrumental in securing the design and construction of the world-renowned Richmond Olympic Oval and its successful transition from a competition speed skating venue for the Games to a state-of-the-art multi-purpose community facility and sports complex benefiting local recreational and elite athletes alike.

Mayor Brodie also commended George for his commitment to public safety, in particular his vital leadership during the COVID-19 pandemic. "Council has always seen the safety and well-being of our community as paramount," he said. "When the pandemic hit Richmond, George mobilized teams and resources to ensure City services and staff were well positioned to keep key services in place and to protect the safety of employees, residents and businesses. That Richmond is on the road to economic and community recovery so quickly is due, in large part, to George's experienced leadership and commitment during those challenging times."

Joining the City in 1987, George was appointed CAO a decade later after taking on a series of progressive management roles and responsibilities. Under his leadership, the City and its staff have received over 200 awards for various programs and initiatives. These include two prestigious Canadian Association of Municipal Administrators (CAMA) Willis Awards for Excellence in Administration and Innovation, CAMA awards for Environmental Leadership and Sustainability and Professional Development, an Award of Excellence from the BC Human Resources Management Association, and awards from the International City/County Management Association.



# 2021 Awards

A measurement of the City's success in achieving its goals are the honours and recognition from our peers and others. In 2021, Richmond again received numerous international, national and provincial awards recognizing our commitment to excellence and innovation.

## PROTECTING OUR ENVIRONMENT

The Environmental Manager's Association of BC recognized Richmond's environmental stewardship with two prestigious awards. The City's Corporate Hazardous Materials Management Training initiative was honoured in the Regulatory Challenge category at the organization's 2021 Environmental Awards Gala, while its Mitchell Island Stewardship Initiative received the Discharge Control Award. Both programs demonstrate the City's commitment to protecting our environment and putting processes and systems in place to protect and maintain valuable ecosystems.



IMPERIAL LANDING

PHOTO BY CHARLES LEUNG, MANAGER, INFORMATION TECHNOLOGY, RICHMOND PUBLIC LIBRARY  
RICHMOND PUBLIC LIBRARY EMPLOYEE SINCE 2022



# AWARDS CONTINUED . . .

## DISTRICT ENERGY

Recipient of over a dozen awards in the past decade, Richmond's District Energy Program continues to collect accolades for its innovation, efficiency and green sustainability. In 2021, it received the Community Energy Association's Climate and Energy Action Award. With 22 buildings and over five million square feet of floor space, the innovative District Energy Program is reducing greenhouse gas emissions by over 7,800 tonnes—the equivalent of removing 2,000 cars from our roads—each year.

## ACCESSIBILITY BY DESIGN

The Minoru Centre for Active Living, the City of Richmond's state-of-the-art fitness and aquatic facility, received the 2021 Architecture Prize for Accessibility from the International Olympic Committee, International Paralympic Committee, and International Association for Sports and Leisure Facilities. The annual Distinction for Accessibility Award aims to increase the accessibility of all sports and leisure facilities and architectural structures worldwide so that everyone has an opportunity to practice and view sport freely and without barriers.

## FINANCIAL REPORTING

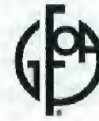
Once again, the Government Finance Officers Association of the US and Canada presented Richmond with the Canadian Award for Financial Reporting (the 19th year in a row) and the Outstanding Achievement in Popular Financial Reporting Award (the 12th successive year) for its 2020 Annual Reports.

ALEXANDRA DISTRICT ENERGY UTILITY



## SUSTAINABILITY

The Union of BC Municipalities, which represents and advocates to government on behalf of municipalities across British Columbia, presented the City of Richmond with an Honourable Mention in the Community Excellence Award – Service Delivery category for customer-friendly upgrades to its Works Yard Recycling Depot. The \$1.58 million upgrades to aging infrastructure improved operations by providing a larger site, expanding the number of hazardous waste materials collected, adding tent coverings and steel awnings to shield recyclers and staff from the weather, as well as the purchase of new heavy equipment for moving recycled materials.



Government Finance Officers Association

### Award for Outstanding Achievement in Popular Annual Financial Reporting

Presented to

**City of Richmond**

**British Columbia**

For its Annual Financial Report  
for the Fiscal Year Ended

**December 31, 2020**

*Christopher P. Morrell*

Executive Director/CEO



# REPORT FROM THE GENERAL MANAGER, FINANCE AND CORPORATE SERVICES

Mayor Malcom Brodie and Members of Richmond City Council,

I am pleased to submit the Consolidated Financial Statements and Auditors' Report for the fiscal year ended December 31, 2021 for the City of Richmond, pursuant to Section 98 and 167 of the Community Charter. The consolidated financial statements have been prepared in accordance with Canadian public sector accounting standards as prescribed by the Public Sector Accounting Board (PSAB) of the Chartered Professional Accountants of Canada. Preparation of the financial statements is management's responsibility.

KPMG LLP was appointed by City Council to independently audit the City's consolidated financial statements. They have expressed an opinion that the City's consolidated financial statements present fairly, in all material respects, the

consolidated financial position of the City of Richmond as at December 31, 2021 and its consolidated results of operations, its changes in net consolidated financial assets and its consolidated cash flows for the year ended in accordance with Canadian public sector accounting standards.

These financial statements combine the accounts of the City of Richmond, Richmond Olympic Oval and Richmond Public Library (collectively referred to as the "City"), as well as the City's investment in Lulu Island Energy Company, which is accounted for as a Government Business Enterprise.

## CONSOLIDATED STATEMENT OF FINANCIAL POSITION (IN \$000s)

	2021 Actual	2020 Actual	Change
Financial Assets	\$ 1,468,241	\$ 1,471,442	\$(3,201)
Liabilities	528,238	582,457	(54,219)
Net Financial Assets	940,003	888,985	51,018
Non-Financial Assets	2,547,884	2,495,221	52,663
Accumulated Surplus	\$3,487,887	\$ 3,384,206	\$103,681

The City's overall financial position improved by \$103.7 million, with accumulated surplus (similar to net worth of a corporation) totaling \$3.5 billion. A significant part of this increase is due to additions to capital assets and statutory reserves, as well as a reduction in liabilities, especially a reduction in accounts payable relating to postponed remittances to other governments relating to COVID-19 paid in 2021.

The City's cash and investments are \$1.4 billion while long-term debt continues to decline with an outstanding balance at the end of 2021 of \$17.4 million. Meanwhile, the City's tangible capital assets increased by \$51.1 million, which includes \$61.0 million of in-kind contributions from development as conditions of re-zoning.

## CONSOLIDATED STATEMENT OF OPERATIONS (IN \$000s)

	2021 Budget	2021 Actual	2020 Actual
Revenue	\$575,688	\$576,698	\$579,052
Expenses	507,765	473,017	434,188
Annual Surplus	\$67,923	\$103,681	\$144,864

The City's consolidated revenue for the year totaled \$576.7 million, a decrease of \$2.4 million from 2020 mainly due to a decrease in the gain on sale of land offset by revenue increases related to facility re-openings from the COVID-19 closures.

Expenses increased by \$38.8 million from prior year mainly due to related facility re-openings from the COVID-19 closures.

The annual surplus for 2021 was \$103.7 million and represents the change in investment in tangible capital assets, reserves and other accumulated surplus.


## FINANCIAL SUSTAINABILITY

2021 saw the easing of COVID-19 challenges through the continued re-opening of community recreation facilities and resumption of gaming revenues from the re-opening of the River Rock Casino resulting in the City maintaining its excellent financial position.

Respectfully submitted,

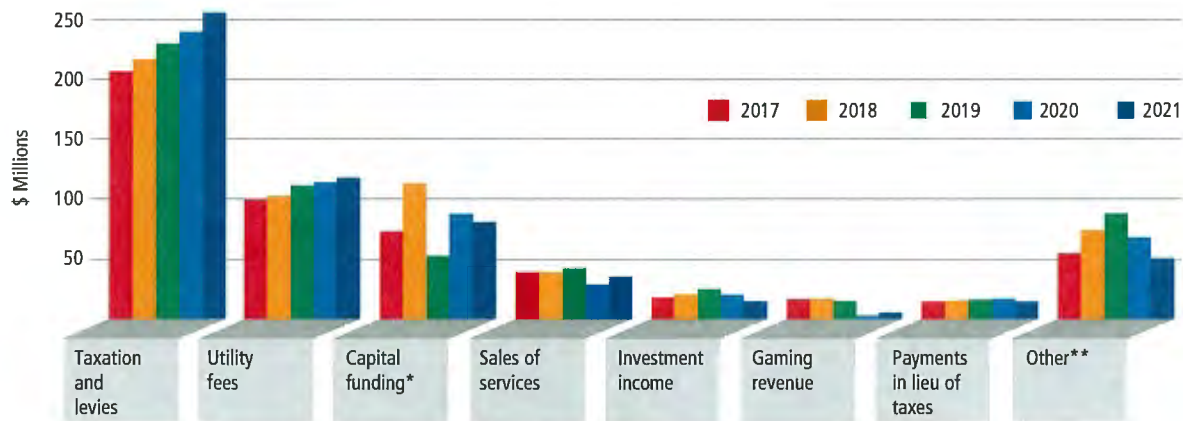


Jerry Chong, CPA, CA  
Acting General Manager, Finance and Corporate Services  
May 9, 2022

 PHOTO BY SHANNON UNRAU,  
DEPARTMENTAL ASSOCIATE 2,  
TRANSPORTATION  
CITY EMPLOYEE SINCE 2016



## REVENUE BY SOURCE 2017–2021

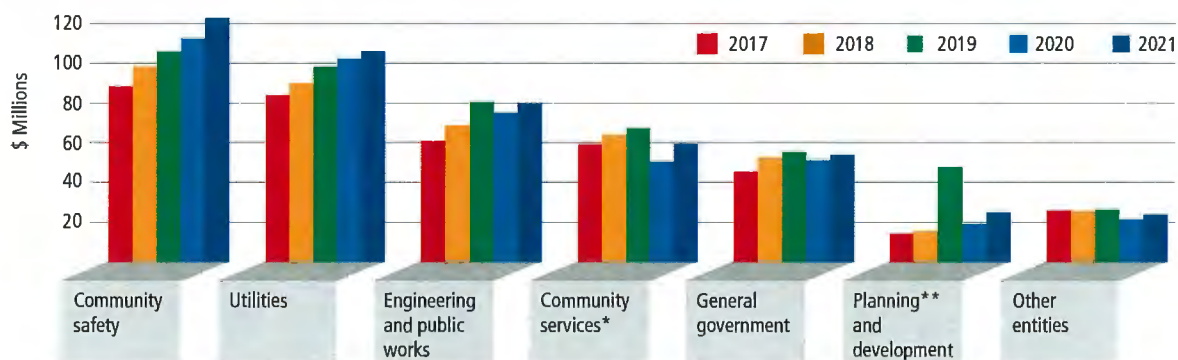


Source: City of Richmond Finance and Corporate Services

\* Capital funding includes: Development Cost Charges and other capital funding sources.

\*\* Other includes: provincial and federal grants, licences and permits and other sources.

## EXPENSES BY FUNCTION 2017–2021



Source: City of Richmond Finance and Corporate Services

\* Expenses for Community Services include a one-time contribution towards affordable housing of \$17.0M in 2017.

\*\* Expenses for Planning and Development for 2019 include a one-time \$28.1M contribution towards the Canada Line Capstan Station.



# Richmond at a glance

**216,280**

2021 POPULATION

**November 10, 1879**

INCORPORATED AS MUNICIPALITY

**129.27**

SIZE OF CITY IN  
SQUARE KM

**17**

ISLANDS COMPRISING  
THE CITY

**December 3, 1990**

DESIGNATED AS CITY OF RICHMOND

## Fast facts

**\$719 million**

NEW CONSTRUCTION VALUE  
IN 2021—HIGHER THAN THE  
CITY'S 10-YEAR AVERAGE

**39**

PERCENTAGE OF THE CITY  
WITHIN THE AGRICULTURAL  
LAND RESERVE (ALR)

**1,966**

HECTARES THAT MAKE UP THE  
CITY'S 145 PARKS

**807**

HECTARES OF CRANBERRY  
FIELDS IN PRODUCTION

**49**

KILOMETRES OF DIKES FOR  
FLOOD PROTECTION

**135**

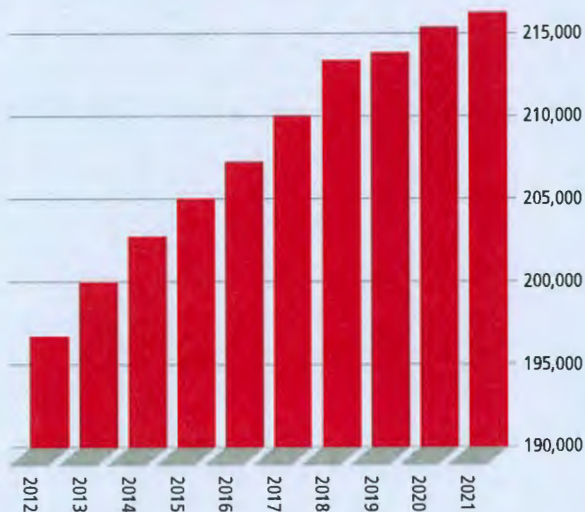
KILOMETRES OF WALKING,  
ROLLING AND CYCLING TRAILS

**60.2**

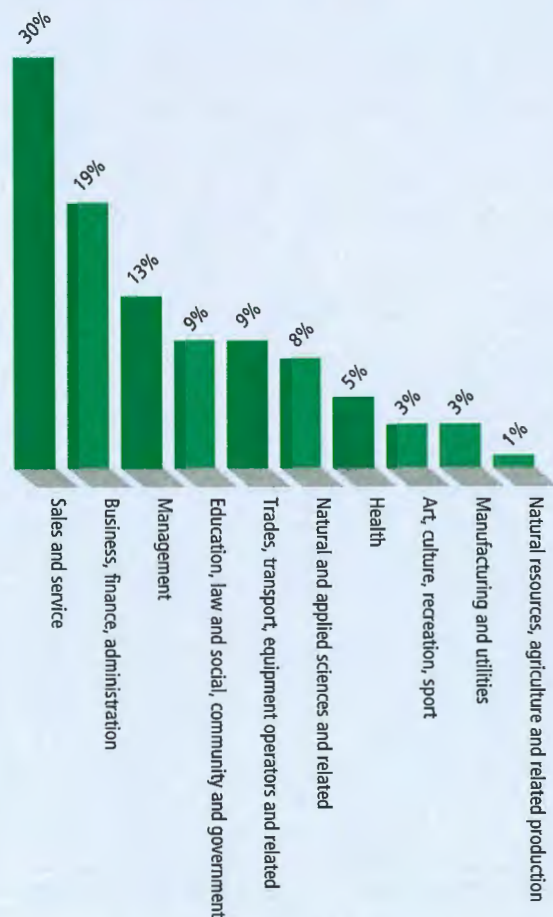
PERCENTAGE OF THE CITY'S  
POPULATION BORN OUTSIDE  
OF CANADA



## CITY OF RICHMOND POPULATION 2012–2021

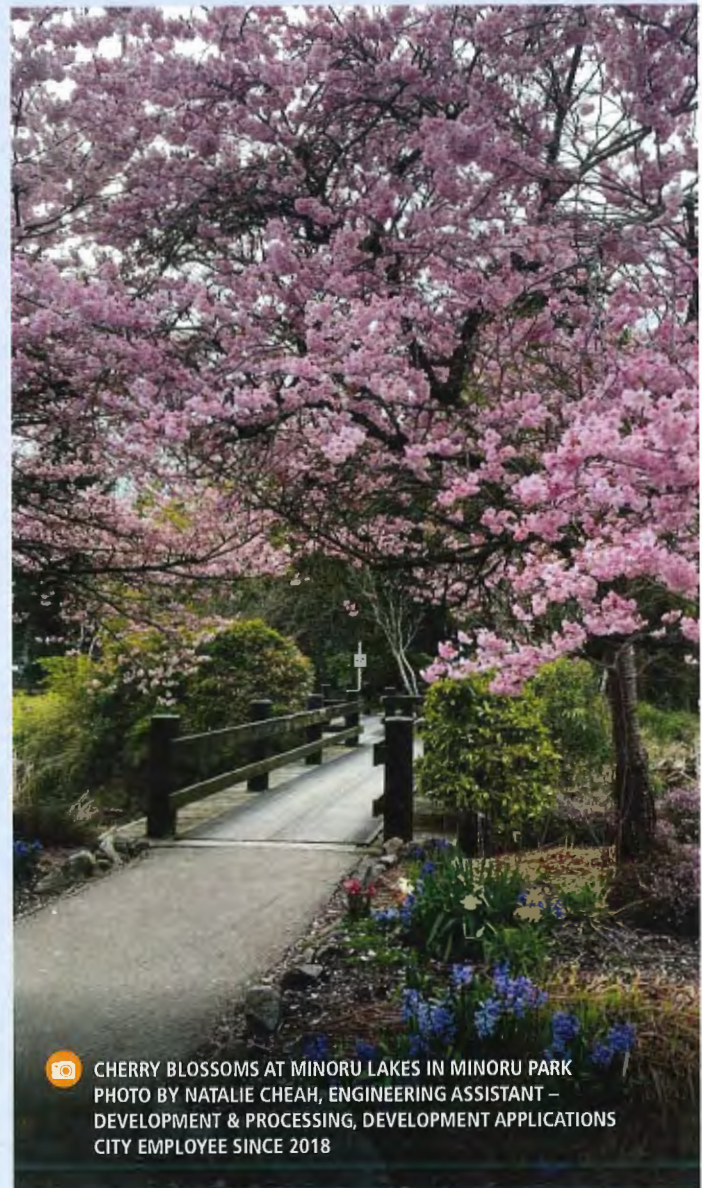



## OCCUPATIONS OF RICHMOND RESIDENTS



## TOP 10 LARGEST EMPLOYERS IN RICHMOND (IN ALPHABETICAL ORDER)

- Air Canada
- Allied Universal
- Amazon Canada
- Change Healthcare
- City of Richmond
- London Drugs
- MDA Systems
- River Rock Casino Resort
- School District No. 38 (Richmond)
- Vancouver Coastal Health



 CHERRY BLOSSOMS AT MINORU LAKES IN MINORU PARK  
PHOTO BY NATALIE CHEAH, ENGINEERING ASSISTANT –  
DEVELOPMENT & PROCESSING, DEVELOPMENT APPLICATIONS  
CITY EMPLOYEE SINCE 2018

Sources: Statistics Canada, City of Richmond, Vancouver International Airport Authority, Steveston Harbour Authority, Metro Vancouver, Richmond School District.



# MAJOR SERVICES PROVIDED BY THE CITY OF RICHMOND

## ADMINISTRATION

Includes the office of the Chief Administrative Officer who oversees the overall administration of the City's operations. Also includes the Deputy Chief Administrative Officer, Human Resources, Intergovernmental Relations and Protocol, Corporate Communications and Marketing, Corporate Planning and Organizational Development and the Corporate Programs Management Group.

## COMMUNITY SAFETY

Brings together the City's public safety providers including RCMP, Fire-Rescue, Emergency Programs, Community Bylaws and Business Licences.

## COMMUNITY SERVICES

Coordinates, supports and develops Richmond's community services including Parks Services, Recreation and Sport Services and Arts, Culture and Heritage Services.

## ENGINEERING AND PUBLIC WORKS

The Engineering and Public Works Departments deliver public works services and utilities and engineering planning, design, construction and maintenance services for all utility and City building infrastructure.

## FINANCE AND CORPORATE SERVICES

Includes Customer Service, Information Technology, Finance, Economic Development, Real Estate Services and Corporate Business Service Solutions.

## PLANNING AND DEVELOPMENT

Includes the Policy Planning, Transportation, Development Applications, Building Approvals and Community Social Development Departments. This division provides policy directions that guide growth and change in Richmond with emphasis on land use planning, development regulations, environmental protection, heritage and livability.

## LAW AND LEGISLATIVE SERVICES

Includes the Law Department and the City Clerk's Office.



**SUNSET IN STEVESTON**

PHOTO BY KATHY LEE, DEPARTMENTAL ASSOCIATE 2, COMMUNITY SERVICES ADMINISTRATION  
CITY EMPLOYEE SINCE 2003

# CITY OF RICHMOND CONTACTS

The City of Richmond offers many civic services to the community. Additional services are provided through the Richmond Olympic Oval, Richmond Public Library, Gateway Theatre and Lulu Island Energy Company. For more information on City services contact:

## CITY OF RICHMOND

6911 No. 3 Road  
Richmond, BC V6Y 2C1  
Phone: 604-276-4000  
Email: [InfoCentre@Richmond.ca](mailto:InfoCentre@Richmond.ca)  
[www.richmond.ca](http://www.richmond.ca)  
Facebook: @CityofRichmondBC  
Twitter: @Richmond\_BC  
Instagram: @CityofRichmondBC  
YouTube: /CityofRichmondBC

## GATEWAY THEATRE

6500 Gilbert Road  
Richmond, BC V7C 3V4  
Phone: 604-270-6500  
Box Office: 604-270-1812  
[www.GatewayTheatre.com](http://www.GatewayTheatre.com)  
Facebook: @GatewayThtr  
Twitter: @GatewayThtr  
Instagram: @GatewayThtr

## LULU ISLAND ENERGY COMPANY

6911 No. 3 Road  
Richmond, BC V6Y 2C1  
Phone: 604-276-4011  
Email: [Info@LuluIslandEnergy.ca](mailto:Info@LuluIslandEnergy.ca)  
[www.LuluIslandEnergy.ca](http://www.LuluIslandEnergy.ca)

## RICHMOND PUBLIC LIBRARY

100-7700 Minoru Gate (Brighthouse Branch)  
Richmond, BC V6Y 1R8  
Library Hours Line: 604-231-6401  
[www.YourLibrary.ca](http://www.YourLibrary.ca)  
Facebook: @YourLibraryRichmond  
Twitter: @RPLBC  
Instagram: @RPLBC  
YouTube: /YourLibraryRichmond  
Spotify: Account: RPLYourlibrary1

## RICHMOND OLYMPIC OVAL

6111 River Road  
Richmond, BC V7C 0A2  
Phone: 778-296-1400  
Email: [Info@RichmondOval.ca](mailto:Info@RichmondOval.ca)  
[www.RichmondOval.ca](http://www.RichmondOval.ca)  
Facebook: @RichmondOval  
Twitter: @RichmondOval  
Instagram: @RichmondOval







## City of Richmond

6911 No. 3 Road, Richmond, BC V6Y 2C1

Telephone: 604-276-4000

[www.richmond.ca](http://www.richmond.ca)

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# City of Richmond

## Report to Council

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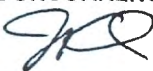

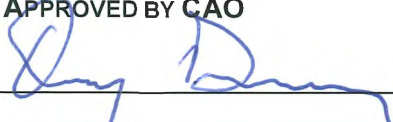
**To:** Richmond City Council  
**From:** Jerry Chong  
Acting General Manager, Finance and Corporate Services  
**Date:** June 6, 2022  
**File:** 03-1200-03/2022-Vol 01  
**Re:** 2021 Statement of Financial Information

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### Staff Recommendation

That the 2021 Statement of Financial Information be approved.

Jerry Chong  
Acting General Manager, Finance and Corporate Services  
(604-276-4064)

REPORT CONCURRENCE	
CONCURRENCE OF GENERAL MANAGER  Acting GM, F&CS	
SENIOR MANAGEMENT TEAM REVIEW	INITIALS: 
APPROVED BY CAO 	



## Staff Report

### Origin

Section 2(2) and (3) of the *Financial Information Act* states that a municipality must prepare the “Statement of Financial Information” within six months of the end of each fiscal year. Furthermore, Section 9(2) of the Financial Information Regulation requires that the statement be approved by its Council and by the officer assigned responsibility for financial administration under the *Local Government Act*. The following statements and schedules of financial information must be prepared:

- statement of assets and liabilities;
- an operational statement;
- a schedule of debts;
- a schedule of guarantee and indemnity agreements;
- a schedule showing remuneration and expenses paid to or on behalf of each employee as required by the Act;
- a schedule showing the payments for each supplier of goods and services;
- a schedule of grants and subsidies.

The current prescribed amounts for the purpose of reporting under the Financial Information Regulation for employee remuneration/expenses and payments to suppliers are \$75,000 and \$25,000 respectively.

### Analysis

Sections 1 to 4 of the required schedules for the Statement of Financial Information are captured in the City’s 2021 audited consolidated financial statements. There were no guarantee and indemnity agreements provided under the Guarantees and Indemnities Regulation (BC Reg. 258/87) reported for Section 5.

A schedule which shows employee remuneration in excess of \$75,000 and related expenses for the 2021 fiscal year is attached in Section 6.

Remuneration consists of base salary, taxable benefits and lump sum payments. Taxable benefits may include employer paid benefits such as life insurance, accidental death & dismemberment and vehicle benefits. Lump sum payments may include leave balances owed to employees, union gratuities and union overtime.

Expenses are reported in accordance with the *Financial Information Act*, and may include items such as individual professional memberships, mandatory professional development, employee tuition, and non-discretionary expenses incurred as part of the employee’s job function.

The remuneration and expenses being reported are within the Consolidated 5 Year Financial Plan Bylaw that was approved by Council. Management is responsible for the design, implementation, and maintenance of all internal controls. Additional internal controls with

respect to expenditures include bylaws, policies, administrative procedures, guidelines, and governance through reviews by Senior Management and Council.

A statement listing payments to suppliers for goods and services in excess of \$25,000 for the 2021 fiscal year is attached in Section 7.

A statement listing payments for the purposes of grants and subsidies is attached in Section 7.

**Financial Impact**

None.

**Conclusion**

The attached 2021 Statement of Financial Information has been prepared in accordance with the *Financial Information Act*.

A handwritten signature in black ink, appearing to be 'Ivy Wong', with a stylized, looped design.

Ivy Wong  
Acting Director, Finance  
(604) 276-4046

IW:mc

CITY OF RICHMOND  
STATEMENT OF FINANCIAL INFORMATION  
For the year ended December 31, 2021

INDEX

1) Consolidated Statements.....	See Financial Statements
2) Statement of Assets and Liabilities.....	See Financial Statements
3) Operational Statement.....	See Financial Statements
4) Schedule of Debts.....	See Financial Statements
5) Schedule of Guarantee and Indemnity Agreements	Section 5
6) Schedule of Remuneration and Expenses:	
Elected Officials.....	Section 6
Employees.....	Section 6
Statement of Severance Agreements.....	Section 6
7) Schedule of Payments to Suppliers for Goods and Services:	
Schedule of Payments for Goods and Service in excess of \$25,000 and consolidated total.....	Section 7
Schedule of Grants and Subsidies.....	Section 7

## **CITY OF RICHMOND**

### **2021 STATEMENT OF FINANCIAL INFORMATION APPROVAL**

The undersigned, as authorized by the Financial Information Regulation, Schedule 1, subsection 9(2) approves all the statements and schedules included in this Statement of Financial Information, produced under the *Financial Information Act*.

---

Jerry Chong  
Acting General Manager, Finance and  
Corporate Services

---

Malcolm D. Brodie  
Mayor

Prepared pursuant to the Financial Information Regulation, Schedule 1, Section 9



## MANAGEMENT REPORT

The consolidated financial statements contained in this Statement of Financial Information under the *Financial Information Act* have been prepared by management in accordance with generally accepted accounting principles. The integrity and objectivity of the consolidated financial statements are management's responsibility. Management is responsible for all the schedules prepared for the Statement of Financial Information, and for ensuring that the schedules are consistent, where appropriate, with the information contained in the consolidated financial statements.

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

Council is responsible for ensuring that management fulfils its responsibilities for financial reporting and internal control and for approving the financial information included in the Statement of Financial Information.

The external auditors, KPMG LLP, conducted an independent examination, in accordance with generally accepted auditing standards, and express their opinion on the consolidated Statement of Financial Information financial statements. Their examination does not relate to the other schedules and statements required by the *Financial Information Act*. Their examination includes a review and evaluation of the City's system of internal controls and appropriate tests and procedures to provide reasonable assurance that the financial statements are presented fairly. The external auditors presented their findings to the City's Finance Committee.

---

Jerry Chong  
Acting General Manager, Finance and Corporate Services

Dated:

Consolidated Financial Statements of

**CITY OF RICHMOND**

And Independent Auditors' Report thereon

Year ended December 31, 2021



KPMG LLP  
PO Box 10426 777 Dunsmuir Street  
Vancouver BC V7Y 1K3  
Canada  
Telephone (604) 691-3000  
Fax (604) 691-3031

## INDEPENDENT AUDITORS' REPORT

To the Mayor and Council of the City of Richmond

### ***Opinion***

We have audited the consolidated financial statements of the City of Richmond (the "City"), which comprise:

- the consolidated statement of financial position as at December 31, 2021
- the consolidated statement of operations for the year then ended
- the consolidated statement of changes in net financial assets for the year then ended
- the consolidated statement of cash flows for the year then ended
- and notes to the consolidated financial statements, including a summary of significant accounting policies

(hereinafter referred to as the "financial statements").

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

### ***Basis for Opinion***

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the "***Auditors' Responsibilities for the Audit of the Financial Statements***" section of our auditors' report.

We are independent of the City in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.



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

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

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

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

## ***Auditors' Responsibilities for the Audit of the Financial Statements***

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

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

We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion.

The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the City's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.





- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the City's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the City to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group entity to express an opinion on the financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

*KPMG LLP*

Chartered Professional Accountants

Vancouver, Canada

May 9, 2022

# CITY OF RICHMOND

Consolidated Statement of Financial Position  
(Expressed in thousands of dollars)

December 31, 2021, with comparative information for 2020

	2021	2020
<b>Financial Assets</b>		
Cash and cash equivalents	\$ 672,031	\$ 530,034
Investments (note 3)	696,886	834,010
Investment in Lulu Island Energy Company ("LIEC") (note 4)	33,647	32,736
Accrued interest receivable	8,932	9,697
Accounts receivable (note 5)	29,655	21,521
Taxes receivable	14,157	14,419
Development fees receivable	12,425	28,517
Debt reserve fund - deposits (note 6)	508	508
	1,468,241	1,471,442
<b>Liabilities</b>		
Accounts payable and accrued liabilities	86,575	156,975
Post-employment benefits (note 14)	37,395	35,121
Development cost charges (note 7)	224,655	221,151
Deposits and holdbacks (note 8)	106,041	97,445
Deferred revenue (note 9)	56,186	49,024
Debt, net of MFA sinking fund deposits (note 10)	17,386	22,741
	528,238	582,457
Net financial assets	940,003	888,985
<b>Non-Financial Assets</b>		
Tangible capital assets (note 11)	2,539,267	2,488,139
Inventory of materials and supplies	4,696	4,285
Prepaid expenses	3,921	2,797
	2,547,884	2,495,221
Accumulated surplus (note 12)	\$ 3,487,887	\$ 3,384,206

Contingent demand notes (note 6)  
Commitments and contingencies (note 17)

See accompanying notes to consolidated financial statements.



General Manager, Finance and Corporate Services

# CITY OF RICHMOND

Consolidated Statement of Operations  
(Expressed in thousands of dollars)

Year ended December 31, 2021, with comparative information for 2020

	2021 Budget (notes 2(p) and 23)	2021	2020
Revenue:			
Taxation and levies (note 19)	\$ 255,366	\$ 255,837	\$ 239,991
Utility fees	117,674	118,144	114,335
Sales of services	40,000	35,601	29,090
Payments-in-lieu of taxes	12,142	14,789	16,820
Provincial and federal contributions	10,855	12,704	16,953
Development cost charges (note 7)	24,669	16,223	16,737
Other capital funding sources	75,943	64,695	71,051
Other revenue:			
Investment income	13,290	14,968	20,175
Gaming revenue	-	5,700	2,705
Licenses and permits	11,403	13,995	19,407
Other (note 20)	12,808	23,131	30,466
Equity income in LIEC (note 4)	1,538	911	1,322
	575,688	576,698	579,052
Expenses:			
Community safety	127,108	123,232	112,895
Utilities: water, sewer and sanitation	109,787	106,519	102,824
Engineering, public works and project development	82,833	80,083	75,314
Community services	73,610	59,873	50,833
General government	63,976	54,249	51,495
Planning and development	24,409	25,166	19,201
Richmond Olympic Oval	14,844	14,079	12,586
Richmond Public Library	11,198	9,816	9,040
	507,765	473,017	434,188
Annual surplus	67,923	103,681	144,864
Accumulated surplus, beginning of year	3,384,206	3,384,206	3,239,342
Accumulated surplus, end of year	\$ 3,452,129	\$ 3,487,887	\$ 3,384,206

See accompanying notes to consolidated financial statements.

# CITY OF RICHMOND

## Consolidated Statement of Changes in Net Financial Assets (Expressed in thousands of dollars)

Year ended December 31, 2021, with comparative information for 2020

	2021 Budget (notes 2(p) and 23)	2021	2020
Annual surplus for the year	\$ 67,923	\$ 103,681	\$ 144,864
Acquisition of tangible capital assets	(106,483)	(61,150)	(70,726)
Contributed tangible capital assets	(61,479)	(61,004)	(58,240)
Amortization of tangible capital assets	67,458	68,519	66,254
Net loss (gain) on disposal of tangible capital assets	-	1,714	(6,136)
Proceeds on sale of tangible capital assets	-	793	8,507
	(32,581)	52,553	84,523
Acquisition of inventory of materials and supplies	-	(4,696)	(4,285)
Acquisition of prepaid expenses	-	(3,921)	(2,797)
Consumption of inventory of materials and supplies	-	4,285	2,961
Use of prepaid expenses	-	2,797	2,714
Change in net financial assets	(32,581)	51,018	83,116
Net financial assets, beginning of year	888,985	888,985	805,869
Net financial assets, end of year	\$ 856,404	\$ 940,003	\$ 888,985

See accompanying notes to consolidated financial statements.



# CITY OF RICHMOND

Consolidated Statement of Cash Flows  
(Expressed in thousands of dollars)

Year ended December 31, 2021, with comparative information for 2020

	2021	2020
Cash provided by (used in):		
Operating activities:		
Annual surplus	\$ 103,681	\$ 144,864
Items not involving cash:		
Amortization of tangible capital assets	68,519	66,254
Net loss (gain) on disposal of tangible capital assets	1,714	(6,136)
Contributions of tangible capital assets	(61,004)	(58,240)
Equity income in LIEC	(911)	(1,322)
Changes in non-cash operating working capital:		
Accrued interest receivable	765	(1,916)
Accounts receivable	(8,134)	6,886
Taxes receivable	262	(3,386)
Development fees receivable	16,092	(7,373)
Inventory of materials and supplies	(411)	(1,324)
Prepaid expenses	(1,124)	(83)
Accounts payable and accrued liabilities	(70,400)	83,572
Post-employment benefits	2,274	934
Development cost charges	3,504	23,480
Deposits and holdbacks	8,596	(19,919)
Deferred revenue	7,162	(15,338)
Net change in cash from operating activities	70,585	210,953
Capital activities:		
Cash used to acquire tangible capital assets	(61,150)	(70,726)
Proceeds on disposal of tangible capital assets	793	8,507
Net change in cash from capital activities	(60,357)	(62,219)
Financing activities:		
Repayments of debt	(5,355)	(5,150)
Investing activities:		
Net sale (purchase) of investments	137,124	(3,114)
Net change in cash	141,997	140,470
Cash and cash equivalents, beginning of year	530,034	389,564
Cash and cash equivalents, end of year	\$ 672,031	\$ 530,034

See accompanying notes to consolidated financial statements.

# CITY OF RICHMOND

Notes to Consolidated Financial Statements  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

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## 1. Operations:

The City of Richmond (the "City") is incorporated under the Local Government Act of British Columbia. The City's principal activities include the provision of local government services to residents of the incorporated area. These include administrative, protective, transportation, infrastructure, environmental, recreational, water, sewer, and drainage.

In March 2020, the COVID-19 outbreak was declared a pandemic by the World Health Organization. This resulted in governments worldwide, including the Canadian federal and provincial governments enacting emergency measures to combat the spread of the virus. The economic conditions and the City's response to the pandemic had a material impact on the City's operating results and financial position in 2020 and continued in 2021 affecting both revenues and expenses. The City temporarily closed civic facilities, including recreation and community centres, managed workforce challenges, including the implementation of systems and processes to facilitate remote work, and workforce adjustments, such as delayed hiring, reallocation of staff resources and temporary layoffs. The primary impact was on parks, recreation and facilities. The situation is still dynamic and the ultimate duration and magnitude of the impact on the economy and the financial effect on the City is not known at this time.

## 2. Significant accounting policies:

The consolidated financial statements of the City have been prepared in accordance with Canadian public sector accounting standards as prescribed by the Public Sector Accounting Board ("PSAB") of the Chartered Professional Accountants Canada.

### (a) Basis of consolidation:

The consolidated financial statements reflect a combination of the City's General Revenue, General Capital and Loan, Waterworks and Sewerworks, and Reserve Funds consolidated with the Richmond Public Library (the "Library") and the Richmond Olympic Oval (the "Oval"). The Library is consolidated as the Library Board is appointed by the City. The Oval is consolidated as they are a wholly owned municipal corporation of the City. Interfund transactions, fund balances and activities have been eliminated on consolidation. The City's investment in Lulu Island Energy Company ("LIEC"), a wholly owned government business enterprise ("GBE"), is accounted for using the modified equity method.

### (i) General Revenue Fund:

This fund is used to account for the current operations of the City as provided for in the Annual Budget, including collection of taxes, administering operations, policing, and servicing general debt.

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

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## 2. Significant accounting policies (continued):

### (a) Basis of consolidation (continued):

#### (ii) General Capital and Loan Fund:

This fund is used to record the City's tangible capital assets and work-in-progress, including engineering structures such as roads and bridges, and the related debt.

#### (iii) Waterworks and Sewerworks Funds:

These funds have been established to cover the costs of operating these utilities, with related capital and loan funds to record the related tangible capital assets and debt.

#### (iv) Reserve Funds:

Certain funds are established by bylaws for specific purposes. They are funded primarily by budgeted contributions from the General Revenue Fund and developer contributions plus interest earned on fund balances.

### (b) Basis of accounting:

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

### (c) Government transfers:

Restricted transfers from governments are deferred and recognized as revenue as the related expenditures are incurred or the stipulations in the related agreement are met. Unrestricted transfers are recognized as revenue when received or if the amount to be received can be reasonably estimated and collection is reasonably assured.

### (d) Cash and cash equivalents:

Cash and cash equivalents consist of cash, highly liquid money market investments and short-term investments with maturities of less than 90 days from date of acquisition.

### (e) Investments:

Investments are recorded at cost, adjusted for amortization of premiums or discounts. Provisions for losses are recorded when they are considered to be other than temporary.

### (f) Investment in government business enterprises:

Government business enterprises are recorded using the modified equity method of accounting. The City's investment in the GBE is recorded as the value of the GBE's shareholder's equity. The investment's income or loss is recognized by the City when it is earned by the GBE. Inter-organizational transactions and balances are not eliminated, except for any gains or losses on assets remaining within the City.

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 2. Significant accounting policies (continued):

(g) Accounts receivable:

Accounts receivable are net of an allowance for doubtful accounts and therefore represent amounts expected to be collected.

(h) Development cost charges:

Development cost charges are restricted by legislation to expenditures on capital infrastructure. These amounts are deferred upon receipt and recognized as revenue when the expenditures are incurred in accordance with the restrictions.

(i) Post-employment benefits:

The City and its employees make contributions to the Municipal Pension Plan. As this plan is a multi-employee plan, contributions are expensed as incurred.

Post-employment benefits also accrue to the City's employees. The liabilities related to these benefits are actuarially determined based on service and best estimates of retirement ages and expected future salary and wage increases. The liabilities under these benefits plans are accrued based on projected benefits prorated as employees render services necessary to earn the future benefits.

(j) Non-financial assets:

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

(i) Tangible capital assets:

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

Asset	Useful life - years
Buildings and building improvements	10 - 75
Infrastructure	5 - 100
Vehicles, machinery and equipment	3 - 40
Library's collections, furniture and equipment	4 - 20

Amortization is charged over the asset's useful life commencing when the asset is acquired. Assets under construction are not amortized until the asset is available for productive use.



# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

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## 2. Significant accounting policies (continued):

### (j) Non-financial assets (continued):

#### (ii) Contributions of tangible capital assets:

Tangible capital assets received as contributions are recorded at their fair value at the date of receipt and also are recorded as revenue.

#### (iii) Natural resources, works of art, and cultural and historic assets:

Natural resources, works of art, and cultural and historic assets are not recorded as assets in the consolidated financial statements.

#### (iv) Interest capitalization:

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

#### (v) Labour capitalization:

Internal labour directly attributable to the construction, development or implementation of a tangible capital asset is capitalized.

#### (vi) Leased tangible capital assets:

Leases which transfer substantially all of the benefits and risks incidental to ownership of property are accounted for as leased tangible capital assets. All other leases are accounted for as operating leases and the related payments are charged to expenses as incurred.

#### (vii) Impairment of tangible capital assets:

Tangible capital assets are written down when conditions indicate that they no longer contribute to the City's ability to provide goods and services, or when the value of future economic benefits associated with the tangible capital assets are less than their net book value. The net write-downs are accounted for as expenses in the consolidated statement of operations.

#### (viii) Inventory of materials and supplies:

Inventory is recorded at cost, net of an allowance for obsolete stock. Cost is determined on a weighted average basis.

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

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## 2. Significant accounting policies (continued):

### (k) Revenue recognition:

Revenue is recognized in the period in which the transactions or events occurred that gave rise to the revenue. All revenue is recorded on an accrual basis, except when the accruals cannot be determined with a reasonable degree of certainty or when their estimation is impractical.

The City is required to act as the agent for the collection of certain taxes and fees imposed by other authorities. Collections for other authorities are excluded from the City's taxation revenue.

### (l) Property taxes:

The City establishes property tax rates based on assessed market values provided by the British Columbia Assessment Authority (BCA). Market values are determined as of July 1<sup>st</sup> of each year. The City records taxation revenue at the time the property tax bills are issued. The City is entitled to collect interest and penalties on overdue taxes.

### (m) Deferred revenue:

The City defers a portion of the revenue collected from permits, licenses and other fees and recognizes this revenue in the year in which related inspections are performed, other related expenses are incurred or services are provided.

Deferred revenue also represents funds received from external parties for specified purposes. This revenue is recognized in the period in which the related expenses are incurred.

### (n) Deposits:

Receipts restricted by the legislation of senior governments or by agreement with external parties are deferred and reported as deposits and are refundable under certain circumstances. When qualifying expenses are incurred, deposits are recognized as revenue at amounts equal to the qualifying expenses.

### (o) Debt:

Debt is recorded net of related sinking fund balances.

### (p) Budget information:

Budget information, presented on a basis consistent with that used for actual results, was included in the City's Consolidated 5 Year Financial Plan (2021-2025) ("Consolidated Financial Plan") and was adopted through Bylaw No. 10239 on March 22, 2021.

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

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## 2. Significant accounting policies (continued):

### (q) Contaminated sites:

Contaminated sites are a result of contamination being introduced into air, soil, water, or sediment of a chemical, organic or radioactive material of live organism that exceeds an environmental standard. Liabilities are recorded net of any expected recoveries.

A liability for remediation of contaminated sites is recognized when a site is not in productive use and the following criteria are met:

- (i) An environmental standard exists;
- (ii) Contamination exceeds the environmental standard;
- (iii) The City is directly responsible or accepts responsibility;
- (iv) It is expected that future economic benefits will be given up; and
- (v) A reasonable estimate of the amount can be made.

The liability is recognized as management's estimate of the cost of post-remediation including operation, maintenance and monitoring that are an integral part of the remediation strategy for a contaminated site.

### (r) Use of accounting estimates:

The preparation of consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amount of revenue and expenditures during the reporting period. Areas requiring the use of management estimates relate to performing the actuarial valuation of employee future benefits, the value of contributed tangible capital assets, value of developer contributions, useful lives for amortization, determination of provisions for accrued liabilities, performing the actuarial valuation of employee future benefits, allowance for doubtful accounts, and provision for contingencies. Actual results could differ from those estimates. Adjustments, if any, will be reflected in the consolidated financial statements in the period that the change in estimate is made, as well as in the period of settlement if the amount is different.

### (s) Segment disclosures:

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

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 3. Investments:

	2021		2020	
	Cost	Market value	Cost	Market value
Short-term notes and deposits	\$ 257,701	\$ 257,701	\$ 339,607	\$ 339,695
Government and government guaranteed bonds	280,063	280,802	326,838	334,579
Other bonds	159,122	159,283	167,565	171,729
	\$ 696,886	\$ 697,786	\$ 834,010	\$ 846,003

## 4. Investment in Lulu Island Energy Company Ltd:

The City owns 100% of the issued and outstanding shares of LIEC, which was incorporated under the British Columbia Business Corporations Act on August 19, 2013. LIEC develops, manages and operates district energy utilities in the City of Richmond, on the City's behalf, including but not limited to energy production, generation or exchange, transmission, distribution, maintenance, marketing and sales to customers, customer service, profit generation, financial management and advisory services for energy and infrastructure.

Summarized financial information relating to LIEC is as follows:

	2021	2020
Cash, cash equivalents, and investments	\$ 15,755	\$ 12,619
Accounts receivable	1,676	3,034
Tangible capital assets	39,203	37,360
Total assets	56,634	53,013
Accounts payable and accrued liabilities	2,672	1,792
Deferred contributions	8,051	7,352
Concession liability	12,264	11,133
Total liabilities	22,987	20,277
Shareholder's equity	\$ 33,647	\$ 32,736
Total revenue	\$ 6,431	\$ 5,591
Total expenses	5,520	4,269
Net income	\$ 911	\$ 1,322



# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 4. Investment in Lulu Island Energy Company Ltd (continued):

Included in accounts payable and accrued liabilities in the City's consolidated statement of financial position are payables to LIEC in the amount of \$151,454 (2020 - \$323,020).

On October 30, 2014, LIEC and the Oval Village district energy utility developer ("the Concessionaire") entered into a 30-year Concession Agreement, which is a public-private partnership project ("P3"), where the Concessionaire will design, construct, finance, operate, and maintain the infrastructure for the district energy utility at the Oval Village community. As part of the Agreement, the infrastructure will be owned by LIEC.

On October 30, 2014, the Concessionaire and the City entered into a Limited Guarantee Agreement. The City is the Guarantor and guarantees the performance of some of LIEC's obligations under the Concession Agreement to a maximum of \$18.2 million (2020 - \$18.2 million).

## 5. Accounts receivable:

	2021	2020
Water and sewer utilities	\$ 13,243	\$ 11,760
Casino revenue	2,701	-
Capital grants	6,873	4,278
Other trade receivables	6,838	5,483
	\$ 29,655	\$ 21,521

## 6. Debt reserve fund deposits and contingent demand notes:

The City issues its debt instruments through the Municipal Finance Authority (the "MFA"). As a condition of these borrowings, a portion of the debenture proceeds is withheld by the MFA in a Debt Reserve Fund. The City also executes demand notes in connection with each debenture whereby the City may be required to loan certain amounts to the MFA. These demand notes are contingent in nature and are not reflected in the City's accounts. The details of the cash deposits and contingent demand notes at December 31, 2021 and 2020 are as follows:

	Cash deposits	Contingent demand notes
General Revenue Fund	\$ 508	\$ 2,447

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 7. Development cost charges:

	2021	2020
Balance, beginning of year	\$ 221,151	\$ 197,671
Contributions	16,873	36,800
Interest	2,854	3,417
Revenue recognized	(16,223)	(16,737)
Balance, end of year	\$ 224,655	\$ 221,151

## 8. Deposits and holdbacks:

	Balance December 31, 2020	Deposit contributions/ interest earned	Refund/ expenditures	Balance December 31, 2021
Security deposits	\$ 74,977	\$ 136,664	\$ (127,545)	\$ 84,096
Developer contributions	7,797	130	(15)	7,912
Damage deposits	5,589	6,513	(6,309)	5,793
Contract holdbacks	5,267	4,916	(6,323)	3,860
Other	3,815	1,183	(618)	4,380
	\$ 97,445	\$ 149,406	\$ (140,810)	\$ 106,041

## 9. Deferred revenue:

	Balance December 31, 2020	Externally restricted inflows	Revenue earned	Balance December 31, 2021
Taxes and utilities	\$ 23,221	\$ 25,116	\$ (23,221)	\$ 25,116
Building permits/development	14,117	6,846	(6,698)	14,265
Oval	1,216	325	10	1,551
Capital grants	2,219	7,546	(3,691)	6,074
Business licenses	2,603	2,262	(2,228)	2,637
Parking easement/leased land	2,431	36	(49)	2,418
Other	3,217	312	596	4,125
	\$ 49,024	\$ 42,443	\$ (35,281)	\$ 56,186

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 10. Debt, net of MFA sinking fund deposits:

The interest rate for the year ended December 31, 2021 on the principal amount of the MFA debenture was 3.30% (2020 - 3.30%) per annum. Interest expense incurred for the year on the long-term debt was \$1,676,895 (2020 - \$1,676,895). The maturity date of the MFA debt is April 7, 2024.

The City obtains debt instruments through the MFA pursuant to security issuing bylaws under authority of the Community Charter to finance certain capital expenditures.

Gross amount for the debt less principal payments and actuarial adjustments to date are as follows:

	Gross amount borrowed	Repayments and actuarial adjustments	Net debt 2021	Net debt 2020
General Fund	\$ 50,815	\$ 33,429	\$ 17,386	\$ 22,741

Repayments on net outstanding debt over the next four years are as follows:

2022	\$ 5,570
2023	5,792
2024	6,024
	\$ 17,386

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 11. Tangible capital assets:

<b>Cost</b>	Balance December 31, 2020	Additions and transfers	Disposals	Balance December 31, 2021
Land	\$ 1,060,180	\$ 17,074	\$ -	\$ 1,077,254
Building and building improvements	552,624	33,162	(9,034)	576,752
Infrastructure	1,834,488	83,814	(5,924)	1,912,378
Vehicles, machinery and equipment	158,164	9,851	(1,884)	166,131
Library's collections, furniture and equipment	9,945	1,155	(390)	10,710
Assets under construction	83,592	(22,902)	-	60,690
	\$ 3,698,993	\$ 122,154	\$ (17,232)	\$ 3,803,915

<b>Accumulated amortization</b>	Balance December 31, 2020	Disposals	Amortization expense	Balance December 31, 2021
Building and building improvements	\$ 217,342	\$ (7,225)	\$ 19,316	\$ 229,433
Infrastructure	884,269	(5,352)	37,428	916,345
Vehicles, machinery and equipment	102,159	(1,758)	10,815	111,216
Library's collections, furniture and equipment	7,084	(390)	960	7,654
	\$ 1,210,854	\$ (14,725)	\$ 68,519	\$ 1,264,648

<b>Net book value</b>	December 31, 2021	December 31, 2020
Land	\$ 1,077,254	\$ 1,060,180
Buildings and building improvements	347,319	335,282
Infrastructure	996,033	950,219
Vehicles, machinery and equipment	54,915	56,005
Library's collection, furniture and equipment	3,056	2,861
Assets under construction	60,690	83,592
Balance, end of year	\$ 2,539,267	\$ 2,488,139



# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 11. Tangible capital assets (continued):

### (a) Assets under construction:

Assets under construction having a value of \$60,690,017 (2020 - \$83,592,534) have not been amortized. Amortization of these assets will commence when the asset is put into service.

### (b) Contributed tangible capital assets:

Contributed tangible capital assets have been recognized at fair market value at the date of contribution and recorded in other capital funding revenue on the statement of operations. The value of contributed assets received during the year is \$61,004,232 (2020 - \$58,239,544) comprised of land in the amount of \$17,281,008 (2020 - \$38,682,057), infrastructure in the amount of \$20,810,489 (2020 - \$16,979,272), buildings in the amount of \$22,682,598 (2020 - \$2,578,215), and machinery in the amount of \$230,137 (2020 - nil).

### (c) Tangible capital assets disclosed at nominal values:

Where an estimate of fair value could not be made, the tangible capital asset was recognized at a nominal value.

### (d) Works of art and historical treasures:

The City manages and controls various works of art and non-operational historical cultural assets including building, artifacts, paintings, and sculptures located at City sites and public display areas. The assets are not recorded as tangible capital assets and are not amortized.

### (e) Write-down of tangible capital assets:

There were no write-down of tangible capital assets in 2021 (2020 - nil).

## 12. Accumulated surplus:

	General and Reserve Funds	Waterworks Utility Fund	Sewerworks Utility Fund	Richmond Olympic Oval	Library	2021 Total	2020 Total
Investment in tangible capital assets	\$ 2,510,069	\$ -	\$ -	\$ 8,503	\$ 3,057	\$ 2,521,629	\$ 2,465,108
Reserves (note 13)	639,109	-	-	8,100	-	647,209	609,533
Appropriated surplus	223,365	18,508	9,981	1,559	2,607	256,020	253,790
Investment in LIEC	33,647	-	-	-	-	33,647	32,736
Surplus	16,181	408	6,295	606	1,336	24,826	18,908
Other equity	4,556	-	-	-	-	4,556	4,131
Balance, end of year	\$ 3,426,927	\$ 18,916	\$ 16,276	\$ 18,768	\$ 7,000	\$ 3,487,887	\$ 3,384,206

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 13. Reserves:

	Balance, December 31, 2020	Change during year	Balance, December 31, 2021
Affordable housing	\$ 12,250	\$ 2,043	\$ 14,293
Arts, culture and heritage	3,721	(195)	3,526
Capital building and infrastructure	111,528	11,192	122,720
Capital reserve	222,778	21,667	244,445
Capstan station	11,477	(328)	11,149
Child care development	10,055	23	10,078
Community legacy and land replacement	1,387	71	1,458
Drainage improvement	60,597	(3,438)	57,159
Equipment replacement	22,577	2,629	25,206
Hamilton area plan community amenity	2,762	245	3,007
Leisure facilities	18,097	873	18,970
Local improvements	7,459	112	7,571
Neighborhood improvement	7,919	118	8,037
Oval	7,810	290	8,100
Public art program	4,582	(177)	4,405
Sanitary sewer	48,903	708	49,611
Steveston off-street parking	331	5	336
Steveston road ends	153	2	155
Waterfront improvement	195	(8)	187
Watermain replacement	54,952	1,844	56,796
	\$ 609,533	\$ 37,676	\$ 647,209

## 14. Post-employment benefits:

The City provides certain post-employment benefits, non-vested sick leave, compensated absences, and termination benefits to its employees.

	2021	2020
Accrued benefit obligation, beginning of year	\$ 35,414	\$ 35,184
Current service cost	2,644	2,446
Interest cost	728	853
Past service cost	992	-
Benefits paid	(2,035)	(2,262)
Actuarial gain	(2,419)	(807)
Accrued benefit obligation, end of year	\$ 35,324	\$ 35,414

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 14. Post-employment benefits (continued):

An actuarial valuation for these benefits was performed to determine the City's accrued benefit obligation as at December 31, 2020. This actuarial loss is being amortized over a period equal to the employees' expected average remaining service lifetime of 11 years.

	2021	2020
Accrued benefit obligation, end of year	\$ 35,324	\$ 35,414
Unamortized net actuarial gain (loss)	2,071	(293)
Accrued benefit liability, end of year	\$ 37,395	\$ 35,121

Actuarial assumptions used to determine the City's accrued benefit obligation are as follows:

	2021	2020
Discount rate	2.40%	2.00%
Expected future inflation rate	2.00%	2.00%
Expected wage and salary range increases	2.50% to 3.00%	2.50% to 3.00%

## 15. Pension plan:

The City and its employees contribute to the Municipal Pension Plan (a jointly trustee pension plan). The board of trustees, representing plan members and employers, is responsible for administering the plan, including investment of assets and administration of benefits. The plan is a multi-employer defined benefit pension plan. Basic pension benefits are based on a formula. As at December 31, 2020, the plan has about 220,000 active members and approximately 112,000 retired members. Active members include approximately 42,000 contributors from local governments.

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

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

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## 15. Pension plan (continued):

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

The City paid \$14,125,356 (2020 - \$13,343,310) for employer contributions while employees contributed \$11,777,413 (2020 - \$11,199,779) to the plan in fiscal 2021.

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

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

## 16. Contingent assets and contractual rights:

### (a) Contingent assets:

Contingent assets are possible assets arising from existing conditions or situations involving uncertainty. That uncertainty will ultimately be resolved when one or more future events not wholly within the City's control occurs or fails to occur.

The City has legal claims, service agreements, and land dedications that may qualify as contingent assets. Amounts cannot be estimated as of December 31, 2021. Contingent assets are not recorded in the consolidated financial statements.

### (b) Contractual rights:

The City has entered into contracts or agreements in the normal course of operations that it expects will result in revenue and assets in future fiscal years. The City's contractual rights are comprised of leases, licenses, grants and various other agreements, including the provision of police services with the Vancouver Airport Authority. The following table summarizes the expected revenue from the City's contractual rights:

---

2022	\$ 27,333
2023	11,110
2024	3,671
2025	2,393
2026	401
Thereafter	7,988

---

The City is entitled to receive revenue from certain other agreements. The revenue from these agreements cannot be quantified and has not been included in the amounts noted above.



# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

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## 17. Commitments and contingencies:

### (a) Joint and several liabilities:

The City has a contingent liability with respect to debentures of the Greater Vancouver Water District, Greater Vancouver Sewerage and Drainage District and Metro Vancouver Regional District, to the extent provided for in their respective Enabling Acts, Acts of Incorporation and Amending Acts. Management does not consider payment under this contingency to be likely and therefore no amounts have been accrued.

### (b) Lease payments:

The City is committed to operating lease payments for premises and equipment in the following approximate amounts:

---

2022	\$ 2,670
2023	2,657
2024	2,487
2025	2,487
2026 and thereafter	3,542

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### (c) Litigation:

As at December 31, 2021, there were a number of claims or risk exposures in various stages of resolution. The City has made no specific provision for those where the outcome is presently not determinable.

### (d) Municipal Insurance Association of British Columbia ("Association"):

The City is a participant in the Association. Should the Association pay out claims in excess of premiums received, it is possible that the City, along with other participants, would be required to contribute towards the deficit. Management does not consider external payment under this contingency to be likely and therefore, no amounts have been accrued.

### (e) Contractual obligation:

The City has entered into various contracts for services and construction with periods ranging beyond one year. These commitments are in accordance with budgets passed by Council.

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

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## 17. Commitments and contingencies (continued):

- (f) E-Comm Emergency Communications for Southwest British Columbia Incorporated ("E-Comm"):

The City is a shareholder of the E-Comm whose services provided include: regional 9-1-1 call centre for the Greater Vancouver Regional District; Wide Area Radio network; dispatch operations; and records management. The City has 2 Class A shares and 1 Class B share (of a total of 36 Class A and 19 Class B shares issued and outstanding as at December 31, 2021). As a Class A shareholder, the City shares in both funding the future operations and capital obligations of E-Comm (in accordance with a cost sharing formula), including any lease obligations committed to by E-Comm up to the shareholder's withdrawal date.

- (g) Community associations:

The City has agreements with the various community associations which operate the community centers throughout the City. The City generally provides the buildings and grounds, pays the operating costs of the facilities, and provides certain staff and other services such as information technology. Typically the community associations are responsible for providing programming and services to the community. The community associations retain all revenue which they receive.

## 18. Trust funds:

Certain assets have been conveyed or assigned to the City to be administered as directed by agreement or statute. The City holds the assets for the benefit of and stands in fiduciary relationship to the beneficiary. The following trust fund is excluded from the City's consolidated financial statements.

	2021	2020
Richmond Community Associations	\$ 1,928	\$ 1,909

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 19. Taxation and levies:

	2021	2020
Taxes collected:		
Property taxes	\$ 496,172	\$ 413,302
Payment-in-lieu of taxes and grants	24,326	22,375
Local improvement levies	84	88
	520,582	435,765
Less transfers to other authorities:		
Province of British Columbia - School taxes	(192,631)	(123,333)
TransLink	(42,926)	(41,992)
Metro Vancouver	(8,029)	(7,267)
BC Assessment Authority	(6,297)	(6,286)
Other	(30)	(29)
	(249,913)	(178,907)
Less payment-in-lieu of taxes retained by the City	(14,832)	(16,867)
	\$ 255,837	\$ 239,991

## 20. Other revenue:

	2021	2020
Developer contributions	\$ 6,580	\$ 9,044
Tangible capital assets gain on sale of land	722	6,513
Penalties and fines	4,210	3,180
Parking program	1,343	1,204
Other	10,276	10,525
	\$ 23,131	\$ 30,466

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 21. Government transfers:

Government transfers are received for operating and capital activities. The operating transfers consist of gaming revenue and provincial and federal contributions. Capital transfers are included in other capital funding sources revenue. The source of the government transfers are as follows:

	2021	2020
Operating		
Province of British Columbia	\$ 12,590	\$ 17,534
TransLink	3,815	546
Government of Canada	1,999	1,579
Capital		
Province of British Columbia	6,069	9,965
TransLink	2,947	2,125
Government of Canada	567	-
	\$ 27,987	\$ 31,749

## 22. Segmented reporting:

The City provides a wide variety of services to its residents. For segment disclosure, these services are grouped and reported under service areas/departments that are responsible for providing such services. They are as follows:

- (a) **Community Safety** brings together the City's public safety providers such as Police (RCMP), Fire-Rescue, Emergency Programs, and Community Bylaws. It is responsible for ensuring safe communities by providing protection services with a focus on law enforcement, crime prevention, emergency response, and protection of life and properties.
- (b) **Utilities** provide such services as planning, designing, constructing, operating, and maintaining the City's infrastructure of water, sewer, drainage and diking networks and sanitation and recycling.
- (c) **Engineering, Public Works and Project Development** comprises of General Public Works, Roads and Construction, Storm Drainage, Fleet Operations, Engineering, Project Development, and Facility Management. The services provided are construction and maintenance of the City's infrastructure and all City owned buildings, maintenance of the City's road networks, managing and operating a mixed fleet of vehicles, heavy equipment and an assortment of specialized work units for the City operations, development of current and long-range engineering planning and construction of major projects.



# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

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## 22. Segmented reporting (continued):

- (d) **Community Services** comprises of Parks, Recreation, Arts, and Culture and Heritage Services. These departments ensure recreation opportunities in Richmond by maintaining a variety of facilities such as arenas, community centres, pools, etc. It designs, constructs and maintains parks and sports fields to ensure there is adequate open green space and sports fields available for Richmond residents. It also addresses the economic, arts, culture, and community issues that the City encounters.
- (e) **General Government** comprises of Mayor and Council, Corporate Administration, and Finance and Corporate Services. It is responsible for adopting bylaws, effectively administering city operations, levying taxes, legal services, providing sound management of human resources, information technology, City finance, and ensuring high quality services to Richmond residents.
- (f) **Planning and Development** is responsible for land use plans, developing bylaws and policies for sustainable development in the City including the City's transportation systems, and community social development.
- (g) **Richmond Olympic Oval Corporation** is formed as a wholly owned subsidiary of the City. The City uses the Richmond Olympic Oval facility as a venue for a wide range of sports, business and community activities.
- (h) **Richmond Public Library** provides public access to information by maintaining 5 branches throughout the City.

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 22. Segmented reporting (continued):

	Community safety	Utilities	Engineering, public works and project development	Community services	General government	Planning and development	Total City subtotal
<b>Revenue:</b>							
Taxation and levies	\$ -	\$ -	\$ -	\$ -	\$ 255,837	\$ -	\$ 255,837
User fees	-	104,864	13,280	-	-	-	118,144
Sales of services	6,294	2,577	2,169	7,630	9,365	2,091	30,126
Payments-in-lieu of taxes	-	-	-	-	14,789	-	14,789
Provincial and federal grants	103	15	4,103	49	4,044	85	8,399
Development cost charges	-	795	4,801	3,319	2,202	5,106	16,223
Other capital funding sources	1	5,754	12,816	2,054	17,281	26,789	64,695
Other revenue:							
Investment income	-	272	-	-	14,682	-	14,954
Gaming revenue	-	-	-	-	5,700	-	5,700
Licenses and permits	4,429	32	588	-	47	8,899	13,995
Other	2,239	3,774	953	626	13,952	260	21,804
Equity income	-	-	-	-	911	-	911
	13,066	118,083	38,710	13,678	338,810	43,230	565,577
<b>Expenses:</b>							
Wages and salaries	50,092	14,609	27,679	30,710	29,025	12,447	164,562
Public works maintenance	31	6,707	4,906	2,038	(1,473)	788	12,997
Contract services	66,373	9,840	4,547	2,166	3,910	1,923	88,759
Supplies and materials	3,028	37,317	1,226	10,194	9,821	1,008	62,594
Interest and finance	91	27,494	10	123	2,576	2	30,296
Transfer from (to) capital for tangible capital assets	(54)	1,909	9,438	3,383	758	6,206	21,640
Amortization of tangible capital assets	3,025	8,626	31,645	10,249	9,517	2,758	65,820
Loss (gain) on disposal of tangible capital assets	646	17	632	1,010	115	34	2,454
	123,232	106,519	80,083	59,873	54,249	25,166	449,122
<b>Annual surplus (deficit)</b>	<b>\$ (110,166)</b>	<b>\$ 11,564</b>	<b>\$ (41,373)</b>	<b>\$ (46,195)</b>	<b>\$ 284,561</b>	<b>\$ 18,064</b>	<b>\$ 116,455</b>

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 22. Segmented reporting (continued):

	Total City subtotal	Richmond Public Library	Richmond Olympic Oval	2021 Consolidated	2020 Consolidated
<b>Revenue:</b>					
Taxation and levies	\$ 255,837	\$ -	\$ -	\$ 255,837	\$ 239,991
User fees	118,144	-	-	118,144	114,335
Sales of services	30,126	16	5,459	35,601	29,090
Payments-in-lieu of taxes	14,789	-	-	14,789	16,820
Provincial and federal grants	8,399	377	3,928	12,704	16,953
Development cost charges	16,223	-	-	16,223	16,737
Other capital funding sources	64,695	-	-	64,695	71,051
Other revenue:					
Investment income	14,954	14	-	14,968	20,175
Gaming revenue	5,700	-	-	5,700	2,705
Licenses and permits	13,995	-	-	13,995	19,407
Other	21,804	191	1,136	23,131	30,466
Equity income	911	-	-	911	1,322
	565,577	598	10,523	576,698	579,052
<b>Expenses:</b>					
Wages and salaries	164,562	7,156	8,789	180,507	164,788
Public works maintenance	12,997	19	-	13,016	13,343
Contract services	88,759	327	-	89,086	81,642
Supplies and materials	62,594	1,911	3,551	68,056	64,437
Interest and finance	30,296	5	-	30,301	29,779
Transfer from (to) capital for tangible capital assets	21,640	(544)	-	21,096	13,568
Amortization of tangible capital assets	65,820	960	1,739	68,519	66,254
Loss (gain) on disposal of tangible capital assets	2,454	(18)	-	2,436	377
	449,122	9,816	14,079	473,017	434,188
<b>Annual surplus (deficit)</b>	<b>\$ 116,455</b>	<b>\$ (9,218)</b>	<b>\$ (3,556)</b>	<b>\$ 103,681</b>	<b>\$ 144,864</b>

# CITY OF RICHMOND

Notes to Consolidated Financial Statements (continued)  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

## 23. Budget data:

The budget data presented in these consolidated financial statements is based on the Consolidated Financial Plan adopted by Council on March 22, 2021. The table below reconciles the adopted Consolidated Financial Plan to the budget amounts reported in these consolidated financial statements.

	Financial plan Bylaw No. 10239	Financial statement budget
Consolidated financial plan:		
Revenue	\$ 575,688	\$ 575,688
Expenses	507,765	507,765
Annual surplus	67,923	67,923
Less:		
Acquisition of tangible capital assets	(272,899)	-
Contributed tangible capital assets	(61,479)	-
Transfer to reserves	(64,560)	-
Debt principal	(5,355)	-
Add:		
Capital funding	316,724	-
Transfer from surplus	19,646	-
Annual surplus	\$ -	\$ 67,923

# CITY OF RICHMOND

Unaudited Statement of Safe Restart Grant  
(Tabular amounts expressed in thousands of dollars)

Year ended December 31, 2021

The Safe Restart Grant was received November 2020 from the Province of British Columbia. A requirement of the Safe Restart Grant is to include a schedule to the financial statements presenting the amount of funding received, use of funds and year end balance of unused funds. This schedule has been included in order to comply with the conditions of the grant.

	2021	2020
Safe Restart Grant received	\$ -	\$ 9,331
Total eligible costs incurred:		
Recreation facility revenue shortfall	3,372	-
City grants program	2,613	-
Gaming revenue shortfall	1,300	-
Other revenue shortfall	1,034	-
Equipment technology	1,012	-
Balance, end of year	\$ -	\$ 9,331



CITY OF RICHMOND  
Schedule of Guarantee and Indemnity Agreements for 2021

Section 5

A Schedule of Guarantees and Indemnity payments has not been prepared as the City of Richmond has not given any guarantees or indemnities under the Guarantees and Indemnities Regulation.

Prepared under the Financial Information Regulation, Schedule 1, Section 5

CITY OF RICHMOND  
Schedule of Remuneration and Expenses

Section 6

Elected Officials for 2021

Name	Title	Base Salary		Benefits & Other <sup>1</sup>		Expenses
		\$	\$	\$	\$	
Brodie, Malcolm	Mayor	\$	182,253	\$	23,809	\$ 806
Au, Chak	Councillor		72,707		12,305	631
Day, Carol	Councillor		82,636		14,796	5
Hobbs, Andrew	Councillor		42,484		6,187	626
Loo, Alexa	Councillor		82,636		15,395	1,130
McNulty, William	Councillor		82,636		14,520	154
McPhail, Linda	Councillor		82,636		14,880	1,430
Steves, Harold	Councillor		82,636		14,585	-
Wolfe, Michael	Councillor		82,636		17,114	1,130
<b>Total</b>		<b>\$</b>	<b>793,260</b>	<b>\$</b>	<b>133,591</b>	<b>\$ 5,912</b>

<sup>1</sup>Consists of taxable benefits (i.e. life insurance, accidental death and dismemberment, critical illness and vehicle allowance)

CITY OF RICHMOND  
Schedule of Remuneration and Expenses

Section 6

Employee Earnings in Excess of \$75,000 and Related Expenses for 2021

<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other<sup>1</sup></b>	<b>Expenses</b>
Aarons, David	\$ 136,186	\$ 8,606	\$ 505
Achiam, Cecilia	255,581	43,574	2,000
Ackerman, Laurie	84,451	3,632	78
Adair, Darrin	68,909	12,594	251
Adams, Clay	170,665	16,175	366
Adamson, Claire	112,109	7,653	1,897
Allen, Michael	122,678	17,090	-
Alves, Luis	130,051	15,137	-
Alyasin, Khaled	70,437	5,750	372
Alyasin, Zakarya	70,640	8,214	415
Anderson, Adam	106,558	15,553	-
Anderson, Christopher	77,201	2,311	-
Anderson, Mark	88,525	39,355	-
Anderson, Matthew	80,876	3,826	-
Andersson, Bengt	84,403	1,928	642
Angman, Shelley	75,870	1,677	-
Anselmo, David	81,646	3,050	255
Araki, Stephen	82,398	3,590	222
Arcand, Daniel	91,898	34,786	547
Armstrong, Warren	90,430	9,339	78
Arneson, Christina	80,652	3,763	-
Arrigo, Stephen	95,649	22,355	309
Askwith, Stephanie	87,734	5,871	-
Assadian, Poroshat	111,910	15,102	-
Atwal, Bhupinder	76,360	1,854	542
Atwall, Devin	78,971	1,794	1,780
Au, Micah	81,758	9,129	-
Aujla, Jag	106,665	8,122	-
Ayers, Elizabeth	166,755	36,946	88
Babalos, Alexander	94,473	9,144	-
Bachynski, Laurie	197,044	37,108	5

<sup>1</sup> Consists of taxable benefits (i.e. group life, accidental death and dismemberment and vehicle) and lump sum payments such as leave balances owed to employees, union gratuities and union overtime.

CITY OF RICHMOND  
Schedule of Remuneration and Expenses

Section 6

Employee Earnings in Excess of \$75,000 and Related Expenses for 2021

<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other <sup>1</sup></b>	<b>Expenses</b>
Badesha, Amit	71,123	5,360	222
Badesha, Geetanji	67,258	20,886	-
Badesha, Jasvir	68,939	14,153	-
Badra, Marcos	117,664	5,496	209
Badyal, Sara	108,543	4,211	810
Bae, Do Youl	82,442	1,103	1,039
Bailes, Christopher	76,405	1,679	-
Bailey, Casey	92,457	4,893	50
Bains, Hardeep	131,248	8,415	401
Bains, Mandeep	131,866	20,266	3,343
Bains, Rajinder	92,336	31,997	-
Bajwa, Akhtar	68,987	21,708	-
Baker, Danny	106,631	5,607	-
Baker, Gillian	77,526	8,410	-
Baker, Steven	96,542	4,241	593
Baluyot, Hilario	83,392	5,005	162
Banzet, Calvin	81,764	9,954	-
Barkley, Matthew	103,521	20,588	-
Barlow, Kenneth	121,602	6,429	-
Barlow, Paul Graham	106,595	15,261	-
Barnes, Richard	53,814	45,674	-
Barstow, Murray	97,672	14,463	1,491
Bartley-Smith, Brenda	118,857	5,167	992
Barwin, Simon	103,470	13,981	-
Basford, Adam	75,569	8,853	-
Basraon, Avtar	91,616	28,698	1,062
Bath, Paul	97,154	16,614	-
Batra, Amritpal	85,472	1,625	1,932
Bauder, Kristine	96,551	7,257	-
Baumeister, Richard	92,839	6,604	150
Baumgardner, Sherry	83,550	1,110	100

<sup>1</sup> Consists of taxable benefits (i.e. group life, accidental death and dismemberment and vehicle) and lump sum payments such as leave balances owed to employees, union gratuities and union overtime.

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<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other<sup>1</sup></b>	<b>Expenses</b>
Bavis, Nathan	107,220	16,305	-
Baxter, Jennifer	73,579	9,636	-
Beare, Adam	97,929	5,223	-
Bedi, Govind	81,716	11,547	-
Beeby, James	114,174	23,304	-
Begg, Pam	78,682	25,667	-
Beley, Scott	82,170	546	-
Bennett, Shayne	106,733	12,375	-
Benning, Dal	114,210	14,685	-
Berg, Debra	80,652	4,213	-
Bergsma, Jacob	79,878	12,984	241
Bergsma, Nolan	88,288	14,851	-
Bergsma, Peter	102,085	29,039	140
Bhangu, Bu	82,450	1,103	3,147
Bhangu, Gurinder	69,606	12,668	-
Biason, Evangel	80,652	6,645	-
Bie, Lloyd	170,437	22,393	466
Billings, Alan	115,335	8,593	-
Bishay, Soraya	78,365	1,563	-
Bleidistel, Michael	100,570	12,083	-
Bloomfield, Derrick	76,267	2,205	100
Boden, Christopher	75,951	881	78
Bogner, Christopher	91,119	30,777	960
Bola, Kulwinder	106,592	12,071	-
Bolton, George	78,242	1,675	-
Bonato, Steven	108,192	5,687	-
Bosley, Janine	85,933	1,093	-
Bowley-Cowan, Laura	111,073	7,375	49
Bowman, Joshua	103,499	8,571	-
Boyal, Amarjit	68,790	11,674	-
Bramhill, Geoffrey	70,497	12,827	1,685

<sup>1</sup> Consists of taxable benefits (i.e. group life, accidental death and dismemberment and vehicle) and lump sum payments such as leave balances owed to employees, union gratuities and union overtime.



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<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other<sup>1</sup></b>	<b>Expenses</b>
Brannen, Andrew	106,576	14,249	-
Braun, Robert	85,092	2,442	-
Bredeson, Lance	167,672	10,370	4,275
Brisson, Montgomery	129,312	8,304	-
Broughton, Skyler	88,996	31,205	907
Bruce, Ian	78,474	2,950	-
Brunskill, Jason	130,027	13,630	-
Buchannon, William	131,865	18,727	-
Buemann, Tricia	106,015	12,439	64
Buie, Dovelie	134,083	21,666	-
Bulick, John	106,607	10,290	-
Burbidge, Scott	85,912	1,616	1,030
Burgess, Tyson	91,754	1,329	-
Buric, Tony	100,620	1,983	642
Burner, Melanie	85,112	2,259	-
Burns, Brendan	172,449	11,501	3,661
Bursey, Bradley	97,713	4,987	-
Burt, Christopher	89,498	31,781	-
Bustillo, Juanito	80,377	4,779	1,831
Bustillo, Michael	72,025	6,112	2,048
Butler, Jason	90,130	13,679	-
Buttar, Onkar	88,731	2,689	-
Bycraft, Suzanne	161,720	11,664	654
Byrne, Daisy	79,253	637	1,302
Cabatic, Allan	106,644	13,643	-
Camacho, Alexander	81,693	49,606	774
Cameron, David	84,775	6,832	-
Campbell, Robert	81,709	3,473	-
Candusso, Giorgio	91,452	4,346	-
Canlas, Nicholas	68,769	21,930	745
Cantarella, Lorraine	104,708	23,710	-

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<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other<sup>1</sup></b>	<b>Expenses</b>
Capogna, Nan	92,532	2,456	-
Capuccinello Iraci, Anthony	251,147	62,873	2,944
Caravan, Joan	100,571	4,915	-
Carey, Alisa	87,086	3,788	2,257
Carlile, Tanner	103,476	10,358	-
Carron, Kimberley	92,532	1,912	-
Carter, Chris	107,247	7,764	-
Carter-Huffman, Suzanne	119,157	5,250	-
Celones, Christopher	70,806	16,126	-
Cerantola, Davin	119,291	11,856	-
Chai, Sandra	135,836	8,615	992
Chaichian, Camyar	103,078	5,684	573
Chan, Donna	146,116	7,970	904
Chan, Donna L	104,120	7,712	-
Chan, Ka Hing	143,518	10,866	939
Chan, Kavid	100,497	26,021	-
Chan, Milton	174,254	36,834	466
Chand, Amit	82,745	21,694	530
Chandra, Ryan	103,482	13,335	-
Chang, Yvonne	91,020	8,069	992
Cheah, Xin Ning	73,686	3,447	560
Cheema, Felicia	71,391	16,104	-
Chen, Christine	78,115	3,784	798
Chen, Nicholas	68,081	17,517	617
Chen, Qi	71,554	4,664	-
Cheng, Reinaldo	109,464	5,972	992
Cheuk, Chun Yu (Tom)	88,425	10,568	-
Chiang, Paul	100,570	5,830	892
Chima, Jaspal	85,112	8,017	-
Chin, Donald	130,014	10,132	-
Ching, Ka Wai	81,693	2,764	-

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<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other <sup>1</sup></b>	<b>Expenses</b>
Ching, Mike	144,433	15,339	1,392
Choiselat, Sasha	82,462	3,358	2,672
Chong, Jerry	242,335	39,672	1,373
Chou, Yu-Hsuan	85,112	3,220	-
Christopherson, Tracy	85,430	1,625	-
Chu, Anthony	69,954	37,654	-
Chu, Vincent	135,836	8,586	7
Chung, Leon	103,449	4,403	-
Cinquemani, Leonardo	83,054	3,226	1,281
Cirillo, Nicola	84,762	5,751	-
Clark, Alison	106,578	11,073	-
Clarke, Rebecca	114,108	8,535	1,222
Clarke, Tristan	81,693	2,905	-
Clarkson, Neil	85,100	2,362	-
Clarkson, Reena	73,579	3,490	-
Close, Kirsten	124,856	10,610	121
Colby, Traci	66,362	13,213	-
Collinge, Chris	85,022	1,959	16
Connolly, Norm	125,912	6,765	-
Cooper, Bradley	130,027	8,980	-
Cooper, James	180,426	22,614	1,696
Cornelssen, Kelvin	118,103	10,051	460
Corrado, Mark	139,440	8,442	164
Cox, Taylor	74,217	5,246	-
Craddock, Jeffrey	88,731	2,689	267
Craig, Wayne	197,399	30,340	573
Creighton, Gregg	97,720	520	140
Crocker, Colleen	85,311	2,010	-
Cromie, Kevin	81,984	3,086	-
Cromie, Spencer	86,147	705	75
Cruz, Louella	78,268	5,176	-

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<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other <sup>1</sup></b>	<b>Expenses</b>
Csepany, Andras	96,290	553	140
Culshaw, Steven	81,454	11,368	729
Curry, Anthony	106,873	6,020	-
Cuthbert, Cameron	70,897	19,999	143
Dacey, Shaun	100,570	3,805	-
Dadwal, Kam	85,214	35,384	225
Dalla, Rajneesh	85,472	5,821	2,007
Dalla, Ridhi	83,120	1,103	277
Dalziel, Jeffrey	123,342	6,908	-
Davidson, Frank	98,706	4,375	219
Davies, Beth	84,809	1,630	-
Davies, Dean	80,087	5,598	431
Davies, Sean	85,858	3,706	984
Davies, Sean D	71,546	16,568	532
de Crom, Theodore	142,886	18,274	444
de Leon, Senen	82,616	4,850	-
De Sousa, Steven	89,024	4,546	568
De Visser, Chee	104,708	6,687	992
Dean, Roy	75,198	3,491	2,168
Decker, Kim	118,510	6,849	181
Deer, Angela	101,184	6,709	312
DeGianni, Rod	130,037	7,817	-
Del Rosario, Susan	80,384	1,819	-
DeMatos, Steve	79,163	1,117	-
Demers, Michel	85,317	2,726	1,006
Dennis, Alison	119,810	12,437	-
Dezordo, Peter	76,221	1,493	241
Dhaliwal, Jordan	69,834	17,287	274
Dhaliwal, Kamaljit	96,551	14,060	-
Dhaliwal, Manjinder	90,968	9,531	343
Dharampal, Jasjit	92,841	3,865	1,552

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<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other <sup>1</sup></b>	<b>Expenses</b>
Dhillon, Darshan	74,293	1,009	-
Dhillon, Kearnbir	100,703	5,197	-
Dhillon, Navtej	103,466	11,254	-
Dias, Ben	147,142	25,189	25
Dickson, James	114,622	5,305	-
Dietz, Richard	77,843	1,767	826
Dineen, Scott	106,581	8,470	-
Discusso, Matthew	85,669	2,484	468
Discusso, Peter	119,127	32,576	653
Dixon, Scott	120,648	9,053	-
Dobie, Adam	81,761	7,386	-
Donald, Brian	76,948	1,691	-
Donald, Gary	84,930	4,182	-
Douglas, Stewart	106,569	7,183	-
Draper, Jason	130,037	15,782	-
Duarte, Victor	96,551	2,043	-
Dube, Danielle	106,623	7,773	4,350
Dubnov, Shawn	97,653	4,173	834
Duddles, Kevin	88,727	1,565	78
Duggan, Christine	113,286	7,171	-
Duncan, George	367,367	91,376	283
Duncan, Nathaniel	86,616	1,905	850
Duncan, Scott	120,456	30,533	-
Dunn, David	106,583	17,811	-
Duranleau, Sonia	106,789	17,972	-
Dusanj, Sukhjjevan	78,569	15,675	804
Ebert, Marcus	82,278	2,709	78
Edwards, Brenda	81,480	3,430	-
Edwards, Sara	106,567	5,636	-
Ellis, Joshua	83,604	4,737	1,268
Elshof, Eric	130,040	12,507	-

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<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other<sup>1</sup></b>	<b>Expenses</b>
Enefer, John	130,092	15,403	-
Eng, Kevin	108,679	7,186	-
Erceg, Joe	258,633	112,626	1,246
Estabrook, Russell	86,335	3,097	-
Evanger, Todd	75,169	3,606	100
Faccone, Steven	78,804	1,374	1,254
Falcon, Cindy	96,551	3,245	58
Falconer, Todd	47,117	38,496	-
Falkenham, Gregory	79,857	19,371	-
Farrell, Daniel	93,736	4,755	172
Fasciani, Mary Ann	88,732	1,734	-
Fatiaki, Kamoe	82,604	4,246	-
Fedoruk, Lisa	87,838	4,726	-
Fengstad, Grant	193,696	56,515	155
Fenwick, Marie	146,376	10,864	288
Ferland, Khadija	141,566	10,444	3,402
Fernandes, Carlos	89,399	2,304	-
Ferraro, Domenic	97,710	15,900	140
Fisher, Taylor	72,720	10,251	282
Fitton, Russell	118,326	7,753	-
Fitzpatrick, Brendan	71,932	10,965	444
Fitzpatrick, Tanya	73,494	1,933	24
Fleming, Andrew	68,975	10,405	401
Fletcher, Mark	70,560	8,411	311
Fleury, Shane	83,475	2,298	357
Fok, Kai Sang	69,217	6,452	-
Fong, Mindy	66,577	31,610	-
Fong, Patrick	105,658	10,650	433
Ford, Larry	147,452	22,047	631
Forrest, Rebecca	94,343	6,050	251
Frampton, Michael	106,584	27,731	-

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<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other<sup>1</sup></b>	<b>Expenses</b>
Fraser, Kevin	100,379	2,264	1,059
Galano-Tan, John	96,315	12,347	950
Galbraith, Adam	110,856	6,697	-
Gallant, Roger	72,119	5,392	172
Galloway, Shane	80,003	8,811	-
Gardner, Derek	75,756	1,070	778
Gauley, Steve	133,177	8,816	568
Gauvin, Darnell	77,467	4,428	90
Gee, Peter	88,140	4,395	-
Gellard, Noah	72,373	9,677	201
Gelz, Earl	97,720	2,808	140
Gewargis, Martin	83,688	4,892	-
Giammarco, Leanne	75,055	1,428	-
Gibson, Christina	85,112	6,899	-
Gibson, Matthew	75,035	1,955	819
Gilbert, Daniel	78,419	18,006	1,978
Giles, Christa	74,914	1,688	-
Gilfillan, Cindy	135,836	41,271	992
Gilfillan, Kris	96,620	7,455	-
Gill, Manraj	103,271	17,411	277
Gill, Raminder	111,211	13,525	-
Gillon, Robert	87,004	5,689	1,006
Giroux, Daniel	78,614	946	104
Goddard, Sarah	65,686	11,272	-
Gondos, Nicholas	72,356	9,986	-
Gossard, Jeremy	70,544	7,278	305
Gould, Joshua	84,763	8,542	-
Gounder, Krishna	85,112	2,294	-
Graebel, Gordon	53,284	86,484	-
Grauer, Craig	74,804	4,071	150
Gray, Kevin	162,500	19,156	1,741

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<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other<sup>1</sup></b>	<b>Expenses</b>
Greenlees, Matthew	92,128	20,390	-
Griffin, Kevin	130,081	8,196	-
Griffin, Michael	106,632	12,078	-
Griffith, Michael	90,216	984	691
Gronlund, Todd	130,013	7,015	-
Gross, Todd	161,790	19,783	459
Gushel, Brad	97,720	34,441	169
Haer, Corrine	118,857	7,609	488
Haer, Sunny	103,627	12,832	-
Hahn, Ruth	104,772	2,389	280
Halldorson, Arnie	74,792	1,941	-
Hamaguchi, Trevor	103,462	10,182	-
Hamalainen, Juha	88,239	3,354	-
Hamilton, Jameson	88,248	4,345	-
Hamilton, Richard	92,561	8,391	-
Hamley, Carolyn	78,472	644	-
Hanna, Fadi	88,241	13,236	481
Hansen, Terry	130,018	5,712	-
Harada, Gordon	76,917	1,552	-
Harris, David	106,946	8,453	-
Harris, Mark	74,981	757	-
Hatzistamatis, Stamatis	79,981	2,329	-
Hawley, Jason	84,800	10,496	-
Hayes, Jennifer	172,449	10,875	2,939
Heap, Nicholas	118,857	6,624	-
Heathe, Gerina	80,652	3,602	-
Heidrich, George	97,040	6,656	1,471
Heinrich, George	97,720	9,855	140
Henderson, Derek	87,878	1,027	232
Henderson, George	69,148	10,755	-
Herbert, Nicholas	76,383	6,119	1,264

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<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other<sup>1</sup></b>	<b>Expenses</b>
Herder, Kendall	76,042	2,285	-
Hertha, Deborah	104,708	6,687	24
Hickey, Paula	81,353	1,856	-
Hicks, Christopher	73,889	2,905	2,877
Hill, James	103,486	9,753	-
Hill, Sheila	85,112	2,259	-
Hingorani, Sonali	119,391	6,436	461
Hinman, Gregory	103,522	6,359	-
Hirayama, Ryan	81,728	7,900	-
Ho, Jason	132,912	9,457	825
Ho, Mei Ping	125,533	21,934	1,115
Ho, Michael	87,604	19,839	-
Ho, Wing Chun	81,693	1,619	58
Hobman, Lisa	166,504	10,506	3,797
Hoff, Paul	130,014	10,210	-
Hoff, Tresse	97,497	1,743	1,032
Hoffard, Grant	86,934	1,327	857
Hogan, Angela	85,112	1,618	-
Homeniuk, Alexander	88,317	1,681	173
Hopkins, John	149,106	13,391	573
Horstmann, Michelle	80,652	3,602	183
Huang, Leo	103,557	26,427	787
Hui, Albert	81,693	2,476	892
Hui, Gerry	92,532	12,329	992
Hui, Ka Yi	100,570	5,455	-
Huie, Kevin	75,663	498	1,826
Huk, Matthew	79,175	2,079	895
Humhej, Jerry	116,961	12,029	-
Hung, Edward	118,857	10,388	58
Hunt, Evan	69,505	19,281	831
Hunter, Derek	97,669	37,584	140

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<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other<sup>1</sup></b>	<b>Expenses</b>
Hutchison, Colin	76,479	826	718
Huynh, Linh	77,524	5,459	385
Irvine, Katherine	88,731	10,464	-
Irving, John	248,865	68,564	1,355
Isaac, Darryl	106,567	10,554	-
Ison, Marvin	106,630	11,775	-
Iuliano, Mike	88,241	1,097	1,095
Jacobo, Erwin	88,662	3,012	-
Jacobsen, Carl	88,238	836	107
Jaggs, Gordon	118,006	6,744	-
James, Craig	85,112	2,306	642
Jansen, Sandra	79,941	13,472	104
Jaswal, Harpreet	74,547	10,938	-
Jauk, Liesl	123,101	9,188	2,373
Javadi-Doodran, Yashar	81,693	3,078	-
Jeffcoatt, Steven	135,977	5,613	-
Jesson, Claudia	159,061	35,335	5
Jessop, Kyle	75,968	3,280	90
Jesty, Brian	83,024	3,780	726
Jo, Dorothy	89,588	3,429	-
Jochimski, Colin	93,244	4,423	-
Johal, Bill	100,570	11,108	-
Johal, Jatinder	137,554	16,837	995
Johal, Raminder	75,756	3,390	-
Johnson, Trevor	118,731	25,591	-
Johnston, David	147,500	21,111	-
Jones, Alan	136,197	28,736	683
Jones, Debra	85,079	2,495	1,550
Jones, Glen	85,112	4,988	137
Jones, Michele	75,033	3,699	-
Jut, Jeffrey	83,957	2,564	150

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<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other <sup>1</sup></b>	<b>Expenses</b>
Kam, Marilyn	88,819	22,349	2,057
Kam, Richard	106,582	15,720	-
Kaminsky, Serguei	81,773	7,823	-
Kaplun, Shannon	67,473	10,796	392
Karpun, Mark	129,987	5,385	-
Kaufman, Julie	76,748	2,385	100
Keating, Roger	114,926	6,125	393
Keenan, Bernadette	81,693	4,037	642
Kelder, Randell	58,364	78,225	-
Kelly, Michael	133,125	22,245	-
Kelly, Patrick	103,612	17,209	-
Kendall, Donald	82,833	2,610	886
Kenny, Richard	81,683	2,205	847
Khatkar, Parmveer	84,782	14,900	-
Khudhur, Omar	77,772	2,552	229
Kiesewetter, Harold	134,933	20,644	-
King, Eileen	65,995	31,562	3,552
Kinney, Derrian	75,868	11,462	-
Kinney, Gary	97,950	36,200	19
Kirichuk, Iryna	100,570	6,101	-
Kirk, Wes	73,919	2,788	-
Kita, Jason	160,590	10,096	1,130
Kivari, Mia	106,559	4,131	-
Klomp, Frederik	106,460	9,437	-
Ko, Charmaine	75,653	26,453	-
Konkin, Barry	44,319	32,928	-
Kopp, Brent	130,013	8,392	-
Kornerup, John	80,789	6,811	4,990
Koster, Kristine	84,403	3,608	-
Kovich, John	86,345	2,406	-
Kruk, Robert	81,607	4,148	730

<sup>1</sup> Consists of taxable benefits (i.e. group life, accidental death and dismemberment and vehicle) and lump sum payments such as leave balances owed to employees, union gratuities and union overtime.

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<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other<sup>1</sup></b>	<b>Expenses</b>
Krumenacker, Kurtis	83,186	10,114	1,188
Kube-Njenga, Jennifer	116,005	5,049	-
Kucher, Leanne	78,683	1,886	-
Kulusic, Stephen	85,035	4,050	-
Kumar, Amit	72,142	4,450	981
Kump, Will	85,280	3,239	20
Kurnicki, Alexander	108,540	5,119	1,087
Kurta, Stanley	100,571	8,935	-
Kuzik, Jared	86,795	29,047	2,033
Kuznik, Gregory	72,254	14,512	-
Kwan, Ashley Yee Teng	79,972	1,783	576
La Rocque, Gail	77,513	2,274	-
Laboucane, Kenneth	83,479	5,449	456
Lai, Patrick	92,532	22,836	475
Laird, Scott	87,917	3,882	556
Lam, Gordon	81,761	5,838	-
Lamont, Ryan	119,025	6,268	-
Lannard, Kevin	92,532	1,861	692
Larson, Harold	81,756	5,957	-
Laternus, Mark	88,289	8,702	-
Lawless, Ann	88,866	481	551
Lazar-Schuler, Christina	85,112	1,973	74
Ledezma, Gonzalo	109,491	13,364	-
Lee, Andrea	80,652	3,602	251
Lee, Donna	94,123	1,841	100
Lee, Edwin	99,229	2,389	568
Lee, James	84,591	5,935	-
Lee, Jeff	123,598	10,509	5,710
Lee, Matthew	52,410	29,112	-
Lee, Tsz Hin	66,303	10,882	-
Lee, Vicky	83,673	1,639	950

<sup>1</sup> Consists of taxable benefits (i.e. group life, accidental death and dismemberment and vehicle) and lump sum payments such as leave balances owed to employees, union gratuities and union overtime.

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<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other<sup>1</sup></b>	<b>Expenses</b>
Lee, Wun Fung	88,731	14,362	-
Legear, Loryn	81,883	2,569	187
Lehbauer, Jordan	106,567	6,680	-
Leiva, Anastacio	103,518	15,195	-
Lemaire, Joel	123,644	15,870	-
Leney, Kyle	130,094	11,521	-
Leung, Alan	85,168	5,995	-
Leung, Chi Choi	100,564	5,699	-
Leung, Kwan Pui	75,055	1,832	-
Leung, Michael	82,254	10,008	279
Leung, Simon	81,693	11,716	-
Lewis, Arthur	130,546	26,011	-
Li, Alvin	70,870	12,297	60
Li, Xiaoxue	75,738	1,889	992
Lian, George	78,365	2,111	992
Lima, Trevor	68,456	14,387	201
Lin, Fred	135,836	7,307	903
Lin, I-Fang	100,754	3,971	-
Lin, Pei Shi	80,987	7,026	642
Linares, David	72,543	11,356	3,418
Lincoln, Dawn	78,364	8,063	-
Lindenbach, Greg	100,643	5,392	-
Liu, Douglas	119,467	5,243	-
Liu, Marcus	105,008	4,291	-
Liu, Yaduo	84,548	11,179	-
Livingston, Steve	130,027	5,618	-
Lloyd, Adrian	91,340	6,331	-
Lloyd, Susan	109,661	7,429	2,001
Lo, Judy	78,365	5,655	58
Lo, Kin Ming	107,828	4,712	6,602
Lo, Man Yi	78,358	1,617	-

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<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other<sup>1</sup></b>	<b>Expenses</b>
Lochbaum, Kim	78,492	19,908	-
Long, Thomas	74,468	10,008	-
Long, Wayne	78,562	1,720	707
Lopez Velarde, Monica	64,853	12,907	-
Lou, Faythe	78,043	2,821	-
Louie, Beayue	100,570	3,805	-
Lovett, Andrew	103,472	11,920	1,236
Lowe, Aaron	80,887	2,743	713
Luk, Becky	91,216	3,924	-
Luk, Yun	88,731	34,683	104
Lum, Robert	109,611	4,785	2,001
Lusk, Serena	258,852	32,786	419
Lussier, Cynthia	97,169	5,171	-
Ma, Cliff	110,338	5,810	995
Ma, Ming Yi	94,790	1,260	4,208
Maan, Amildeep	75,817	9,399	2,140
MacArthur, Gordon	82,971	991	-
MacDonald, Kylie	94,171	3,127	-
MacDonald, Lisa	81,693	1,553	892
MacDonald, Ryan	84,770	8,652	-
Mack, Rodney	91,111	28,217	140
MacKinnon, Cameron	89,677	2,663	1,506
MacKinnon, Deb	104,708	9,703	-
MacKowski, Igor	74,787	894	-
MacLeod, Brian	130,002	7,811	-
MacNeill, Skye	70,204	6,089	692
Mah, Cheryl	73,579	3,782	-
Mahon, Steve	96,551	2,848	-
Maksymchuk, Chuck	80,112	17,683	531
Maldonado, Tanya	78,365	3,664	-
Mand, Paul	88,241	354	489

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<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other<sup>1</sup></b>	<b>Expenses</b>
Mander, Daljit	83,484	18,694	1,899
Manke, Gordon	88,486	6,273	-
Mann, Amraj	90,625	7,807	846
Mann, Sonny	86,538	3,871	-
Marchal, Luke	92,620	12,499	-
Marcotte, Ford	80,289	29,007	328
Markham, Monique	83,379	38,414	-
Marquez, Christopher	85,112	5,033	958
Marsh, Andrew	74,206	2,540	-
Martin, Cindi	74,250	13,765	-
Martin, Melissa	69,985	6,911	-
Martin, Paul	113,598	5,072	-
Massender, Ian	62,503	41,540	-
Matheson, Kathy	69,475	15,507	-
Matsuzaki, Spencer	75,180	1,509	1,096
Maxwell, Mark	89,783	2,518	884
Maxwell, Michael	115,884	31,810	-
McCaffrey, John	130,347	28,250	-
McCall, Robert	106,601	11,604	294
McCluskey, Ryan	106,578	12,783	-
McConkey, Patrick	103,468	9,498	-
McCullough, Cameron	106,461	6,292	-
McDonald, Julia	84,773	10,049	-
McDonald, Michael	103,470	15,982	-
McDougall, Karen	71,516	9,533	-
McDougall, Mitch	77,101	9,618	-
McGee, David	85,112	1,847	-
McGowan, Jared	73,743	3,777	78
McGrath, Alan	163,653	28,339	788
McKenzie-Cook, Christopher	105,576	26,792	520
McLoughlin, Kris	81,700	5,258	-

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<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other <sup>1</sup></b>	<b>Expenses</b>
McMillan, Richard	130,221	21,577	-
McPhedrian, Matthew	80,022	6,642	-
McQuistin, Dylan	70,996	5,277	446
McVea, Aidan	130,795	24,422	-
Mearns, Jonathan	124,620	8,473	670
Medhurst, Colin	106,584	16,327	-
Melnychuk, John	92,649	11,377	1,132
Memon, Wasim	100,570	37,462	186
Menta, Joanne	78,365	4,736	-
Mercer, Barry	96,296	39,636	140
Mercer, Noel	89,293	2,508	-
Metzak, Brian	106,557	19,945	-
Milaire, Pratima	45,659	31,774	-
Milford, Wendy	81,693	2,383	-
Millar, Alexander	84,764	6,673	-
Miller, Chad	97,720	9,913	1,091
Miller, Shawn	68,468	9,994	201
Mills, Warren	86,234	4,439	2,823
Minshall, Travis	91,898	864	352
Mitzel, Dale	85,112	11,089	-
Modhwadia, Samir	82,581	3,603	47
Mohan, Colin	141,736	14,675	-
Mohan, Dharam	71,726	3,333	-
Molema, Kenneth	130,037	14,180	-
Moore-Dempsey, Erin	105,451	8,344	-
Mora, Jamie	106,567	8,716	-
Morin, Michel	85,112	3,716	-
Morison, Douglas	106,483	15,924	-
Morizawa, Paul	78,343	3,501	-
Morris, Aila	80,778	2,813	887
Morris, Allen	111,737	5,960	308

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<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other<sup>1</sup></b>	<b>Expenses</b>
Morrison, Amber	77,674	11,488	-
Morrison, Lesley	72,126	78,226	-
Morrison, Taylor	74,381	14,330	1,878
Moss, Kelly	122,089	9,754	-
Mossman, Cody	86,713	20,812	754
Moxin, Greg	94,073	15,819	-
Muir, Morgan	99,388	1,949	-
Mulgrew, Stephen	83,832	18,269	-
Mulhall, Laoise	86,175	2,169	225
Muller, Shane	83,718	21,946	-
Mullock, Kevin	140,910	13,547	-
Mumblo, Ian	100,336	9,179	-
Murao, Dustin	103,498	12,982	-
Murray, Ken	129,404	14,007	-
Muter, Heather	88,632	5,313	-
Nagata, Darren	97,719	25,994	290
Nanka, Eric	92,569	6,585	-
Naso, Marcela	76,073	3,640	-
Nathorst, Dave	97,060	5,883	307
Nenno, Pierre	81,020	6,303	150
Neufeld, Tammy	90,279	2,017	-
Newell, Allan	96,194	3,259	-
Newstead, Blair	85,112	1,920	-
Ng, Wai Ling Winnie	66,440	18,714	-
Ngan, Venus	135,836	8,639	1,448
Nickel, Christel	103,637	15,103	-
Nickel, Sarah	85,104	8,330	104
Nikolic, Diana	122,166	6,858	608
Nishi, Casey	92,027	2,002	580
Nishi, Grant	96,551	3,954	155
Nishi, Kristina	86,831	7,104	1,138

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<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other<sup>1</sup></b>	<b>Expenses</b>
Nivens, Michael	85,112	3,816	-
Nixon, John	78,616	316	265
Nolan, Mark	92,692	11,439	-
Northrup, Trevor	130,316	17,763	644
Norton, Ian	82,235	1,496	-
Oborne, Renata	96,039	25,095	-
Ogis, Peter	106,451	8,242	-
O'Halloran, Matthew	106,079	7,957	201
Oliver, Ian	75,593	1,436	-
Olson, Brandon	104,352	21,647	703
Ordman, Jonas	82,206	1,101	2,709
Ouellet, Justin	88,247	26,315	-
Oviedo, Jose	91,980	9,935	-
Paller, Elena	118,857	6,406	1,205
Pallett, Robin	105,008	2,646	853
Palliser, Howard	85,112	2,232	-
Pang, Serene	85,112	4,070	2,151
Panni, Daianna	75,055	1,428	-
Parhar, Gurdawar	108,615	7,403	-
Parker, Cory	151,655	20,868	689
Parminter, Kelsey	92,617	4,064	-
Paterson, Kenneth	88,620	18,895	-
Patkau, Brad	130,066	8,124	-
Pattullo, Chris	85,112	29,860	841
Paulin, Chad	121,602	9,262	549
Pedersen, Brian	79,234	891	321
Penney, Daniel	106,578	4,977	-
Penrose, Trevor	89,627	21,798	-
Percival Smith, Beverly	75,055	3,360	-
Perkins, Michael	116,275	18,808	-
Pighin, Darren	126,268	7,923	-

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<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other<sup>1</sup></b>	<b>Expenses</b>
Piluso, Riccardo	91,904	8,026	609
Pitts, Dermott	35,450	145,617	140
Plomp, Deborah	58,797	30,510	-
Pockett, Kyle	72,341	4,493	-
Poole, Jeremy	66,621	16,653	1,164
Poole, Travis	82,061	3,607	1,117
Porlier, Sheila	104,708	8,714	-
Powell, Jo	80,652	3,602	-
Poxon, Gerald	119,180	12,304	-
Protz, Gregory	128,195	16,509	-
Puddicombe, Alan	76,422	3,764	380
Qaddoumi, Hikmat	105,008	14,382	-
Quan, Stanley	85,956	7,175	401
Quiambao, James	93,619	2,771	-
Quinn, Star of Peace	76,471	5,283	-
Quon, Howard	85,112	24,713	-
Racic, Mile	124,549	7,102	3,692
Rai, Gurpartap	130,874	6,972	1,511
Ramirez, Antonio	81,655	8,949	182
Ramos, Dinos	93,354	463	-
Ramsden, Rachel	69,738	7,264	-
Redlinski, Jacek	92,653	3,933	850
Redzic, Vesna	100,570	3,656	-
Rehmat, Khalil	106,004	4,642	-
Reis, Joshua	128,901	11,749	627
Rempel, Graeme	84,789	10,510	-
Rempel, Timothy	89,609	1,818	552
Rende, Michael	123,187	9,668	-
Renwick, Rick	151,312	4,751	960
Revell, Michael	89,065	2,864	78
Reyes, Maurice	69,584	11,997	-

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<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other<sup>1</sup></b>	<b>Expenses</b>
Richards, David	116,973	8,684	99
Richards, Tom	78,703	316	407
Ricketts, Terry	85,584	3,017	136
Roberts, Lance	91,019	5,027	855
Robertson, Cameron	80,784	3,345	-
Robertson, Kirsten	73,744	3,222	-
Robie, Colin	96,729	6,356	433
Robles, Miguel	88,241	686	-
Robson, Mark	111,486	13,644	-
Rocha, Carlos	96,551	2,407	381
Rockerbie, Jordan	83,514	3,443	-
Rodriguez, Edgar	127,996	13,632	1,543
Rogal, Peter	78,598	8,666	-
Romas, Mike	126,047	5,321	1,570
Rosenberg, Suzanne	85,104	1,618	130
Roszkowski, Ailie	85,807	594	688
Rowley, Darren	113,127	10,108	422
Rushton, Wade	75,234	17,084	78
Russell, Paul	107,379	9,963	-
Russell, Peter	162,723	32,392	1,245
Ryan, Bhavani	71,505	3,919	-
Saggers, Paul	99,571	3,681	850
Saito, Aaron	127,378	10,625	-
Sakai, Ross	85,112	6,007	-
Sakurai, Hanae	78,869	2,411	300
Salameh, Alexander	101,251	7,160	-
Salmasi, Kamran	92,532	11,513	-
Samson, Brent	106,571	9,593	-
Sander, Amarjit	88,241	2,094	508
Sandhu, Amritpal	95,343	4,207	393
Sandhu, Parmel	92,532	2,456	-

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<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other<sup>1</sup></b>	<b>Expenses</b>
Sandhu, Pulvinder	76,591	17,457	2,636
Sangha, Rajvinder	108,192	8,022	-
Santos, Adam	84,792	10,320	-
Santos, Manuel	88,023	7,776	-
Santos, Victor	88,808	823	104
Saretsky, Ryan	72,515	7,314	406
Savoie, Gilbert	88,732	2,355	-
Sawada, Stephen	103,583	19,864	-
Schell, Terry	130,016	5,015	-
Schiedel, Tyler	103,091	18,441	-
Schlossarek, Teresa	88,731	2,021	-
Schouten, Geoff	78,970	1,563	534
Schouten, Stacey	101,421	5,075	-
Schroeder, Scott	96,551	2,696	-
Schuler, Terry	75,055	1,710	-
Schultz, Jeremy	106,569	9,996	-
Schultz, Kim	76,400	2,483	320
Schultz, Susan	88,225	22,056	-
Scott, Jason	86,401	11,463	1,668
Scott, Sean	103,476	10,912	-
Selinger, Edward	139,838	12,604	506
Shariff, Aliya	82,937	3,698	58
Sharkey, Christopher	79,184	1,046	476
Sharma, Amen	81,693	2,081	15
Sharma, Shyreen	75,055	1,428	-
Sharp, Gabrielle	81,693	2,269	-
Shaw, Geoffrey	66,563	10,650	-
Shaw, Trevor	91,155	4,900	1,158
Shay, Horace	74,160	3,203	270
Shepherd, Bryan	147,426	19,634	766
Shepherd, Lisa	83,008	4,680	1,021

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<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other <sup>1</sup></b>	<b>Expenses</b>
Shergill, Katrina	65,154	12,215	-
Sheridan, Conor	97,927	11,338	722
Sherlock, Lesley	106,319	4,076	-
Shigeoka, Shannon	90,075	4,450	927
Shimonek, Todd	82,254	4,460	-
Sholdra, Brian	103,472	4,720	-
Shum, Chi Ting	100,570	14,149	169
Sidhu, Baldev	71,743	8,783	-
Siemens, Gregory	127,425	26,228	1,006
Sikora, Rose	104,708	4,588	-
Simas, Antonio	100,570	4,022	565
Simkin, Eric	106,584	9,425	-
Simmons, Norman	88,241	3,410	-
Simonson, Brock	74,050	2,195	-
Sinclair, Magnus	75,902	3,871	92
Sinclair, Owen	82,877	23,733	4,353
Siu, Nicholas	73,029	3,049	-
Slater, Tanya	106,486	7,428	-
Smail, Robert	83,384	4,844	1,284
Smith, Mark	132,608	7,351	644
Smith, Michael	108,502	10,284	-
Smith, Suzanne	128,889	11,801	1,630
Smithers, Todd	81,920	45,886	777
Snowball, Joanne	73,731	3,320	-
Sodi, Sunjeev	124,953	6,970	3,529
Somerville, Kim	163,165	40,207	50
Sparolin, Eric	146,118	15,594	938
Specht, Darren	75,139	2,948	-
Spencer, Cody	118,810	7,813	245
Squarci, Leigh	79,424	719	-
Stancioff Clayton, Abbas	81,117	4,483	3,028

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<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other <sup>1</sup></b>	<b>Expenses</b>
Standerwick, Jeffrey	125,593	9,434	2,616
Staples, Kaitlynn	80,652	4,674	1,315
Steel, Tyler	84,769	5,361	-
Stene, Ryan	130,017	12,876	-
Stewardson, Kevin	120,297	10,812	-
Stewart, Aaron	78,892	5,605	-
Stewart, James	103,476	14,679	-
Stewart, Kathleen	92,804	2,575	642
Stockdale, Todd	108,736	6,600	-
Stocking, Nicole	111,783	2,560	2,053
Stockley, Ivan Scott	80,179	6,492	307
Stokes, Ryan	84,817	7,715	-
Stone, Brett	76,597	5,489	1,144
Streit, Hans-Peter	75,055	6,179	-
Swail, Stefanie	88,993	1,742	-
Swanson, Brad	88,731	3,448	-
Swift, Brad	69,820	57,208	-
Sze, Patsy	58,797	16,755	-
Tack, Troy	131,394	21,850	-
Tahir, Edwin	85,875	1,734	-
Tait, Kyle	106,767	5,561	-
Tait, Peter	96,551	3,518	-
Takagawa, Michael	68,380	7,729	201
Talmey Jr, Patrick	92,722	39,351	1,024
Talmey, Paul	112,929	2,794	-
Tanyag, Wilbert	82,252	2,722	279
Tarr, Christopher	106,577	5,758	-
Tatchen, Elisabeth	103,471	14,463	-
Tate, Bryce	72,630	2,792	594
Taylor, Kirk	164,863	15,138	1,152
Taylor, Mervyn	130,092	23,149	-

<sup>1</sup> Consists of taxable benefits (i.e. group life, accidental death and dismemberment and vehicle) and lump sum payments such as leave balances owed to employees, union gratuities and union overtime.

CITY OF RICHMOND  
Schedule of Remuneration and Expenses

Section 6

Employee Earnings in Excess of \$75,000 and Related Expenses for 2021

<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other<sup>1</sup></b>	<b>Expenses</b>
Teichrieb, Craig	103,480	11,252	-
Tellis, Peter	125,273	5,014	3,644
Teo, James	105,000	20,410	-
Tewfik, Frederic	152,898	8,324	1,552
Thandi, Neera	92,532	11,857	992
Thibodeau, Jon	111,737	5,960	1,355
Thomas, Bryan	87,983	2,874	421
Thomas, Cindy	139,201	57,558	557
Thomas, Marianne	109,464	2,082	42
Thome, John	75,055	1,428	-
Thrasher, Don	73,092	4,816	229
Tikanmaki, Anna	129,477	23,291	-
Tillmanns, Mike	86,253	1,461	279
Tillyer, Curtis	84,451	3,707	-
Tinney, Lucas	81,763	7,764	-
Tjepkema, Nicole	85,112	3,112	184
Tkachuk, David	76,423	1,040	-
To, Tik Hang	80,652	3,524	615
Tobin, Sean	103,591	14,979	-
Toda, Julie-Anne	101,383	6,438	309
Tom, Ian	78,209	5,456	1,034
Tongohan, Darwin	84,954	10,372	150
Tooth, Gregory	88,732	1,687	-
TorabiMoghaddam, Niloufar	142,053	9,325	315
Tourigny, Christopher	78,820	365	616
Toyoda, Lianne	80,652	3,602	-
Tran, Ton	75,168	2,174	-
Tran, Vu	85,112	2,259	767
Tremayne, Brent	99,548	7,468	-
Tremblay, Alex	79,044	3,549	1,082
Tremblay, Gail	80,055	1,028	1,077

<sup>1</sup> Consists of taxable benefits (i.e. group life, accidental death and dismemberment and vehicle) and lump sum payments such as leave balances owed to employees, union gratuities and union overtime.

CITY OF RICHMOND  
Schedule of Remuneration and Expenses

Section 6

Employee Earnings in Excess of \$75,000 and Related Expenses for 2021

<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other<sup>1</sup></b>	<b>Expenses</b>
Trott, Eric	75,590	983	306
Trotter, Nicole	88,241	865	471
Truscott, Loic	103,509	13,466	-
Tsang, Jonathan	103,463	5,765	-
Turick, Julia	89,704	2,971	72
Turick, Renata	98,280	4,066	493
Turner, Jeffrey	116,777	3,846	118
Tycholis, Kathy	85,112	2,580	-
Underwood, Brandon	84,773	7,970	-
Vallance, Scott	85,112	3,220	-
Van Iperen, Aaron	113,032	10,454	-
Van Neck, Caitlyn	69,484	11,582	-
Van Niekerk, Stuart	81,758	7,503	-
Vance, Justin	75,822	9,621	-
Vanderwel, Christopher	103,522	11,655	-
Varley, Sue	96,551	2,874	82
Vaughn, Jerret	130,040	7,469	-
Velkova, Biliana	97,990	2,838	361
Vellani, Omar	103,631	12,935	-
Venturas, Byron	68,812	11,564	-
Villaluz, Jaime	93,010	13,122	585
Virk, Manjit	74,374	1,417	-
Vo, Tuan	80,408	2,153	-
Vodchenko, Ivan	82,225	1,098	279
Vrakela, Ivana	100,571	4,100	-
Vrba, Karol	106,576	13,281	-
Vrooman, Rowan	130,220	20,273	-
Vuletin, Johana	74,103	14,051	42
Waddington, Nathaniel	84,768	7,402	-
Wahl, Kevin	130,028	8,141	-
Wakelin, Frank	100,570	25,316	-

<sup>1</sup> Consists of taxable benefits (i.e. group life, accidental death and dismemberment and vehicle) and lump sum payments such as leave balances owed to employees, union gratuities and union overtime.



CITY OF RICHMOND  
Schedule of Remuneration and Expenses

Section 6

Employee Earnings in Excess of \$75,000 and Related Expenses for 2021

<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other<sup>1</sup></b>	<b>Expenses</b>
Wall, Anthony	116,211	10,256	-
Walrond, Randall	76,557	12,249	-
Walters, Bryan	130,024	10,013	-
Wan, King-Lun	85,112	13,516	229
Warren, Darren	92,532	2,818	-
Warzel, Edward	145,743	10,822	557
Watson, Kenneth	79,614	2,085	800
Wei, Daniel	84,777	8,653	-
Weissler, Forrest	139,926	7,343	2,302
Wellsted, Darryl	135,415	30,146	104
Welsh, Michael	121,859	8,799	-
Weststrate, Jason	96,201	8,646	92
Wheeler, Gregg	118,857	10,117	-
Whitelaw, Peter	111,543	2,940	699
Whitmarsh, Kevin	81,693	4,620	-
Whittam, Jonathan	85,304	3,777	1,559
Whitty, Robert	125,266	29,528	315
Whyman, Max	87,590	15,485	-
Wild, Danyon	130,039	7,516	-
Wilke, Steve	95,066	10,356	-
Wilkinson, Timothy	193,558	26,129	1,836
Willet, Ryan	72,927	8,696	692
Williams, Carli	95,215	33,754	-
Wilson, Dennis	70,673	14,003	-
Windsor, Ryan	103,389	24,164	466
Wishlove, Vernon James	172,070	13,616	975
Wong, Desmond	100,571	11,217	-
Wong, Ivy	177,649	57,103	997
Wong, Kimberley	58,797	26,048	150
Wong, William	93,720	46,718	140
Woolgar, John	146,491	27,754	-

<sup>1</sup> Consists of taxable benefits (i.e. group life, accidental death and dismemberment and vehicle) and lump sum payments such as leave balances owed to employees, union gratuities and union overtime.

CITY OF RICHMOND  
Schedule of Remuneration and Expenses

Section 6

Employee Earnings in Excess of \$75,000 and Related Expenses for 2021

<b>Name</b>	<b>Base Salary</b>	<b>Benefits &amp; Other <sup>1</sup></b>	<b>Expenses</b>
Wringe, Iain	84,770	8,023	-
Wrobel, Jocelyn	68,386	17,143	-
Wyatt, Sail	91,993	7,590	-
Wyenberg, Grant	133,218	21,880	-
Xavier, Victor	77,285	6,458	-
Xie, Xichen	78,332	3,166	42
Xu, Dajiang	84,954	9,587	-
Yang, Judy	85,112	1,636	642
Yee, David	72,626	16,901	1,748
Yee, Edmond	78,365	9,619	992
Yee, Stephen	94,967	13,617	393
Yeung, Yuen	92,532	3,219	2,807
Yon, Elisa	81,693	2,168	100
Yoo, John	106,571	9,207	-
Young, Jim	177,565	24,417	1,372
Younis, Munkith	153,034	29,601	1,233
Zanardo, Wilma	124,097	17,438	-
Zhang, Feng	78,365	5,875	992
Zhang, Ling Yi	81,693	18,906	-
Zukowsky, Doug	85,963	36,638	320
<b>Total</b>	<b>\$ 89,742,818</b>	<b>\$ 9,794,016</b>	<b>\$ 361,506</b>

<sup>1</sup> Consists of taxable benefits (i.e. group life, accidental death and dismemberment and vehicle) and lump sum payments such as leave balances owed to employees, union gratuities and union overtime.

CITY OF RICHMOND  
Schedule of Remuneration and Expenses

Section 6

Grand Total for 2021

<b>Name</b>	<b>Remuneration<sup>1</sup></b>	<b>Expenses</b>
Employees Over \$75,000	\$ 99,536,834	\$ 361,506
Employees Under \$75,000	41,197,290	132,903
<b>Total</b>	<b>\$ 140,734,124</b>	<b>\$ 494,409</b>

<sup>1</sup>Combines salary, taxable benefits and other lump sum payouts

The variance between the Schedule of Remuneration and the salaries and benefit expenses reported in the consolidated financial statements of the City are due to various factors including:

- The remuneration schedule is based on actual cash payments made during the fiscal year (including payouts of vacation, union gratuities and union overtime banks) whereas the consolidated financial statement is on an accrual basis;
- The remuneration schedule includes taxable benefits while the financial statements includes items such as non-taxable benefits and employer pension contributions;
- The above remuneration schedule total excludes Council, Richmond Public Library, Richmond Olympic Oval Corporation and Lulu Island Energy Company.

CITY OF RICHMOND  
Statement of Severance Agreements for 2021

Section 6

There was one severance agreement made between the City of Richmond and its non-unionized employees during fiscal year 2021.

The agreement represents nine months of salary and benefits.

CITY OF RICHMOND  
Schedule of Payments to Suppliers For Goods and Services  
In Excess of \$25,000 for 2021

Section 7

Supplier Name	Payment Amount
10647802 Canada Limited	\$ 30,400
3M Canada Company	52,558
A J Forsyth - A Division of Russel Metals Inc	34,824
A R Mower & Supply Ltd	91,057
Abbotsford Chrysler Dodge Jeep Ram Ltd	42,817
Abbotsford Hyundai	38,110
Acceo Solutions Inc	67,219
Access Information Management of Canada	30,201
Acklands Grainger Inc	52,627
Advance Property Exposure Canada Inc	30,428
AES Engineering Ltd	44,742
Airon Heating & Air Conditioning Ltd	713,443
All Roads Construction Ltd	2,575,875
Amazon	94,957
Amber Pacific Studios Ltd	29,100
Amberleaf Partners Inc	28,034
Andrew Sheret Ltd	657,793
Angusone Professional Recruitment	39,715
Anigraph Productions Limited	57,056
Annacis Commercial Paint	39,490
Ansan Industries Ltd	602,541
Apex Granite & Tile Inc	68,305
Aplin & Martin Consultants Ltd	374,483
Apple Canada Inc	200,976
Ashton Mechanical Ltd	1,231,725
Assa Abloy Entrance Systems	38,005
Associated Engineering (BC) Ltd	344,402
Associated Fire and Safety	501,827
Astro Turf West Distributors Ltd	443,000
Astrographic Industries Ltd	242,675
Atlas Power Sweeping Ltd	89,914
Avenue Machinery Corp	95,394

\*Payment includes tax transfers and third party remittances



CITY OF RICHMOND  
Schedule of Payments to Suppliers For Goods and Services  
In Excess of \$25,000 for 2021

Section 7

<b>Supplier Name</b>	<b>Payment Amount</b>
AVO Vehicle Outfitting Inc	25,133
Avolve Software Corporation	55,448
BA Blacktop Ltd	305,919
Bang the Table Canada Ltd	48,792
Barry Hamel Equipment Ltd	39,193
BC Assessment*	6,356,653
BC Employer Health Tax	3,768,785
BC Hydro	5,044,957
BC Life & Casualty*	1,203,160
British Columbia Society for the Prevention of Cruelty to Animals	724,742
Best Buy	26,845
BI Pure Water Inc	156,639
BI Associates Corporate Psychologists	102,160
Blackmamba Tree Service Inc	43,614
Bleumore Consulting Ltd	41,516
Blue Max Drilling Inc	60,544
Boston Construction Corporation	1,079,124
Brenco Industries Ltd	41,984
Brighthouse Civil Contracting Ltd	161,352
Brock White Canada	107,712
Bunzl Cleaning & Hygiene	106,248
Busch Systems International Inc	62,152
Calytera Software Inc	304,903
Canada Post Corporation	260,549
Canada Revenue Agency*	39,295,723
Canadian Dewatering	115,074
Canadian Mattress Recycling Inc	401,909
Canadian National Railway Company	474,968
Canadian Red Cross*	38,874
Canex Building Supplies Ltd	112,529
Cansel Survey Equipment	62,927
Cascades Recovery +	53,877

\*Payment includes tax transfers and third party remittances

CITY OF RICHMOND  
Schedule of Payments to Suppliers For Goods and Services  
In Excess of \$25,000 for 2021

Section 7

<b>Supplier Name</b>	<b>Payment Amount</b>
CDW Canada	127,101
Centralsquare Canada Software Inc	238,685
CFT Engineering Inc	40,361
Chase Paymentech	556,507
Chernoff Thompson Architects	232,520
Chinese Informedia Consulting Group Inc	47,300
Cimco Refrigeration	124,030
Cintas Canada Limited	144,357
City Electric Supply	172,991
City of Vancouver	1,331,801
Cleantech Service Group Limited	28,937
Cleartech Industries Inc	125,723
Cloverdale Paint Inc	108,733
Coast Capital Savings Federal Credit	131,272
Cobra Electric Services Ltd	2,320,184
Coencorp Consultant Corporation Inc	46,351
Cold Fire Canada Ltd	60,656
Columbia Chrysler	62,145
Commercial Lighting Products Ltd	67,393
Commercial Truck Equipment	367,401
CommunityLogiq Software Inc	25,000
Compugen Inc	917,386
Concerta Consulting Incorporated	51,091
Container West Sales Ltd	59,706
Corix Utilities Inc	62,995
Creative Door Services Ltd	120,260
Cromer Industries (1988) Corp	34,304
Cullen Diesel Power Ltd	106,279
CUPE 394*	678,990
CUPE 718*	870,914
CWPK Art Practice	105,000
Dams Ford Lincoln Sales Ltd	319,949

\*Payment includes tax transfers and third party remittances

CITY OF RICHMOND  
Schedule of Payments to Suppliers For Goods and Services  
In Excess of \$25,000 for 2021

Section 7

<b>Supplier Name</b>	<b>Payment Amount</b>
Dava Developments Ltd	141,617
Davidson Bros Mechanical Contractors Ltd	2,385,265
Dayton Mills Construction Ltd	292,138
DB Perks & Associates	62,896
Dell Canada Inc	654,962
Deloitte LLP	26,384
Dentons Canada LLP	147,208
DHI Water & Environment Inc	227,237
Dillon Consulting	29,450
Direct Energy Marketing Ltd	219,327
DLA Piper (Canada) LLP	56,142
DLA Piper (Canada) LLP, In Trust	250,000
DMD & Associates Ltd	52,711
Dominion Blueprint & Reprographics Ltd	79,218
Dorset Realty Group	595,330
Double R Rentals	132,784
Douglas Lake Equipment Ltd	31,145
Drive Products	210,459
Dueck Chevrolet Buick Cadillac GMC Ltd	65,328
Dura Seal Ltd	42,538
E B Horsman & Son Ltd	60,908
East Richmond Nurseries	45,042
EBB Environmental Consulting Inc	123,667
Eclipsys Solutions Inc	707,079
E-Comm, Emergency Communications for BC	3,980,307
Econolite Canada Inc	1,113,295
Ecotainer Sales Inc	110,869
Ecowaste Industries Ltd	466,832
ECS Electrical Cable Supply Ltd	32,539
Edifice Construction Inc	2,528,266
Election Systems & Software Canada	81,297
Elemental Architecture and Interiors Inc	72,470

\*Payment includes tax transfers and third party remittances

CITY OF RICHMOND  
Schedule of Payments to Suppliers For Goods and Services  
In Excess of \$25,000 for 2021

Section 7

Supplier Name	Payment Amount
Elite Fire Protection Ltd	219,872
EMCO Corporation	47,121
Entity Mechanical Ltd	202,272
Envyrozone Inc	54,635
ESC Automation Inc	421,059
ESI Acquisition Inc	61,759
Esolutionsgroup Limited	29,000
Esri Canada Ltd	202,535
Eurovia British Columbia Inc	195,334
Everbridge Inc	99,384
Extreme Glass Ltd	35,484
Family Maintenance Enforcement Program	29,596
Family Services Employee Assistance Program	107,151
Federation of Canadian Municipalities	86,878
Finning (Canada)	212,657
Fireball Excavating & Transport Inc	190,983
First Truck Centre	29,422
Flir Unmanned Aerial Systems ULC	81,392
Flocor Inc	609,518
Foreseeson Technology Inc	830,908
Forgerock US, Inc	167,930
FortisBC - Natural Gas	465,738
Fountain Tire (Delta) Truck Centre Ltd	104,332
Frances Andrew Site Furnishings Ltd	50,092
Fraser River Pile and Dredge Ltd	100,060
Fraser Valley Equipment Ltd	43,936
Fred Surridge Ltd	1,443,007
G B Bobcat Service	145,874
G.P. Rollo & Associates Ltd	73,350
Gardaworld Cash Services Canada Corp	239,341
GCL Contracting Inc	5,300,610
GE Intelligent Platforms Inc	42,466

\*Payment includes tax transfers and third party remittances

CITY OF RICHMOND  
Schedule of Payments to Suppliers For Goods and Services  
In Excess of \$25,000 for 2021

Section 7

<b>Supplier Name</b>	<b>Payment Amount</b>
George Bubas Motors Ltd	31,997
GFL Environmental Inc	3,518,929
Gibson Waterworks Supply Inc	28,595
Glacier Media Group	59,202
Gladiuk Contracting Ltd	298,849
Golder Associates Ltd	72,227
Goodyear Canada Inc	66,003
GPM Civil Contracting Incorporated	1,272,508
Graham Infrastructure LP	655,437
Greater Vancouver Regional District*	37,244,390
Greater Vancouver Water District	27,541,420
Green Admiral Nature Restoration	54,885
Gregg Distributors Ltd	252,893
Grimco	26,849
Guillevin International Inc	325,027
Habitat Systems Inc	206,770
Harris & Company LLP	198,070
HDR Architecture Associates Inc	60,215
Heather Macleod Williams	25,780
Heatherbrae Builders Co. Ltd	505,134
Hemmera Envirochem	79,728
Heritage Office Furnishings Ltd	452,297
Hexcel Construction Ltd	1,345,690
HILTI Canada Ltd	40,410
Holland Imports Inc	41,223
Hooker Craig Lum Group Ltd	25,200
Hoots Bicycle Accessories Limited	208,099
Horizon Landscape Contractors Inc	38,665
Horseshoe Press Inc	25,528
HUB Surface Systems West Inc	50,037
Hunter Litigation Chambers Law Corp	368,034
Hunter McCorquodale	38,867

\*Payment includes tax transfers and third party remittances



CITY OF RICHMOND  
Schedule of Payments to Suppliers For Goods and Services  
In Excess of \$25,000 for 2021

Section 7

<b>Supplier Name</b>	<b>Payment Amount</b>
ICONIX Waterworks LP	183,044
IDRS	73,452
Imperial Parking Canada Corporation	116,523
Infor Canada Ltd	234,172
Inland Kenworth	34,652
Innovative Traffic Solutions Inc	25,741
Inspired HR Consulting	57,498
Integral Group	28,087
Interprovincial Traffic Service Ltd	586,033
iON United Inc	38,093
ISL Engineering and Land Services Ltd	222,301
Island Key Computer Ltd	98,635
JJM Construction Ltd	198,374
Jarislowsky Fraser Limited	120,000
JSP Enterprises	78,740
Justice Institute of BC	111,589
Kal Tire	38,454
Kaleidoscope Training and Consulting	63,875
Keg Restaurants Ltd	29,504
Kerr Wood Leidal Associates Limited	802,639
Kindred Construction Ltd	592,381
King Hoe Excavating Ltd	616,991
Klassen Diesel Sales Ltd	29,996
Knight Industrial Services	25,756
Konecranes Canada Inc	58,290
Kornerup IT Consulting	28,910
KPMG LLP	65,662
Kronos Canadian Systems Inc	38,758
Kutny's Richmond Soils	50,327
Lafarge Concrete Ltd	1,327,149
Lanesafe Traffic Control Ltd	56,226
Langley Concrete Group	41,892

\*Payment includes tax transfers and third party remittances

CITY OF RICHMOND  
Schedule of Payments to Suppliers For Goods and Services  
In Excess of \$25,000 for 2021

Section 7

Supplier Name	Payment Amount
Latoplast Limited	32,233
Lawson Lundell LLP	40,960
Layfield Canada Ltd	146,028
LEC Group	32,025
Linde Canada Inc	57,607
LIT Aquatics Ltd	233,504
Lordco Parts Ltd	156,187
Lyonridge Property Services	25,753
M2K Construction Ltd	2,881,086
MA Eng-Tech Construction	124,218
Macaulay Trucking Ltd	283,246
Maduxx Inc	25,000
Mainland Construction Materials ULC	574,053
Mainland Ford Ltd	303,065
Mainroad Maintenance Products	99,844
Mancorp Industrial Sales Ltd	48,289
Manus Abrasive Systems Inc	28,965
Maple Leaf Disposal Ltd	73,020
Marcon Metalfab Inc	112,473
Marine Roofing Repair & Maintenance	168,421
Mar-Tech Underground Services Ltd	123,725
Maven Consulting Limited	141,594
Maydanyk Trucking Ltd	92,774
McElhanney Consulting Services Ltd	583,505
Mcgregor Hardware Distribution	33,085
McRae's Environmental Services Ltd	2,319,276
MDT Technical Services Inc	35,770
Medteq Solutions Ca Ltd	44,415
Mercer (Canada) Ltd	28,500
Merletti Construction (1999) Ltd	3,459,894
Metro Motors Ltd	420,849
Metro Vancouver Regional District	5,933,620

\*Payment includes tax transfers and third party remittances

CITY OF RICHMOND  
Schedule of Payments to Suppliers For Goods and Services  
In Excess of \$25,000 for 2021

Section 7

<b>Supplier Name</b>	<b>Payment Amount</b>
Metrosystems	38,408
MG Collision Repairs Ltd	31,649
Mickelson Consulting Inc	80,956
Microserve	122,663
Mike's Computer Shop	32,981
Millennium Tent & Party Rentals	30,343
Mills Office Productivity	252,190
Min, Ines	26,709
Minister of Finance*	242,215,075
Mits Airconditioning Inc	28,218
Miza Architects Inc	88,127
MKW Engineering Services	80,136
Mobil	26,124
Modu-Loc Fence Rentals Ltd	44,645
Morrison Hershfield Limited	121,084
Morrow Bioscience Ltd	30,368
Multivista Construction Documentation ULC	52,155
Mundie Trucking	122,773
Municipal Finance Authority of BC*	29,911
Municipal Insurance Association of BC	993,827
Municipal Pension Plan*	24,791,442
Musco Sports Lighting Canada Co	74,083
NAPA Auto Parts	58,554
Nedco	60,378
Neptune Technologie Group	276,242
Nettraffic Technologies Consulting Inc	39,000
Network Consulting Services Inc	60,820
New City Solutions	33,301
New Line Products Ltd	27,047
Nilex Civil Environmental Group	50,737
Norton Rose Fulbright Canada LLP	86,390
Nova Pole International Inc	33,280

\*Payment includes tax transfers and third party remittances

CITY OF RICHMOND  
Schedule of Payments to Suppliers For Goods and Services  
In Excess of \$25,000 for 2021

Section 7

Supplier Name	Payment Amount
Nucor Environmental Solutions Ltd	30,003
Nutech Facility Services Ltd	167,546
Nutrien Ag Solution	107,603
O.T. Fabricating Ltd	117,278
O4 Architecture Ltd	418,961
Ocean Pipe	108,596
Olthuis van Ert	88,894
Omicron Canada Inc	406,927
Omicron Construction Ltd	34,015
Ono Work & Safety Ltd	30,516
Open Text Corporation	215,720
Oracle Canada ULC	706,272
P D Trucking	137,084
Pace Solutions Corporation	27,810
Pacific Blue Cross*	5,176,417
Pacific Cutting & Coring Ltd	246,352
Pacific Fasteners Ltd	27,428
Pacific Flow Control Ltd	33,613
Pareto Technology Group	27,860
Parsons Inc	59,762
Paul Sahota Trucking	147,959
PCL Constructors Westcoast Inc	31,530
Perfectmind Inc	187,289
Performance Objects Inc	75,495
Peterbilt Pacific Inc	220,232
Phoenix Truck & Crane Services	54,884
Pickering Safety	68,689
Pinchin Ltd	54,075
Pit Stop Portable Toilet Services Ltd	51,141
PitneyWorks	120,000
PJB Mechanical Plumbing & Heating	538,416
PJS Systems	29,584

\*Payment includes tax transfers and third party remittances

CITY OF RICHMOND  
Schedule of Payments to Suppliers For Goods and Services  
In Excess of \$25,000 for 2021

Section 7

<b>Supplier Name</b>	<b>Payment Amount</b>
Plan Group	101,827
Planet Clean	170,422
Platinum Professional Claims	29,765
Polymetis Projects	250,000
Powerland Computers Ltd	36,370
PrairieCoast Equipment	58,916
Premier Automatic Transmissions Ltd	31,547
Protective Clothing Solutions Inc	50,198
PS Traffic Pro Services (2012) Inc	47,505
PSL Par's Services Ltd	32,729
Purtech Service Group Inc	25,762
PW Trenchless Construction Inc	282,288
Qualichem Industrial Products	250,478
R. F. Binnie & Associates Ltd	230,367
Radical I/O Technology Inc	387,790
Raider- Hansen	27,339
Randstad Canada	35,000
Raysa Enterprises Inc	44,200
Receiver General for Canada*	74,679
Receiver General for Canada (RCMP)	48,820,650
Rectec Industries Inc	227,312
Regional Animal Protection Society	42,376
Reliable Equipment Rentals Ltd	38,299
Rene Creative	26,540
Renewal Constructions Inc	33,401
Renov8t.com Construction Inc	191,263
Rescue Tools Canada	83,981
RGC Trucking & Excavating Ltd	36,105
Richardson, Jaynellen	45,080
Richelieu Hardware Ltd	27,563
Richmond Air Sweep Enterprises 1986 Inc	33,998
Richmond Art Gallery Association	43,697

\*Payment includes tax transfers and third party remittances



CITY OF RICHMOND  
Schedule of Payments to Suppliers For Goods and Services  
In Excess of \$25,000 for 2021

Section 7

Supplier Name	Payment Amount
Richmond Building Supply	41,982
Richmond Firefighter Assn RFFA Local 1286*	629,813
Richmond Firefighters Charitable Society	25,664
Richmond Fitness & Wellness Association	264,647
Richmond Hotel Association*	563,222
Richvan Holdings Ltd	38,812
Ricoh Canada Inc	35,842
River White Homes Ltd	1,894,317
Riverside Recycling & Aggregate Sales Ltd	63,954
Roadway Traffic Products	166,992
Rocksolid Landsculpting Corporation	57,405
Rod's Redevelopment Limited Partnership	70,948
Rollins Machinery Ltd	266,438
RONA	32,134
Ross Rex Industrial Painters Ltd	70,018
Royal Roads University	52,666
Royal Stewart Ltd	94,443
RTR Terra Contracting Ltd	519,477
Safe & Sound Security Systems Ltd	359,803
Sandhu, Dalip	159,696
Sasco Contractors Ltd	235,560
School District 38 Richmond*	334,005
Scotia Bank	182,256
Scott Construction Group	50,696
Scott Special Projects Ltd	1,946,511
Scottish Line Painting Ltd	33,380
Secure Energy	27,682
Select Art Advertising Inc	27,223
Sherine Industries Ltd	69,273
Shy's Forest Products Ltd	33,493
Sidhoo Trucking Ltd	30,525
Sierra Waste Services Ltd	10,351,276

\*Payment includes tax transfers and third party remittances

CITY OF RICHMOND  
Schedule of Payments to Suppliers For Goods and Services  
In Excess of \$25,000 for 2021

Section 7

<b>Supplier Name</b>	<b>Payment Amount</b>
Siteimprove Inc	35,345
Slip Tube Enterprises Ltd	64,713
SLR Consulting (Canada) Ltd	26,915
Smart City ITS Sales Ltd	47,047
Smith + Andersen	42,846
Smythe LLP	25,750
Softchoice LP	74,495
Sole Food Farm Inc	57,375
Solid General Contractors Inc	322,615
South Arm Excavating	334,399
South Coast British Columbia	4,581,253
Southern Butler Price	57,955
Spearmc Consulting Inc	189,023
Specimen Trees Wholesale Nurseries Ltd	60,453
Square One Paving Ltd	34,230
SSQ Insurance Company Inc*	47,390
Stantec Consulting Ltd	41,332
Steele Electric (2001) Ltd	59,750
Steer Davies Gleave North America	80,643
Stellar Power & Control Solutions	88,469
Stormtec Filtration Inc	41,460
Strata Plan EPS3676 Cadence	28,087
Strive Contracting Ltd	30,971
Stryker Canada ULC	38,454
Studio Hub Architects Ltd	101,677
Summit Energy Services Inc	29,386
Sunbelt Rentals	44,555
Suncor Energy Products Partnership	1,676,847
Sunrise Washroom Rentals	25,644
Super Save Disposal Inc	416,396
Superior City Services Ltd	31,254
Superior Propane Inc	92,252

\*Payment includes tax transfers and third party remittances

CITY OF RICHMOND  
Schedule of Payments to Suppliers For Goods and Services  
In Excess of \$25,000 for 2021

Section 7

<b>Supplier Name</b>	<b>Payment Amount</b>
Sutton Road Marking Ltd	30,627
T M Johnston Gradall Ltd	60,541
Target Products Ltd	27,628
Tec Floor Coverings Ltd	32,910
Technical Safety BC	47,527
Telus Communications Inc	1,761,552
Telus Mobility	417,302
Tervita Corporation	74,408
Textile Image Inc	51,389
The Corker Collective Inc	49,500
The Driving Force Inc	192,029
The Get Go Inc	79,900
The Gordian Group Inc	123,266
The Home Depot	154,589
Thinkspace Architecture Planning	255,135
Thomas Trucking	201,645
Thurber Engineering Ltd	58,480
Tibco Software Ireland Ltd	84,747
Tinbox Energy Software	59,605
Together We Can	40,512
Tomko Sports Systems Inc	66,077
Tourism Richmond*	2,725,900
Trane Canada	78,918
TransLink*	43,325,278
Tricom Building Maintenance Ltd	111,246
Triple Five Quality Wood	27,516
Tritech Group Ltd	203,989
Turaco Energy and Engineering Consulting	45,360
Turning Point Technology Services Inc	693,561
Twining, Short & Haakonson, Barristers	96,381
Tybo Constructors Ltd	106,642
UBS Industries	29,305

\*Payment includes tax transfers and third party remittances

CITY OF RICHMOND  
Schedule of Payments to Suppliers For Goods and Services  
In Excess of \$25,000 for 2021

Section 7

<b>Supplier Name</b>	<b>Payment Amount</b>
Uline Canada Corporation	67,012
Ulmer Contracting Ltd	915,563
Ultima Medical Services Inc	25,834
Ultra-Tech Cleaning Systems Ltd	29,687
Unified Alloys	65,914
Union of BC Municipalities*	25,388
United Rentals	249,040
Urban Systems Ltd	25,116
Valmont West Coast Engineering	35,738
Vancity	27,480
Vanport Enterprises Ltd	272,814
VDZ+A Consulting Inc	38,783
VFA Canada Corporation	107,818
Vimar Equipment Ltd	388,101
Walker's Gradall Services Ltd	376,389
Wedler Engineering	87,345
Wesco Distribution Canada Inc	110,263
West Coast Elevator Ltd	92,918
West Consulting Services	80,170
Westburne	431,439
Westcoast Drainage & Contracting	135,595
Western Weed Control Ltd	75,067
Westerra Equipment LP	26,593
Westlund - EMCO Corporation	31,214
Westmar Advisors Inc	45,100
Westpac Solutions Ltd	58,960
Westview Sales Ltd	169,302
WFR Wholesale Fire & Rescue Ltd	72,916
Wilco Civil Inc	1,270,971
Williams Engineering Canada Inc	29,534
Willis Canada Inc	2,552,205
Wirefire Solutions Inc	173,732

\*Payment includes tax transfers and third party remittances

CITY OF RICHMOND  
Schedule of Payments to Suppliers For Goods and Services  
In Excess of \$25,000 for 2021

Section 7

<b>Supplier Name</b>	<b>Payment Amount</b>
Wishbone Industries Ltd	25,390
Wong's Greenhouse & Nursery	43,574
Work Truck West	51,760
WorkSafe BC	3,701,357
WSP Canada Inc	177,942
Wurth Canada	77,434
Xerox Canada Ltd	161,605
Xylem Canada LP	189,509
Yard At A Time Concrete Ltd	38,367
Young Anderson Barristers & Solicitors	273,215
Zeemac Vehicle Lease Ltd	313,912
<b>Payments Over \$25,000</b>	<b>629,823,780</b>
<b>Payments Under \$25,000</b>	<b>7,770,553</b>
<b>Total Payments</b>	<b>\$ 637,594,333</b>

The City prepares the Schedule of Payments to Suppliers For Goods and Services based on actual cash disbursements processed through its financial system.

The total figure will vary from the expenditures shown in the consolidated financial statements which use the accrual method of accounting and various factors including:

- Timing differences between the cash basis and accrual method;
- There are disbursements that are not considered expenditures for other taxing authorities and employee payroll deductions;
- The Schedule of Payments excludes the payments made by the Richmond Public Library, Richmond Olympic Oval Corporation and Lulu Island Energy Company;
- There are payments that are externally recovered, these recoveries are recorded against expenditures or as revenue in the consolidated financial statements.

\*Payment includes tax transfers and third party remittances



CITY OF RICHMOND  
Schedule of Grants and Subsidies for 2021

Section 7

Organization	Payment Amount
525 W Georgia Street Ltd	\$ 72,800
Amyotrophic Lateral Sclerosis Society	4,000
Arison Yue Opera Society	3,490
BC Philharmonic Society	4,000
Big Brothers of Greater Vancouver	6,000
Boys & Girls Clubs of South Coast BC	6,500
Canadian Mental Health Association	8,670
Canadian YC Chinese Orchestra	8,100
Chimo Community Services	50,000
Cinevolution Media Arts Society	9,200
City Centre Community Association	73,601
Community Arts Council of Richmond	8,400
Community Mental Wellness Association	10,200
Connections Community Services Society	14,321
Direct Theatre Collective Society	2,500
East Richmond Community Association	1,800
Family Services of Greater Vancouver	58,969
Hamilton Community Association	16,654
Heart of Richmond Aids Society	12,740
HUB Cycling	64,475
Kidsport - Richmond Chapter	24,000
Kwantlen Farmers Market Society	9,500
Little Wings Day Care Centre Society	5,268
Minoru Seniors Society	5,000
Parish of St. Alban's (Richmond)	20,406
Pathways Clubhouse	35,027
Philippine Cultural Arts Society of BC	3,500
Plea Community Services of BC	5,000
Rabbitats Rescue Society	30,000
Richmond Addiction Services Society	226,860
Richmond Agricultural & Industrial	9,500
Richmond Art Gallery Association	4,450
Richmond Arts Coalition	9,300
Richmond BC Pickleball Association	1,000
Richmond Cares Richmond Gives	99,782

CITY OF RICHMOND  
Schedule of Grants and Subsidies for 2021

Section 7

Organization	Payment Amount
Richmond Centre For Disability	183,259
Richmond City Centre Community	3,764
Richmond Community Band Society	1,600
Richmond Community Orchestra & Chorus	8,000
Richmond Curling Club	30,000
Richmond Delta Youth Orchestra	8,000
Richmond Family Place Society	38,000
Richmond Fitness & Wellness Association	15,500
Richmond Food Security Society	13,764
Richmond Gateway Theatre Society	1,359,942
Richmond Hospital/Healthcare Auxiliary	150,000
Richmond Mental Health Consumer and Friends Society	5,355
Richmond Multicultural Community	12,750
Richmond Museum Society	80,776
Richmond Music School Society	9,400
Richmond Potters' Club	5,800
Richmond Poverty Reduction Coalition	5,000
Richmond School District No. 38	50,279
Richmond Singers	8,000
Richmond Society for Community Living	28,000
Richmond Therapeutic Riding Association	62,030
Richmond Winter Club	67,000
Richmond Women's Resource Centre	26,000
Richmond Youth Choral Society	8,000
Sea Island Community Association	3,440
Sharing Farm Society	23,000
Steveston Community Society- Richmond	24,000
Steveston Historical Society	4,000
Summer Grant Committee	4,887
Textile Arts Guild of Richmond	2,075
The Governing Council of the Salvation Army in Canada	6,000
The Kehila Society of Richmond	3,000
Touchstone Family Association	105,700
Turning Point Recovery Society	15,000
Uzume Taiko Drum Group Society	4,550

CITY OF RICHMOND  
Schedule of Grants and Subsidies for 2021

Section 7

Organization	Payment Amount
Vancouver Cantonese Opera	4,450
West Richmond Community Association	6,476
<b>Total Payments</b>	<b>\$ 3,311,810</b>



# City of Richmond

## Report to Council



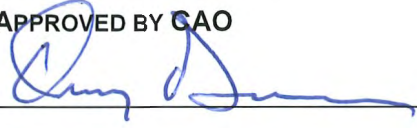
**To:** Richmond City Council  
**From:** Jerry Chong  
Acting General Manager, Finance and  
Corporate Services  
**Re:** **2021 Council Remuneration and Expenses**

**Date:** June 6, 2022  
**File:** 03-1200-03/2022-Vol  
01

### Staff Recommendation

That the report titled 2021 Council Remuneration and Expenses be received for information.

Jerry Chong  
Acting General Manager, Finance and Corporate Services  
(604-276-4064)

REPORT CONCURRENCE	
<b>CONCURRENCE OF GENERAL MANAGER</b>  Acting GM, F&CS	
<b>SENIOR MANAGEMENT TEAM REVIEW</b>	<b>INITIALS:</b> 
<b>APPROVED BY CAO</b> 	

## Staff Report

### Origin

Pursuant to Section 168 (1) of the *Community Charter*, total remuneration, benefits and expenses incurred by each member of Council must be reported annually.

### Analysis

Total salaries paid to Council members for 2021 were \$793,260 and total benefits were \$177,514. Total expenses incurred were \$5,912. The schedule below provides a summary by each member of Council.

	Base Salary	Benefits & Other <sup>1</sup>	Community Events	Seminars & Conferences	General Travel	Total Expenses
Mayor Brodie	\$182,253	\$29,379	\$130	\$476	\$200	\$806
Councillor Au	72,707	17,874	155	476	-	631
Councillor Day	82,636	20,365	5	-	-	5
Councillor Hobbs	42,484	9,235	150	476	-	626
Councillor Loo	82,636	21,909	5	1,125	-	1,130
Councillor McNulty	82,636	20,090	154	-	-	154
Councillor McPhail	82,636	14,880	5	1,425	-	1,430
Councillor Steves	82,636	20,154	-	-	-	-
Councillor Wolfe	82,636	23,628	5	1,125	-	1,130
<b>Total</b>	<b>\$793,260</b>	<b>\$177,514</b>	<b>\$609</b>	<b>\$5,103</b>	<b>\$200</b>	<b>\$5,912</b>

<sup>1</sup>Consists of taxable and non-taxable benefits. The 2021 Statement of Financial Information issued under separate cover reports taxable benefits only.

### Financial Impact

None.

### Conclusion

The report on Council remuneration and expenses for the year ended December 31, 2021 has been prepared in accordance with the *Community Charter*.



Ivy Wong  
Acting Director, Finance  
(604-276-4046)





# City of Richmond

## Report to Council

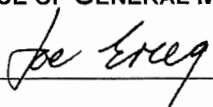
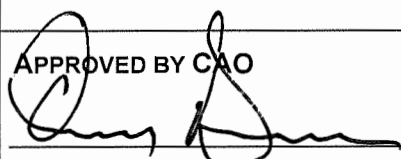

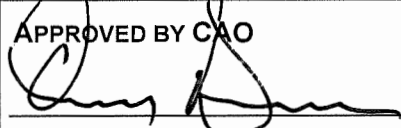
**To:** Richmond City Council  
**From:** Kim Somerville  
Director, Community Social Development  
**Date:** June 21, 2022  
**File:** 08-4055-01/2022-Vol 01  
**Re:** **Endorsement of UBCM Resolution for an Increase to Maximum Rent Ceilings and Monthly Payment Amounts through BC Housing's SAFER Program**

### Staff Recommendation

That the resolution in support of an increase to the maximum rent ceilings and monthly payment amounts through BC Housing's Shelter Aid for Elderly Renters (SAFER) program, as outlined in Attachment 1 of the report titled "Endorsement of UBCM Resolution for an Increase to Maximum Rent Ceilings and Monthly Payment Amounts through BC Housing's SAFER Program," from the Director, Community Social Development, be endorsed and forwarded to the Union of BC Municipalities (UBCM) for consideration during its 2022 Convention.

Kim Somerville  
Director, Community Social Development  
(604-247-4671)

Att. 1

REPORT CONCURRENCE	
CONCURRENCE OF GENERAL MANAGER 	
SENIOR STAFF REPORT REVIEW 	INITIALS: 
APPROVED BY CAO 	

## Staff Report

### Origin

At the City Council meeting on February 14, 2022, Council adopted the following resolution:

*That the City of Richmond send a resolution to the LMLGA (Lower Mainland Local Government Association) requesting that UBCM request the Provincial Government and BC Housing for an increase to the maximum rent ceiling and monthly payment amounts provided by the BC Housing Shelter Aid for Elderly Renters (SAFER) program.*

This report responds to the above resolution and recommends City Council endorsement of the proposed resolution in support of an increase to maximum rent ceilings and monthly payment amounts through BC Housing's SAFER program (Attachment 1).

This report supports Council's Strategic Plan 2018–2022 Strategy #6 Strategic and Well-Planned Growth:

*6.5 Ensure diverse housing options are available and accessible across the housing continuum.*

This report is also consistent with the Richmond Affordable Housing Strategy 2017–2027:

*Strategic Direction 5: Increase Advocacy, Awareness and Education Roles*

### Analysis

The City is committed to playing a leadership role to increase housing choices for all Richmond residents, including seniors. The Richmond Affordable Housing Strategy (2017–2027) identifies seniors as a key priority group for the City's affordable housing programs and initiatives. The City of Richmond's Housing Needs Report released in 2021 further supports the ongoing prioritization of housing support for seniors, which were the fastest growing age group in Richmond from 2006 to 2016. As of September 2021, 48% of households on the BC Housing waitlist were seniors 55 years and over, a proportion that has stayed consistent since 2017.

#### BC Housing's SAFER Program

BC Housing's SAFER program provides rent supplements to low-income seniors in market rental housing in order to support housing affordability for seniors in need. As of September 2021, 1,057 Richmond seniors (over 60 years) were receiving rent subsidies through the SAFER program. In 2018, BC Housing reported that the average monthly payment provided by SAFER across the province was \$265 per month.

Two significant eligibility criteria for the program include its maximum allowable household income and maximum rents paid by the applicant. The program's maximum annual household income limits for Richmond residents are currently \$33,000 per couple or \$30,600 per sole-individual household. Rent ceilings, or maximum allowable rent paid by applicants in Richmond are currently set at \$866 per couple or \$803 per sole-individual household.

While the SAFER program provides much needed rent subsidies for seniors, the program's current rent ceilings and monthly payments do not reflect increasing housing costs for seniors renting in Richmond. For example, in October 2021, the average market rent for a studio apartment in Richmond was \$1,170 and the average market rent for a one-bedroom apartment was \$1,318 per month.

BC Housing's SAFER program is an important support within the housing continuum for many seniors in Richmond. In order to reflect the region's rising rental costs since 2018, SAFER's maximum rent ceilings and monthly payment amounts require a significant increase to be appropriate within Richmond's housing market.

#### Proposed UBCM Resolution

The proposed resolution requesting the UBCM advocacy to the provincial government to increase the maximum rent ceilings and monthly payment amounts to low-income seniors through BC Housing's SAFER program will focus needed attention on the growing gap between the rental amounts permitted under the program and the cost of rental housing in Richmond. Following Council's endorsement, the resolution will be forwarded to UBCM for consideration during its 2022 Convention.

#### **Financial Impact**

None.

#### **Conclusion**

Supporting a UBCM resolution for increasing the maximum rent ceilings and monthly payment amounts provided under BC Housing's SAFER program will help to close the gap for low-income seniors receiving rental assistance and the cost of rental housing. With the combined efforts of all levels of government, low-income seniors can receive the assistance they require to achieve housing stability.



Kim Somerville  
Director, Community Social Development  
(604-247-4671)

KS:ks

Att. 1: Proposed City Council Resolution Supporting an Increase to the Maximum Rent Ceilings and Monthly Payment Amounts through BC Housing's Shelter Aid for Elderly Renters (SAFER) Program

**Proposed City Council Resolution Supporting an Increase to the Maximum Rent Ceilings and Monthly Payment Amounts through BC Housing's Shelter Aid for Elderly Renters (SAFER) Program**

**AN INCREASE TO MAXIMUM RENT CEILINGS AND MONTHLY PAYMENTS FOR BC HOUSING'S SAFER PROGRAM**

City of Richmond

WHEREAS BC Housing's Shelter Aid for Elderly Renters program is an important support within the housing continuum for many seniors, and where provincial funding for the program has remained stagnant since 2018;

AND WHEREAS BC Housing's Shelter Aid for Elderly Renters program provides much needed rental subsidies for low-income seniors, yet the program's current rent ceilings and monthly payments do not reflect increasing housing costs for renters in many communities;

AND WHEREAS municipalities are committed to increasing housing choices for all residents and low-income seniors are a key demographic, increasingly in need of affordable housing and other forms of financial assistance;

THEREFORE BE IT RESOLVED that the City of Richmond urge the Government of British Columbia to provide an increase to the maximum rent ceilings and monthly payment amounts through BC Housing's Shelter Aid for Elderly Renters program;

AND BE IT FURTHER RESOLVED that the Province ensure that BC Housing's Shelter Aid for Elderly Renters program will receive regular increases to its maximum rent ceilings and monthly payments in subsequent years.